Fostering Creative Pedagogy among Secondary Art Teacher Training Students in Taiwan: Investigating the Introduction of Possibility Thinking as a Core of Creative Pedagogy in a Workshop Intervention

Submitted by
Hou-Yi Ting

to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Education

2013

_____ (Signature)

DEDICATION

To my parents and my brother and sister, for their unfailing supports

To my beloved husband, for his endless love and concern

To my dearest daughter Becky and my unborn baby

ACKNOWLEDGEMENTS

ABSTRACT

This study explored how a teacher-training course helped secondary art student teachers in Taiwan to develop their perceptions and practice of creativity and creative pedagogy [CPed]. A series of CPed workshop sessions, based on the Western theoretical framework of possibility thinking [PT] and its pedagogy [PTCPed], were designed to introduce to the twelve secondary art teacher training students in an arts university in Taiwan.

Through adopting an action-based case study approach, qualitative data were collected from the participants' interviews together with the reflective documents of the participants and the researcher, and any possible visual materials. Observations were also video-recorded. The analytical methods focused on both inductive and deductive approaches to explore how student teachers developed their perceptions of creativity and CPed and the possible influences in practice.

Adopting the idea of "contextualising" one set of cultural values in another, a new landmark of PTCPed emerged. This study confirmed most features of PT, but found question-posing and question-responding to be intriguingly absent in the participants' definitions of creativity (PT) and their practice of CPed; and it also, significantly, identified several emerging PT characteristics and attitudes: originality, confidence, no limitations, and problem-solving. These features were fostered by teacher's creative teaching [CT] and learners' creative learning [CL] in an enabling and effective context in which teachers offered the learners' opportunities (including time, space and challenges) to develop ideas and confidence to play with the materials, prioritised learners' agency (including individual and group activities), and stood back to offer freedom, and at the same time moved step forward to observe the learners' engagement and check when to offer help. Finally, this study also highlighted the implications for the practice in the Taiwanese

initial art teacher education [IATE], in which teacher educators are suggested to appreciate this complexity, and to understand and allow student teachers to interact with different perspectives or approaches when interpreting their pedagogy through reflective practice.

CONTENTS

_____

8

LIST OF TABLES

_____

LIST OF DIAGRAMS

_____

LIST OF PHOTOS

ABBREVIATIONS

The Arts and Humanities Learning Area	[AHLA]
Big-C Creativity	[BCC]
The British Educational Research Association	[BERA]
Computer Centre of Ministry of Education	[CCME]
Creative Learning	[CL]
Creative Pedagogy	[CPed]
Continuing Professional Development	[CPD]
Creative Teaching	[CT]
The Creative Self-expression Art Education Approach	[CSEAE]
Discipline-based Art Education Approach	[DBAE]
Department for Education and Employment in England	[DfEE]
European Commission	[EC]
Effective Teaching	[ET]
Effective Teaching Context	[ETC]
European Trade Union Committee for Education	[ETUCE]
European Union Seventh Framework Programme	[EUSFP]
Future Imagination and Creativity in Education	[FICE]
Humanities and Social Science Education Programme	[HSSEP]
Initial Teacher Education	[ITE]
Initial Art Teacher Education	[IATE]
Information and Communication Technology	[ICT]
Little-C Creativity	[LCC]
Pro-C Creativity	[PCC]

Postgraduate Certificate in Education	[PGCE]
Possibility Thinking	[PT]
Possibility Thinking Creative Pedagogy	[PTCPed]
Mini-C Creativity	[MCC]
Ministry of Education	[MOE]
National Advisory Committee on Creative and Cultural Education	[NACCCE]
Teaching for Creativity	[T for C]
Supportive Learning Climate	[SLC]
Visual Culture Art Education	[VCAE]
White Paper on Creative Education	[WPCE]

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Over the past twenty years, creativity has become an increasingly popular term used in the vocabularies of several fields and has been valued as the driver for the economy in both the private and public spheres in many countries around the world (e.g. Western countries, such as the UK; Eastern countries, such as Taiwan, HK, Japan, and Singapore) (Chan, 2002; Ministry of Education [MOE] in Taiwan, 2002b; Shaheen, 2010; Thomson & Sefton-Green, 2011). As a result of this trend, it was recommended in many countries that the education system be reformed in order to generate tomorrow's citizens who will be creative, flexible, and imaginative, and have the ability of problem-solving (MOE, 2002b; Banaji *et al.*, 2010; Thomson & Sefton-Green, 2011) so as to cope with increased competition in today's new 'creative age' (Seltzer & Bentley, 1999; Shaheen, 2010). Since then, creativity has been a key element on the official agenda in relation to the classroom practices of policy makers, practitioners and researchers.

But, what is creativity? Creativity can be thought of, variously, as an abstract form, such as a thought, a process, or a concept; or as a concrete object, such as certain behaviour or a product. It can also be expressed in different ways and in different contexts. In Western societies, creativity is embraced in a positive capacity or disposition. A large number of theories and research have been accumulated in the Western academic world regarding the varied dimensions of creativity (see Chapter Two). As Rhyammer & Brolin (1999) point out, there has been 'an even broader range of speculation' about the nature of creativity. In this study, as the focus is placed on introducing creative pedagogy [CPed] to Taiwanese visual art student teachers, the insight into creativity is mainly been focused on the field of education. Therefore, the question, 'what is creativity?', may need to be narrowed further so as to consider 'what is creativity in education' and, more specifically for this thesis, 'what is creativity in visual art education', or in practice, 'how do visual art student teachers view and foster creativity?'

Regarding the field of education, in Taiwan, creativity has previously been documented in the government's educational policy. During the 1970s-1980s, the concept of "creative education" first received attention, which can be seen as the first wave of creativity education. In this period, Western theories and assessments of creativity were introduced. Subsequently, in the second wave of creativity education, many reformed policies in education advocated that the cultivation of creativity was included and exemplified throughout the society's educational curriculum in order to enable Taiwan to become a '*Republic of Creativity*' (MOE, 2002b: 1). For instance, the first declaration that concentrated on creativity education, the '*White Paper on Creative Education*' [WPCE], was announced by the MOE in 2002, in which creativity was associated with diversity and innovation that can be expressed at the 'individual, school, societal, industrial, and cultural' level (*ibid*: 2). Therefore, creativity was believed to be a core ability for the public. In August of the same year, the implementation of the current *Grade 1-9 Curriculum* in elementary school and junior high school education was also executed (following a revision in 1993, promulgated in 2000, and currently used in Taiwan until now (2013)), and indicated that 'to develop creativity and the ability to appreciate beauty and present one's own talents' was one of the major curriculum goals (MOE, 2002a: 4). More specifically,

> Appreciation, representation, and creativity, which involves the capability of perceiving and appreciating the beauty of things as well as exerting imagination and creativity, developing an active and innovative attitude, and expressing oneself in order to promote the quality of living.
>
> (MOE, 2002b: 5)

Creativity in the Grade 1-9 Curriculum is considered as a cross-discipline competence (Kang, 2002; MOE, 2003a,b; Yeh, 2006), but it appears to connect with the area of the arts in the written policy documents. Most recently, the third wave of creativity education has driven a three-year project (2011-2013), '*Future Imagination and Creativity in Education*' [FICE]

(Humanities and Social Science Education Programme of the Ministry of Education Adviser Website [HSSEP]: http://hss.edu.tw/index.php). This project covers all the educational systems (e.g. school education, family education, and society and life-long education) in order to introduce creativity through teaching and learning, and to have concern for the present and a vision for the future. As quoted above, the inclusion of creativity in education today is, predominantly, as a 'fundamental life skill' (Craft, 2000) which needs to be developed in order to prepare future generations (Parkhurst, 1999) for economic success (Chen, Wu & Chen, 2005; Cheng, 2004).

This introductory chapter begins with the research background and personal rationale behind this study (1.2), in which my personal experience and reflections of creativity in art, and the educational reforms to creativity in Taiwan in relation to its pedagogy, are described. However, through these reflections, several issues were found to challenge the current creativity education in Taiwan, and these will be discussed as the research context (1.3). Following this, the research focus, including the main research question and the scope of this study, will be highlighted (1.4). Finally, an outline of the rest of the study offers signposts to the content of the remaining chapters (1.5). The outline is shown as below.

1.1 Introduction

1.2 Personal rationale and research background for the study

1.3 Issues and challenges to creativity education in Taiwan

1.4 Research purpose and the main research question

1.5 The organisation of the study

1.2 Personal Rationale and Research Background for the Study

In this section, my personal journey regarding creativity in the field of visual art will be discussed in terms of my role as a learner (1.2.1) and as a teacher (1.2.2), before returning to my role as a learner again while studying in the UK (1.2.3).

1.2.1 As a Learner

Tanner (cited by Jones & Wyse, 2004: 114) emphasises the importance of the arts in the creative development of the child, while Gill (1990: 25) points out that, 'true knowledge can best be acquired through experience'. The focus for this study emerges from my personal experience of creativity within the learning of visual art in Taiwan, firstly within the context of subject-specific classes for gifted and talented children, and specifically visual art from the ages of ten to nineteen (from elementary to senior high school). There has been considerable emphasis on creativity in Taiwanese education since the 1970s (the first wave of creativity education), but this was only developed in the talented and gifted area belonging to special education (Chen, Wu & Chen, 2005). These classes, therefore, are seen as belonging under the umbrella of special education and are funded by the Taiwanese Government. It contains various specialisms, such as visual art, music, dance, sport and maths. Children who are selected to experience these classes need to meet several requirements. Taking my experience of visual art classes as an example, an IQ test, aptitude test and the production of a painting and a sculpture were needed. Even though one of the main purposes of education in the talented and gifted programme is to foster pupils' creativity (Wu & Chen, 2001; Kuo *et al.*, 2007; The Team of Special Education in MOE, 2007), in my experience the teachers focused principally on the training of various professional art techniques in order to support students in winning prizes in visual art competitions and taking part in exhibitions. It may be worth noting that art education during the 1980-2000s in Taiwan was greatly influenced by the '*Discipline-based Art Education*' [DBAE] approach in the USA (Kang, 2002:10; Chen *et al.*, 2005:40; Hsu *et al.*, 2008).

An unfavourable example from my experience as a learner is as follows: In every art lesson in primary school, whatever the topic was, my art teacher always drew a sample picture relating to the topic on the classroom blackboard for us to copy and colour in. When I was about eleven years old,

one day, the topic was "The World of Fish". Since fish were among my favourite pets, I was delighted to create my own fish world instead of copying his sample. However, when my teacher saw my drawing, he just stopped and said, "Why did you not follow my sample?", and then he didn't approach me until the lesson ended. Until I had made this drawing, I had never experienced losing the favour and praise of my teacher. I was curious as to why having a novel idea of my own was so wrong; when people seemed to believe that artists create many of their own outstanding artworks, is it not precisely because they have a lot of their own innovative ideas? After that experience, I became unwilling to contribute my own ideas to my artwork in the art class. In the continuation of this programme at secondary school, the main focus turned to art skills training for the university entrance exam. These learning outcomes and teaching strategies also continued in my teacher training period where subject knowledge and technique training were the only emphases in art education. Being creative was not encouraged in my learning journey.

Reflecting on this journey, several essential questions came to mind such as; does art education only mean the acquisition of professional techniques in art through imitation? How is creativity located in art education? And how does a teacher undertake their role in art teaching so as to promote students' creativity? These issues will be discussed below as creativity in visual art education (1.2.1.1) and the role of teachers in creativity education (1.2.1.2).

1.2.1.1 Creativity in Visual Art Education

There have been two major debates about the concept of creativity within the context of art education since the end of the Second World War, namely the DBAE approach and the learner (child)-centred approach (Hickman, 2005a,b; Zimmerman, 2009; Fleming, 2010). A discussion on these two approaches to visual art education will be detailed in Chapter Two. The DBAE approach, as mentioned above, has taken root in my art learning in schools since the 1980s. In the DBAE approach, with the

emphasis upon the 'cognitive elements' in art (Hickman, 2005b: 20), students are taught through sequenced curricula, which are derived from its disciplinary sources - 'the artist, art historian, art critic and the aesthetician' (Greer, 1984, 1993; Clark, Day & Greer, 1987; Hickman, 2005a: 17; 2005b; Halstead, 2008). Given the principles of diverse cultural contexts and the emphasis on learning about adult artists and 'masterpieces' (Freedman, 2003: 10), the DBAE approach aims to help students understand works of art. Through learning the disciplines of aesthetics, art history and art criticism, visual art in this paradigm seems to largely cover the elements of 'appreciation' (Hickman, 2005a: 150). However, Lachapelle (1997) later re-addressed the foundation of 'experiential-knowledge' in aesthetic encounters. In his work, the theoretical knowledge (aesthetics, art history and art criticism) is suggested as 'an essential complement to the experiential learning involved in art making' (*ibid*: 141). Thus, Willing (2000) claims that the production of art by young people cannot be 'fully successful' without theoretical and experiential knowledge. As a result, the importance of 'tradition, form and formula' is essentially entitled in art discipline-based teaching and learning (e.g. Abbs, 1994; Claxton, 2003; Cunliffe, 2008).

Although several academics have argued that creativity is scarcely mentioned in the DBAE approach (Unsworth, 1992; Zimmerman, 2005; Fleming, 2010), DBAE employs a rigorous approach to learning the skills and techniques of studio art production (Greer, 1993) and intends to produce standard original artwork, and is considered when allowing pupils to explore their creative, inventive possibilities. Hence, creativity in this approach, in my viewpoint, might be associated better with the concept of 'domain specific', as creative ideas in this concept require particular knowledge and skills within the field (NACCCE, 1999: 42; Sternberg & Lubart, 1999; Sawyer, 2006; Weisberg, 2006), such as the rules and language of a recognised action (Abbs, 1994; Ford, 1996), required to achieve a valued goal (Seltzer & Bentley, 1999; NACCCE, 1999; Banaji, Burn & Buckingham, 2010). Taking visual art as an example, the ability to paint is

fundamental to a painter; the understanding of how to use tools is an integral part of making or creating a piece of art. In schooling, students, therefore, learn key knowledge and techniques in using different artistic materials to produce an artwork that meets certain standards in the arts. It is the reason that appropriate knowledge and rule (technique) learning from tradition are essential to reconstruct creativity (Abbs, 1994; Cunliffe, 2008; Sawyer, 2006).

According to Ruppert (2010: 2), creativity requires 'building upon the capacity of one's imagination to visualise new possibilities for thought, action and the use of materials', and it involves two aspects of conception to view creativity: "imaginative thinking or behaviours" and directed to achieve "original and valuable outcomes" (NACCCE, 1999: 30). However, from my experience, it seems that technique training refers more to imitation and where the possible room for creativity development is missing. For instance, responding to Ruppert's words above, students are allowed to play with their imaginative thoughts or to communicate through a variety of media while they practice these fundamental techniques or make their artworks, and not just address the final product. More discussions in relation to the above issues will be detailed in the literature review chapter.

1.2.1.2 The Role of Teachers in Creativity Education

Teachers can help students develop their creativity by adapting teaching strategies that balance the generation of new ideas with the ability to translate theory into practice (Sternberg & Williams, 1996). The NACCCE (1999: 101) report refers to methods that encourage exploratory learning activities and are often associated with promoting creativity, freedom and self-expression. Meanwhile, Hennessey and Amabile (1987) claim that the more freedom children experience in the classroom, the more creative they are. Jeffrey (1997: 59) also writes that 'at the centre of the creative process is the teacher who artfully develops pupils' learning experiences.' It is clear that teachers, or to use Csikszentmihalyi and Wolfe's (2000) word,

'gatekeepers' play the key role in the development of pupils' creativity (Fryer, 1996; Beetlestone, 1998; Craft, 2000). However, comparing descriptions of the art teacher above, the above one in my experience seemed to use opposing ways to promote students' creativity (for instance, the teaching strategy where the art teacher forced me to follow and copy his drawing) and I was also trained to value the lack of questioning and not to develop my creative abilities. What should a teacher do in their teaching that can promote, rather than block, students' creativity?

1.2.2 As a Teacher in Secondary Schools and a Teacher Educator in a University

From these reflections whilst working as a full-time (2000 and 2006) and part-time art teacher in secondary schools (2001- 2005), I continued to ask myself "how can I enable my students to create more imaginative and creative artworks?" Furthermore, this question was also conveyed to student teachers I taught while I worked as a full-time teacher educator in a secondary art teacher training programme in university (2001-2004).

During this period, the significant reforms in relation to creativity, as mentioned in Section 1.1 (as the second wave of creativity education), were advocated by the Taiwanese government in 2002 to develop and strengthen pupils' imagination and creativity (MOE, 2002a; 2002b). These reforms included the publication of the WPCE and the inclusion of creativity in the new Grade 1-9 curriculum in elementary school (grade 1-6; age 7-12) and junior high school (grade 7-9; age 13-15) education. It is noted in the new curriculum that the subject of visual art is integrated with music and the performing arts (drama and dance) and modified to 'The Arts and Humanities Learning Area' [AHLA] (MOE, 2003). The aim is to help students to cultivate an interest in the arts and encourage them to participate enthusiastically in art-related activities in order to promote abilities, such as imagination, creativity and appreciation for the arts (*ibid*).

In these reforms, in the field of teacher education, both pre-service and in-service teachers are being encouraged to make more effort in a number of areas (MOE, 2002a; Lin, Y. L., 2002; Cheng, 2004), including:

■ developing creative instructional plans and teaching materials that aim to foster creativity in every subject;

■ participating in collaborative teams and to learn from each other;

■ carrying out various action research with the aim of developing teaching materials and methods for creativity in their creative teaching.

In the meantime, in order to encourage teachers to include creativity in their teaching, various creative teaching [CT] competitions and rewards, organised by the MOE, universities and non-governmental organisations, were introduced, such as the GreaTeach Creative Teaching Awards and the Award for Innovative Teaching. I was fortunate to be awarded a grant by the GreaTeach 2002 Creative Teaching Awards scheme, their purpose being to encourage teachers to develop innovative teaching plans and materials, focusing in particular on the approach of using information and communication technology [ICT] (MOE, 2002b; Lin, Y. L., 2002; Hsiao, 2006; Computer Centre of Ministry of Education [CCME], 2008).

The concept of 'CT' was a goal for me in my dual role as both a secondary visual art teacher and a teacher trainer. As a secondary art teacher, I used playful activities in my visual art lessons, such as applying role play or storytelling, and ICT into my teaching activities. Additionally, as a teacher educator, I also encouraged student teachers specialising in the AHLA to develop their teaching plans in more interesting and innovative ways with the aim of fostering their students' creativity and extending their insights into the arts. However, although I put great efforts into changing teaching strategies and making improvements to teaching plans, something still seemed to be missing in the work produced by my students at secondary school level (aged 13-15). For example, the most frequent patterns shown

in their works were characters from their favourite cartoons, and the same was true for my student teachers' students. This suggested that they lacked their own original ideas, or perhaps lacked the motivation to create their own work. Yet, how could I offer my students the appropriate stimulation and opportunities to foster their creativity?

1.2.3 Studying in the UK

Carrying on these questions, I registered as a postgraduate student in Creative Arts in Education in the UK in order to broaden my insights on art education and teacher training. On this course, I first began to learn about the theoretical frameworks of creativity in an educational setting and how it underpins art teaching and learning in primary and secondary education. The experience of cultural differences were often challenged, yet also extended my insight regarding art teaching and learning. In particular, the up-to-date discussions on creativity teaching stimulate my perceptions and my ways of teaching. The literatures suggest that this includes CT, teaching for creativity [T for C], and creative learning [CL] as three interrelated aspects essential in creative pedagogy (Jeffrey & Craft, 2004). As initial art teacher education [IATE] is my particular interest, I also spent much time participating in and observing the art Postgraduate Certificate in Education [PGCE] course at secondary level at Exeter University.

Therefore, my MEd dissertation (2006-2007), informed by my background, investigated a comparative study of IATE in secondary schools in England and Taiwan. Gaining an insight into the art teacher training system in England, including policy concepts and practice contexts, creativity was found to be highlighted within the whole education system. In the following MSc study (2007-2008), therefore, I turned my focus to gathering Taiwanese visual art student teachers' conceptions of CPed, in which a teacher-directed approach (teaching creatively) is found to be the main purpose of CPed in Taiwanese creativity education. Hence, my PhD study, building on my MSc work, connects creativity and art teacher training with the aim of developing a learner-directed pedagogy (taking possibility

thinking [PT] as a core concept) that will be useful for future student teachers in Taiwan and help them to foster pupils' creative development through visual art.

The topic of fostering creativity through education may not appear to be novel. Worldwide research has been done to seek good teaching practices that enhance learners' creative capacities. In Taiwan, a wide range of positivist studies have focused on exploring teachers' sense of humour, creative attitudes, and intrinsic motivation toward creativity/CPed in the classroom setting (for detailed examples refer to the methodology chapter). However, only rarely did these studies pay attention to how teachers construct and implement their conceptions of creativity and CPed, particularly in the field of IATE, which makes this study unique.

To carry on this research, it is necessary to address the current challenges in promoting creativity within the Taiwanese educational environment as the research context. In the following sections, the dilemmas within the practical context are further identified.

1.3 Issues and Challenges to Creativity Education in Taiwan

Since creativity education is promoted eagerly in Taiwan, Cheng (2004) in her study commented that Taiwan enjoys the celebration of creativity, particularly in the field of education through the government's support, and perhaps more than any other country in the world. However, it is still questionable whether students' creativity is enhanced. There are a number of conceptual challenges that are relevant to this issue, such as the nature of the concepts of creativity in Eastern Confucian culture, policy constructions, and teachers' own conceptualisations and stances in relation to creativity in education. Three possible dilemmas are briefly discussed below, including:

■ the influences of Chinese culture may neglect the promotion of creativity in education (1.3.1)

31

- the meanings of creativity and CPed are not yet defined within the Taiwanese educational context (1.3.2)
- the paradoxes of CPed are common in current creative practice (1.3.3)

1.3.1 The Influences of Chinese Culture may lead to Neglect of the Promotion of Creativity in Education

The literature reviews indicate that education within Eastern society, influenced by the Confucian cultural tradition, particularly 'obedience and hierarchy, conformity, suppression of expression, and work–play dichotomy', may present cultural blocks to creativity (Kim, 2005: 341, 2007; Vong, 2008). For instance, as Wu (2004) remarked, Taiwanese students are expected to stay at a 'well-behaved nice boy and nice girl stage' (176), which is due to the moral reasoning rules of law and social order. It is apparent that the traditional relationship between teacher and student tends to be hierarchical and formal (Ho, Peng, & Chan, 2002; Kim, 2005; Lincoln, Cole, Wang, & Yang, 2002; Dineen & Niu, 2008; Oral, 2008). In addition, Paine, in his work on producing a Chinese model for teaching (cited in Cheng 2004: 141), stated that 'the lessons in Chinese societies were dominated by teacher-talk; it seems that teachers are artistic performers and students are the audience.' Compared with the Western pedagogy, teachers in Eastern classrooms seem to be much more involved in students' learning as guides (Ye *et al*., 2004; Vong, 2008). Furthermore, Chinese education has focused solely on 'measured academic performance' (Wu, 2004: 175; Tang & Biggs, 1996; Lu, 1998; Cheng, 2004; Niu, 2006; Dineen & Niu, 2008), such as helping students to pass entrance examinations or participate in competitions. Leung, Lu and Leung (2004: 118) also indicate that 'Chinese culture … endorses goal-directed and performance-oriented modes of educational process.' Similarly, in the field of visual art education, Mortimer (2000), therefore, argued that many arts educators and teachers (including visual art) tend to over-emphasise the end product rather than inspiring students to challenge received artworks or look beyond the curriculum. This narrow viewpoint has neglected the promotion of creativity and the

critical evaluation of the nature of the art itself, as discussed above. This broad distinction of creativity made between the East and the West is explored later in Chapter Two.

1.3.2 The Meanings of Creativity and CPed Are Not Yet Defined within the Taiwanese Educational Context

Educational policy can shape practice by indicating both content and pedagogy through frameworks, outcomes and assessment, both in initial teacher education [ITE] and continuing professional development [CPD]. Although teaching and designing courses are widely seen as sites for creativity, how creativity is situated in the curriculum is also open to different interpretations; for example, how the policy identifies creativity within the curriculum and practice. In light of creativity education in Taiwan, in neither the recent creative education projects (such as WPCE and FICE), nor the reformed Grade 1-9 Curriculum, is there a clear picture of what kind of creative capacity should be developed through education, or guidelines of what pedagogical strategies to adopt to promote creativity. These foundational frameworks were also missed in ITE (until 2013, the relevant courses on creativity and CPed are not compulsory in most ITE programmes in Taiwan; see Section 2.4.5). As a result, (student) teachers' limited knowledge of creative approaches to teaching may obstruct their motivation and stances towards CPed in their (future) classroom practice (Jackson, 2006; Ting, 2008).

1.3.3 The Paradoxes of CPed are Common in Current Creative Practice

Unclear guidelines on creativity in Taiwanese education may also affect teachers' implementations of CPed; for instance, how teachers identify creativity within their teaching, and how teachers foster students' creativity through effective pedagogical strategies. Research has found that the common definition of CPed in Taiwan has been described as when teachers apply their own creativity in their teaching plans and activities, and that, through this creative activity, students' creativity is developed (Chen, 1990;

Mao, 1994; Chao, 2004; Hsiao, 2006; Lin, 2008; Lin, W. W., 2011), but rarely have studies explored the student teachers' viewpoints (e.g. my MSc study: Ting, 2008). In practice, according to many researchers and the findings of my research in 2008, some Taiwanese teachers believed that CPed refers more to the terms of 'teaching creatively' (Lin, Y. L., 2002; Ting, 2008; Wong, 2008; Vong, 2008) that I have argued is a 'teacher-directed' teaching approach (Ting, 2008). For example, most CT competitions, as mentioned in Section 1.1.2, actually paid more attention to assessing whether the teaching activities, methods and materials were creative and innovative, rather than considering the learners' creativity development. Furthermore, several academic studies in Taiwan, particularly those which are managed by in-service teachers, define CPed as the development and use of novel, original, or inventive teaching methods (Lin, Y. L., 2002; Hsiao, 2006).

Beyond Taiwan, it has been argued that the use of a CT strategy may provide a positive learning environment for learners, but that this is not the same as developing the learners' creativity (NACCCE, 1999; Craft, 2000, 2002; Craft, Cremin & Burnard, 2008). As several studies suggest, a powerful CPed would be to focus more on CL, i.e. a learner-centred engagement (NACCCE, 1999; Jeffrey & Craft, 2004; Craft, *et al*. 2008). As Jeffrey and Craft (2006) state:

> Creative learning is where learning is relevant to the learner, where they have a considerable amount of ownership and control over the materials, techniques and processes of an engagement with some knowledge or skills activity and where the opportunity to be innovative exists (49).

Noting the limitations of CT in CPed as discussed above, it seems reasonable to be concerned that, without proper understanding and training in creativity and CPed, Taiwanese teachers may continue to uphold stereotypes or explanations of CPed solely as CT in many facets of their practice. Therefore, I would suggest the importance of training in creativity and CPed in Taiwanese ITE (and CPD, though this study focuses solely on ITE), particularly focusing on the recognition of CL as the core of CPed.

A team of English researchers, initiated by Craft, have proposed that possibility thinking [PT] is at the core of CL, and its concept and pedagogical principles (naming this possibility thinking creative pedagogy [PTCPed]) of foster students' PT has been developed over recent years (Craft, 2000, 2001b; Cremin, Burnard & Craft, 2006; Chappell, Craft, Burnard & Cremin, 2008a, b). Craft (2000, 2001b; Cremin *et al*. 2006) argued that PT is implicit in learners' engagement with problems, and suggests that it is exemplified through the posing of the question 'what if?' in multiple ways. It involves the shift from asking 'What is this and what does it do?' to 'What can I do with this?', particularly in relation to 'identifying, honing and solving problems' (Craft, 2000, 2001b; Jeffrey & Craft 2004; Jeffrey 2005; Chappell, *et al*. 2008b: 268) (More discussions of the empirical work of PT and its pedagogy are reviewed in Chapter Two). Hence, more specifically this doctoral thesis aims to take PTCPed as the main focus on training in Taiwanese teacher education.

1.4 Research Purpose and the Main Research Questions

Reflecting on the above dilemmas that have challenged Taiwanese creativity education, several fundamental questions were on my mind, such as: What is the discourse of creativity and CPed in the Taiwanese educational setting? More specifically, how do art teachers see the value of creativity in their teaching? How would they carry out CPed in a visual art classroom? In particular, besides CT strategies which seem to be more frequently used in Taiwanese visual art classroom, is there any room for CL? Nevertheless, research (e.g. ETUCE, 2008; EUSFP, 2012) suggested that the improvement of the education of teachers and trainers can be seen as one the key objectives to improve the overall quality of the education and training systems. Thus, rather than investigating the views from in-service teachers, in this study, I considered it was necessary to look back at the origin of education (e.g. ITE) and consider the views of student teachers, more specifically art student teachers in AHLA in secondary level (focusing on junior high school). I hoped to explore through this research, from the

insight of a teacher trainer, how an art teacher-training course can help student teachers to develop their conceptions of CPed, in terms of knowledge, teaching techniques and confidence, in which not only CT but also CL are placed in the heart of CPed. Thus, my purposes are to introduce the English model (PTCPed) and its relevant theories and pedagogical strategies for fostering creativity in Taiwanese teacher educational settings, and to link the approaches of visual art with the framework of PTCPed (see conclusion chapter).

Introducing a pedagogy from one culture into another culture raises many concerns as it is impossible to transplant the teaching courses or to copy all the teaching strategies directly into another classroom without any adaptations. It is important for me to remain conscious of the fact that, by adopting British PT pedagogy and placing it within a Taiwanese context, certain cultural issues are likely to arise as are differences in educational values and discourses between Eastern and Western societies. Thus, the PT pedagogic model here is constructed from participants' responses to creativity and its pedagogy in order to enable a concept of PT within the Taiwanese context to emerge from this study. As CT, T for C, and CL are three interrelated aspects essential in creative pedagogy (Fautley & Savage, 2007), participants were encouraged to engage in 'what if' thinking. As a result, it is hoped that a shift may be detected from a more teacher-focused approach (CT and T for C) into new territory in terms of a more learner-focused approach (CL). The study sought to document such a change, with a focus on the context of an enabling environment, and the core processes of PT: posing questions, play, immersion, innovation, being imaginative, self-determination and risk-taking (Cremin, *et al*. 2006).

This study was also set up within a "micro" environment, a five-session workshop within the concept of PT and its pedagogy and run with twelve volunteer student teachers from a secondary-level art teacher training programme at an arts university in Taiwan. This small-scale and focused context approach was believed to be sufficient enough to explore the

interactions between the researcher and student teachers and where we could incorporate our perceptions and perspectives for a deeper insight into the development of PTCPed in a Taiwanese context. Moreover, this study was concerned with exploring what methods and strategies were used by these student teachers to conceptualise and implement PTCPed, and thus to develop some insight into what is the Taiwanese concept of PT and PTCPed. Thus, the principal research question guiding this study is:

How do secondary visual art student teachers in Taiwan develop their perceptions of PTCPed in terms of knowledge and practice during a short workshop alongside a teacher-training course?

1.5 The Organisation of the Study

This thesis is organised under nine chapter headings:
- Chapter One: Introduction
- Chapter Two: Literature Review
- Chapter Three: Research Design and Methodology
- Chapter Four: The Framework of the Creative Pedagogy Workshop
- Chapter Five: Findings to Research Question One: Creativity
- Chapter Six: Findings to Research Question One: Creative Pedagogy
- Chapter Seven: Findings to Research Question Two
- Chapter Eight: Discussion
- Chapter Nine: Implications and Conclusion

There are eight additional chapters following this Introduction chapter. More detail is given about the content of each chapter below:

Chapter Two contains a summary and critique of the literature on creativity as well as CPed (including CT, T for C and CL). It discusses how the cultural contexts that have informed creativity and creative pedagogy are identified in order to set my study within a wider context and justify its relevance. Furthermore, the discussion of creativity and CPed then focuses on the field of visual art education and IATE which shapes my study in a specific

context.

Chapter Three describes the research methodology and the research design of this study. The theoretical perspective and context of the methodology with the philosophical assumptions are provided for the choice of methods. The choice of an action-based case study approach is explained regarding its type and purpose. The research design is then explicated in terms of the details of the multiple methods and techniques used in the data collection and analysis. Issues of ethical considerations are also identified.

Chapter Four presents the theoretical framework underpinning this study. The rationale and organisation of the CPed workshop based on the framework of PT and PTCPed that explore creativity and its pedagogy in the Taiwanese context are developed from current relevant literature.

Chapters Five and Six report on the findings generated from the data collected. Key themes are highlighted and discussed in reference to the research questions. In Chapter Five, the analysis is aimed at exploring "what" the visual art participants' perceptions of creativity and CPed were, and how these perceptions had changed. The findings were analysed in two stages. Firstly, the analysis started from the perspective of all of the visual art participants' views of creativity and CPed. Secondly, the discussion was then narrowed down to an analysis for every individual visual art participant. In Chapter Six, the analysis focuses on "how" the visual art participants manifested their perceptions of CPed during the workshop and "what" may influence on visual art participants' developments of PTCPed.

Chapter Seven brings together the main findings from the above two chapters and considers their significance in light of the literature and the study's research questions.

In the final chapter, Chapter Eight, conclusions based on the study's findings are drawn to highlight the key issues and implications for future

research into adopting CPed in the field of visual art education.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this literature review chapter is to provide a summary and critique of research into creativity, mainly focusing on texts relating to education and CPed in order to set my study from a wider context to a more specific setting and justify its relevance. The chapter is divided into eight main sections, which are listed below:

2.1 Introduction

2.2 What is creativity?

2.3 cultural context of creativity comparing East with West

2.4 Creativity in teaching and learning

2.5 Creativity in the visual art curriculum

2.6 My stance on creativity in visual art education

2.7 Summary

In the following section, the dominant theories and approaches to creativity in the Western tradition are discussed.

2.2 What Is Creativity?

In this section, I will briefly discuss the theories and approaches to creativity, including 2.2.1 theories of creativity and 2.2.2 approaches to define creativity

2.2.1 Theories of Creativity

Through the centuries, there have been many theories and ideas about creativity. Stemming far back in history, creativity started with mystical beliefs (Stenberg & Lubart, 1999) that was attributed to a 'superhuman force' where all novel ideas originated from the gods (Sawyer, 2006: 12). During the Renaissance and the 18th Century that followed, people began to recognise artists' knowledge and artistic genius and to believe that artists had a unique ability to create a novel and original work (Kristeller, 1990; Albert & Runco, 1999; Sawyer, 2006; Banaji *et al*., 2010). For the first

time, the term 'creativity' was believed to be from the source of the inner human self and not from God (Kristeller, 1990). By the end of the nineteenth century, psychologists then started to investigate what fostered creativity. Scientists, mainly in the discipline of psychology (Sternberg, 2003), have held different concepts of creativity. For instance, some psychologists believe that creativity arises from unconscious drives (psychodynamic/psychoanalytic tradition; e.g. Freud; Kris, 1952; Kubie, 1958; Jung, 1968), while other researchers defined creativity as intelligence exploration and a staged process (cognitive tradition; e.g. Galton, 1869; Mednick, 1962). Other studies looked at creativity from a biological approach (behaviourist tradition; e.g. Skinner), while some research was concerned with the individual's potential and the development of healthy growth and self-actualisation (humanistic tradition; e.g. Maslow, 1943, 1959, 1968; Rogers, 1954).

These varied approaches in creativity have indicated that it is difficult to come to a consensus view of creativity, but they offered a picture of how the concepts of creativity have been developed and understood over time. A variety of concepts were used concerning the investigation of creativity, such as 'originality', 'creative capacity', 'mental capacity' and 'problem-solving capacity' (Ryhammar & Brolin, 1999: 262). However, according to Craft (2001a), these approaches were influenced more by 'philosophical speculation' than by scientific and technological investigations (Ryhammar & Brolin, 1999; Craft, 2001a; Sawyer, 2006).

The beginning of the modern age of creativity research is usually marked from Guilford's influential address before the American Psychological Association in 1995. Guilford expanded the definition of creativity to include everyday creativity, not just genius, as he believed that everyone has creative potential. In addition, his psychometric work has launched creativity within systematic and experimental sources through scientific investigations whereby the methodological basis has changed to involve

more inductive, large-scale, and positivist approaches (Craft, 2001a; Feldman & Benjamin, 2006). Reacting to Guilford's endeavour, there followed varied research studies that were largely concerned with testing or measuring creativity with more interests in order to describe its characteristics and to stimulate it through education (Ryhammar & Brolin, 1999; Mumford, 2000; Craft, 2001a).

To describe the rich and multiple-faceted studies of creativity after the 1950s, some researchers looked at the studies of creativity from a time scheme. Consequently, it was identified as three waves, within two major approaches, of a general trend: Individualist (including Personality, Cognitive waves) and Contextual approaches (Sawyer, 2006). Between the 1950s and 1960s, the personality psychologists searched for paper-and–pencil tests to measure a person's creative potential, and found ways to investigate the creativity of individual works (Helson, 1996). By the 1970s, psychologists began to believe that creativity was common and that everyday mental mechanisms are shared by individual personalities (Albert & Runco, 1999). This shift to a more cognitive approach, led to the end of the personality studies of creativity by 1980. At the beginning of the 1980s, contextual approaches, including social, cultural or evolutionary contexts (Mayer, 1999: 458), went beyond the individual perspective by further exploring creativity in anthropology, sociology and history. This interdisciplinary approach was believed to fully explain creativity, as a better understanding of creative people and their social and cultural contexts was needed. This is because creativity is realised through a culturally and historically specific idea that changes from one country to another and from one century to another (Sawyer, 2006: 35-36). Research into creativity, as a result, became more comprehensive. The methodology for investigating creativity also shifted from positivist, large-scale studies toward ethnographic, qualitative research, as well as philosophical discussions around the nature of creativity (Craft, 2001a: 10).

Similar to the groupings from a historical consideration, some researchers

traced the three prominent lines of the development of creativity research during this period: personality, cognition and how to stimulate creativity (Craft, 2001a; Ryhammar & Brolin, 1999). A fourth line emerged later (during the 1980s and 1990s) as a social-psychological approach, such as the confluence approach, that combined the previous research dimensions into an integrated model (Craft, 2001a; Ryhammar & Brolin, 1999; Sternberg, 2003). Sternberg and Lubart (1999), on the other hand, presented different lines in their study of creativity in post-1950s studies, including pragmatic, psychometric, cognitive, social-personality, and confluence approaches. As with Stenberg's grouping, Runco (2004) reviewed creativity by providing a more detailed disciplinary framework, such as those organised by biological, cognitive, developmental, psychometric, and social perspectives.

Since many influences on creative work have been identified, creativity has, therefore, been approached from widely different points of departure. However, it is difficult to distinguish sharply between researchers and their work because research dimensions may overlap. For instance, the investment theory of creativity, proposed by Sternberg and Lubart (1991, 1995), is generally associated with the confluence approach, but it was catalogued into the economic theory in Kozbelt *et al.'s* article (2010) due to its economic metaphor.

It is clear that the theories and research into studies of creativity from the middle of the 20th century to the current day involves many interpretations resulting in a variety of discipline-based creativity theories. In general, this constitutes the democratic era of scientific research on human creativity. Craft (cited in Spendlove, 2005: 13) views the current prevailing climate for creativity research with an emerging focus that is now upon:

- ordinary creativity rather than genius;
- characterising rather than measuring;
- the social system rather than the individual;

■ encompassing views of creativity which include products but do not see these as necessary.

Although these creativity theories from a discipline-based perspective provide a reasonable and historical overview of the theoretical landscape of creativity studies, it is noted that some theories actually have a large and unclear boundary but are much within-category along with a clear centre that pertains to the orientation. There are several orientated theories that have been raised to view creativity in order to provide more 'complete considerations and conceptualisations of creativity' (Kozbelt, *et al.*, 2010: 23). These will be discussed in the following section.

2.2.2 Approaches to Define Creativity

In this section, the theories of creativity are classified within several approaches, namely Big-C and Little-C Creativity or a four C model of creativity (2.2.2.1), and the four (or six) P's of creativity (2.2.2.2).

2.2.2.1 Big-C and Little-C Creativity or a Four C Model of Creativity

Although researchers have defined creativity in several different ways, two major directions can be distinguished from the majority of investigations of creativity: high creativity and ordinary, everyday, creativity (refers to Little-c creativity or Small-c creativity) (Craft, 2001b, 2002; Fasco, 2006; Gardner, 1993; Amabile, 1996; Sawyer, 2006; Kozbelt, *et al.*, 2010; Starko, 2010).

The first direction is that creativity has been focused on the genius and gifted individual of this type of pioneering creativity, which refers to Boden's H-creativity (1999) and Kaufman and Beghetto's Big-C creativity [BCC] (2009). In this sense, creativity is seen as any act or product that contributes to or has a substantial effect on a domain, or that even changes the world (Gardner, 1993; Feldman, *et al.*, 1994; Csilszentmihalyi, 1997). More specifically, Gardner defined such a creative person as one who 'regularly solves problems, fashions products, or defines new questions in a

domain in a way that is initially considered novel but that ultimately comes to be accepted in a particular cultural setting' (1993: 35). Research on BCC has been focused on a range of aspects of the concept, including the persons, processes, products and places for understanding this high-level creativity. For example, Feldman *et al.* (1994) have suggested that BCC emerged from three nodes of a triangle within the systems model: the individual (and their talents and interests), the domain, and the field. Simonton's works on creative genius (1990, 2004) illustrated creative products based on a reference to a field by meeting various criteria of unprecedented originality (or novelty) and functionality (usefulness) (cited in Kersting, 2003).

The other direction arising from another term of 'Little-c' creativity [LCC] (Gardner, 1993; Craft, 2000, 2002) refers to NACCCE's 'democratic' creativity (NACCCE, 1999) and Craft's 'lifewide' creativity (2001, 2002), such as those creative actions in which ordinary people could participate each day. Unlike BCC, LCC is not necessarily linked to a product-outcome (Craft, 2002: 56); it tends to recognise everyone's potential to be creative in terms of everyday problem-solving. As Craft (2001b: 15) suggested, LCC involves the qualities of 'being imaginative, going beyond the obvious, being aware of one's own unconventionality, being original in some way'. Boden (cited in Kahl, n.d.) makes a further definition of this individual creativity in that producing something is new for the doers but may be 'not necessarily new to humankind in general' in historical terms.

Drawing on humanistic, social-personality, cognitive, pragmatic and confluence approaches and her own research results, Craft (1997, 2001b; Cremin *et al.* 2006) suggested that at the heart of LCC is the notion of PT, which is implicit in learners' engagement with problems through posing '*what if*' questions in multiple ways. It involves the shift from asking '*What is this and what does it do?*' to '*What can I do with this?*' for 'identifying, and solving problems' (Craft, 2000, 2001b; Jeffrey & Craft 2004; Jeffrey 2005; Cremin *et al.,* 2006; Chappell, *et al.,* 2008b). Craft proposed a

three-way framework for exploring PT, which is also necessary to LCC. These three necessary interrelated parts involve agents (people), processes, and domains (Craft, 2001b: 55-56).

■ **Agents**: Craft believes that the individual displays their LCC in a unique way, with their talents, skills, and aspirations. Also, the features of the individual, their knowledge and their cultural environment may influence the choices people make.

■ **Processes**: Processes includes both the intuitive (non-conscious) and the rational (conscious) thinking processes. Attitudes, such as being imaginative, the abilities of problem-finding and solving, and convergent and divergent thinking, are also involved in the creative process.

■ **Domains**: LCC is a notion which can be applied to all domains across a life span, rather than only to the creative arts. In addition, the domain of creativity also helps to position personal agency and process aspects of creativity as part of the picture instead of the whole of it.

Craft and her colleagues, therefore, concluded a number of features of PT, based on empirical and narrative analysis, which involved several clusters of abilities and attitudes through individual, collaborative and communal engagement: posing questions, play and possibilities, innovation, self-determination and direction, risk-taking, being imaginative, and immersion (Burnard *et al.*, 2006; Cremin *et al.*, 2006; Chappell *et al.,* 2008a; Craft *et al.*, 2012; Cremin *et al.*, 2012) (a more recent PT study (Cremin *et al.*, 2012) which focused on the role of narrative will be further discussed in Section 2.4.2.2.1). With concerns about the abilities to face everyday challenges and to find solutions and ways through all situations that everyone is able to develop, Craft (2001b, 2002) suggested that self-directing LCC is more relevant to our educational context. In this study, therefore, the LCC concept, in particular the framework for PT, is

considered relevant for developing a creative pedagogy [CPed] for secondary art student teachers. For the details of the PTCPed, refer to section 2.4.2.2.1. The plan for the workshop is referred to in Chapter 4.

Beyond BCC and LCC creativity, Kaufman and Beghetto (2009) recently suggested a four C model to further explain the nature of creativity by proposing two additional categories of creativity: Mini-c creativity [MCC] (transformative learning) presents a 'novel and personally meaningful interpretation of experiences, actions, and events' (Beghetto & Kaufman, 2007a: 73); Pro-c creativity [PCC] exhibits professional- or vocational-level people who have not yet attained eminent status. The MCC construct is based on the personal and developmental aspects to studying creativity, which suggests encompassing creativity in the learning process and highlights the standards required to judge creative insight up to the secondary levels (Kaufman & Beghetto, 2009). PCC, on the other hand, represents the developmental and effortful progression beyond LCC in terms of knowledge and motivation, and the grey area between BCC (Kozbelt, *et al.*, 2010), which is consistent with the 'expertise acquisition approach' (Kaufman & Beghetto, 2009: 5) of creativity.

This four-c model is intended to help distinguish more clearly between the un-apprenticed amateur in the particular creative domain, the professional who was domain-competent, and the creative genius. It also presents a thoughtful developmental trajectory for individual creative life, although a full progression from MCC to BCC may be rare, in which BCC creators, in Kaufman and Beghetto's viewpoint (2009), are not required to pass through each stage. Nevertheless, they suggest the important role that deliberate practice and preparation plays in superior creative performance (Beghetto & Kaufman, 2007a, b; Kaufman & Beghetto, 2009). In addition to providing a useful framework for analysing creative processes in individuals, this model is also considered to highlight domain-competence as an essential component.

2.2.2.2 The Four (or Six) P's of Creativity

In addition to the previous category, some research psychologists focus their emphases and investigations on one or more central aspects of creativity. Rhodes (cited in Runco, 2004: 661), for instance, indicated a Four P's approach, including 'personality, process, products, and place/press (the environment, climate etc.)', which has been regarded as a tradition to understand creativity. According to Kozbelt, Beghetto and Runco (2010: 24), more recent versions of this framework have been extended to the six P's aspect of creativity, in which two additional factors are introduced - 'persuasion and potential'.

The following Table 1 presents a bigger picture of the types of creativity theories which have been discussed in the above sections. Within each category (some of them may contain more than one sub-category), a brief summary illustrating the key concepts, together with the considerations linking with multiple P's and levels of magnitude of creativity, provide a clear overview of creativity theory. The main reference sources for this summary come from the summarised table of theories of creativity, edited by Kozbelt, Beghetto and Runco's article "*Theories of Creativity*" (2010: 27-28).

Table 1 A summary of the types of creativity theories

Category	Sub-category	Summary	Six P's Focus	Levels of Magnitude	Major studies and Examples
Psychodynamic /Psychoanalytic		Creativity arises from the tension between conscious reality and the unconscious drives.	Person & Process	Big-C	Freud (1908) Kris (1952) Kubie (1958)
Cognitive	**Stage & Componential Process**	The creative process proceeds through a series of stages or components.	Primarily Process	Mini-C to Big-C	Wallas (1926) Mednick (1962) Runco & Chand (1995) Amabile (in press)
	Problem Solving	Creative solutions to problems result from a rational process, relying on cognitive processes and domain expertise.	Person, Process & Product	Little-C to Big-C	Finke, Ward & Smith (1992) Weisberg (1999)
	Problem Finding	Creative people proactively identify problems to be solved.	Process, Person, & Potential	Primarily Mini-C	Csiksentihalyi & Getzels (1971) Mumford *et al.* (1994) Runco & Chand (1994) Basadur*et al*. (2000)
Behaviourist		Creativity is the interaction between genetic endowment and environmental factors.	Person & Place	Little-C to Big-C	Skinner
Humanistic		Creativity can be seen as self-actualization; self-realising person acts in harmony with their inner needs and potentialities.	Person, Process, Product, Place & Potential	Mini-C to Little-C	Maslow (1968) Rogers (1961)

(continued)

Category	Sub-category	Summary	Six P's Focus	Levels of Magnitude	Major studies and Examples
Psychometric	**Measurements of creative thinking**	Creativity is measured reliably and validly; differentiating creativity (divergent thinking) from IQ (convergent thinking), and highlighting its domain-specific nature.	Primarily Product, but also Potential	Little-C to Big-C	Guilford (1968) Torrance (1974)
	Measurements of creative individual	Creative individuals are measured for their attitudes and dispositions that affect creative orientations.	Primarily Person	Little-C to Big-C	Gough's (1952) Williams (1971)
Pragmatic		The focus is on the development of techniques to promote creative thinking.	Process & Product	Primarily Little-C	De Bono (1985) Osborn (1953)
Social-personality		Studying creativity focuses on personality and motivational variables, and the factors from the socio-cultural environment.	Person & Place	Mini-C to Big C	Amabile (1996) Csikszentmihályi (1990) Simonton (1997)
Evolutionary (Darwinian)		Eminent creativity is evolutionary in process, involving blind generation and selective retention.	Person, Process, Place & Product	Primary Big-C	Campbell (1960) Simonton (1997)
Confluence		Creativity occurs within a complex system of interacting and interrelated factors.	Varying emphasis across all P's.	Little-C to Big-C	Csikszentmihalyi (1997, 1999) Gruber & Wallace (1999) Sternberg & Lubart (1995)
Economic		Creative ideas and behaviour are influenced by market forces, and cost-benefit analyses.	Person, Place, Product & Persuasion	Little-C to Big-C	Rubenson & Runco (1992) Florida (2002) Sternberg & Lubart (1995)

Primary resources: Kozbelt *et al.* (2010) Theories of Creativity, in J. C. Kaufman and R. J. Sternberg (eds.) *The Cambridge Handbook of Creativity*, pp. 27-28.

2.3 Cultural Context of Creativity: Comparing East with West

As mentioned above, I have discussed a range of theories of creativity based on Western culture. What about creativity in Eastern society or other cultures? Do they share a universally meaningful concept? Since the late 1980s when social psychology started to investigate the factors influencing creativity from a socio-cultural view, culture and the social system have been recognised as major components in shaping an individual's private cognitive process and behaviour when expressing creativity (Csikszentmihalyi, 1988; Kim, 2005; Morris & Leung, 2010). Cross-cultural comparisons have shown how culture and creativity interact and how culture affects and values the expression of creativity based on social norms and the philosophical base (Niu & Sternberg, 2002, 2003, 2006; Wonder & Blake, 1992; Lubart, 1999b; Albert & Runco, 1999). Thus, it is probable that different cultures have different perceptions of creativity, although creativity may share some common features in between (Niu & Sternberg, 2002, 2003, 2006; Rudowicz, 2004; Oral, 2008). For instance, the characteristics of creativity include originality, imagination, intelligence, and independence (Wang & Cheng, 2011), and creativity is understood to be measured through divergent thinking (Niu & Sternberg, 2002). Especially, today's society tends to have more interaction across cultures, and creativity, therefore, is recognised as a universal value which is propagated mainly through the global influence of Western culture (Craft, 2008). However, Craft (2008) argues that this may be inappropriate or premature for other cultures, where very different values are nurtured. Based on my background and research context, the East (Asian Chinese cultures rooted in Taiwan, Mainland China, Hong Kong, and Singapore) and the West (mainly draws on the cultures from the USA and European countries, as discussed above in this chapter) are examined in this study to explore the different values of creativity in terms of 2.3.1 Concepts of Creativity; 2.3.2 Values Attached to Creative Expression; and 2.3.3 Modern Definitions of Creativity in Taiwan.

2.3.1 Concepts of creativity

In general, under the influence of Confucianism, Taoism and Buddhism, Chinese culture tends to prioritise collectivism and social conformity (Chang & Richard, 1991; Ho, Peng & Chan, 2002; Lau, Hui & Ng, 2004; Oral, 2008) and has a very different value-system and philosophy from the West, where individualism and originality are prioritised. Notwithstanding this, several researchers have advanced that people from the East and the West actually hold a similar, but not identical, concept of creativity, particularly in the ancient philosophical roots (Niu & Sternberg, 2006; Craft, Gardner & Claxton, 2008). Similar to the Western concept of 'divine creativity', 'natural creativity' was employed in ancient China (Niu & Sternberg, 2006: 26-27). In Chinese culture, people believe in 'supernatural moral authority and potential creator/judge – Tian' (天: Heaven) (*ibid*: 26). Later, the idea of Tian was replaced by Tao (道: Way) which represented an ultimate force of nature in both Confucian and Taoist philosophies. Rudowicz (2004: 59) explained that creativity throughout the history of Chinese philosophy is associated with the idea of finding the ways of nature or following the Tao, which implied that there was nothing new to create. Therefore, creativity can be interpreted as 'an inspired imitation of the forces of the nature' (Rudowicz, *ibid*). Niu and Sternberg (2006: 29) summarised three common features shared by divine creativity and natural creativity: (1) they both emanate from a mystical tradition; (2) the nature of this ultimate origin lies in its endless production and renovation of changes; (3) the nature of Tao/creativity is its creation of all goodness.

According to Niu and Sternberg (2006), both divine creativity and, later, natural creativity have been somehow gradually turned into individual creativity, but with different interpretations (see a brief summary in Table 2).

	West		East (Chinese Culture)	
	Ancient	**Modern**	**Ancient**	**Modern**
Genesis	God(s)/individual	Individual	Nature/individual	Individual
Features	Novelty Moral goodness	Novelty Usefulness	Moral goodness	Novelty Moral goodness Usefulness
	Everlasting renovation		Everlasting renovation	

Table 2 People's concepts of creativity across times and cultures

Since the Enlightenment, Western concepts of creativity have changed from an emphasis on divine inspiration to an emphasis on individual creativity through human success with the achievement of new inventions and new discoveries. Creativity, therefore, is often defined as a self-fulfillment or celebration of an individual accomplishment by producing a product with the features of usefulness, appropriateness, and novelty through problem finding and problem solving strategies (Hennessey & Amabile, 1988; Zimmerman, 2005; Morris & Leung, 2010).

In contrast, under the influence of Confucian theory, the concept of individual creativity in ancient Chinese is achieved through deep experiences and interaction with natural creativity. Different from the pure individualism in the West, Eastern individualism is actually seen as no different to nature (universe). As Mencius (Lao, cited in Niu & Sternberg, 2006: 30), a great Confucian master, once said, 'for a man to give full realisation to his heart is for him to understand his own nature; and a man who knows his own nature will know Heaven'. Therefore, following this concept, wisdom growth, inner development and moral values, such as ethics and manners, are emphasised. It is the journey of self-discovery and self-cultivation through an intuitive approach, learning from tradition rather than the manifestation of product and novelty (Gardner, 1990; Lubart, 1999a; Niu & Sternberg, 2002; Rudowicz, 2003; Kim, 2007). In this way, not only creative activities, but also creative individuals are encouraged to achieve 'moral goodness and benevolence' (Niu & Sternberg,

2006: 32). These are interpreted as a connection to heaven or greatness and, therefore, to a high level of creativity, just as the universe is inherently good. As a result, Eastern creativity can be perceived as the connection between tradition and novelty, especially with the central ideal of maintaining and honoring tradition (Gardner, 1990; Lubart, 1999b; Niu & Sternberg, 2002, 2003, 2006).

2.3.2 Values Attached to Creative Expression

Cultural features have a catalysing effect on creative activity and, as a consequence, people's values and attitudes towards the outlet of creative expression are defined differently across cultures (Lubart, 1990, 1999b). In Western culture, creative performance involves the elements of invention, newness, a willingness to reject tradition, and concentration on the future. Such a concept of creativity is strikingly different from Eastern creations, in which creativity takes place within a coherent network of customs, beliefs, cultural norms, and social structures. These have flourished through the methods of modification, adaptation, renovation, re-interpretation of the past (Rudowicz, 2004), intrapsychic process, and integration with the environment (Leung *et al.*, 2004). Taking artistic works, as an example, to view differences in cultural values through creative expression between the East and the West, a comparative study of Chinese ink-brush painting and contemporary Western painting was carried out by Li (cited in Dineen & Niu, 2008). The results of this study proved that within the individualistic orientation of Western culture, the standards of contemporary Western painting tend to be relatively individualised, reflecting the artists' and judges' personal preferences. Conversely, the standards of Chinese ink-brush painting tend to be more uniform and emphasise knowledge and the mastering of skills, reflecting the collectivist characteristic of Chinese culture. However, other research also suggested that people from both cultures (China and the United States) tend to use similar criteria (e.g. creativity) when judging artistic creativity (e.g. Chen *et al.*, 2002; Niu & Sternberg, 2001).

The atmospheres of society also impact on the nature and process of creative expression and cultivation. Researchers distinguish between Western and Eastern societies as embracing democracy and liberal individualism versus authoritarianism and conformity (Craft, 2005; Leung, Au & Leung, 2004; Lubart, 1999b; Rudowicz, 2004). Chinese society underlies the principles of Confucian philosophy, which emphasises conformity and acting predictably within a situational context, tending to be a more tightly organised, collectivistic, and hierarchical (Rudowicz & Ng, 2003). In addition, adherence to group interests for the sake of achieving harmony is often a top priority rather than individual interests. Studies (e.g. Ng, 2001; Goncalo & Staw, 2006; Oral, 2008) have suggested that the culture of liberal individualism, which emphasises individual views and rights and self-determination mainly rooting in Western societies (Kim, 2007), is more conducive to people engaging in creative behaviour than the culture of collectivism. The possible reason may result from the psychological bounds constraining collectivistic members to behave in a creative manner and performance. Education, representing another form of society value, has been agreed a social–cultural process. Therefore, an acceptance of the cultural values of the conformity from the Confucian tradition, borrows the process of educational practice to be reinforced, which then continues to influence future generations.

2.3.3 Contemporary Definitions of Creativity in Taiwan

Being deeply influenced by its Chinese inheritance, together with a history of colonisation, Taiwan, nevertheless, is now recognised as a multicultural society that welcomes diverse cultures from its own and other foreign countries (Wu & Hung, 2003; Chen, 2006; Wang & Cheng, 2011). Since the late 1990s, creativity has gained increased attention in academia, as well as by the government, due to the global interest in maximizing creative potential for economic success (Chen, Wu & Chen, 2005; Cheng, 2004). As discussed in Chapter One, the definition and approach to creativity research in Taiwan depended heavily on Western theories proposed by first-generation scholars who had study experience abroad (e.g. mainly in

the USA and the UK, see the example in Table 2.3 below). Consequently, the tendency to define the creative vision is moving towards a confluent approach, which brings together the varied aspects into a comprehensive viewpoint (Wu, Hsu, Rau, Jian, Chen, Chang & Huang, 2008). It is not only based on professional domain knowledge, but also includes the abilities of perception, cognition, conceptualisation, imagination and symbolisation, as well as the elements of creative personality and environment (Mao, 1995). Taking one of the most common definitions of creativity in Taiwan as an example, Mao, Kuo, Chen & Lin (2000) described "creativity" by summarising a numbers of studies, mainly from the West, into eight features, presented in Table 3 below.

Definition	Representative studies
(1) an ability to create original ideas or products	Ghiselin, 1952; Getzels & Jachson, 1962; Barron, 1969; Osborn, 1957; Guilford, 1985; Wiles, 1985
(2) to engage in self-fulfillment creativity in everyday life	Maslow, 1959; Hallman, 1963; Moustakas, 1967; Dewey, 1910
(3) an ability to solve problems	Torrance, 1962; Parnes, 1967; Cheng, 1984
(4) to produce a creative outcome from the thinking processes	Dewey, 1910; Polya, 1957; Pasnes, 1967; Torrance, 1969; Jone, 1972; Chang, 1983
(5) an ability of inventing and problem-solving	Guilford, 1968; Taylor, 1959; Torrance, 1964; Williams, 1971; Wiles, 1985; Gardner, 1983
(6) a personal characteristic, such as the greater tendency towards creativity, or more creative expressions	Maslow, 1959; Rogers, 1959; May, 1959; Stein, 1967; Parnes, 1967; Jia, 1976; Rookey, 1977
(7) an ability to connect or combine with any possibility to become a new outcome	Mednick, 1962; Parnes, 1966; Taylor, 1959; Wiles, 1985; Arietil, 1976
(8) a comprehensive expression	Gardner & Gruber, 1982; Gowan, 1972; Ferguson, 1973; Clark, 1983; Kuo, 1985; Keating, 1980; Li, 1987
＊ **The local Taiwanese scholars/studies are highlighted in red.**	

Table 3 Modern definitions of creativity

Furthermore, due to the increasing importance of the knowledge-economy, creativity is acknowledged as individual competitiveness, in particular, putting the emphasis on the benefits for a flourishing innovative industry

(MOE, 2002a,b, 2009). Therefore, originality, novelty, usefulness and appropriateness have been taken as the common standards to value creative products (Lin, Y. L., 2002; Hong, Lin, & Lin, 2004). Consequently, this direction of policy towards encouraging creativity also applies to education (refers to Section 2.4.1). Creativity, therefore, is considered not only as individual thinking ability, but is greatly emphasised as implementation (Lai, 2011), such as product orientation and innovative industry-wide/technological approaches in a life span (MOE, 2009).

From the above, the nature of creativity has been interpreted through a wide range of literatures, as well as through the cultural context in the West and the East. In the next section, the discussion will focus on creativity in teaching and learning.

2.4 Creativity in Teaching and Learning

This section will explore creativity in the context of teaching and learning. Firstly, research into the development of creativity in education (2.4.1) is discussed to get an overview of what creativity looks like in an educational setting. Following this background information, the discussion focuses on the practical aspects, including the framework of creative pedagogy [CPed] (2.4.2), the particular definition of CPed adopted in this study (2.4.3), the role of the teacher in promoting creativity (2.4.4) , and creativity in Initial Art Teacher Education Curriculum (2.4.5).

2.4.1 Research into the Development of Creativity in Education

To connect creativity with education, key questions underlying this issue need to be addressed: Can creative capacity be taught or enhanced, and if so, then what kind of creativity can be fostered? And how?

2.4.1.1 Approaches to Creativity in Education

The debate over the nature-nurture position on creativity has existed for a long time. In addition, much research on the nature of creativity has

supported the idea that creativity is amenable to education (e.g. Cropley, 1992; Nickerson, 1999; Craft, 2002; Puccio, & Gonzalez, 2004; Fryer, 1996; Baer & Kaufman, 2006; Esquivel, 1995). After Guilford's powerful speech in 1950, the attempts to foster creativity through teaching and learning were given more attention. Various movements in the field of education in historical development included comprehensive (2.4.1.1.1), educational (2.4.1.1.2), behaviourist (2.4.1.1.3), psychodynamic (2.4.1.1.4), and humanistic (2.4.1.1.5) approaches (Craft, 2001a; Ryhammar & Brolin, 1999), as discussed below.

2.4.1.1.1 Comprehensive Approaches

Comprehensive approaches attempt to use a range of techniques to stimulate adult creativity, both on an individual and group level, such as role play, brainstorming, psychotherapy and hypnosis (Craft, 2001a; Ryhammar & Brolin, 1999). However, it has been argued that these approaches are not particularly effective or only has short-term effects in training people to become more creative (Ryhammar & Brolin, 1999).

2.4.1.1.2 Educational Approaches

Educational approaches are also recognised as cognitive approaches, in which various kinds of training programmes have been advocated by the cognition scholars to develop creative thought processes. Creative thinking in this approach is often considered as the ability for originality, the generation of ideas, and a range of strategies for problem-solving. Although specific skills, such as problem solving, can generally be taught and improved upon, there is rarely a transfer to more complex activities, such as creative production (Craft, 2001a). However, certain teaching strategies of this approach may possibly put greater effort on creativity development. For example, G Stanley Hall and John Dewey advocated children's play and play featured prominently in their educational scheme on creativity enhancement (Feldman & Benjamin, 2006). Piagetian cognitive-developmental programmes are associated with creativity that

encourages children to generate original ideas or to think of many different ways to do the same thing, such as carrying out hands-on materials and inquiry-orientated methods in early childhood education (Feldman & Benjamin, *ibid*). Lev Vygotsky's cultural-historical theory was the key to understanding individual change and transformation. He suggested a more active, assertive role for adults in children's creative processes and production (Moran & John-Steiner, 2003). The Montessori approach emphasises the importance of self-expression for fostering life-long creative skills and the Reggio Emilia approach to pre-school education in Italy is particularly successful at fostering children's creativity (cited in Craft, 2001a).

2.4.1.1.3 Behaviourist Approaches

Although behaviourism has not treated creativity as its major focus of work, Rhyammer & Brolin (1999) suggested that some educational programmes contain behaviourist assumptions (Craft, 2001a). As mentioned in section 2.2.1.2.3, behaviourists place an emphasis on the significance of the environment in influencing the behaviour of the individual. That is to say, 'environment is seen as a massive collection of stimuli to which an individual builds up a complicated series of responses' (Fautley & Savage, 2007: 8). Consequently, creativity is learned or can be fostered through stimulus, reinforcement and response.

2.4.1.1.4 Psychodynamic Approaches

Both psychodynamic approaches and humanist approaches emphasise the development of personality traits. Psychodynamic approaches emphasise the openness to preconscious processes, which are considered as the true source of creativity (Sternberg & Lubart, 1999). Psychodynamic scholars demonstrated how to increase creativity by following psychodynamic input/training through a case study. However, it is clearly problematic to generalise from such results, as well as to compare the creativity of equivalent individuals who did not have the input (Craft, 2001a).

2.4.1.1.5 Humanistic Approaches

Humanistic approaches view creativity as a self-creation that is 'the generation of personal identity and agency' (Craft, 2001a: 17). Humanistic studies have also been undertaken using the case study approach and, again, suggest that humanistic training can influence an individual's effectiveness in both health personality and productive creativity (Ochse, 1990), such as building a free, easy-going environment to allow the spontaneous expression of creative ideas. However, the method of investigation is subject to the same problems as psychodynamic approaches.

2.4.1.2 Other Aspects of Creativity in Education

Beyond these broad themes, research also tends to indicate that different forms of creativity in education are mainly viewed from three aspects. The first aspect is big-C and little-C creativity (2.4.1.2.1); the second aspect is general and domain-specific creativity and (2.4.1.2.2); the third aspect is product-orientated and process-orientated creativity (2.4.1.2.3).

2.4.1.2.1 Big-C and Little-C Creativity

As mentioned in the previous section (2.2.3.1), researchers draw a distinction between BCC and LCC creativity. These are transformations that contribute personal and cultural values or innovations that solve problems or enrich daily life. Together with the movement towards child-centred and innovative pedagogy, the focus has gradually shifted to ordinary people in a contemporary educational setting. Instead of highlighting remarkable achievements, LCC (referring to the abilities to adapt to and deal with change and problem-solving) and Mini-c creativity (referring to the creative insights inherent in the learning process), as a result, are found more likely to be chosen by today's educators who see average students on a daily basis and as part of a lifelong process (Craft, 2001a; Spendlove, 2005). The belief behind these efforts is that everyone has the potential to be creative

61

(NACCCE, 1999; Feldman & Benjamin, 2006) and, therefore, that person will be able to make creative contributions in different fields.

2.4.1.2.2 General and Domain-Specific Creativity

Creativity researchers also draw a distinction between general creativity and domain-specific creativity. Throughout history there have been individuals who are very creative in a specific domain and, therefore, researchers believe that a person can be very creative within one domain (e.g. music, painting, writing, science, mathematics, etc.), but not necessarily in another. For example, the NACCCE report outlines that creativity is better as a 'democratic' concept in a classroom setting, as this belief provides opportunities for everyone to succeed according to their own strengths and abilities to respond (1999: 29). Researchers in this camp also suggested that creative expression and outcome require particular knowledge and skills within the field (NACCCE, 1999: 42; Sternberg, 2000; Sawyer, 2006; Weisberg, 1999, 2006; Csikszentmihalyai, 1997; Kaufman & Beghetto, 2009; Feldman & Benjamin, 2006). Some other researchers, on the other hand, suggested that some creative skills, such as problem-solving strategies or divergent thinking skills, 'can be demonstrated in any subject at school or in any aspect of life' (Lucas, 2001: 38). This means that this kind of creativity is generic; once learned in one domain, it can also be transferred to others. For instance, Craft (2001b: 53) suggests that her concept of LCC is not necessary to the domain. Instead, it is an approach and attitude to life when faced with uncertainty or blockages. Bleakley (2004: 467-473) also identifies creativity as a 'pluralistic' concept, suggesting a typology of creativities, in terms of 'an ordering process; rhythm and cycle; originality and spontaneity; the irrational; problem solving; problem stating; inspiration; serendipity; resistance to the uncreative; withdrawal and absence' to widen the scope of creativity in schools.

2.4.1.2.3 Product-orientated and Process-orientated Creativity

In this aspect, a significant distinction between product-orientated and process-orientated creativity, focusing on different facets and values of novel invention (James, Lederman, & Vagt-Traore, 2004; Safford & Barrs, 2005; Smith, 2005), is also often discussed in the classroom. Product creativity states that creative production should meet the standards of both novelty (refers to original work) and appropriateness (concerns the usefulness of the product towards a certain need) (Sternberg & Lubart, 1999). In contrast, process-orientated creativity focuses on the 'mental process' involving the creative potential to generate new ideas, solutions to problems, and the self-actualisation of individuals (Esquivel, 1995; Fryer, 1996). As a result, the developmental process is seen to be as equally important as the product outcome in school.

The implications of teaching approaches for developing everyday creativity have been suggested in several aspects, such as certain characteristics of the teacher, an open attitude towards creative ideas or behaviour (more discussion refers to Section 2.4.3), and the supportive environment (Ryhammar & Brolin, 1999; Craft, 2001a; Esquivel, 1995; Lin, W. W., 2011). Environmental factors are concerned with the cultural ethos of the classroom or learning space. These have been interpreted as various terms in the literature, such as climate, atmosphere, conditions, and classroom/school culture (Craft, 2001b; Esquivel, 1995; Cropley, 1992; Fryer, 1996; Lucas, 2001; Joubert, 2001). Leading to a supportive culture and pedagogy, it has been identified as being particularly powerful in nurturing student creativity. In addition, it provides stimulating materials and resources, offering opportunities of 'relevance, ownership, innovation and control' (Wood, cited in Craft, 2001a: 22) for CL conversations, in which students' ideas are valued highly and are also seen as important factors in fostering creativity (Fryer, 1996; Cremin, *et al.,* 2006; Craft, 2001a; Jeffrey, 2005).

2.4.1.3 Creativity and Education Futures

Shaheen (2010) comments that fostering creativity in education needs to address many concerns, such as dealing with ambiguous problems, coping with a fast changing world and facing an uncertain future (Parkhurst, 1999). A current rationale for promoting creativity becomes a global interest in raising educational achievement levels for seeking future success (Craft, 2005; Shaheen, 2010). In order to fit the intense changes caused by social and knowledge economic growth, the demand for enhancing competitiveness in the labour force, such as 'risk taking, learning by doing and exhortations to be creative' (Craft & Jeffrey, 2008: 578) have been seen as important goals in relation to the basis of industrial activity in schooling (Hartley, 2003, 2005; Jeffrey, 2006; Craft & Jeffrey, 2008). Therefore, the function of education is to interact effectively with the wider economic and social landscape, to build 'human capital' (Shaheen, *ibid*: 166) by equipping young people with development skills in creative and collaborative capacities and imaginative engagement, as well as knowledge delivering (Craft, 2005, 2011b,c; NACCCE, 1999; Sawyer, 2004; Lin, Y. S., 2011; EUSFP, 2012). The inclusions of creativity in education policy and curriculum reforms have been carried out to respond to this trend in many nations, both in the East and the West (Shaheen, 2010; Lin, Y. S., 2011; EUSFP, 2012).

In addition to the economic drive toward creativity education, Craft (2011a) highlights the impact of the digital technology drive to concern the future success in today's education. Facing the increase in digital engagement and economic challenges, children and young people's lives, through interaction, play and learning, have been changed. This includes four characteristics: pluralities (of place, of activity, of connection, of their own online presence); possibilities (being able to transform from what is to what might be, and multiple opportunities to act 'as if'); playfulness (the online expansion of playworlds into extended make-believe ones through opportunities to self-create through emotionally rich gaming, social networking and generating content); and participation (becoming an author, maker,

performer, audience, in a democratic space where all ideas are welcome) (Craft, 2011a). As local and global challenges urgently change the demands for our creative potential and wisdom in a digital, marketed age, Craft (2011b) suggests that the current system of education needs to encourage creativity in children and young people in order to achieve 'creative education futures' (p152) through 'wise creativity' and 'collective possibility thinking' (Smith, 2011).

The Taiwanese government also responded to this trend that concerns the issue of future success in creativity education. As mentioned in Chapter One, the MOE have recently begun to carry out a three-year project (2011-2013), "*Future Imagination and Creativity in Education*" (HSSEP, n.d.). This project focuses on the cultivation of 'futures thinking' and 'futures imagination' in order to create 'desirable futures' (Chan & Chen, 2011). Underlying the principle of 'Futures= Imagination + Innovation + Implementation' (Wu, 2009), this project highlights developments in the ability to imagine the future, create the future and adapt the future for the students. Therefore, the abilities of individuals are fostered through education in terms of problem-solving, thinking (e.g. flexible thinking and critical thinking), communication, imagination, and creativity in order to improve technologies and society in general. Citizens are also encouraged to engage in novel leadership and life-long learning, both in science and humanities, and to support our society with sustainable development and environmental thoughts (HSSEP, n.d.; MOE, 2009).

To arrive at a working definition for creativity in teaching and learning, there are four characteristics to be interpreted in the NACCCE report (1999). This report is a significant document which can influence the promotion of creativity in education elsewhere in the UK, and perhaps can be applied in this study.

> Firstly, they (creativity) always involve thinking or behaving imaginatively. Second, overall this imaginative activity is purposeful: that is, it is directed to achieving an objective. Third, these processes must generate something

original. Fourth, the outcome must be of value in relation to the objective.

(NACCCE, 1999: 29)

In addition to this useful set of characteristics for creativity, Fautley and Savage also suggest more details of creativity for classroom practice, involving 'processes and products; group and individuals; classrooms, teachers and pupils; and it will be everyday creativity with which we (educators) are likely to be concerned the most' (2007: 14).

2.4.2 The Framework for Creative Pedagogy

In this section, a framework for CPed aims to illustrate the relationship between creativity and its pedagogical practices, mainly in the Western academic field, which has been firstly described through two interrelated elements: CT and CL (2.4.2.1). Following this, two examples of the CPed model, first in England (focuses on PTCPed) and then in Taiwan (e.g. ATDE), are further addressed (2.4.2.2). As mentioned in Chapter One, the introduction of Western definitions and frameworks of CPed is not new in Taiwanese creativity education; yet, in this study the rationale for choosing the English model (PTCPed) as an example is because this model places emphasis both on *how* and *what* the teacher and learners contribute to CT and learning. This attempts to provide a contrasting example for the current Taiwanese CPed practice that has been argued more in relation to teacher-focused approach (for more detail, see Chapter One).

2.4.2.1 The Discourse and Practice: Creative Teaching and Creative Learning

When discussing teaching and learning associated with creativity, there have been varied terms and concepts emerging in the Western literatures (e.g. Jeffrey & craft, 2004; Jeffrey, 2006; Ferrari, Cachia & Punie, 2009; Lin, Y. S., 2011; Lin, W. W., 2011). In principle, the discourse of pedagogy and practice in the Western classroom involve the concepts of creative/innovative teaching and CL (see Diagram 1 below).
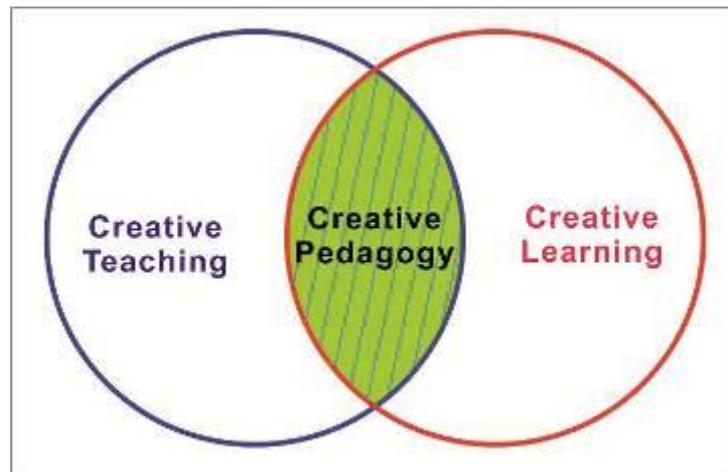
Diagram 1 The discourse of "CPed = CT + CL" based on Jeffrey's study (2006)

These two terms were suggested by Jeffrey (2006) based on his European project (2003-2005). The former term analytically characterises some significant strategies used by teachers, and the other term entitles the experiences of the students involved (Jeffrey & craft, 2004; Jeffrey, 2006). Jeffrey identified the 'common characteristics of CT and CL practices defined as involving innovation, ownership, control and relevance' (Jeffrey, 2006: 401). Ferrari, Cachia and Punie (2009: iii) further state: 'creative learning requires innovative teaching… Both aspects call for an educational culture which values creativity and sees it as an asset in the classroom'. These two terms are further described in the following sections: CT: Teaching Creatively and T for C (2.4.2.1.1); and CL (2.4.2.1.2). It is noted that the above terms are primarily based on the Western literature (particularly in European countries). However, as previously mentioned, creativity is represented by different features in different cultures and its teaching and learning may, therefore, be through different ways or foci in the East, which will be discussed in 2.4.2.1.3.

2.4.2.1.1 Creative Teaching: Teaching Creatively and Teaching for Creativity

CT, in the NACCCE report (1999: 102), made a distinction between the practice of *T for C* and *teaching creatively*. As the report argued, many teachers in the England actually see CT solely as teaching creatively, 'using

imaginative approaches to make learning more interesting and effective' (NACCCE, 1999: 89). Similarly, the educators in Taiwan are seen to hold the same concept (see Chapter One). However, the terms of reference imply a primary concern with T for C as forms of teaching that are intended to develop young people's own creative thinking or behaviours (*ibid*). Consequently, it was recognised in the report that there is a close relationship between these two terms as it states clearly that 'teaching for creativity involves teaching creatively' (*ibid*: 90) and notes that, 'young people's creative abilities are most likely to be developed in an atmosphere in which the teacher's creative abilities are properly engaged' (*ibid*: 90).

Jeffrey and Craft (2004) later proposed empirical research to examine the relationship between teaching creatively and T for C, and argued the former may be interpreted as being more concerned with 'effective teaching', with the latter perhaps being interpreted as having 'learner empowerment' as its main objective (p77). They also outlined how these two practices are seen to be interconnected and indispensable. It can be found that the features of CT, such as being dynamic, appreciative, captivating, innovative and having a caring ethos (*ibid*), contribute to pupils' learning and their development of creativity (that is "T for C"). Also, in order to achieve the goal of developing creativity, the teacher employs effective teaching strategies and a supportive ethos (Fryer, 1996) that are embedded in CT. Several features in practice, as summarised by Jeffrey and Craft (2004), are as follows:

- Teachers *teach creatively* and *teach for creativity* according to the circumstances they consider appropriate and sometimes they do both at the same time.
- *Teaching for creativity* may well arise spontaneously from teaching situations in which it was not specifically intended.
- *Teaching for creativity* is more likely to emerge from contexts in which teachers are teaching creatively notwithstanding some evidence of creative reactions to constraining situations (Fryer, 1996). Learners model themselves on their teacher's approach, find themselves in situations where they are able to take ownership and control and are more likely to be innovative even if the teacher was not overtly planning to teach for creativity.

(Jeffrey & Craft, 2004: 84)

Therefore, *T for C* is mainly emphasised as being a 'learner inclusive' approach (*ibid*: 84), in which the learner and teacher engage in a more collaborative approach to teaching and learning, such as in decisions about what knowledge is to be investigated, about how to investigate it and how to evaluate the learning processes. Jeffrey and Craft (2004) then concluded a more useful distinction for CPed where CT focuses on teacher practice, whereas CL highlights learner agency (refers to Section 2.4.2.1.2). This is found to be linked to Jeffrey's discourse of CPed mentioned above (see Diagram 2).
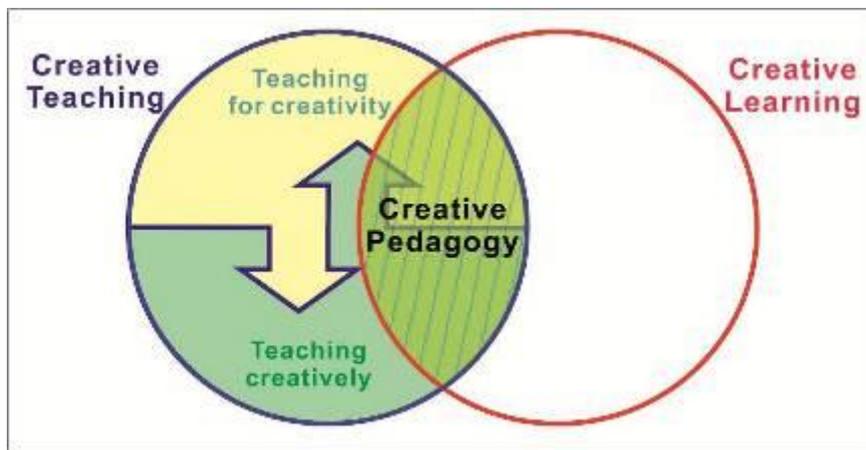
Diagram 2 "CPed = CT (for teacher) + CL (for learner)" based on Jeffrey and Craft (2004)

In Diagram 2, drawing on the existing literature, the set representing CT would include teachers using, for example, imaginative, dynamic, and innovative teaching approaches (Jeffrey, 2006) that facilitate children's agency and engagement. This includes, for example, exploring new possibilities, encouraging and providing opportunities that are creative and a hands on experience (Jeffrey & Craft, 2004: 81), inspiring children's imagination and new ideas which lead directly to T for C. The circle of CL represents an active process where the learner is engaged (more discussion is presented in Section 2.4.2.1.2). Compared to the previous discourse of CPed that only paid the attention to the teacher, this new interpretation of CPed from Jeffrey and Craft's study (2004) consistently takes teachers and learners into new and positively challenging spaces.

2.4.2.1.2 Creative Learning

As mentioned above, Jeffrey and Craft's study (2004) unpacked a new version of CPed (see Figure 2.2), in which the teacher was not the only key motivator for students' creativity through CT, instead students, themselves, could be seen as a significant self-motivated engine to develop their creative contributions through active learning. In fact, the notion of CL was firstly given added attention in 2002 by the contributions of the Creative Partnership in the UK (Sefton-Green, Parker & Ruthra-Rajan, 2008; Cochrane, Craft & Jeffery, 2008). CL contains both meanings of creativity and learning. In general, CL can be understood as 'the use of imagination and experience to develop learning' (Hobbs, cited in Craft, *et al.*, 2008: xxi). Spendlove and Wyse (2008: 8) noted that 'creative learning is learning which leads to new or original thinking which is accepted by appropriate observers as being of value'. In Jeffrey's interpretation (2006: 407), 'the creative in CL means being innovative, experimental and inventive, but the learning means that young participants engage in aspects of knowledge enquiry'. Craft argued that CL has been informed by 'social constructivist models of meaning making' (Craft, Cremin, Burnard, & Chappell, 2007: 138; Craft, 2005).

Within these contexts, a significant tension exists in recent work on exploring how children can be offered the chance to learn and think creatively; some work focuses on learners' active learning process, in which learners explore their curiosity spontaneously, even without a teacher or adults teaching and stimulating. For example, following Wood's idea (1995), Jeffrey and Craft (2006: 49) considered the student's role in the CL; as they stated:

> 'Creative learning is where learning is relevant to the learner, where they have a considerable amount of ownership and control over the materials, techniques and processes of an engagement with some knowledge or skills activity and where the opportunity to be innovative exists'

Yet, teachers' behaviour is also suggested by researchers to have the potential influence to support creativity. Underlying this concept, the term of CL is presented through a co-participative approach (Jeffrey & Craft, 2004; Spendlove & Wyse, 2008), where students also 'use their imagination and experience to develop their learning, contribute to the classroom curriculum and pedagogy, and evaluate their own learning and teachers' performance (Jeffrey & Craft, 2004: 85). Such commentaries conclude that 'CL attempts to bridge pedagogy and learning, and seeks to recognise and value the learner's experience. Therefore, it can be seen as the 'middle ground' between creative teaching and teaching for creativity (Jeffrey & Craft, 2004, 2006).

Varied concepts in relation to CL are identified by researchers attempting to explore its meanings and to document it in practice. It can be acknowledged as two possible features, explained below:

■ **Process or Product**

In CL, some researchers believe that students are expected to actively engage in the "process of learning", rather than "the achievement of a creative output" (e.g. Jeffrey & Craft, 2004). However, some scholars view that the end product of learning is deemed to be important in educational goals. For example, the latest definition has been used by Craft and her colleagues (2006) to inform further research into CL,

> significant imaginative achievement as evidenced in the creation of new knowledge as determined by the imaginative insight of the person or persons responsible and judged by appropriate observers to be both original and of value as situated in different domain contexts.
>
> (Craft *et al.*, 2006: 77)

This definition connects imagination with the development of knowledge and recognises the need to be able to evaluate some sort of outcome or product (Spendlove & Wyse, 2008). Besides, other researchers (e.g. Jeffrey, 2005; Fautley & Savage, 2007) hold a middle stance and view CL as a journey (process) as much as the destination (product).

■ **Collaborative or individual emphasis**

Whilst some work celebrated a learner-centred approach based on individualised perspectives (e.g. Maker, Sonmi, & Muammarb, 2008; Eglinton, 2003), particularly in the Eastern classroom (see next section 2.4.2.1.3), others (e.g. Sawyer, 2010; Afzalkhani, 2011) have suggested that learning in groups may also have a pervasive, effective contribution. For example, Creative Partnerships has been developing partnerships between teachers and visiting 'creative professionals' or artists, which has been seen as a significant model for creative work enabling students to emulate collaborative social practices often modelled on team-working and shared problem-solving (Jeffery, 2005; Cochrane, Craft & Jeffery, 2008: 29). Bechtoldt, De Dreu and Nijstad (2007: 2) suggest that group learning reveals not only the best individual for a certain job but also the best combination of individuals in terms of their specific characteristics.

More features of CL are also identified in recent studies, in terms of playfulness (Kangas, 2010), development of imagination (Craft, *et al.*, 2007; Spendlove & Wyse, 2008), PT (Jeffery & Craft, 2004; Jeffery, 2006; Cremin, *et al*., 2006; Burnard, *et al*., 2006), and supportive context (Oral, 2008) or enabling conditions (Fautley & Savage, 2007), such as the freedom to fail and take risks. These features of CL, in principle, imply the interplay between teachers and learners, which echoes the previous discussion. Among these features, the notion of PT has particularly been highlighted in the process of CL (Jeffrey & Craft, 2004; Jeffrey, 2006). PT can be understood from the perspectives of 'people/agents, processes and domains' (Cremin, *et al.*, 2006: 109). It encompasses an attitude by using imagination, with intention, to find a way around a problem, which may lead to both finding and solving problems (Craft, 2002). In an educational setting it has more links with activity or action (Jeffrey, 2006), and recent early years empirical research suggests that it involves posing questions, play and immersion, being imaginative, self-determination, risk-taking, and making connections (Burnard *et al*., 2006; Cremin, *et al.*, 2006). Details

about PTCPed will be discussed in Section 2.4.2.2.

2.4.2.1.3 CPed in the East (Taiwan)

Similar to the UK, CPed in an Eastern context, such as Taiwan and China, also involves the terms of CT/teaching with creativity (Chao, 2004; Hong, 2005; Hsiao, 2006; Lin, 2008; Lin, W. W., 2011) and T for C/teaching for creative thinking (Mao, 1994; Chen, 1997; Hsiao, 2006; Lin, Y. S., 2011), but as separate elements. Research (e.g. Lin, Y. L., 2002; Wu, 2002; Ting, 2008; Hsiao, 2006; Lin, W. W., 2011) has shown that in classroom practice many primary and secondary teachers were confused by the meanings of teaching with creativity, instructional innovation and T for C. They thought CPed was solely used for *teaching creatively* (CT strategies) in order *to achieve teaching goals (effective teaching).* A common stance of CPed has been described as when teachers apply their own creativity in their teaching plans and activities, and that, through this creative activity, students' creativity is developed (Chen, 1990; Mao, 1994; Chao, 2004; Lin, 2008). Varied innovative teaching methods have been suggested to foster students' creativity, such as using comic or picture books (Chen, 1997, Chen, 2001), computer software (Hsiao, Hong & Wu, 2009), play, drama and dance within teaching (Lin, W. W., 2011), and creating an open curriculum design (Chen, 1997; Chen, 2006; Hsiao, 2006).

Recent studies (e.g. Hsiao, 2006; Lin, Y. S., 2011; Tsai, 2011; Chang, 2011; Hsiao & Tu, 2012) have been greatly influenced by Western creativity theory to distinguish the differences between CT and T for C and to recognise and highlight the role of *T for C* (Hsiao, 2006; Lin, W. W., 2011; Lin, Y. S., 2011; Tsai, 2011) in the cultivation of creativity. Consequently, in practice, teachers have gradually shifted their pedagogical focus from CT to T for C. According to Chang (2011: 4-5), T for C involves the following features in the teaching and learning process: 'learner-centre approach, practice-based creativity, enhancing creative attitudes and metacognition, and creative thinking strategies'. In addition, few works have mentioned the importance of CL in school practice based on the Western literatures (e.g.

Vong, 2008; Ting, 2008; Tsai, 2011). However, research (e.g. Ye, *et al.*, 2004; Vong, 2008; Ting, 2008) has argued that the term of CL in the East is seen as a 'child considerate' approach (Jeffrey & Craft, 2004: 84), and 'comes only after the teachers' teaching strategies' (Vong, 2008: 25). This for me is more in relation to the meaning of *teacher-focused T for C* (Ting, 2008), which implies that although the learner's empowerment is suggested by the priority in the teaching and learning processes (Tsai, 2011), to some degree, learning still happens under teacher-designed activities, where the 'teacher has a certain autonomy and control of the learning process and … culturally attuned to students' (Jeffrey, 2006: 401).

This situation may possibly be explained through a cultural context. Underlying the principle of Confucianism, concepts, such as filial piety, obedience, acceptance of social obligations, and sacrifice for the in-group (Ng, 2001; Rudowicz, 2004: 71), are cultivated in Chinese society. Students learn when they are told what they should learn and accept the ideas from authority, such as teachers or books. Therefore, traditional teaching and learning in Chinese countries tends to be examination-orientated, teacher-centred, and textbook-orientated (Cheng, 2004: 141). It is suggested in many works (e.g. Wu, 2004; Kim, 2007; Lin, Y. S., 2011) that the neglect of spontaneity and the overemphasis on obedience and automatically accepting teachers' opinions could result in difficulties in students' creative growth and expression. As the result, learner-focused CL (Ting, 2008), a salient role in the framework of CPed, then is considered to be highlighted in this study and in Taiwanese classroom settings. This indicates that the terms and practice of CPed in this study then involves the concepts of CT and CL.

2.4.2.2 Models of CPed

In this section, two examples of the CPed model in the UK and Taiwan are discussed.

2.4.2.2.1 PT and its CPed in the UK

Over recent years, the concept and nature of PT within everyday and lifewide creativity has developed from conceptual work (Craft, 2000, 2001b, 2002) to empirical work, which has been carried out to characterise PT and its related pedagogy (PTCPed) in early years classroom settings. The pedagogical principles of foster students' PT have been identified by Cremin *et al.* (2006). Their model of PTCPed is useful as it describes how teachers create a supportive environment through effective strategies that prioritise children's purposeful engagement in CL. Pedagogy facilitating PT has been explored through two stages of qualitative work using observations, interviews and video analysis.

During the first stage, a number of distinct but interlinked features of children's and teachers' engagement with PT emerged, including question-posing, play, immersion, innovation, risk-taking, being imaginative, self-determination and intentionality (Burnard *et al.,* 2006). Later, Cremin *et al.* (2006) identified key pedagogical strategies which nurtured PT (see Diagram 3), in which a playful classroom, through dynamic interaction between teacher and students, was seen as an enabling factor. The pedagogical strategies are important in the evolution of PT through 'standing back, profiling agency and creating time and space' for CL (p113-115).
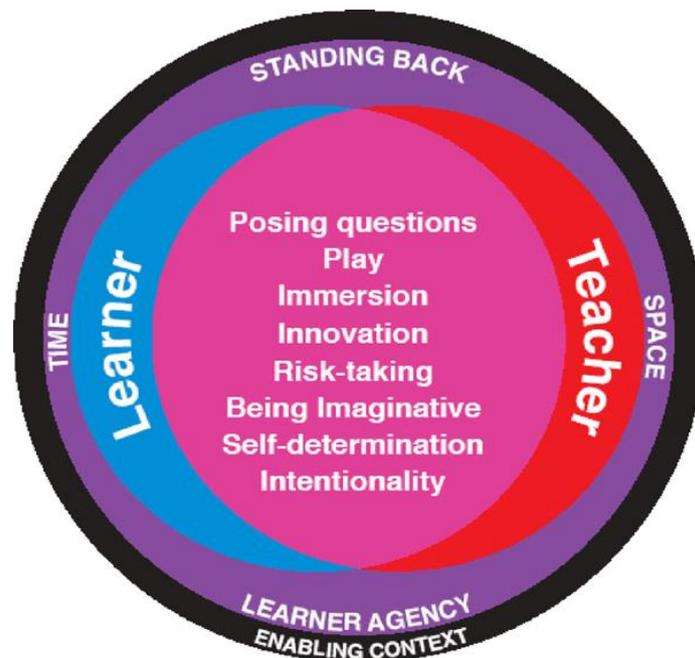
Diagram 3 Pedagogy nurturing PT (Cremin *et al.*, 2006: 116)

A subsequent stage was undertaken, narrowing its focus on the nature of students' question-posing and subsequent question-responding, and their interrelationship within PT in immersive and playful contexts (Chappell *et al.*, 2008b). In terms of question posing, three dimensions of questioning were identified as being characteristic of PT, which included:

■ **Question Framing**: reflecting the purpose and nature inherent within questions for adults and children, including leading, service and follow-through questions (p276);

■ **Question Degree**: the inherent breadth of possibility in children's questions, including 'possibility narrow', 'possibility moderate', and 'possibility broad'(p276-277);

■ **Question Modality**: manifestation of the modality inherent in children's questions, including verbal questions and, more frequently, non-verbal questions through enacted expression (p277).

In addition, the varied types of question responses, common across possibility broad and possibility narrow, and leading, service and

follow-through questions, were categorised as predicting, testing, evaluating, compensating, completing, repeating, accepting, rejecting, and undoing (Craft, McConnon & Matthews, 2012: 50). As shown in Diagram 4, the overall context was one of playful immersion, and question-posing and question-responding occurred in the context of 'imaginative self-determination' (*ibid*) in which children followed through their own intentions. It is noted that one key feature of PT previously identified, risk-taking, was not evidenced in this second phase of the study (*ibid*).
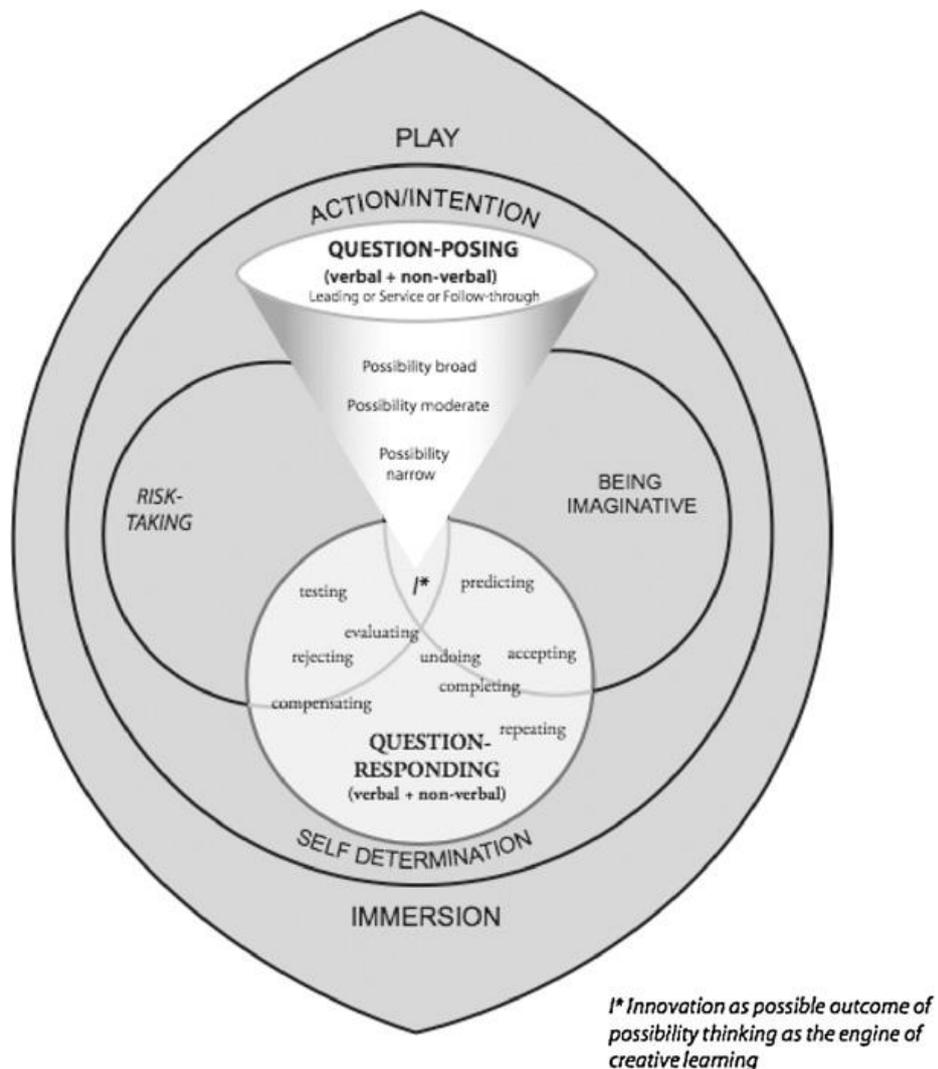
Diagram 4 Question-posing and question-responding and original PT framework (Chappell *et al.*, 2008a: 19).

In 2012, Craft and her colleagues' work reinforced the key aspects of

pedagogy for PT. It differed from previous investigations of PT, being focused on the relationship between teacher and student creativity in the context of the use of provocation. This research offers a new landmark in the blend between 'individual, collaborative and communal creativity' (Chappell, 2007: 14). Teachers were supported strongly by the head teacher and deputy head as a shared commitment to consider how to develop the use of provocations to nurture students' creativity. Pedagogy nurturing PT in this study extended the previous work on PT to further identify:

■ How teachers blended standing back with stepping forward into the students' play-space, and co-imagining with the children; and

■ How the students' play involved a blend of individual, collaborative and communal play, driven by a leading narrative and also encompassed risk-taking along with the other features of PT (e.g. question posing and responding, innovation, being imaginative, self-determination and intentionality).

These findings open a new insight into the dynamics between students and between students and teachers/adults (Craft *et al*., 2012: 59). Diagram 5 shows an overall finding of this study.
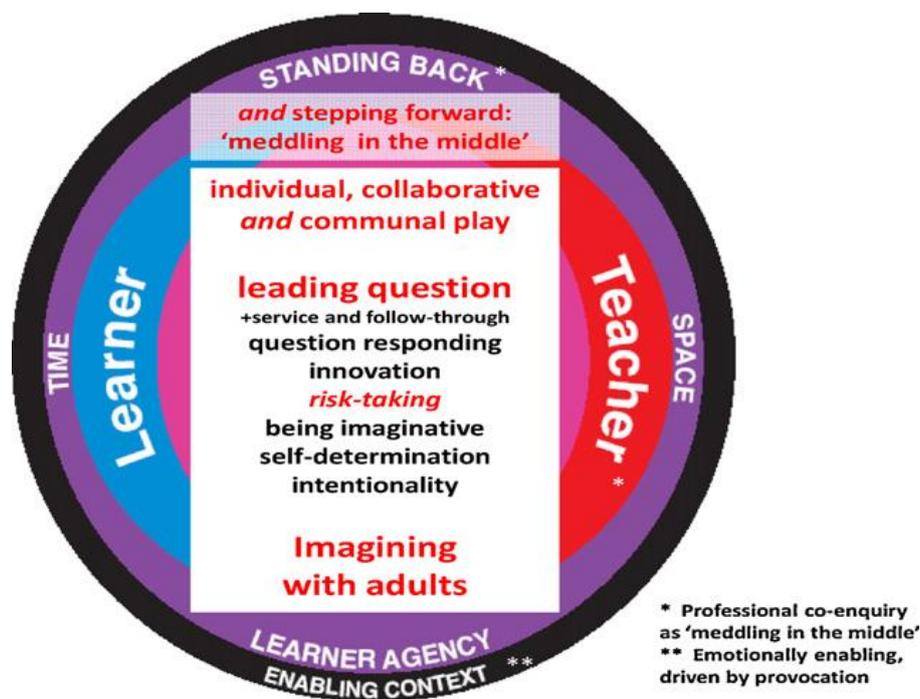
Diagram 5 A New Emerging Pedagogy Nurturing PT (Craft, *et al.,* 2012: 60).

The most recent PT work was undertaken by Cremin *et al*. (2012) and highlights the consideration of narrative in reviewing published PT work from the empirical studies conducted between 2007 and 2012. The new analysis reveals that narrative (involving the fantasy, everyday and everyday/historical narrative) plays a foundational role in PT that exited in 'the dynamic of narrative in relation to questioning and imagination involved in play, layered between children and adults' (*ibid*: 32). Furthermore, five core features of narratives were identified: character(s), plot, sequence of events, significance to the children and emotional/aesthetic investment.

Craft's PTCPed is based on LCC (2000) and is generated by young children in all areas of learning if adults give children time and space (Cremin et al., 2006). The notions of PTCPed were originally developed and more practiced in the early years of education. There have been several further studies focused on PTCPed with older learners (e.g. Lin, Y. S.'s work on creativity in drama with upper primary learners, 2009; PT in upper primary mathematics, Clack, 2011; Greenwood's work on PT with secondary aged pupils, uncompleted PhD work). By contrast, this study aims to help visual

art student teachers to foster creativity in secondary classrooms. It could be argued that firstly the secondary learners' development and features of creativity (PT) may be presented in different ways. Secondly, the targets and evaluations of creativity (PT) in the secondary visual art curriculum may also have different requirements and criteria in content knowledge and skills. Consequently, the teachers' pedagogical strategies may have different foci.

Meanwhile, PT encompasses the means by which intelligence, self-creation, self-expression and know-how are bought together and expressed (Craft, 2000), which is a very Western characteristic of creativity (see Section 2.3). It finds a way around a problem by posing questions and finding a problem through identifying a question or topic to be investigated. Therefore, in CPed fostering young children's PT involves moving their thinking on from 'what does this do?' to 'what can I do with this?' (*ibid*). It involves moving away from the convergent to more divergent thinking. Reflecting on the Confucian-influence learning context of this study, nurturing PT in the Eastern classrooms may meet challenges, such as an open and idea-inviting learning climate which may meet difficulties in a teacher authority-led classroom and management as practiced in Taiwanese secondary schools.

Bearing these above concerns in mind, the rational of my choice to introduce PTCPed to the Taiwanese teacher education in this study will be further discussed in Section 2.6.

2.4.2.2.2 ATDE CPed Model in Taiwan

A significant influence upon the current CPed in Taiwan is a cross-curriculum approach – the ATDE Creative Pedagogy Model [ATDE]. This model is also widespread called 'LOVE's model' (Chen, 2006: 150) as "ATDE" is homonymic with "LOVE's" [愛的 *I-De*] in Mandarin. The nature and concept of the ATDE model was gathered and generalised by Chen (1990) from many views or ideas in Western creativity literature (e.g.

Guilford, 1977; Osborn, 1963; Williams, 1970), yet he did not support this model with empirical evidence. Nevertheless, this model has been taken and examined later by several empirical studies based on primary schools in Taiwan, mostly in postgraduate research work. While using "ATDE Creative Pedagogy Model" as a keyword to search the academic database in Taiwan's National Central Library, 197 dissertations and theses, and 295 journal papers appeared in total (searched on 12th July 2012).

As Diagram 6 shows below, in the ATDE model, students' background knowledge and experiences are highly emphasised as the core (as creativity in this model is seen as "changing and extending"). Students' creativity only happens under a safe, free and supportive learning environment provided by teachers' love. Under this love enabling context, four pedagogical strategies - 'asking, thinking, doing and evaluation' (Chen, 2006: 149) are incorporated to foster students' creativity, but they always involve room for amending and switching the pedagogical orders.
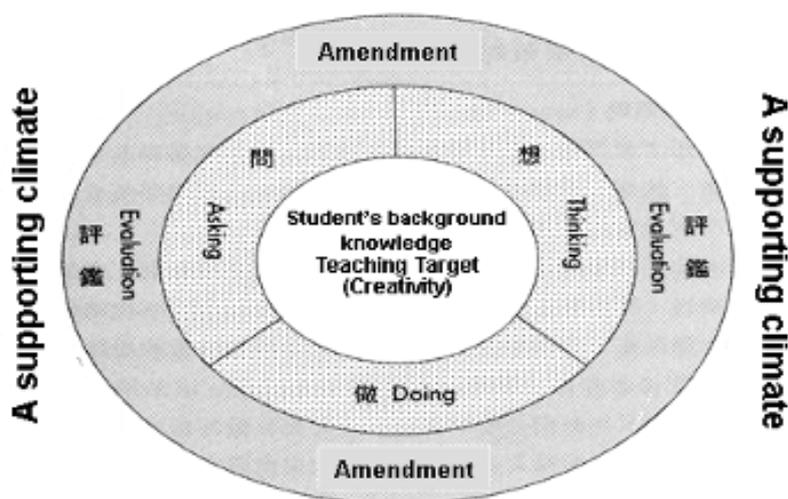
Diagram 6 The ATDE Creative Pedagogy Model (Chen, 2006: 150)

■ **Asking**: Teacher uses questions to offer opportunities for students to think and to solve problems;

■ **Thinking**: after posing questions, the teacher provides enough time to encourage students' convergent and divergent thinking;

■ **Doing**: teacher offers varied leaning contexts (e.g. writing, singing,

81

playing and speaking) for students to learn by doing;

- ■ **Evaluation**: teacher and students, collaboratively, develop the criteria for evaluation, in which teacher and students respect each other and give feedback to each other.

As the ATDE model starts with asking, Chen (2006) also proposed that teachers should adopt the 'ASK' framework as the core of their pedagogical approach. 'ASK' is an acronym for "Attitude, Strategy and Knowledge" that centres on teachers' positive, enthusiastic and confident attitudes, good use by teachers of materials and strategies, and teachers' professional knowledge of subjects during creative instruction, including "know what" and "know how".

Comparing these two PTCPed and ATDE models, they share many parallels. Firstly, both of them were mostly practice in up to primary levels in all areas of learning (e.g. play, music and scientific enquiry). Additionally, both highlight the importance of an enabling/supporting context, involve question-posing to develop students' creative thinking or behaviours, and finally suggest the provision of learning agency, including various materials and enough time, for students in creativity cultivation. However, they are different in principle; PTCPed seems more situated to learners' empowerment in a teaching and learning context, whilst the ATDE model tends to follow a teacher focused teaching method, in which the teacher seems more involved in and even dominant over students' learning. Although Craft *et al.* (2012) in their latest work mentioned pedagogy with more stepping forward into students' learning, teacher and students are, basically, in a collaborative relationship.

2.4.3 The Definitions of CPed in this Study

In Section 2.4.2, I discussed the discourses of CPed in West and East and also introduced one of each CPed model. There are several overlaps can be found among the discourse of CPed but being presented in different terms (e.g. teaching creatively, T for C and CT) based on the varied literatures and

cultural contexts, and this may cause a confuse in exploring visual art student teachers' perceptions of CPed in this study. In order to aid understanding, in this section I attempt to summarise the common terms and the definitions of CPed used in the UK and Taiwan from the literatures; and these will consequently produce the definition of CPed that I intend to apply in this study (shown in Table 4).

Terms related to and definitions of CPed in other work and for this study				
The terms in the UK	Teacher as the main motor		Learner as the main motor	CPed= CT (teacher) +CL (learner)
	CT (Jeffrey & Craft, 2004)		CL (Jeffrey & Craft, 2004, 2006; Craft, Cremin & Burnard, 2008)	
	Teaching Creatively (NACCCE, 1999)	T for C (NACCCE, 1999)		
The terms in TW	CT/ Teaching with Creativity (Chao, 2004; Hong, 2005; Hsiao, 2006; Lin,2008)	T for C/Teaching for Creative Thinking (Mao, 1994; Chen, 1999; Hsiao, 2006; Lin, W. W., 2011)		CPed= 'CT' or 'Teacher-focused T for C' (Ting, 2008)
The terms in this study	CPed= CT + CL			
	■ CT involves the meanings of teaching creatively and effectively (Teacher-focused): arranging innovative teaching activities and strategies that make learning more interesting and effective ■ CL involves a "learner inclusive" pedagogy to foster creativity, in particular focusing on possibility thinking creative pedagogy (Learner-focused): - Standing back: allowing learners to do their own thinking and learning - Creating time and space: creating or providing opportunities, including time and space, for learners to explore ideas, materials with more possibilities. Furthermore, setting challenges/tasks is also another way to stimulate creativity, such as asking questions, or using limited time or materials to create a work. - Profiling agency: encouraging different ways of learning by employing both individual and collaborative activities, during which learners' individual and social creativity are developed. ■ T for C in this study only presents the literal meaning, such as the teaching methods or activities that involve the intention or purposes of to foster a learner's creativity (Teacher-focused).			

Table 4 The discourses of CPed between the UK and Taiwan, and in this study

It can be seen from Table 4, firstly the general discourse of CPed in the UK involve the co-meaning of CT (for teacher; includes the meanings of teaching creatively and T for C) and learning (for learner). In Taiwan, the discourses of CPed cover two separate meanings, that are teaching creatively (the most common terms are "CT" and "teaching with creativity") and T for C (or the term of "teaching for creative thinking"). In addition, as

argued in Section 2.4.2.1.3, the discourses of CPed in Taiwan seemed more in relation to the meaning of "CT", or more recently "teacher-forced T for C". Thus, the concept of CPed that I intend to introduce to student teachers in this study involves a co-meaning of *"CT + CL"*. In other words, this concept of CPed includes not only a teacher-focused approach of CT (is defined as *"teaching creatively and effectively"*). This but also, the most importantly, encourages a learner-focused CL (is joined the ideas of *"T for C in a learner-inclusive approach"*, e.g. PTCPed in England). Finally, the term of T for C in this study then only presents the teaching methods or activities that involve the intention or purposes to foster learner's creativity (teacher-focused approach).

2.4.4 The Role of Teachers in Promoting Creativity

The key role of teachers in fostering creativity has been widely documented in the literature (e.g. Fryer, 1996; Beetlestone, 1998; Craft, 2000), and is particularly highlighted in the Eastern classroom (Vong, 2008; Chen, 2006; Lin, W. W., 2011; Tsai, 2012). Rostan, Pariser and Gruber (2000, cited by Zimmerman, 2005: 65) found that

> successful teachers of highly able students are knowledgeable about their subject matter, able to communicate instructions effectively, and selected learning experiences that challenged their students to attain advanced levels of achievement.

Therefore, by adapting appropriate teaching strategies, teachers can help students develop their creativity, including the promotion of collaborative practices and team work (Jeffery, 2005; Burnard *et al.*, 2006; Cochrane *et al.*, 2008; Sawyer, 2010), and giving more choice and challenging students to develop their problem-solving skills (Jeffrey & Craft, 2001). In addition, teachers are key figures in constructing a creative climate, such as giving students the freedom to enquire, question, experiment and to express their own thoughts and ideas (Fryer, 1996; Jeffrey & Woods, 1997; NACCCE, 1999; Craft, 2000; 2001). Through active praise and atmosphere construction, teachers could encourage young people to believe in their creative

potential, encourage their sense of possibility and give them the confidence to try something new (NACCCE, 1999: 90). Evidence from research also suggested that the teacher's attitude towards creativity, social relations between the teacher and their pupils, and the teacher's teaching skills may either improve or block the pupils' creative development (Angeloska-Galevska, 1996; Jin & Cortazzi, 1998; Yang & Hua, 2003; Wu, 2004).

2.4.5 Creativity in the IATE Curriculum in Taiwan

As argued in Chapter One, the foundational frameworks of creativity and CPed are not clearly defined in Taiwanese educational settings, including initial teacher education [ITE]. In this section, how the concepts of creativity and CPed are trained in current ITE will be valued; nevertheless, to add understanding, a brief introduction of ITE course in Taiwan needs to be firstly mentioned. ITE refers to the professional preparation organised by teacher education institutions in order to help teachers obtain a certificate to teach in primary and secondary schools. Snoek and Zogla (2009) identified that the goals of ITE are to, support teachers' theory and practice, achieve a balance between subject and pedagogical studies, and prepare the teachers to meet modern pupils' needs. Literature suggests that, to achieve this, the appropriate approach of ITE is to bring together school and university-based practitioners and the academic knowledge to enhance teachers' professional development (e.g. Zeichner, 2010; Snoek, Uzerli & Schratz, 2008; Furlong *et al.*, 2000). In Taiwan, the Initial Art Teacher Education [IATE] for secondary level, which belongs to a specialist category in the ITE course, is provided by higher education institutions working in partnership with secondary schools. The Teacher Curriculum and the qualification are controlled by the MOE. According to the Teacher Education Act (MOE, 2005), teacher education includes 'ordinary courses, specialised courses, education concentration courses and a half-year of teaching practicum'. Trainees who meet the teaching programme requirements obtain a Pre-service Teacher Education Certification (from universities). They must then also pass the teacher certification exam held

by the MOE to acquire an Art/Arts and Humanities Certified Teacher Licence.

There are three main ways to be trained as a secondary art teacher in Taiwan. Before the 1990s, normal universities were the only institutions specifically for training primary and secondary teachers. In 1994, The Teacher Education Act was amended so as to open up new ways for all public and private universities to provide secondary teacher education programmes (Lyu 2003), offering a two-year teacher training programme contained in a four-academic-year university course. Since then, secondary teacher education is no longer monopolised by normal universities and the government has broken down 'the traditional teacher education system of centralised, unified, government scholarship and job distribution' (Lo, 2006: 183). Meanwhile, the government has also encouraged universities to establish a one-year postgraduate teacher training programme, which is suitable for people with a Bachelor of Arts degree or people working in a school who are not yet qualified to be an art teacher. This has contributed towards an increasing diversification of secondary art teacher provision and competition (Hwang 1999; Chien 2004). In addition, because of reforms to the Grade 1-9 Curriculum (see Chapter One and Section 2.5.2.2), secondary art teachers are now officially separated into 'Art Teachers' (who are trained for teaching in senior high schools; age 17-19) and 'Arts and Humanities Teachers' (who teach in junior high schools; age 13-16) (MOE, 2011). However, the difference between the training of teachers for junior and senior high schools amounts to only one course, which is concerned with teaching methodology. The process of secondary art teacher education in Taiwan is shown in Diagram 7.

University undergraduate / postgraduate students in art or related art programmes	People who at least obtained Bachelor of Art or other related art degree	Bachelor of Art Education at Normal University

Entry requirements and exam

Teacher Education Programme	Postgraduate Teacher Education Programme

26 credits of educational theory learning

Meet the programme requirements and obtain Art/ Arts and Humanities Pre-service Teacher Education Certification

Art/ Arts and Humanities trainee teacher

Six months period of practice in secondary school

Teacher Certification Exam

Obtain Art/ Arts and Humanities Certified Teacher Licence

Certified Art/ Arts and Humanities teacher

Diagram 7 The process of secondary art teacher education and certified teacher in Taiwan

As explained above, the structure of the IATE course is issued by the MOE, which works in partnership with the university-based 'education concentration courses' and a school-based practice of 'teaching practicum' for six months (MOE, 2003b, 2011). A brief introduction and discussion to both sides of the training courses, including the roles of creativity and CPed, are provided below.

2.4.5.1 University-based Educational Theory Learning

Trainees who satisfy the entry requirements should attend at least 26 credits of the education concentration courses in order to develop the educational competencies required of teachers. Taking my target participants (art student teachers in AHLA) as an example, these courses contain an education foundation module (9 courses of 18 credits), an art education methodology module (2 courses of 4 credits) and an art education practice module (2 courses of 4 credits) (MOE, 2003b, 2005,

2011). Additionally, in order to meet the AHLA qualification for teaching the integrated arts in the Grade 1-9 Curriculum, the trainees who are preparing to teach in junior high school are required to take additional compulsory modules: (1) 4 credits of pedagogy and teaching practice courses in relation to AHLA (e.g. Curriculum Planning and Instruction in AHLA and Teaching Practicum in AHLA*); and (2) 8 credits of the art-related courses (e.g. visual art student teachers need to attend two music-related courses and two performance-related courses (normally one is drama-based and the other is dance-based)*). Although, when qualified, they will teach their own professional subject in a school, the design of the cross-art-discipline training aims to provide a general concept for student teachers in order to familiarise them with different art disciplines. This enables them to collaborate effectively in integrated arts teaching. Compared to the beliefs in Western countries that promote practice in real contexts and encourage the systematic reflection by trainees (e.g. England), it has been argued that ITE in Taiwan (including IATE), overall, has paid more attention to the cultivation of academic theory delivered by the educators (Ting, 2007; Lan, 2002). In other words, the theoretical principles of education are the major components of the IATE programme in Taiwan, aiming to help trainees to understand the pupils' cognitive development and, thus, how to help pupils learn more effectively. However, I would argue that the university-based training courses lack the nurturing of professional values and up-to-date policy in practice (Ting, 2007). As a result, there is still a wide gap between theory and practice.

This issue also applies to the delivery of the topic of creativity and CPed in the university-based learning stage. Since the promotion of creativity has been undertaken as one of the significant objectives in the Taiwanese education context, creativity, nevertheless, has not become the compulsory

---

* These two pedagogy and teaching practice courses are taught by mixing specialised approaches where student teachers learn the pedagogical strategies from different specialist groups and develop integrated art teaching projects, collaboratively.
* Student teachers specialising in the other art forms (e.g. music and performance student teachers) need to take two art-related courses and two music-related courses or two performance-related courses.

module in ITE as proclaimed by the MOE. Only some universities which are interested in the field of creativity and CPed may report them as one of their elective modules. However, until 2013, less than one quarter of the IATE programmes in Taiwan have provided this module (searched 04 February 2013).

2.4.5.2 School-based Practice Training

Trainees completing the education concentration courses can take the education practicum. According to the Teacher Education Act Enforcement Rules Article 3 (MOE, 2003b), '...education practicum is a half-year full-time education practice for teacher development comprising a teaching internship, "homeroom" teaching (general class affairs) supervision, administrative work practice, and study and training activities'. Therefore, trainees on art teaching practice are provided with many opportunities to observe experienced teachers teaching, and are then asked to develop their own teaching plans and undertake teaching projects. Moreover, in training, they are required to be familiar with administrative work and home-class management and they learn how to get along with pupils and deal with pupils' routine work. Regarding the field of creativity, similar to university-based learning, creativity and its pedagogy have also obtained less attention in school-based practice (Wu, 2004; Ting, 2008). I would argue the possible reasons may be as a result of the cultural factors (see Section 1.3.1 and 2.3) and the lack of support and enthusiasm (Ting, 2008; Lin, Y. S., 2011), which have shaped in-service teachers' experiences and their willingness to approach CPed and, therefore, also applies to student teachers.

Responding to the discussions in previous sections, the creation of a supportive climate for developing creative abilities and qualities is suggested through the interaction between innovative and effective teaching by the creative facilitator, and CL by the active learner. Within the teaching and learning process, Y. S. Lin (2011) argued that the three interconnected elements (CT, T for C and CL) complement each other as a

resonant process. Reflecting on the Taiwanese classroom, emphasis is mainly placed upon the teacher's role and teaching strategies in *T for C*. This is a particular dimension of and uniquely salient to *CL.* PT at the core of everyday creativity has been highly evaluated by researchers in classroom settings (e.g. Burnard *et al.*, 2006; Cremin *et al.*, 2006), and it is believed it may open a new window in Taiwanese creativity education. I would argue that this is because no professional training relevant to this issue is available through IATE and, as a consequence, student teachers may face the dilemma of what kind of creative capacity should be developed, or what pedagogical strategies they should adopt for promoting creativity in their future classroom practice (Jackson, 2006; Ting, 2008). Hence, in this current study, it is significant to target art student teachers as the main focus in order to introduce them to the framework of creativity CPed, where PTCPed is chosen as the core.

In the next section, the focus turns to how creativity is situated in my field research, visual art education, with a link between visual art and creativity in the curriculum and pedagogy.

2.5 Creativity in the Visual Art Curriculum

This section starts with a rationale of visual art education (2.5.1) and is followed by an exploration of the relationship between creativity and visual art education (2.5.2). Finally, CPed in visual art is discussed (2.5.3). In each subsection, I start by posing several core questions centred on these topics for a further detailed reflection.

2.5.1 Why Learn Visual Art? The Rationale of Visual Art Learning

In this section, the nature of visual art education (2.5.1.1) is firstly discussed and followed by two main approaches to visual art teaching and learning (2.5.1.2).

2.5.1.1 The Nature of Visual Art Education

This section involves two issues, namely the role and value of visual art in education (2.5.1.1.1), and definitions and practices of visual art in education (2.5.1.1.2).

2.5.1.1.1 The Role and Value of Visual Art in Education

Art education has been embedded in the school curriculum in many countries for a long time. But, why learn art? Why has art become a subject in the fundamental curriculum? What contribution does it make to students when they learn about art? An American art educator, E. W. Eisner, mentioned (1972) that 'the prime value of the arts in education lies … in the unique contributions it makes to the individual's experience with and understanding of the world. The visual art deals with an aspect of human consciousness that no other field touches on.' (p2)

As Clay et al. (1998: 5) suggested, 'the arts (including visual art) are a response to our thirst for knowledge, insight and revelation… they (the arts) provide ways of knowing, representing, presenting, interpreting and symbolising, and a context for appreciating and valuing'. Many scholars believe that the process of drawing and painting can provide opportunities for pupils to explore media, to invent their own forms, and to express their ideas and feelings through a suitable technique introduction (Gardner, 1990; Lowenfeld & Brittain, 1987, cited by Unsworth, 1992) in which pupils bring together the diverse elements of their experience to make a new and meaningful work. Additionally, for older children, art learning then further allows them to develop practical and critical skills and more personal expression (Clay *et al.*, 1998) as well as to create imaginative and innovative responses for communicating with the world. It may also help some of them to prepare for their future vocational engagement.

2.5.1.1.2 Definitions and Practices of Visual Art in Education

The term of art education frequently covers the concepts of 'Art', 'Craft'

and 'Design' in the curriculum (Hickman, 2005a: 12) to learning art-based activities, including drawing, painting, craft, design, photography and poetry. Nevertheless, in response to changing conditions in the contemporary world, art is more than just one aspect of 'a work of art' (*ibid*: 13), but it appears as a broader concept of 'visual culture' (*ibid*; Duncum, 2001a,b, 2002; Freedman, 2000, 2003; Freedman & Stuhr, 2004). The term of visual is a 'whole new culture of the image' (Jameson, 1984 cited by Duncum, 2002: 15), referring to what we see of the physical aspects of the world around us every day. However, visual is much more than this; it involves a process of vision and perception, in which young people interact with images that attempt to convey a message in a visual language. As Barker (2010: 4) stated,

> '"visual" becomes multimodal and even more deeply embedded within and dependent upon a sentient being that is able to negotiate multiple sign systems in order to identify meaning in the visual (or visualized)'.

In this sense, the visual products activity not only transforms individuals' material and visual environment but also the way we think about ourselves and others (Freedman, 2003; Addison, 2010). Driven by technical capital, Duncum (2004) suggested that today's cultural forms, such as television and the Internet, involve more than visual images as a 'communicative mode', where 'meaning is made through an interaction of music, the spoken voice, sound effects, language, and pictures' (p252). Therefore, the forms of visual culture include all of the visual art and design (both historical and contemporary), the fine arts, advertising, popular films and video, folk art, television and other performances, computer graphics and other forms of visual production and communication (Freedman, 2003).

However, teaching visual culture is not just about teaching popular culture; it is about students making and viewing the visual art to understand their meaning, purposes, relationships, and influences (*ibid*: 11). Hickman (2005a) further defined a common accepted notion of "visual art" in education, including the concepts of not just skills but also expression and organisation,

in addition to creativity and imagination (p11). Visual art education, then, as defined by the National Art Education Association in the USA, includes a broad category of different types of art, which also applies to the current study;

> 'the traditional fine arts, such as drawing, painting, printmaking, sculpture; communication and design arts including film, television, graphics, product design; architecture and environmental arts, such as urban, interior, and landscape design; folk arts; and works of art, such as ceramics, fibers, jewellery, works in wood, paper, and other materials'.
> (http://www.arteducators.org/about-us/definition_visual_arts.pdf)

2.5.1.2 Two Approaches to Visual Art Education

Since the end of the Second World War, there have been two main paradigms of visual art education. These include the 'learner/child-centred' approach (the creative self-expression art education approach [CSEAE]; e.g. NACCCE, 1999; Zimmerman, 2005, 2009) that indicates the value of self-expression and creativity, 'embracing "responding" to art work as well as "creating" (2.5.1.2.1); and the 'discipline-based' art education [DBAE] approach (e.g. Greer, 1984, 1993; Dobbs, 1988; Hsu *et al.*, 2008; Halstead, 2008) that places more emphasis on 'tradition, form and convention' (Fleming, 2010: 26) (2.5.1.2.1).

2.5.1.2.1 CSEAE Approach

CSEAE approach to visual art was grounded in romantic idealism and psychoanalytic psychology in the nineteenth century (Siegesmund, 1998; Wong & Piscitelli, 2009). Seeing art with the characteristics of 'enjoyable, tension-releasing, physical engagement with media, and a means for creating forms which are symbolic of human feeling' (Kolbe, 1992 cited by Wong & Piscitelli, 2009: 4), the primary role of art education is seen to 'protect and nurture the autonomous, imaginative life of the child' (Siegesmund, 1998: 200). In the field of visual art education, the works of Viktor Lowenfeld in America and Herbert Read in the UK (Efland, 1990; Burton, 2001; Fleming, 2010) were probably the best representations of this approach, principally being focused on early years learning. Within the

belief of "the pupil as natural artist", art educators adopting this approach are concerned fundamentally with 'individual/creative growth' (Hickman, 2005a: 46), and seek to develop a student's inherent creative, imaginative and expressive abilities as the ultimate goal of art education (*ibid*; Zimmerman, 2010). Creativity, in this case, is regarded as being innate and developing naturally to express 'inner life' (Addison, 2010: 17) through the imaginative transformation of artistic materials. In this sense, each student is believed to have the potential to present personal meaning through his or her own ways of making art, in which 'processes and outcomes are socially relevant and allow for creative expression' (Zimmerman, 2010: 2), so that it is unnecessary to include the imposition of adult/teachers' interventions (*ibid*; Efland, 1990; Zimmerman, 2005).

Therefore, a teacher's role in this learner-centred approach to teaching and learning, in Lowenfeld and Brittain's view (1987 cited by Wong & Piscitelli, 2009), is as a facilitator rather than an instructor. By discouraging the direct teaching of skills or with limited instruction and social intervention in students' art making activities, the teacher in the expressionist approach tends to stand back and encourage pupils to express themselves freely. The pedagogical strategies are employed by providing motivation, support, resources and an enabling environment (Efland, 1990; Wong & Piscitelli, 2009; Zimmerman, 2009), instead of criticising pupils' work.

Since the mid-1960s, the belief in the CSEAE approach has declined while several educators argued for its narrow approaches with unclear and loose structures in academic outcomes in the classroom (Siegesmund, 1998; Hickman, 2005a; Fleming, 2010). For example, Hickman (2005a) critiqued that the CSEAE approach was difficult to assess as it does not fit easily into the assessment structures (p106). Scholars also argued that creative, artistic development is not an automatic consequence of maturation (Zimmerman, 2005: 64). Instead, it is a required, learned set of complex abilities or forms that are influenced by culture (Zimmerman, 2010; Hickman, 2005a). As Burton (2001: 41) states, 'we are not born knowing

how to get ideas into materials or how materials can be manipulated to shape ideas and create meaning'. Kindler (1996) suggested the balance of skills/techniques and creativity/self-expression in art teaching and learning would enhance pupils' artistic capabilities. Consequently, the critical roles of the teacher and teaching are recognised as essential in helping pupils to develop and express their reflections and experiences through visual images and dialogue, and to encourage pupils' creativity (Kindler, 1996; Burton, 2001; Read, 1956 cited by Fleming, 2010; Zimmerman, 2005, 2010; Vygotsky, 1978 cited by Wong & Piscitelli, 2009). To reform these shortcomings of the learner-centred approach, a subject-centred DBAE approach was supported by the Getty Centre for Arts Education (Clark *et al.* 1987; Greer, 1984, 1993; Freedman, 2003) in a 1980s curriculum reform movement in the USA, which is discussed below.

2.5.1.2.2 DBAE Approach

Under the sweeping reform influenced by the policy 'No Child Left Behind' (Zimmerman, 2010: 5) in the USA, art learning that could be assessable by standard measures was prioritised, sending creativity to the backstage (*ibid*; Freeman, 2003). The DBAE approach emphasises a broader content and a more structured and organised curricula framework in which knowledge and subject-matter learning activities, such as methods and techniques, are important. Visual art education, in this sense, is viewed as a subject that can be taught, learned and evaluated in ways within the school system (Clark *et al.*, 1987; Zimmerman, 2010). The DBAE approach draws upon an integrated content taken from four foundational art disciplines: aesthetics (concepts of the nature of art), studio art (processes and techniques for creating art), art history (contexts in which art has been created), and art criticism (bases for valuing and judging art) (Clark *et al.* 1987; Greer, 1984, 1993; Dobbs, 1992; Hickman, 2005a,b; Wong & Piscitelli, 2009). Consequently, the DBAE approach has been seen as a comprehensive approach which is adaptable to all grade levels and is flexible enough to link with multiple subjects, such as dance, drama, and music (e.g. The Arts and Humanities Learning Area in Taiwan) (Dobbs, 1992) in contemporary visual

art education (Greer, 1984; Clark *et al.* 1987; Dobbs, 1992; Halstead, 2008) worldwide .

In practice, the DBAE employs a rigorous approach to learning the skills and techniques of studio-focused art production (Efland, 1990; Greer, 1993), and emphasises the importance of tradition and form (Abbs, 1994; Claxton, 2003, Cunliffe, 2008; Fleming, 2010). DBAE educators believe that producing original artwork allows pupils to explore their creative and inventive possibilities, to take conceptual risks by engaging with materials, imagine and speculate with ideas and processes, and to seek solutions through visual or material means (Grierson, 2011). Furthermore, well-established studio-based pedagogies in art skill and technique practice toward the output of quality artworks have been considered to meet the industrial and economically driven expectations in the globalised world of today. The DBAE curricular structure also has far-reaching objectives: In addition to learning the aesthetics and techniques of art making, it contextualises the artworks and the artist in historical periods, and artistic movements from social and culture influences (Freeman, 2003). This balanced content promotes the engagement from multiple perspectives to broaden learners' understandings of art and enrich their experiences with art. Hetland and her colleagues (e.g. Winner *et al.*, 2006; Hetland *et al.*, 2007) later brought up 'the framework of studio thinking' (Hetland *et al.*, 2007: 4), involving three Studio Structures for Learning (along with 'Demonstration-Lecture, Students-at-Work, and Critique' (*ibid*: 5)); and the identification of eight studio habits of mind:

- **Develop Craft:** Learning to use tools, materials, artistic conventions; and learning to care for tools, materials, and space.
- **Engage & Persist:** Learning to embrace problems of relevance within the art world and/or of personal importance, to develop focus conducive to working and persevering at tasks.
- **Envision:** Learning to picture mentally what cannot be directly observed and imagine possible next steps in making a piece.

- **Express:** Learning to create works that convey an idea, a feeling, or a personal meaning.

- **Observe:** Learning to attend to visual contexts more closely than ordinary "looking" requires, and thereby to see things that otherwise might not be seen.

- **Reflect:** Learning to think and talk with others about an aspect of one's work or working process, and, learning to judge one's own work and working process and the work of others.

- **Stretch & Explore:** Learning to reach beyond one's capacities, to explore playfully without a preconceived plan, and to embrace the opportunity to learn from mistakes.

- **Understand Arts Community:** Learning to interact as an artist with other artists (e.g. in classrooms, in local arts organisations, and across the art field) and within the broader society.

(*ibid*: 6)

Teachers are central to the success of DBAE as they believe that children can be more productive through free experimentation and exploration after proper instruction (Wong & Piscitelli, 2009: 11). Dobbs (1992) suggested the specialist teachers with professional training can be the best candidates to teach DBAE, compared to art specialists (e.g. artists) and classroom teachers, as they are able to provide opportunities for students to learn basic knowledge, conceptual content and disciplinary inquiry skills in art (p25). Additionally, national or privatively published curriculum packages (e.g. in the USA and Taiwan) are based on a discipline-based format and are very detailed and helpful for teachers. For example, in Taiwan these packages focus on the structure and content of visual art disciplines based on national curriculum guidelines that 'both reflect a modernist aesthetic and echo scientific rhetoric; art is thus represented in pseudo-scientific ways' (Freedman, 2003: 9). Therefore, art teaching and learning in the DBAE approach appears to emphasise 'learning about art' (Hickman, 2005a: 105), which ensures valuing the subject rather than the learner's active learning.

There are those who criticise the DBAE approach. Clark *et al.* (2000) concerned that by turning art into a discipline area, like other school curriculum areas, the emotional, spiritual and more intangible qualities of art are lost to the cognitive. In terms of teaching and learning, Marché (2002, cited by Wong & Piscitelli, 2009: 12) considered that art history and critique were difficult for teachers to understand and to teach to young children and, therefore, the teachers' professional preparation is highly important. Moreover, Unsworth (1992) argued that a taught value system of aesthetics and imposing adult standards on production may drain the joy in art making and risk the loss of pupils' ideas. Zimmerman (2010) also believed that the intervention of certain selected adult images, artists' work and outcomes may limit children's self-expression and creativity.

While the DBAE is concerned with a critical awareness of the visual art as a subject for study in a comprehensive approach (but less mentioned the development of creativity), CSEAE views creativity responding to the arts as a mental process that aims to 'provide opportunities for young people to express their ideas, values and feelings' (NACCCE, 1999: 36). Therefore, it has been suggested that a more balanced and integrated view is needed for today's art education (Fleming, 2010) by addressing the importance of experience, creativity and engagement, acknowledging the teaching of form and technique, and a more holistic approach to knowledge acquisition and the appreciation of concepts.

2.5.2 Creativity in Visual Art Education

This section what and how the role of creativity locates in visual art education are discussed, involving creativity in visual art learning (2.5.2.1), and creativity in visual art curriculum (2.5.2.2).

2.5.2.1 Creativity in Visual Art Learning: Definition and Pedagogy

Although creativity has been suggested to be equally important in all

subjects across the curriculum (NACCCE, 1999; Craft, 2000; Fryer, 1996), people still often associate it with the art or artistic productions. Historically, academics have advocated that art learning enriches the development of and application of creativity (e.g. CSEAE approach to art education in the previous section) (NACCCE, 1999; Lin, 1993; Fox & Pittlly, 2000; MOE, 2003a; Huang, 2004; Hus & Kuo, 2007; Fautley & Savage, 2007; Fleming, 2010; Ruppert, 2010; Zimmerman, 2010; Backer, Lombaerts, Mette, Buffel & Elias, 2012). Behind this belief is the assumption that creativity (more Mini-C, LLC, and Pro-c related) can be developed. Particularly with the hands-on experiences in art activity, there are the essential ingredients needed for imagination and innovation (NACCCE, 1999; MOE, 2003a; Fautley & Savage, 2007; Ruppert, 2010; Zimmerman, 2010).

It is important to recognise that "making" in art lessons is essential (NACCCE, 1999; Addison & Burgess, 2007: 35; Hetland *et al.*, 2007) as pupils are engaged in "doing/producing something". However, creativity is not just seen as making a product (Fleming, 2010) or skills and technique learning (Hickman, 2005a). Thomson and Sefton-Green (2011) suggested that the learning of a wider skill set involves 'team work, negotiating, risk-taking and self-presentation through performance' (p5). Following on, two concerns are highlighted that address the perpetual debates of creativity in the field of art, including product and process (2.5.2.1.1), and skills and technique learning (2.5.2.1.2).

2.5.2.1.1 Product and Process

Since art learning normally includes the concepts of art and design (e.g. the art curriculum in the UK and in Taiwan), Black (1973 cited by Hickman, 2005a: 12) asserted:

> Art… to be expressive of the human condition… Design is a problem solving activity concerned with intention and with formal relationships, with the elegant solutions to problems which are at least partially definable in term of day-to-day practicability.

Hickman (2005a: 25) further explained that art that is expressive of the human condition also implies a 'practical' phenomenon with a given meaning or relation to life. The National Curriculum, from the UK perspective, summarises these meanings and suggests the following concept:

> Art and design (education) stimulates creativity and imagination, which provides visual, tactile and sensory experiences and a unique way of understanding and responding to the world. Pupils use colour, form, texture, pattern and different materials and processes to communicate what they see, feel and think. (Creek, 2006: 2)

From this, it can be interpreted that while "making" (or 'playing' with the materials and forms), "art learning" provides a stage to break out of traditional patterns of thinking and adopt fresh approaches to intellectual experiences, and requires novel thinking and breakthroughs in how a particular problem or challenge is approached. In this sense, creativity is possibly enhanced by an expanded tool set "during art process". In addition, assuming creativity manifests itself in all fields of life (e.g. LLC), the flexible and broad content of "visual culture" that includes all visual issues in everyday lives also allows pupils to contribute and express their viewpoints freely in the process of creativity development. For example, contemporary visual art education (e.g. DBAE approach) provides rich and engaging content that develops pupils' abilities to think, reason and understand the visual world and its cultures. It also offers pupils more opportunities to question, respond, produce, communicate, judge, and create in the arts through their understanding, imagination and creativity. In this sense, PT, as the core of everyday creativity that foundationally involves problem-finding and solving, can perhaps be fostered through visual art teaching and learning.

2.5.2.1.2 Skill and Technique Learning

James (1999-2000) defined artistic creativity as a series of 'decisions and actions that are both purposeful and not predictable…it is an individual and

social process during which materials, forms, and cultural conventions are fused with the artist's personal history and emotions' (cited by Zimmerman, 2005: 61). There is always a debate of the roles and the weight of technique learning (or it can be interpreted as domain knowledge) and the creator's inner inspiration in creativity development in the field of art (e.g. CSEAE and DBAE approaches). Since the ancient period, people believed that the artist should simply listen to the inner muse and create without conscious control. Creativity required a regression to a state of consciousness characterised by emotion and instinct, a fusion between the self and the world, with freedom from rationality and convention (Sawyer, 2006: 15). Underlying this principle in art education, creativity is often thought of as an 'individual mental process' (Fleming, 2010: 49), such as imagination. For example, the CSEAE approach to art education, therefore, valued the pupils' imagination more than the technique learning from the traditions of the past. The CSEAE scholars who believe creativity comes spontaneously from pure emotion and inspiration, unconstrained by planning or rational thought (*ibid*: 25).

On the other hand, while creative activity is characterised by being imaginative, purposeful and original, and is also concerned with quality and value (NACCCE, 1999), it has been suggested by many scholars that the ability to use tools, techniques and art language is an integral part of making or creating a piece of art in novel and high quality ways (Abbs, 1989; Sternberg, 2003; Moran & John-Steiner, 2003; Carter, 2004; Hickman, 2005a; Cunliffe, 2008; Sawyer, 2006). However, technique learning is more than making a quality work and, instead, is to learn 'symbol-using capacities' (Gardner, 1990: 7). Researchers (e.g. Vygostsky and Gardner) suggested that human creative expression, such as art, involves 'the use of and transformation of various kinds of symbols and systems of symbols' (Gardner, 1990: 9) in the belonging society and culture. As Gardner (1990: 7) asserted,

Individuals who wish to participate meaningfully in artistic perception

must learn to decode, to "read", the various symbolic vehicles in their culture; individuals who wish to participate in artistic creation must learn how to manipulate, how to "write with" the various symbolic forms present in their culture; and, finally, individuals who wish to engage fully in the artistic realm must also gain mastery of certain central artistic concepts.

The above explains that the 'symbolic developmental' (*ibid*: 10) approach may seem relatively simple and straightforward in the principle goal and practice of creativity in art education. However, does an individual with good symbolic development in art mean that all his/her works are creative? I think most people may disagree with this assumption. If we include forms and techniques, a pure symbolic system has been seen with no value attached to material fidelity so that, by itself, the symbolic element cannot explain the nature of the artistic process (Lima, 1995: 414). But how do artists turn and use such a common symbol into presenting their creativity? Before entering this discussion, it is worth further considering 'the balance of imitation and innovation, and the key role played by convention and tradition' (Sawyer, 2006: 24-25) under the symbol system learning.

Today, our concept of creativity is almost exclusively focused on originality, which means 'newness or truth of observation' (Weiner, 2000: 34). This implies that there is no room for the inclusion of imitation (from tradition). However, it is interesting to note that, for many centuries, the most original works of art were actually those whose artists' 'best imitated nature' (Sawyer, 2006: 15), but we think they were creative. Dutton (2003 cited by Hickman, 2005a) explained that 'imitationalism' as a theory of art characters that art-making can be expressed through is, firstly, a 'universal signature' (p125) to the 'aesthetic enjoyment of certain forms in particularly living things' (p126), such as our aesthetic responses to the environment. Imitation, secondly, can also be explained as a long-established, deep-rooted form of cultural transmission in art learning (Hickman, 2005a; Sawyer, 2006). In some cultural societies, the ability to imitate and reproduce the acknowledged masters' work was highly valued and celebrated; For instance, in China, cultivation of 'the best' from

tradition has been the goal of art education for a long time (Gardner, 1990: x), and art creations have been connected with ancient philosophical adaptations (Dutton, 2003 cited by Hickman, 2005a; Sawyer, 2006; Rudowicz, 2004). Learning traditional things/symbol system by imitation and repetition may be a good method but it can hardly be considered creative. Hence, in our surrounding visual world, creativity may flourish and start from the intentional and possibly unintentional imitation of real world objects. It then goes with the process of transformation of the flights of imagination, and finally arrives in a creation in our visual environment (Ward & Sonneborn, 2009: 211), which is meaningful to the individual self or a contribution to culture (Csikszentmihalyi, 1988, 1990, 1997, 1999; Feldman *et al.*, 1994; Gardner, 1990; Sawyer, 2006; Zimmerman, 2005, 2010).

Vygostsky's theory of creativity development could be the best way to explain the transition of creative expression through a balanced model of symbol-using capabilities and inner inspiration, in which he highlighted creative processes as internalisation or appropriation of cultural tools and social interaction.

> Internalisation is … a transformation or preconisation of incoming information and mental structures based on the individual's characteris[tic]es and existing knowledge. Externalisation is the construction and synthesis of emotion-based meanings and symbols are embodied in cultural artefacts … The dynamic constructions that result from externalisation are materialised meanings, composed of shared ideas, knowledge, emotions, and culture. Therefore … the two symbol-based forms, personality and culture, are in dialectical tension with each other. This tension provides … the growth of new ideas and creative products. … This internal/external movement becomes cyclical, connecting past to future, and the results of these processes over time contribute to a community's history and culture.
>
> (Moran & John-Steiner, 2003: 63)

The development of skills is useful for the production of art, but skill by itself does not foster creativity. As Perkins (1988 cited by Cunliffe, 2010) suggested, complexity in learning creativity requires the acquisition of skilful knowledge to "enable" creativity and learners' character traits to

"promote" creativity. Therefore, creativity in visual art education can be broadly viewed as an imaginative process as well as original and innovative expressions to 'refresh and renew' (Grierson, 2011: 340) an idea, image or object. Both internal emotion and inspirations and external visual, skilful knowledge learning are concerned with significant contributions for creativity flourishing through the aesthetic dimensions of art (Fleming, 2010), including all the ranges of creativity (from BCC to MCC).

After gaining a broad view of creativity in visual art education, the focus in the following section will turn to how creativity is situated in the Taiwanese New Grade 1-9 Curriculum. The discussion attempts to explore what students are expected to learn from visual art, in relation to the curriculum goals, and how the curriculum provides the fundamental values of visual art to integrate with creativity development for students.

2.5.2.2 Creativity in Visual Art Curriculum (AHLA in Taiwan)

In Taiwan, visual art teaching and learning at secondary level is divided into two stages: the junior high school stage and the senior high school stage. Each stage has its own curriculum. The visual art at the junior high school stage is a foundation subject in the new Grade 1-9 curriculum, which covers elementary (grade 1-6; age 7-12) and junior high school arts education (grade 7-9; age 13-15). It is integrated with music and the performing arts (drama and dance) to become the 'Arts and Humanities Learning Area' [AHLA]. The new curriculum contains four stages (age 7-8; age 9-10; age 11-12; age 13-15), and the junior high school stage belongs to Stage 4. The AHLA aims to cultivate an interest in the arts and encourages students to participate enthusiastically in arts-related activities. In addition, developing certain abilities, such as imagination, creativity, and appreciation for the arts/beauty are included as a core in the curriculum (MOE, 2003a).

Regarding the National Curriculum in senior high schools (age 16-18), a corresponding reform was implemented in 2006 (MOE, 2008). The art curriculum maintained its original content, but the structure and number of

lessons was changed slightly. According to the MOE (*ibid*), the new art curriculum emphasises 'expression, appreciation and practice'. Its aims are that, through art activities, students [will] learn to make informed value judgements about the aesthetics of local and international arts and the cultures of local and international arts and cultures, becoming actively involved in shaping environments.

In this study, visual art education at the secondary stage will only focus on the junior high school level. This is because the AHLA belonging to the new Grade 1-9 curriculum is taken into account. In AHLA, the term of "Visual Art" has replaced the traditional view of "Art/Fine Art". Therefore, the concept of the art curriculum has also shifted from "Art and Design" to 'visual culture art education' [VCAE] (Duncum, 2002) (see the definition of visual art education in the previous section). Since the 1980s, art education in Taiwan has followed the DBAE approach from the USA (Wang, 2008; Chen, 2004), but it has been argued that the VCAE in the 1990s (in the new Grade 1-9 curriculum) is "based on" (Chen, 2004) but "beyond" (Chao, Chiu, Chang, Fu, Cao and Chong, 2006) the foundational framework of the DBAE. Visual culture covers the various visual images in our everyday lives, both in physical and spiritual ways. It also covers the appreciation and creation of art that comes from the interaction between individuals and themselves, individuals and nature, and individuals and society. In addition to art making, students engaging in VCAE also develop their 'mental capabilities' (Wong & Piscitelli, 2009: 11) and critical capabilities (Lin, Y. S., 2002; Wang & Cheng, 2011). They do this by interpreting, responding and making judgments about a variety of issues, cultures, visual images and objects that carry unique meaning for human beings from all cultures and times rather than isolated components (Greer, 1984; Dobbs, 1992). In this sense, Kuo (1991 Cited by Kuo, J. J., 1994: 5) suggested that when establishing a holistic visual art curriculum, it is essential to first consider the following three directions: child-centred, discipline-centred and society/culture-centred (see Diagram 8 below).

Child-centred

Discipline-centred   **Society/culture-centred**
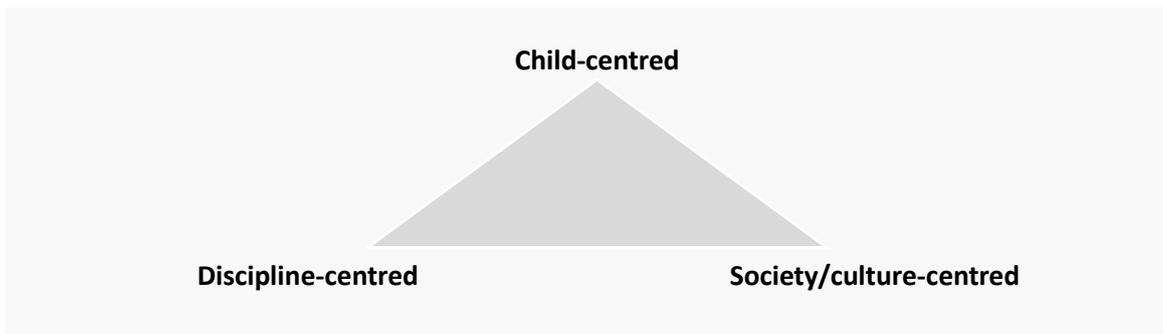
Diagram 8 Three directions in an ideal visual art curriculum (Kuo, 1994: 5)

Secondly, Kuo also suggested covering the following three characters, namely 'mediums and skills, aesthetic and forms, and meanings and contents' (p5) (see Diagram 9 below) within the content of visual art curriculum.

Mediums and skills

Aesthetic and forms   **Meanings and contents**
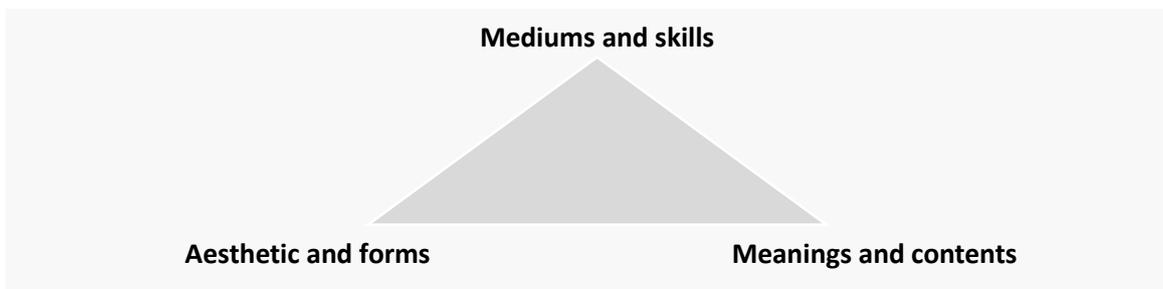
Diagram 9 Three characters in an ideal visual art activity (Kuo, 1994:p5)

However, in practice, worries and difficulties were reported to the AHLA regarding the new Grade 1-9 Curriculum through research. For instance, Chen (2004) raised that as visual art became one of the integrated subjects rooted in an 'interdisciplinary context', this implies a broader subject content is needed. However, several scholars (e.g. Chao, 2003; Chen, 2004) have argued that the teaching hours for visual art needs to be shared with other art forms (e.g. music, dance and drama); The school teachers, therefore, faced more challenges in the classroom, such as time limitations, and information-orientation curriculum content.

As argued in the introductory chapter, creativity was not clearly addressed in the new Grade 1-9 Curriculum in terms of the definition, pedagogical guideline, or assessment standards. To sketch the picture of creativity in

AHLA, it is best to start from an exploration into the rationales of the AHLA (MOE, 2003a: 19) where creativity is mentioned primarily: '… to create a piece of artwork needs creativity in which the characteristics of creativity -- fluency, flexibility, originality, mediums and skills, and elaboration -- have been suggested in many studies with a great effect upon the art'. From here, creativity can be argued to be a narrow, workable concept that only focuses on the practical purpose. While looking further, three main goals in the AHLA were announced by the Taiwan MOE (*ibid*: 20), namely: 'exploring and expression; appreciation and understanding; and practice and implementation'. In particular, through an 'issue-centred approach' (Chen, 2004: 415) in the integrated arts curriculum design, pupils are offered more opportunities to develop their abilities and potential for exploring, questioning and problem-solving through artistic activities (Lu, 1999). The purpose of participating and working in the arts (including visual art), then, is far beyond the making of creative products based on pupils' imagination, and for the cultivation of these free, openly creative aesthetic experiences in pupils' daily lives (Yuan, 2001), in which the elements of everyday creativity (e.g. LCC and PT) is nurtured. Furthermore, the AHLA in the new Grade 1-9 Curriculum has involved further discussions concerning the cultural and humanistic issues in order to redress the balance between the imposed dominance of other cultural works and the resurgence of the identity of indigenous artists and artworks. For example, the new Taiwanese visual art curriculum has recognised the multicultural nature of the country's population by promoting inter-cultural understandings and valuing cultural diversity whilst working to increase social inclusion (Sharp & Métais, 2000; Lin, Y. S., 2002; Lu, 1999; Chen, 2004; Chen *et al.*, 2005). Through engaging with these issues, pupils are encouraged to take an active part in the process of cultural development using their creativity.

In this section, the nature and context of visual art education has been shown to have a close relationship with LCC and PT. In the next section, my attention will turn to illustrating how the visual art are related to CPed (CT and CL), which leads to children's creative development.

2.5.3 CPed in Visual Art

Teaching and learning in visual art includes an interactive, imaginative, and safe context for problem-solving and provides opportunities for developing personal and society creativity, in that effective pedagogical strategies can be seen as both CT (teacher-focused) and CL (learner-focused).

CT, as discussed in the previous section, involves the concepts of teaching creatively and T for C, which is more in relation to teachers' teaching methods and strategies. As teaching creatively is defined as 'using imaginative approaches to make learning more interesting and effective' (NACCCE, 1999: 89), visual art with its imaginative, flexible, and innovative materials and context, is often preferred in teaching and learning activities. Along with the approaches and activities, varied daily visual issues and images, which are not only close to young peoples' lives, but challenges their thinking, allowing teachers to make flexible choices in response to pupils' different needs and to generate creative activities to entice pupils' interest, curiosity and engagement. Visual art teaching and learning also involves the features of "T for C". Firstly, within a safe, free and encouraging artistic environment, there is no right way and no wrong way to think of or to do art; there is only your own way. Under this enabling climate, teachers in visual art classrooms stimulate and encourage pupils' own contributions by posing open-ended questions to respond to, offer challenges, and keep open to other possibilities. This allows pupils to give expression to the impressions of their experiences in a personal way or through teamwork without judgment. These common strategies used by visual art teachers often help to elicit pupils' creative thinking and behaviour, an essential part of T for C (NACCCE, 1999; Fautley & Savage, 2007).

Regarding CL, in the previous discussion it was argued that in CL, the learner's ownership and engagement is a priority, which results from the teacher's certain pedagogical strategies. Cremin *et al*. (2006) suggested that standing back, profiling agency, and creating time and space are important

features of teachers' creative pedagogies in CL. In the visual art classroom, the visual materials and sources may possibly be presented in different ways, where teachers give the learning ownership back to the pupils. This fostering of pupils' PT involves moving their thinking on from 'what does this do?' to 'what can I do with this?' It involves a move from convergent to more divergent thinking. Therefore, pupils are encouraged to make their own decisions about their own work, and to engage in, control and contribute to their own learning, instead of 'learning by authority' (Lin, Y. S., 2011). Also, the enjoyment and the value of the "process" of creating art celebrated CL in which pupils were provided with opportunities for playful exploration and experimentation (Fautley & Savage, 2007) and fun, hands-on learning.

To summarise, the learning process in visual art could involve pupils in making new things, gives pupils autonomy over their learning, encourages their active engagement, and provides them with space and time to think, create and try out their ideas (*ibid*: 67). It involves the features and focus of both CT and CL, in which the teacher plays the role of creative facilitator in order to foster pupils' creativity development. As argued above, creative leaning in Chinese-related culture tends to focus on guidance by the teacher. Yet, as Jagodzinski (2009: 342) suggested, in creative, democratic societies, 'teacher-centred knowledge is replaced by student-centred approaches that emphasise the active constructed character of knowledge'. In the visual art classroom, it seems possible to introduce and develop the notion of PT as the core in CL that shifts the pedagogy from a teacher-focused method to a learner-centred learning condition.

2.6 My Stance on Creativity and CPed in Visual Art Education

In this chapter, I first discussed certain Western theories on creativity as well as reviewed the nature and values of creativity promoted in Eastern societies, in which the distinction between the two sets of values (East and West) was recognised. Following on from this, informed by studies concerning creativity in education, creativity was explored within

educational settings, together with a discussion about the framework for CPed involving the elements of CT and CL. Also, two examples of the model of CPed in England and Taiwan have been outlined to represent the notion of CT and CL in different cultures. Finally, by reviewing ideas on the practice and nature of visual art in education, the most central part of creativity in this study has also been introduced. Through these discussions, I have gradually articulated my own perception of creativity from a broad view to a more context-specific - a Taiwanese IATE educator's view.

Concerning the context of visual art education, I hold the view that everyday creativity, involving problem-solving skills and PT qualities, can be developed through a learner-centred process CPed in the visual art classroom. My stance on creativity, more drawing on humanistic, social-personality and confluence approaches, can be shown by the following three interactive aspects: a natural desire, a life attitude, and an expression. Firstly, creativity for me is personal dispositions or motivations, which are initiated by an individual's innermost motivation. Within this inner motivation, secondly, creativity is then transformed into an attitude, particularly a life attitude, which is flexible and open to possibilities. This attitude involves being imaginative, positive, active and playful. In addition, it involves being curious about questioning and finding out the problems, and being willing to take risks when faced with challenges or difficulties. Underlying the inner motivation and the positive attitude, creativity finally flourishes through an expression, which can be the creative process, ideas, behaviour, or the products or performances. In short, creativity for me is a spontaneous journey from inherent motivations to an active life attitude, and then to extrinsic creative expressions. Although domain knowledge and techniques are significant for creative expression, it is more essential to note that creative self-expression itself, for individuals, is to fulfill or to satisfy themselves, to face or to solve problems or challenges in their daily life, and to communicate with society and culture in their own ways. So, I create because I want to.

Additionally, since creativity has become a 'universalised value' concerning economic demand in the contemporary world, 'cultural conflicts occur when globalisation and cultural imperialism dismiss the traditions and continuity of other societies' (Craft, 2008: 26). There are a number of challenges for education arising from the pressure of globalisation; for instance: striking a balance between maintaining its own cultural traditions and developing an understanding of people from other countries, recognising the multicultural nature of our societies, and recognising the role of young people as active participants in, and creators of, culture (Sharp & Métais, 2000). Craft (2005: 97) believes that educators play a heavy role to support the universalised approach to creativity in education (Craft, 2005, 2008, 2011b) and for helping pupils to alter cultural perspectives and actions. Banaji, Burn and Buckingham (2010: 63) acknowledge Beetlestone's 1998 view that today's learning is 'conceptualised as arising out of holistic teaching practices that value all aspects of a child's experience and personality. It is interactive, incorporating discussion, social context, sensitivity to others, and the acquisition and improvement of literacy skills'. It could be argued that the field of visual art education shares a similar perspective – seeking a holistic learning of the visual world (see Section 2.5.2). As Barbosa (2008) emphasised, the close relationship of art with real-life politics but argued it is not just 'capitalist pedagogues' aimed at 'producing a workforce that generated novel ideas for the market place' (p10). Instead, it is more about 'creative processes as linked with understanding the meaning of art, questioning cultural stereotypes, and building intercultural understandings' (Zimmerman, 2010: 14), in which both cultural universalism and the local cultural context may be challenged and critically evaluated.

Concerning that, this study will foundationally introduce CPed in secondary visual art teacher education in Taiwan, how to choose an appropriate CPed becomes an essential issue. In this context, Starko (2005, cited in Banaji *et al.*, 2010: 65) reminds us that 'different cultures and periods have different definition (2005), in the broadest possible sense is 'an idea or a product

that meets some goal or criterion' (p7). Although I have argued in Section 2.4.2.2.1 that applying the PT framework in this study may meet some challenges, the PT framework, on the other hand, has many advantages which lead me to consider as the appropriate creative pedagogical approach in this study (based on the context of the Taiwanese creativity and IATE), which are outlined below:

Firstly, although the PT framework was originally developed in early years, recently more PT works have been practiced with older learners (see section 2.4.2.2.1). This gave me the opportunity to extend PT into a secondary school context and also the indirect context of training teachers (as my focus in this study is specifically placed on student teachers).

Secondly, since CPed was thought to offer students (and also teachers) the greatest chance of being independently creative (Banaji *et al.*, 2010), it has become increasingly important to understand how to maintain learners' ownership in today's teaching and learning. In this sense, it is impossible for a today's teacher to see CPed as "creative teaching" only or holding the authority to lead "teaching for creativity" solely (e.g. the current Taiwanese creative education). Therefore, a CPed that mainly places the emphasis on "creative learning" (e.g. PTCPed) becomes my focus.

Thirdly, reflecting on the current Taiwanese secondary visual art education, the focus is mainly placed on subject knowledge and technique training as well as being end product-orientated (see Chapter One). I consider the PT framework and its CPed, which is based on LCC, to be able to then balance the subject and product-led pedagogy in Taiwanese visual art education. Furthermore, it could also provide students with more opportunities and safe spaces to explore creativity in process as well as to appreciate students' everyday originality.

In this study, I need to consider how PTCPed might apply not only to secondary school pupils in a particular domain, but how student teachers

could come to understand it for themselves as well as integrating it into their pedagogy. Meanwhile, bearing in mind the need to recognise and evaluate my own culture and educational context, in the process of adopting the Western ideologies of creativity (PT) and PTCPed, in particular, I need to be aware of how creativity and its pedagogical methods can be shaped and developed in a specific cultural context, and accept Western strengths without ignoring Eastern traditional values. As Y. S. Lin (2010) suggested in her study, (she also adopted Western creativity and pedagogy into the Taiwanese educational context),

> it is worth considering whether a "third space" would emerge, how the two sets of values concerning pedagogy and ethos would be negotiated, and what implications or new thinking would be generated (p111-112).

Therefore, in addition to playing a dual role as a researcher and a teacher, I would then play my role as a "possibility thinker". I need to maintain my flexibility in order to record, reflect and react to this unique cultural interaction and to be more open to the various kinds of possible results of the cultural interaction within this "third space". To carry out these purposes, it is important to understand what the student teacher think about creativity and CPed, and how they acquire and develop PTCPed in Taiwanese educational context. Two principle research questions, thus, guide this study:

Research Question 1: What are visual art student teachers' perceptions of creativity and CPed?
Research Question 2: How do conceptions and practice of PTCPed develop during the workshop?

2.7 Summary

Following this introductory section, the dominant concepts and theories of creativity in the Western tradition were briefly discussed in Section2.2. In Section 2.3, the distinctive concepts and discourses of creativity within the Western and Eastern traditions were further identified to broaden the

picture of my research context. The review in Section 2.4 then became narrower by focussing on creativity in teaching and learning. Several approaches, assumptions behind the theories and specific issues were looked at regarding the relation between education and creativity. Next, Section 2.5 reviewed the definition and role of creativity in visual art curriculum in order to scrutinise how the capacities and qualities of everyday creativity can be fostered through the process of visual art. Finally, my stance on creativity was elaborated in Section 2.6, based on the above broad theoretical concerns. Additionally, the principle research questions were developed.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter explains the rationale for the methodological approach taken to explore the research questions, and describes the design for its implementation. Seven main sections are expounded, headed as follows:

3.1 Introduction

3.2 Overview of the research

3.3 Research methodology

3.4 Research design

3.5 Ethical considerations

3.6 Research methods

3.7 Summary

Next section, a briefly review of the purpose of the study and the research questions are addressed.

3.2 Overview of the Research

3.2.1 Research Context, Purposes and Focus

In the previous chapter, I reviewed the relevant theories that have informed my framework of creativity and CPed within the social and educational context in Taiwan. To summarise, in response to the global interest in enhancing young people's creativity as citizens' capital, the recent educational reforms (new Grade 1-9 curriculum) embrace creativity as a learning objective. In addition, a number of research projects have focused on the topic of creativity. As explained, the AHLA contains four art disciplines in the new Grade 1-9 Curriculum, namely visual art, music, dance and drama, and each discipline has its own features and requires specific domain knowledge and skills. Although research and educational projects to foster creativity are being encouraged, especially in the field of AHLA in the new Grade 1-9 curriculum, until recently, only a few studies had examined the assumptions underpinning the understanding of the guidelines for pedagogical strategies and identification of creative capacity.

Fewer still had followed the context in AHLA classroom practice and in the field of IATE. In addition, although the concept of creativity and CPed in Taiwan may contradict Western ideologies, pupils in a visual art classroom may possibly be more flexible and willing to engage in PT processes spontaneously through CT and CL.

With respect to these conditions, and based on my professional background and previous teaching and working experience (refer to Chapter One), for this current study I will focus my attention on secondary education visual art teaching. The main purpose is to investigate how a short secondary school visual art teacher-training workshop alongside a teacher-training course may help student teachers in Taiwan to develop their perceptions of CPed in terms of knowledge, teaching strategies and confidence, which may enable them to nurture secondary pupils' creativity through the visual art. Since this purpose engages in the context of learning to teach, a number of studies have suggested that it is essential to bridge theory, knowledge and practice (Gordon & O'Brien, 2006; Orlik, 2007; Prentice, 2007). Bearing this concern in mind, it is suggested that a short but more intense workshop is developed with a format that involves a group of people "practicing their new skills" on a particular issue under the watchful eye of the instructor. Additionally, the aim of the workshop would be to achieve an impact. From Moon's viewpoint (2001), the impact can be an 'improvement' or a 'change' (p1). Therefore, in order to carry out the main purpose proposed above, this study documents the changes in Taiwanese student teachers' perspectives surrounding the introduction of the creative workshop approach where PT is seen as the core of creativity. The rationale and organisation of the workshop are discussed in Chapter Four.

3.2.2 My Role in this Study

Throughout the research, my role was, therefore, as an organiser and tutor in the workshop. This has been seen from the viewpoint of a university educator to introduce the concept of PT as a core of creativity and its

pedagogy into the visual art classroom, as well as evaluating the participants' practice. In addition, I also played the role of observer and interviewer as a researcher in order to investigate the participants' learning journey, and to understand how the participants reacted to the challenge, and what their views and beliefs to this pedagogy were through analysing and presenting the findings.

It was exciting to participate in the participants' learning journey, to observe their interactions, to make them grow, and try to describe and illustrate it. However, being both the teacher educator and the researcher at the same time, it could not be so easy to maintain a critical or objective role. In fact, the influence of my stance and my role in this study was more complicated than I had imagined at first. For example, it was a challenge for me to negotiate with the different cultural values when introducing the Western PT framework in a Taiwanese teacher training classroom. With different roles to play when interacting with the context and data, sometimes it was also hard for me to keep a balanced standpoint in interpreting or reporting the practice (to English readers). Meanwhile, although I had tried to keep myself open to learn from the research, I still had to acknowledge that I brought my own intentions with me when conducting this study. As well as when interpreting the results, I had to be aware that I was also influenced by my own standpoints that had been shaped by my learning and teaching experiences. Therefore, once I had to keep the research focus very clear and to keep myself on reflecting upon my assumptions all the time, I should be able to minimize the limitations of my interpretations and be open for unexpected findings.

3.3 Research Methodology

Crotty (2005: 7) explained that a research methodology is a 'strategy or plan of action. This is the research design that shapes our choice and use of particular methods and links them to the desired outcomes'. Yet, the choice of methodology when addressing any research question should reflect the researcher's perspective on the epistemology and ontology which, in turn,

are intrinsically underpinned by beliefs regarding the nature of reality/knowledge and how knowledge of the reality may be acquired (Scott & Morrison, 2007: 153). In other words, what the researchers consider being 'knowable' (what can be researched, what is an appropriate research question) and considering the nature of knowledge and the relationship between the researchers, that is the 'knower' and the 'knowable' (Burnard *et al.*, 2008: 5). Literatures suggest three basic and contrasting approaches, namely the Positivist Research Paradigm, the Interpretivist Research Paradigm and the Critical Research Paradigm. They all entail research methods which have different characteristics.

In this section, I will firstly explore the methodologies adapted to research creativity and its pedagogy from previous related studies (3.3.1), and then focus on the rationale for my choice of the interpretive approach (3.3.2).

3.3.1 Methodologies Adapted to Research Creativity and its Pedagogy

Historically, approaches to studying general creativity research and creativity in education have varied enormously over time. From a broader view, approaches to studying creativity and creativity in education span between these major paradigms and document the 'what', 'how' and 'why' of creativity and CPed. In the current study, two aspects of the research context need to be addressed. Firstly, creativity and CPed in visual art and teacher education; and secondly, the introduction of Western concepts of creativity and pedagogy to a Taiwanese educational setting. There seem to be few studies on the concept of creativity and creative development in the field of visual art teacher education, despite creativity regularly going under the umbrella term of the arts and being favoured in the literature and policies of arts education (including visual art). In this section, a brief discussion of the methodologies adopted to research creativity in visual art education from previous studies will be provided in order to guide my stance on choosing methodology.

Generally, most positivist paradigm research has tended to involve the

experimental explanation of creativity (more in relation to 'general creativity' (*ibid*)) as externally measurable behavioural outcome, through largely positivist, psychometric large-scale studies involving the use of quantitative measurement, such as standardised tests. For example, most creativity research in Taiwan has focused on the psychological determinants of the individual with genius and giftedness. There has also been a recent revival in 'testing' children's creativity, usually through divergent thinking tests, such as the Torrance Tests of Creative Thinking (e.g. Chen, 2005; Huang, 2008; Hsiao, 2010, Lin, C. H., 2012). Regarding CPed, studies have addressed the relationship between the teacher's role and CT in a classroom setting, aiming to measure, test, or improve the creativity of students (e.g. Huang, 2004; Chen, 2012, Lin, H. F., 2012). The other frequent approach used in the studies of creative development is to compare creativity test scores (e.g. Torrance Tests of Creative Thinking) before and after the taught course (e.g. Chen, 1996; Huang, 2004; Chou, 2004; Dineen & Niu, 2008; Lee & Wu, 2009). Such research approaches have mostly relied on paper and pencil or computer assessments and the originality of a subject's responses. For example, Dineen and Niu (2008) used the UK CT model in a Chinese educational context (art university students), in which one of two random classes with a similar student composition was chosen to receive the UK CT model in an art project and the other was taught using the traditional model. Both classes were then given the same questionnaires before and after the study in order to compare students' viewpoints of creative ability, creative achievement and attitudes towards making art, such as confidence, motivation, and enjoyment within the group and across the groups. Moga *et al*. (2000) argued that such studies simplify complex real-world contextual factors. The effect of creative development in this approach is evaluated by "what", "why" and sometimes "who" issues, such as what is achieved, what may influence creative development (e.g. Cheng, 2012), or who is creative, in the contribution toward building influential theories, forming patterns and implications in education.

In contrast, researchers have also acknowledged and called for more attention to qualitative research or mixed method approaches (Burnard *et al.*, 2008; Moga *et. al.*, 2000). The interpretive approach offers insights into "what", "why" and "where" creativity in education may be fostered, as well as extending our understanding of 'how' this may be done. A smaller-scale, natural, interpretive work seeks to characterise the nature of creativity in the classroom; for example, "how" creativity is learned through education (e.g. Allam, 2008) or to explore multiple understandings and the perspective of participants' experiences of creativity situated within a specific site of practice (Burnard *et al.*,2008). Also, the interests extend to "how" CPed is applied (e.g. Huang, 2003; Cheng, 2012) or to other cultures (e.g. Huang, 2003; Lin, 2010; Lin, W. W., 2011), "how" teachers arrange CPed (e.g. Horng *et al.*, 2005; Cremin *et al.*, 2006; Chen, 2007; Craft *et al.*, 2008), and "how" pupils respond to it (Huang, 2003; Lin, 2010). The interpretive approach involves qualitative methodology, including methods such as ethnography, action research, case studies and participatory approaches to explore non-measurable elements (e.g. emotions or cultural settings). For instance, Craft's work on PT in fostering CL (Cremin *et al.*, 2006; Craft *et al.*, 2008) addressed the concept of PT to identify and explain "what" CL is and to explore various ways of documenting it from different perspectives. In the field of pre-service teacher education research, Loveless *et al.* (2006) used a qualitative methodology to investigate "how" an ITE course helps primary school student teachers to investigate their classroom practice and promote creativity through a project by using ICT. There are more recent studies employing a mixed methodology or mixed methods. For instance, Teresa Grainger and her colleagues (2004) used an interpretive approach but with the use of mixed methods, such as peer observation, discussion, field notes, and interviews, as well as a student teacher questionnaire about CT, in order to explore "what" the elements are of CT. Newton and Beverton's work (in press) involved analyses of primary school trainee teachers' responses to questionnaires and focus group discussions to identify their conceptions of creativity within the curriculum for English.

Finally, critical approaches seek to 'understand and render more efficient an existing situation' (Cohen *et al.*, 2007: 27) with the purposes of change and reflection. Thus, critical researchers question and challenge the certain problematic issues related to creativity education concerned with social, political, cultural, economic, ethnic and gender-based forces (Guba & Lincoln, 1994). The critical approaches attempted to combine the "how" (the understanding which is linked to interpretivism) and the "why" (the explanation which is linked to positivism) approaches in order to explore '"what" could be' through '"what" is not there and what is not actual' (Skovsmose & Borba, 2004: 211). Interestingly however, little research in the field of creativity in art education or CPed appears to have been undertaken on the critical paradigm, which may have a reflection on the issues of, for instance, the social background of the children; the multilingual and the multicultural classroom; the children's already established creativity concepts; the organisation of project work in creativity education; and the reliability of creativity in practice.

It can be found from the above review that research framework and methods are chosen, appropriately, to answer the 'hypothesis' or the 'research question' (Grix, 2004), and are also based on the nature of creativity as perceived by the 'positionality' of the researcher (Peshkin, 2001: 238). My aim in this study is to explore how a teacher-training course helps secondary school visual art student teachers' perceptions and practice of CPed to develop. Therefore, an interpretive approach was chosen to explore this "how" issue through the multiple perspectives of participants and myself as a teacher educator and a researcher. In the following section, I will elaborate the rationale for my choice of research methodology and the philosophical framework underpinning this choice.

3.3.2 Rationale for Choosing an Interpretative Approach

The aim is to explore how secondary school art student teachers' conceptions and practice of CPed develop during the use of the CPed

workshop within their initial teacher education, the assumptions which underpin the workshop intervention and methods for researching it, and within these, how CPed is conceptualised and applied by the researcher and the participants. These reflect values inherent in a specific culture at a departmental, institutional and societal level. It is argued, therefore, that the nature of reality in this study is subjective and multiple and that it is only through interacting with the participants that we will be able to uncover their perceptions of the phenomena they are acquiring and experiencing. Thus, the over-arching paradigm to be used in the study is the interpretive approach, reflecting epistemological and ontological assumptions that recognise relativism and the multiplicity of perspectives. The selection of methodology is dependent, therefore, upon notions of 'reality' and 'knowledge'; that is to say, any research design is founded on hierarchical philosophical, ontological and epistemological beliefs (Cohen *et al.*, 2007: 5). Additionally, these theoretical assumptions direct the choice of research context, and imply the kind of questions to ask and what knowledge it is possible to achieve through the enquiry (Grix, 2004). In the following, a consideration of the philosophical assumptions that informs my choice of interpretative paradigm is discussed.

3.3.2.1 Ontological Position

Ontology is the starting point of all research. As Crotty (2005: 10) suggested, it is 'the study of being' that is 'concerned with "what is", with the nature of existence' and 'what we believe constitutes social reality' (Blaikie, 2000: 8). As discussed in the previous section, positivist research implies a different view of the nature of reality to interpretive research. In short, a positivist view of the world is closely aligned with the assumption that objective reality exists independently and that we can observe, represent, and generalise rules (Pring, 2005; Grix, 2004; Cohen *et al.*, 2007). Alternatively, interpretivism reflects the belief that reality exists but is socially constructed by different people's perceptions of their experience of the world (Bassey, 1995; Radnor, 2001), so the world only becomes meaningful when our minds make sense of it (Crotty, 2005; Radnor, 2001). Instead of

there being one, single 'true' reality, there can be multiple realities that can be understood in different ways, depending on who's interpreting them, and each is equally valid. As a result, it is important to consider others' perceptions and perspectives in an Interpretivist approach.

My ontological stance in this study accords with the principles of interpretivism. By placing myself in the role of both a teacher educator and researcher participating in the creative workshop, the reality and context I engaged in was an educational and real life setting which was filled with the unpredictable results of decision-making. Furthermore, the question I asked was how to help the student teachers develop their concepts of and practice of CPed through visual art, which also involved a complicated phenomenon based on subjectivity and unpredictability rather than on rationality. As a result, the knowledge and implications of my research are not focused on generalised evidence (for example, to investigate the correlation between certain effects and the concepts of CPed learning and practice). Instead, it is a unique and in-depth understanding, through my descriptions and interpretations that illustrates how student teachers in Taiwan respond to the concept of PT and CPed and how they approach it when formed in a Western context. This understanding involves multiple perspectives from the student teachers themselves as well as a teacher educator/researcher (myself). However, since everyone perceives the multiple socially constructed realities differently, then how can we understand each other? The challenge in this setting is concerned with 'communication' and 'verstehen' (meaningful understanding) (Grix, 2004: 82), which refer to the procedure that individuals in society interpret and are able to appreciate the meanings of others (Radnor, 2001; Crotty, 2005; Cohen *et al.*, 2007). Radnor (2001: 21) suggested that 'through empathetic understanding, gained by the sharing of a common language, we can dialogue, converse and share experience'. Thus, the collection and analysis from diverse perspectives was believed to be an essential part of my research design, as I was seeking to build up a detailed picture with 'thick descriptions' (Geertz, 1973) to answer my research questions and the

consideration of data triangulation.

3.3.2.2 Epistemological Position

The definition of epistemology is 'a way of understanding and explaining how we know what we know' (Crotty, 2005: 3). It is necessary to take epistemological consideration into account while planning a research as the study of epistemology focuses on our means and processes of acquiring knowledge (Grix, 2004) and how we coherently direct our thinking. Crotty (2005) suggested three epistemological stances: objectivism, constructionism or subjectivism. While objectivism considers that meaning and meaningful reality are both universal and value-free, subjectivism takes an opposing view and the belief that 'meaning is created out of nothing' (*ibid*: 9). In contrast to these two positions, constructionism is based on the idea that 'all knowledge, and therefore all meaningful reality as such, is contingent on human practices, being constructed in and out of interaction between human beings and their world, and developed within an essentially social context' (*ibid*: 42).

As discussed, in this study I was concerned with understanding the meanings constructed in my research, which was situated within a specific context rather than 'explaining' (*ibid*: 67) through an explicative or scientific approach. My epistemological stance, therefore, accords with the principles of constructionism. Constructionism in this context is an approach that is developmental and based on the learner constructing the knowledge and understanding it whilst assimilating new information (e.g. PT and PTCPed) and synthesising this into the implementation. Resnick (1991, cited by Radnar, 2001: 3) once stated, 'most knowledge is an interpretation of experience'. A higher level of understanding is thereby gained through this new information taking its place within the learners' existing knowledge structure (Hickman, 2005: 105; Barker, 2010). There are two possible concerns involved in this process. Firstly, while learning new knowledge, these existing knowledge, beliefs and values, even thoughts and ideas, are, in fact, provided by the social and cultural environment in which the

learners live, and these beliefs and values 'can only be made meaningful to individuals to the extent that they make sense of them' (*ibid*: 3). Secondly, I assumed that the concept of CPed that student teachers hold is similar to the Western one as they may have been taught or influenced by the Western theory, so they may return to previous knowledge constructions in order to reconstruct them with new knowledge. This restructuring of knowledge consists of learners integrating their more recent experiences or discoveries into their previous understanding of the world (Barker, 2010: 13). Therefore, it is important to seriously consider that, while introducing a new concept of CPed to participants in this study, particularly from a different cultural definition; the new knowledge should draw on their existing knowledge and should be digested within their culture setting (*ibid*). As a result, this study sought to highlight and value both meaning and meaningful communication, which enabled myself (both in the role of teacher educator and researcher) and the participants to share and reconstruct for ourselves our experiences, and build up new understandings of CPed (Pring, 2005; Radnar, 2001), which is appreciated in the Taiwanese educational context.

Adopting such ontological and epistemological underpinnings, played out in this study through the collaborative relationship between researcher and participants, an attempt was made to ground, construct and share the meanings of the values in this research and the meaning is co-constructed and concerned with understanding. In order to attain a unique and in-depth understanding of a complex context, therefore, my research adopted an action research-like and also a case study-like approach. The detail of the methodological choice is discussed in the following section.

3.3.2.3 Methodological Choice: An Action-based Case Study

3.3.2.3.1 Action Research

> Action research is a form of *collective* self-reflective enquiry undertaken by participants in social situations in order to improve on the rationality and justice of their own social or educational practices, as well as their

126

understanding of their own social or educational practices and the situations in which these practices are carried out. Groups of participants can be teachers, students, principals, parents and other community members, - any group with a shared concern. The approach is only action research when it is *collaborative*, though it is important to realise that the action research of the group is achieved through the *critically examined action* of individual group members.

(Kemmis & McTaggart, 1992: 5)

Action research is a process which develops as understanding increases, and in which understanding can be seen as a shared value which comes through a participative process between researcher and participants. As action research is designed to bridge the gap between research and practice (Somekh, 1995: 340), Kemmis & McTaggart (1992) further suggested that 'observation' and 'reflection' are the important research elements of action research. In the field of education, classroom action research has been frequently used to improve the academic practices intentionally and to address the practice problem (Cohen, *et al.,* 2007; Wills *et al.*, 2007). This approach generally involves using qualitative interpretive modes of inquiry and data collection by teachers (Kemmis & McTaggart, 2005: 561). This data are gathered from field notes, descriptions, logs, interviews, tape recordings and still photographs (Somekh, 1995; Cohen *et al.*, 2007; Cotton, 2011). Through a deliberate and strategic cycle, (planning, acting, observing to reflecting and re-planning) (McNiff, 1988: 7), together with participants' regular reflections and systematic critique of what they are doing or learning, this form of research is a very powerful tool of engaging participants in improvement or change (or self-change) (Cotton, 2011: 173; Cohen *et al.,* 2007; Wills *et al.*, 2007).

Having a dual role in this research, I played the role of teacher educator to challenge participants' values by introducing another set of values of CPed. Also, in my other role as an observer and researcher, I sought to gather accounts of participants' knowledge and to make sense of their experiences at every stage of the research process. It is assumed that their concept of and practice of CPed can only be interpreted through what can be seen of their actions and written works and what can be listened to from the words

they have asked and spoken. By being part of the research context, I kept my teaching reflexive and flexible, depending on the participants' backgrounds and learning (e.g. it was a five week planned workshop, as participants requested the addition of one more tutorial section in week three). I assumed I would make improvements and bring changes to the context and the participants during and at the end of this study.

3.3.2.3.2 Case study

A case study is an empirical inquiry that investigates a specific contemporary 'phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (Yin, 2008: 13). Wills and his colleagues (2007: 239) suggested that a case study is 'particularistic' and 'naturalistic' because it usually focuses on a special phenomenon, a process or a situation in a real environment. It is also an approach involving 'inherent multi-methods' (Robson, 2002: 167) in order to seek 'thick descriptive data' (Wills *et al.*, 2007: 239), including direct or participant observation, interviews, and analysis of documents and records, such as diaries and journals. Such multiple sources of evidence facilitate the illustration of the case from different perspectives 'to converge in a triangulating fashion' (Yin, 2008: 14). This also helps the ideas become clearer, rather than simply presenting them as abstract theories or principles (Cohen *et al.*, 2007: 253), so that researchers can understand other similar cases, phenomena or situations (Robson, 2002; Cohen *et al.,* 2007). As a result, the case study approach is normally adopted as a qualitative research design. Robson (2002) remarked that it opts for analytical rather than statistical generalisation. In brief, the case study method allows researchers to retain 'the holistic and meaningful characteristics of real-life events' (Yin, 2008: 4), such as small group behaviour, or school performances, whilst addressing the 'why' and 'how' research questions.

There are several types of case study. Yin (2008: 1) defines three forms of case study by their different outcomes: exploratory (defining the question

and hypotheses as a pilot for other studies), explanatory (testing data based on cause-effect relationships) and descriptive (providing a narrative account). I found that a descriptive case study approach was an appropriate fit for my research aims of describing and understanding. As Merriam (1988: 7) describes, a descriptive case study is

> …undertaken when description and explanation (rather than prediction based on cause and effect) are sought, when it is not possible or feasible to manipulate the potential causes of behaviour, and when variable are not easily identified or are too embedded in the phenomenon to be extracted for study.

By using this method, my intention was to attain a unique, rich and in-depth understanding in order to answer my 'how' research question and to describe specific contexts and events in this study (secondary school art teacher training in Taiwan). Stake (1994 cited by Ellinger *et al.*, 2005: 331) identified three motivations for studying cases: intrinsic case study (to understand the particular case in question), instrumental case study (to gain an insight into an issue or theory by using a particular case), and collective case study (to gain a general understanding by using a number of instrumental case studies). My research can be described as a mixture of the second and third motivations. Firstly, my cases (student teachers) were chosen in order to explore my research focus (the only criterion of sample selection was that participants must have been studying in a secondary school teacher training programme). Secondly, as multiple cases were used, a detailed description from each case allowed me to present the results within the case (within a case analysis) or across cases (cross-case analysis), thematically, in order to gain a fuller picture.

Case studies were also used in action research to diagnose problems of specific cases in schools (Sturman, 1999; Meyer, 2000; Blichfeldt & Andersen, 2006). While Coghlan (2002: 63) claimed that 'action research is fundamentally about telling a story as it happens', a case study approach helps action research to enrich and expand our understanding of phenomena beyond the level at which individual stories are constructed.

However, action research is about a method that is carried out within the context of the 'teacher's environment' (Ferrance, 2000: 1), and a strategic cycle. The fundamentally different aspect of my study from action research was that I did not intend to focus on my role and to find a solution to my way of pedagogy. Instead, the emphasis was placed on the participants to explore how they developed their concept of and practice of CPed through descriptions and interpretations. Hence, to define my research more specifically, this study adopted a case study approach within the action–research-like concept as it not only involved the teacher-researcher's reflexivity and evaluation on practice (as explained in Section 3.3.2.3.1), but also provided an in-depth understanding of a specific context on participants' concepts of and practice of CPed (see above). As a result, I framed my methodology as an "action-based case study".

3.4 Research Design and Research Methods

3.4.1 Research Context and Participants

In order to aid understanding, it is pertinent to restate my research questions (3.4.1.1) and summarise the scope of the research (3.4.1.2), and detail the selection of the research participants (3.4.1.3).

3.4.1.1 Research Questions

As previously stated in Chapter One and Chapter Two, my principal research question and subsidiary questions are formed as follows:

How do secondary visual art student teachers in Taiwan develop their perceptions of PTCPed in terms of knowledge and practice during a short workshop alongside a teacher-training course?

Question 1:

What are visual art student teachers' perceptions of creativity and CPed?

1.1 What were their perceptions of creativity before and after participating in a CPed workshop?

1.2 What were their perceptions of CPed before and after the workshop?

Question 2:

How do conceptions and practice of PTCPed develop during the workshop?

2.1 How were the visual art participants' conceptions of PTCPed manifested in their performance at the end of the workshop?

2.2 What influenced the development of the visual art participants' conceptions and implementation of PTCPed during the workshop?

By asking these questions, participants' views and perceptions of creativity and CPed, as well as the implementation of pedagogical strategies, are evaluated from the following aspects:

■ What have the participants learned, both during and at the end of the workshop? For example, were there any changes in the ways student teachers learn, or any agreement/disagreement with the concept of PT and pedagogical strategies that were introduced in the workshop?

■ How did student teachers respond to this experience? For example, did they find the knowledge and pedagogical strategies to PT helpful in developing pupils' CL? Did they find the experience desirable in their future practice?

3.4.1.2 Scope of the Study

As explored in the literature review section, the theoretical assumptions about the adoption of creativity are that *creativity can be developed through teaching* (Craft, 2000; Esquivel, 1995; Fryer, 1996; Hennessey, 1995; Fautley & Savage, 2007; Lin, Y. S., 2010, 2011), that it is an *everyday life capacity*, from inherent motivations to an active life attitude, and then to extrinsic creative expressions, in which *PT* has been recognised as a core

131

concept (Craft, 2000). Given these insights on applying CPed and visual art practice to the context of teacher training in Taiwan, some specific criteria were drawn out to lead the direction of the data collection (to judge the relevance of the data to the research question). They also became the units or categories used for analysing the data, as well as the main theme and the basis for modelling my teaching in the CPed workshop in this study. Essentially, the features of PT and the elements of creative pedagogical strategies, including the characteristics of *CT* and *CL* (or perhaps T for C in a Taiwanese educational context) in a supportive/enabling learning environment, provided an initial framework for the study in terms of concepts developed and practice explored.

3.4.1.3 Research Participants

This action-based case study was undertaken in an art university in Taiwan. The research involved twelve student teachers specialising in the AHLA of the art teacher training programme. They were of mixed age, gender, and educational background (general or vocational education system) and some of the participants already had teaching experience, either in a school or in private art institutions. The selected university was one of three universities in Taiwan specialising in the arts and I had worked in the teacher training programme at the university for more than three years. The head of the teacher education centre was a colleague of mine. In addition, my personal training and teaching experience in secondary school visual art education also made me familiar with the context, policies and curriculum. These advantages helped to commence the research process more quickly and were the reason that I chose to carry out my study at this university.

I had originally planned to only conduct the study with twelve student teachers specialising in visual art. A twelve-case study was set up to create a balance between the difficulties and the limitations of a multi-case and single case study. In addition, twelve participants could be easily engaged in individual and group activities in the workshop, where both individual and society creativity were encouraged. This choice, therefore, helped me to

collect data from a multitude of perspectives and also contributed to a more holistic understanding of the research question under exploration. However, at the project introduction meeting (8th March 2010), there were seventeen voluntary student teachers (including nine visual art student teachers, seven non-visual art specialisms, and one visual art student teacher but at primary level) who were willing to take part in this project. Except for the primary student teacher who was not my target participant, three other volunteers could not meet the timeframe, and one non-visual art student teacher decided to withdraw from the workshop after two weeks (explained later in Chapter Six). Consequently, there were twelve mixed specialism voluntary student teachers (seven visual art participants and five non-visual art participants) who finally participated in this study. There were two main reasons to proceed with this mixed group. Firstly, in practice, concerning the small number of participants (if only seven visual art student teachers) it would be difficult to arrange group activities in teaching. Additionally, reflecting on the current AHLA and IATE curriculum content in Taiwan (refer to Section 2.4.5 and 2.5.2.2), all student teachers in the arts must attend cross-art-discipline training in their teacher training courses (see Section 2.4.5) where non-visual art student teachers learned visual art teaching and learning in the AHLA. Consequently, it was meaningful to engage with the non-visual art participants in this research project. A summary of the participants' background and specialist information is shown in Table 5 in next page.

It can be seen from Table 5 that there were seven student teachers specialising in visual art and five specialising in other art forms, and all participants had teaching experience either in schools or in private art institutions.

	Name	Age	Gender	Major	Specialist	Teaching experience
1	**Chou**	24	M	Sculpture Department	Visual Art	Primary schools (first degree is primary education)
2	**Liao**	26	F	Sculpture department	Visual Art	A little teaching experience in primary and secondary schools
3	**Chien**	25	F	double majors in Craft and Design and Drama Department	Visual Art	A little teaching experience in private art institutions, and primary and secondary schools
4	**Chao**	44	F	Chinese Brush Painting Department	Visual Art	Teaching in own art studio
5	**Young**	22	F	fine art Department	Visual Art	Volunteer in government-funded art institution (Age 6-11 pupils)
6	**Wu**	26	F	Chinese Brush Painting Department	Visual Art	Private art institution and a summer camp (age 6-8 pupils)
7	**Liu**	28	F	Sculpture Department	Visual Art	A years teaching experience in secondary school
8	**Dai**	48	F	drama Department	Drama	3-years teaching experience in a primary school and 1-year in a private childcare centre
9	**Huang**	22	F	Music Department	Music	4-year one-by-one music tutorials experience
10	**Lee**	20	F	Dance Department	Dance	4-month teaching experience in a primary school dancing society
11	**Lou**	24	F	Drama Department	Drama	A little teaching experience in kindergarten and primary schools
12	**Mandy**	27	F	Drama Department	Drama	6-year teaching experience in church and school society, and 1-year in primary school

Table 5 A Summary of Participants' Background Information

Although the right to use their names and background information have been given from the participants' research ethics informed consent forms (for detail see Section 3.7), in order to ensure anonymity, their family names were chosen as pseudonyms. The family name originates from a family or tribesman. However, distinct from Western society, in Chinese culture there could be tens of thousands of people who share the same family name. As a result, a person can only be easily recognised by showing their family name together with their first name in our culture. Numbers 6 and 12 in the participants list actually had the same family name of 'Wu'. Therefore, I used Mandy to distinguish them.

It is noted that although mixed-group participants were welcomed to attend this workshop, my purposes of this study still specifically focused on how "the visual art participants" manifested their conceptions of CPed into

their practice, and what influenced their development. Thus, while analysing and presenting the data in chapters Five and Six, the views from visual art participants were applied as the main sources. There are two reasons do so. Firstly, as explained in Chapter Two, creativity can be characterised as general (e.g. everyday creativity) or subject-based (e.g. mini-c or pro-c creativity) and CPed can be seen as a general teaching strategy to foster learners' creativity, which is then well developed in every subject. However, in the classroom context, creativity, in fact, is often recognised as a cross-discipline capability (e.g. National Curriculum and new Grad 1-9 Curriculum) which can be applied in every subject. Therefore, creativity and its pedagogy, in this sense, became *'domain specific',* in which they are categorised in different subjects, or even different art forms based on the required content knowledge and skills. The second reason is of more personal concern as my specialism is in the field of visual art. This professional background enabled me to take a deeper, more specialised look at this study, and also the research questions. Therefore, the main focus in this study emphasised visual art student teachers' viewpoints and the development of CPed.

3.4.2 Three Stages of Research Design

This research project was organised into three stages (see A Map of the Research Plan in Appendix A), including before and after interviews, a five-session creative workshop and a tutorial that was carried out from 17th March to 21st April 2010. The intention behind this organisation was to explore how a secondary school visual art teacher training course helps student teachers in Taiwan to develop their conceptions of CPed in terms of knowledge and practice. My data collection methods included the collection of multiple data in the form of interviews with student teachers before and after the creative workshop, the researcher's diary, participants' sketchbooks, observations of participants' learning, discussions, their teaching performances during workshop, and any possible visual data (e.g. photographs) in the workshop. In addition, the analytical framework was developed through an iterative process, which drew on the literature from

previous studies and the nature of the data gathered in this study (an overview of the data analysis refers to Section 3.6.2, and more details of the data analysis to reach the research question refers to Chapter Five to Six). Internal validity within this action research-like case study approach was achieved through the use of multiple data sources, which ensured triangulation. An overview of the research plan of each stage and the methods for collecting and analysing data are presented in Table 6 below.

Research Stage	Date	Researcher's Work	Data Collection	Data Analysis
Preparation	1st March 2010	Talks: seeking participants		
	8th March 2010	PT in Teaching and Learning workshop Meeting (20 mins) ■ *Consent Form*		
Stage 1	8th -12th March 2010	Pre-workshop (recorded) interviews	Pre-workshop interview	Qualitative analysis: interview transcriptions (Themes identify and classify)
Stage 2	17th March - 21st April 2010	PT in Teaching and Learning Workshop ■ *5 session CPed workshop and a tutorial*	- Researcher's diary - Participants' sketchbooks - Video-recorded observations - Any possible visual materials	Qualitative analysis
Stage 3	26th -28th April 2010	Post-workshop (recorded) interviews ■ *Collecting sketchbooks from participants*	Post-workshop interview	Qualitative analysis: interview transcriptions Themes- identifying/ classifying

Table 6 An overview of the research plan

It is noted that, before this project started, some preparatory work had been carried out, which is also listed below.

■ *Preparation*

Before the workshop, I went to the target university and received

permission from class teachers to give a short talk to every class in order to seek possible participants (on 1st March 2010). A meeting was organised on 8th March to introduce the CPed workshop, as well as the research ethics both in written and spoken forms, and to confirm the participants.

- **Stage 1 (refers to Research Question 1.1: What are visual art student teachers' perceptions of creativity and CPed before participating in a CPed workshop?)**

Stage 1 of the empirical research used a detailed exploration through semi-structured individual interviews, which took place before the CPed workshop (The rationale behind using an interview is detailed in Section 3.6.1.1). The aim was to identify the participants' basic perceptions of creativity and CPed in order to provide foundation knowledge as the starting point for the CPed workshop. Informed consent was obtained from all participating student teachers before the research process to ensure they were voluntarily enrolling in this study. The detail of ethics will be discussed in Section 3.5. It is noted that although this study selected 12 mixed-specialist participants, the main focus in the stages of analysis and findings were placed on visual art participants' viewpoints.

- **Stage 2 (refers to Research Question 2: How do conceptions and practice of PTCPed develop?)**

Stage 2 of the research is the main segment of this study, and focused on an intervention approach, in which the role of the researcher was played both as a researcher and an educator involved in a CPed workshop. The main purpose of this investigation was, essentially, to explore how student teachers develop their conceptions and practice of PTCPed in a workshop. To achieve the aim, five sessions of a CPed workshop (the rationale and the organisation of workshop refers to Chapter Four) were designed and taught by applying the principal constructs of PT and PTCPed. In this workshop, participants engaged in structured content containing the following focused categories: (1) the conceptions of PT; (2) the conceptions of CPed with PT as a core; (3) several teaching examples and a practice-based integrated

arts project were carried out in the workshop to help participants develop their conceptions and implementation of PTCPed; and (4) participants implemented PTCPed in their teaching performance. As a result, the issues of the development of creativity (PT) and PTCPed in a wider professional context arose from the empirical account of the researcher's pedagogy. Additionally, the video-recorded observations of the student teachers' engagement, as well as the interactions and discussions between researcher and participants, as well as between the participants, were examined. The methods for data collection include the researcher's diary, participants' sketchbooks, video-recorded observations, and any possible visual data.

- ■ *Stage 3* (refers to Research Question 1.2: What are visual art student teachers' perceptions of creativity and CPed after participating in a CPed workshop?)

Stage 3 was applied after the workshop, involving the comparison of research findings along with the interviews used in Stage 1. Again, semi-structured interview questions managed to clarify and test whether visual art participants' conceptions of and practice of CPed were built in a broader and wider context, and whether they had more confidence to use CPed in their future professional work. This interview data was also used to triangulate participants' concepts and practice.

3.5 Ethical Considerations

As Wellington (2003: 54) indicated, ethical issues encompass 'the moral principles governing research practice'. The consideration of ethics is widely recognised as necessary to any research design at each stage of the research sequence. The British Educational Research Association [BERA] (2000: 4) suggests that educational research should be governed by two fundamental ethical principles, namely, 'respect for persons' and 'respect for truth'. Such principles are resonated within the BERA (2004) ethical guidelines, by which the present inquiry endeavoured to adhere to. Care was taken when designing and operating instruments to ensure minimum

stress and disruption, and maximum care of the participants. This project followed the ethical guidelines provided by the Graduate School of Education at the University of Exeter (http://education.exeter.ac.uk/projects.php?id=430), and BERA (2004)[*]. These state that the interests and rights of participants must always be respected and protected to avoid doing them any harm from the beginning of the research project. Once the research design had been decided upon, I completed an ethical approval form (see Appendix B). This form detailed how I aimed to meet the requirements of the ethical guidelines, and was summited to the School Ethics Committee for approval.

3.5.1 Informed Consent and the Right to Withdraw

The researcher has an obligation to respect the rights, needs and uses of the information, as well as the rights of the participants. In this study, informed consent was firstly obtained from all participating student teachers before all the research processes started, so that they became involved on a voluntary basis.

3.5.1.1 Participants' Meeting and Consent Form

In order to ensure that the participants would be fully aware of their rights and have some understanding of the context and purpose of this study, a participants' meeting was organised on 8th March 2010. In the meeting, a written and verbal overview of this research project was offered, including the purpose and duration of the study. The rights of the participants were made clear, and confidentiality was assured. After the meeting, where the participants had been fully informed about the study, consent forms (refer to Appendix C) given to the participants to sign were received back from all the participants. The right to withdraw was also stipulated on the consent form, so that participants were assured that they could withdraw at any time for any or no reason.

---

[*] The BERA guildlines have been updated in 2011; however, the vison in 2004 was the appropriate one for my study when it was carried out.

3.5.1.2 Interview

All the participants were asked verbally again for their consent to be interviewed and informed of their right to refuse or withdraw for any and no reason. It was ensured that the interviews were conducted in a non-threatening manner and would be stopped at any time. In addition, due to the participants' cultural background, participants were particularly encouraged to freely express their viewpoints on the prepared interview questions (e.g. they were informed there were no specific answers to these questions).

3.5.1.3 Video Recorded Observation and Participants' Sketchbooks

The participants' discussions and interactions, as well as their teaching practice, were the important data resources in this project and were principally gained through video-recorded observation. Participants were informed that the video data was intended purely as a record and would only be viewed by me as the researcher in order to minimise as much stress as possible.

3.5.2 Confidentiality and Anonymity

Participants were assured that confidentiality and anonymity would be protected at every stage of this study and that the data would be stored securely, including interviews, video-recorded observations, participants' sketchbooks and any possible identified materials. As explained in the previous section, in order to ensure anonymity, I used their family name as pseudonyms for my participants. The giving of pseudonyms is actually common practice in interpretive research projects as it is thought to close to the story by using a name rather than saying, for example, "the participant" or "participant no.1" etc. In addition, these materials were only for the research. Although participants had agreed on their consent forms to provide their information and materials in relation to this study to be published, I did not share any confidential information with others who

were not involved in the project, either in spoken or written forms.

In the next section, further detail on my research methods is given below.

3.6 Research Methods

3.6.1 Data Collection

In the previous section, multiple research instruments for data collection were identified. In this section, the discussion will focus on the rationale and the details of how they were employed.

3.6.1.1 Interview

Interviews are typically used when the research requires detailed and personal accounts (Denzin & Lincoln, 1998), particularly in relation to values, beliefs, attitudes and feelings. The major function of a research interview is to give a person a 'voice' in which their views can be heard and eventually read (Wellington, 2000). Consequently, it is a good way to 'strengthen the research findings as it provides rigor, breadth, and depth to the phenomenon being investigated' (Denzin & Lincoln, 1998: 4). It can also enhance the validity of the research findings (Mathison, 1988). Patton (2002) identified several different forms of interview, including the semi-structured interview. Mason (2002) further explained that semi-structured interviews are ideal qualitative interviews as they are characterised by a relatively informal style, a thematic approach and an assumption that data are generated via interaction. An interview can be seen as a purposeful conversation; it allows both interviewer and interviewee to feel comfortable and is flexible when probing for further details or discuss issues.

In the current study, the semi-structured interviews were designed to gather background information about each participant and to understand the student teachers' views and experience of creativity and CPed in detail. This topic-centred conversation in an informal style allowed the researcher

(myself) to have more opportunities to interact with each participant in a close relationship, and to probe and extend their responses by asking further questions if the responses were not enough. As previously stated, interviews were a significant part of my data collection as the data gathered in these interviews would help me to answer my research questions about student teachers' conceptions of creativity and CPed before and after attending a CPed workshop. Therefore, there were two face-to-face interviews constructed: one was carried out at stage one, the other was at stage three. Both pre and post workshop interviews were structured as seven main questions (see Appendix D). The pre-workshop interviews consisted of two categories: A. Participants' background information (e.g. age, educational background, and teaching experience); B. Participants' definitions and experience of creativity and CPed. The post-workshop interviews were carried out to identify any changes in the participants' views on creativity and CPed after the workshop, including the following categories: A. Participants' definitions and experience of creativity and CPed; B. participants' implementation of CPed; C. Participants' willingness; D. Approaches or materials that could help their learning.

Before the interviews, all the participants were given an introduction so that they understood the purpose and scope of the interview, the use to be made of the data, and ethical issues. Meanwhile, by facilitating and holding a safe, friendly listening space, the researcher attempted to enable the participant(s) to share their first hand experiences with the researcher, thus allowing layers of meanings and significance to emerge. When the participants sometimes felt unsure or hesitant in their answers (for some of them did not think about creativity or CPed before) I encouraged them to explain their views freely without worrying whether their answers were right or wrong, or I asked the question in another way (using examples or linking the questions in relation to their experience) to help them engage with the question context.

3.6.1.2 Video-Recording Observation

Observational techniques are an important aspect of action research studies and of case studies (McBride & Schostak, 2003). Whilst carrying out action research to improve teaching and learning, an important role of the researcher/instructor is to collect data and evidence about the teaching process and student learning. However, many things may go on in a classroom at the same time and there may be some subtle things which went unnoticed or may have slipped from our short term memory. Video-recording observation offers the 'live data' gathered from a natural situation. In this way, 'the researcher can look directly at what is taking place in situ rather than relying on second-hand accounts' (Cohen *et al.*, 2007: 396). However, observation is more than just looking and seeing. Robson (2002: 310) suggested two advantages of observation. Firstly, 'what people do may differ from what they say they do, and observation provides a reality check'. Secondly, video-recording observation enables researchers to transcribe what occurs in a setting or to look afresh at the behaviour which may go unnoticed and play it over and over. This can be very useful in the analysis process through repeated studying (Ely *et al.*, 1991).

As mentioned, in this project I played a dual role as a researcher and an educator. In order to enable myself to become familiar with every detail of the research processes, each of the sessions in the workshop was video-recorded. Together with my own reflective journals and other resources, video-recorded observations allowed the use of technology to slow down and repeat the conversations and actions, which encouraged the researcher (myself) to review and analyse many micro-events in the video episodes that may have been omitted in the workshop, allowing a deeper reflection on perception and meaning (Prosser, 2007). In addition, watching the video clips also reminded me of the story vividly, enabling me to re-engage in the research context easily while doing my analysis. Through systematically observing participants' engagement, classroom interactions and the implementation of performances, I was able to capture the details of how student teachers conceptualise the notion of creativity

and CPed. In order to capture the whole story as clearly as possible, three cameras were set up from different angles: one faced the participants, another focused on the educator (myself), and the other one was held by my brother (who helped me during the workshop) to record the micro-events, such as group discussions. The total amount of video clips recorded during the workshop is shown in Table 7 below.

	Session 1	Session 2	Session 3	Session 4	Session 5	Total
Camera A facing to the researcher	1	1	1	1	3 (3 groups teaching performances)	7
Camera B facing to the participants	1	1	1	1	3 (feedback from the other groups and the researcher)	7
Camera C focusing on micro-events	30	1 (15')	1(11')	9	24	65
Total	32	3	3	11	30	79

Table 7 The total amount of video clips recorded during the workshop

3.6.1.3 Reflective logs

In this study, two scheduled reflective logs were employed: one was the participants' sketchbooks; the other was my reflective diary as a researcher.

3.6.1.3.1 Participants' Sketchbooks

All student teachers were required to write a reflective diary after each session by using sketchbooks. The diary could include anything they wanted to note down or could be used to comment on their learning experiences. These reflections serve two purposes. Firstly, the diary can be seen as an evaluation for the researcher on the sessions, such as what they think about the sessions, what they learn from the sessions, which activities impressed them or which materials and strategies were useful for them. Secondly, the diary was for self-reflection; for example, what they have done or learned during the sessions, how they evaluated their own performance in the final session, etc. In addition, group meetings were originally planned to take place at the end of every section during the

workshop, aiming to provide an 'open communicative space' (Habermas, 1996) for researchers and participants. However, due to the limitation of time, these discussions were cancelled. The questions for the discussions, therefore, became a hint to help guide the participants' reflections written in their sketchbooks. The list of questions refers to Appendix I.

It is noted that, in this research project, participants used sketchbooks instead of normal diary books. The reason for using sketchbook was because this was a visual art based workshop where many visual art related teaching and learning examples were provided. Therefore, a sketchbook is characterised by its large number of blank pages which offered the participants an appropriate space to experience the activities during the workshop (more detail of the rationale for using a sketchbook in the workshop is referred to in Chapter Four). In addition, this also offered them with many possibilities to record their ideas freely. That is to say, if using a journal/diary allows participants to take control over their own learning, then using a sketchbook as a diary space offers a creative space for 'idea development, exploration, play, self-evaluation and reflection' (Robinson *et al.*, 2007). For examples of participants' sketchbooks please refer to Appendix E. Through studying participants' sketchbooks, my aim was to 'substitute for records of activity that the researcher could not observe directly' (Stake, 1995: 68). In addition, I intended to listen to participants' voices from their first-hand experience and from their perspective as learners, not only from my viewpoints as an educator.

3.6.1.3.2 Researcher's Diary

It has been argued that in a qualitative inquiry, the researcher is the primary tool for data collection and analysis, and reflexivity, therefore, is deemed essential (Radnor, 2001; Russell & Kelly, 2002; Pillow, 2003; Stake, 1995; Watt, 2007). 'Reflexivity' is often understood to be an open and honest approach involving an on-going self-awareness which aids in making visible the practice and construction of knowledge during the process of doing and reporting research (Pillow, 2003: 178). Thus, it is the

'interpretation of interpretation' (Alvesson & Skoldberg, 2000: 6). As Davies (1999: 4) states,

> Reflexivity, broadly defined, means a turning back on oneself, a process of self-reference. In the context of social research, reflexivity at its most immediately obvious level refers to the way in which the products of research are affected by the personnel and process of doing research.

Keeping a research diary is a good way to facilitate the notion of reflexivity (Blaxter, Hughes & Tight, 2001), particularly in an action research approach where the researcher is also a participant and a practitioner (Cohen *et al.*, 2007: 310). In this action-based case study, I used a research diary to record my on-going reflections throughout the three stages of the research project. This was also in order to consider my role in the research process and any effects this may have had on the findings. I wrote the diaries, including how the sessions of the workshop were planned before each session, and also the records and reflections on the practices and personal thoughts immediately after the interviews and each session of the workshop. As well as this, I re-noted down additional thoughts and issues in different colours after reviewing the video clips, or having interactions or conversations with participants between the sessions (see examples of my diaries in Appendix F). From both a personal and a professional stance, I not only kept records of my own voice, but also tried to discover the meanings as I stepped aside from the experience. Therefore, the reflective diaries were used to reflect on the practices from a personal and professional standpoint and to help locate my thinking as an insider, an educator, an interpreter and as a researcher. Finally, I tried to record my diaries in English, although English was not my mother tongue. However, recording in English helped me to locate my thoughts from the context of PT and PTCPed that I intended to bring to the participants.

Through the researcher's reflections, together with the participants' regular reflective logs (sketchbooks in this study) and a systematic critique of what they were doing or learning, I, as a researcher, could always grasp the

questions from the participants and discover any possibilities to deal with the power dimensions that emerged during the research. These reflective documentations were undertaken in order to identify and characterise the common categories, which were identified as helpful pedagogical strategies and materials to promote PTCPed.

3.6.1.4 Other Visual Data

It is commonly said that 'an image speaks a thousand words'. As Rose (2006) suggested, visual images can be seen as a way of answering research questions, in particular the qualitative fieldworks that trend to be holistic and seek to understand all aspects of event as a whole. Interpreting visual images may provide a particularly rich and supportive source of data leading to a growing recognition and powerful reflection where 'observable and tactile information is important in understanding the everyday realities… [and also they] provide a methodological rationale for the study of overarching themes in education' (Prosser, 2007: 13). For example, photographic data provides a direct record of the actual events in classrooms as well as involves the analysis of images in the social context (Banks, 2007). Hence, Angrosino (2007, cited in Banks, 2007: 59) suggests that visual methodologies tend, on the whole, to be more exploratory than others approaches.

In this research project, a great deal of related visual data referring to any kind of visual materials were gathered during the workshop, either produced by the participants (e.g. group teaching maps, group artwork, and so on – see Appendix G-1, G-2, G-3) or the researcher (e.g. photographs, video records of interactions and observations). All of these visual materials were photographed or recorded, and stored as either direct or supportive resources to ensure triangulation. A brief discussion of the methods for analysing visual materials is explained in next section.

3.6.2 Data Analysis

Patton (1990, cited in Ridenour & Newman, 2008: 23) suggested,

> The cardinal principle of qualitative analysis is that causal relationships and theoretical statements be clearly emergent from and grounded in the phenomena studied. The theory emerges from the data; it is not imposed on the data.

It is important to considering fully, in a qualitative data analysis, the categories spontaneously used by the participants before the researchers develop their own categories. Thus, before any systematic analysis could take place, all the information obtained from the participants had to be organised and logged. The analytical framework applied in this study was developed through an iterative process, drawing on related literatures (refer to Section 3.4.1.2) and the nature of the data gathered in my study. A thematic analysis is a search for themes that emerge as being important to the description of the phenomenon (Daly et al., 1997, cited in Fereday & Muir-Cochrane, 2006: 82) in qualitative studies, in which the process of analysis involves the identification of themes through 'careful reading and re-reading of the data' (Rice & Ezzy, 1999: 258). The emerging patterns then become categories for analysis. As mentioned, the data sets consisted of the following: research interview transcripts (before and after the workshop), selected video recorded observations, participants' sketchbooks, researcher's reflective diary and any possible visual materials. I firstly reviewed and decided to sort this huge amount of data sets by research questions. A summary of data types used to answer each research question is shown in Table 8 below.

Data Types	Research Questions			
	RQ 1-1 creativity and CPed before workshop	RQ 1-2 creativity and CPed after workshop	RQ 2-1 CPed practice	RQ 2-2 influences upon CPed
Interview transcriptions (A)	✔	✔		
Interview transcriptions (B)	✔	✔		✔
Video-recorded observations			✔	✔
Sketchbook				✔
Reflective diary				✔
Other visual materials			✔	✔

※ Interview transcriptions (A): pre-workshop interview; (B): post-workshop interview.
Other visual materials included still photos, posters, group evaluation sheets, etc.

Table 8 Data types and Research Questions

The content of the interview data was designed to cover Research Question 1.1, 1.2 and Research Question 2.2 (refers to Section 3.6.1.1 and Table 8), therefore, it was firstly decided that the analytical process would start from the interview data. Primarily, the analytical procedures I adopted for analysing these research questions were based on an inductive approach, including constant comparative analysis (grounded theory) and progressively focusing on and building categories (see Chapter Five). Meanwhile, as shown in Table 8, several visual resources, including video-recorded observations, sketchbooks and visual materials, were also selected as supportive data to answer Research Question 2.2. In addition, the reflective diary also allowed space for me, as a researcher, to answer my research questions through reflecting on and evaluating my practices as a professional. Internal validity was achieved through utilising multiple data sources, as listed above, to ensure triangulation.

Regarding to Research Question 2.1, video-recorded observations and other possible visual data (e.g. posters, group artworks, photos and so on) were selected to seek evidence for the evaluation of participants' creativity and a CPed construct drawn from the literature, where a deductive

approach was utilised (see Chapter Six).

It is noted that in addition to interview data, visual materials, such as video-recorded observations, photos and group artwork, were the important data source in this study. There were two ways to analyse visual materials in this study. Firstly, the video-recorded observations were mainly used to answer Research Question 2.1 and 2.2. The analytical procedures I adopted for analysing these research questions were based on an inductive approach to seek evidence through coding and counting the participants' practice of creativity and a CPed (see the evaluation forms in Appendix L). Secondly, several visual materials (e.g. photos and group artwork) were selected as supportive evidence. As a photograph often captures an immediate moment as it appears to the picture taker, they are, therefore, a direct and effective reflection of an individual's 'voice' (Bragg, 2011: 89) in response to an event, including their emotions, that words cannot always clearly describe.

A framework of the general analysis approach to the qualitative data in this study is explained below, considering transcription and translation (3.6.2.1), coding (3.6.2.2), inductive and deductive approaches (3.6.2.3), and trustworthiness (3.6.2.4). More specific systematic procedures of the data analysis to each research question will be discussed in Chapters Five and Six.

3.6.2.1 Transcription and Translation

Transcription involves close observation of data through repeated careful listening and/or watching. Therefore, this is often considered to be an important first step in qualitative data analysis. As Silverman (2001: 13) stated,

> Audio and video recordings are an increasingly important part of qualitative research. Transcripts of such recordings, based on standardized conventions, provide an excellent record of 'naturally occurring' interaction. …recordings and transcripts can offer a highly reliable record….

As an interpretive process that transforms audible and visual data into written form, transcription is not just a straightforward technical task but, in fact, involves judgements about 'what level of detail to choose, data interpretation and data representation' (Bailey, 2008: 127).

Before analysing my research data, I firstly transcribed the audio recording interview data (there are twenty-four interview transcriptions in total, see the examples in Appendix H-1 and H-2. There were two reasons for doing so. Firstly, being the primary data collection instrument (Radnor, 2001), this helped me to feel close to the data and I could begin noting down analytical points during the transcription process. Secondly, as this project was carried out in a Taiwanese context where all the participants spoke Mandarin, all the transcriptions, thus, had to be translated into English. Translating all the data, including the interview data and many other forms of data (e.g. participants' sketchbooks, and conversations and interactions in the recording videos; I recorded my research diary in English) was time-consuming, and also raised the problem of the validity of the analysis (Ross, 2010). The tension was that the translation somehow changed the meaning of the texts. In order to allow the transcriptions to make sense, the translation often required an additional layer of interpretation during the transcription process. Therefore, whilst doing the translation, I often listened to the audio repeatedly until I fully understood the context and meanings of the participants' conversations. That said, the written representations, have been affected by my interpretations (Bailey, 2008).

Published guidance on interview transcription suggests that where material is not in English, ideally, full transcriptions in the original language and a translation (or at least a summary of each interview in English) should be produced (Kvale & Brinkman, 2009). However, due to time constraints, I transcribed my interview data directly into English. I found that using English helped to locate my interpretations more closely to the theoretical framework, but also helped to make the analysis process and methods

open for communication and examination with my supervisors much easier.

It is noted that translation was involved in this research project as soon as the instruments were designed (e.g. the research consent form, interview questions, and the plan of the CPed workshop), of which several documents were already translated into Chinese.

3.6.2.2 Coding

Data analysis does not occur only when themes and codes are determined and an interpretation made. Coding is an interpretive technique that seeks to both organise the data and provide a means to introduce the interpretations of it into certain quantitative methods. According to Kvale & Brinkman, (2009: 201), 'coding involves attaching one or more keywords to a text segment in order to permit later identification of a statement', which suggests how the associated data segments inform the research objectives. In this research, I primarily analysed my data in written/oral/video-taped accounts (e.g. interview data, Teaching Evaluation Form, and video records of the participants' teaching performance) with data-driven coding in order to answer the research questions. Rather than using a software programme, I coded the data manually and used a systematic approach in order to fully understand the student teachers' meanings and to recognise patterns and relationships (Radnor, 1994, 2001) in the analytical process.

The coding process involved recognising (seeing) an important moment and encoding it (seeing it as something) prior to the process of interpretation (Boyatzis, 1998). There are three types of coding in grounded theory, which are 'open, axial and selective coding' (Cohen *et al.*, 2007: 493), the intention of which is to capture the qualitative richness of the phenomenon in question (Boyatzis, 1998: 1). Encoding the information organises the data in order to identify and develop categories/themes from them. Boyatzis (1998: 161) defined a category/theme as 'a pattern in the information that at minimum describes and organises the possible observations and at maximum interprets aspects of the phenomenon'. This systematic analysis

approach was applied to my account, including the following procedures:

1. Becoming familiar with the contents.
2. Listing topics: organising the content by research questions and relevant issues (e.g. two groups of participants based on their professional backgrounds).
3. Reading and coding (open and axial coding): exploring the data and identifying units of data to code for meanings, feelings, and actions. Marking and coding the data to emerging categories and topics. Looking for links, associations, and relationships between the categories.
4. Constructing categories within each topic (theme). Identify a 'story line' (Cresswell, 1998: 57) that integrates the core categories.
5. Interpreting: interpretation is provided to the coded texts in light of the researcher's own experiences, views, or perspectives of the pre-existing literature. The researcher's findings within a certain category or topic are summarized. As Cresswell (1998: 154) described, 'a process of pulling the data apart and putting them back together in more meaningful ways'.

Through the progressive focusing on the coding, it enabled the building of meaningful categories/themes, according to my interpretation, in order to describe the data (Kvale, 1996). More detail of the coded transcriptions can be found in chapters Five and Six, based on the need to answer research questions. Here, the example of how I coded the pre-workshop interview transcription is given in Table 9 below (The definitions of the themes and codes/sub-codes in the interview data are presented in Appendix M.

Code number	Code	Interview transcriptions from a participant in the visual art group
1-2 3-2	Art based creativity through an object	Creativity is an interest to create a piece of art
1-3	Life experience	I think that it (creativity) may be related to my life experience
3-2	Fundamental training	There must be some foundation to help me work better
3-2	Followed tradition	While I am making my paintings, I still followed the ideas of the traditional principles in Chinese brush paintings from our history.
3-2	Fundamental training	It (creativity) should be built on prior knowledge or skills.
3-2 1-4	Fundamental training; positive outcome pro-c	I taught students these skills in this lesson because it is very important for them to learn fundamental skills. And I believe that these skills will have significant outcomes in their future art career.
3-1	Nurture (teacher and student self)	I can only say that… education or teaching can only improve 50%, and the other 50% comes from the students themselves… hmm… I think it depends on how hard they work, even through their reading or learning, or how strong the feelings or emotions are that they feel in their life experience.

Table 9 An example of coded pre-workshop interview transcription

3.6.2.3 Inductive and Deductive Approaches

As indicated, my analysis method incorporated both the data-driven inductive approach and the deductive approach outlined. Literature distinguishes between the inductive and deductive processes of analysis (e.g. Patton, 2002; Crotty, 2005; Grix, 2004; Cohen *et al.*, 2007; Schadewitz & Jachna, 2007). An inductive approach takes a series of specific observations and measures and tries to end up with broader generalisations and theories, so that it is sometimes called a "bottom up" approach. A deductive approach works the other way, moving from the more general to the more specific. Therefore, it is often called a "top-down" approach. Primarily, while the inductive analysis is grounded in the data, a theoretically informed analytical framework guides the deductive analysis. Thus, an inductive approach is generally associated with

qualitative research, which typically emphasises words rather than quantification and measurement where the deductive approach works. In my study, an inductive analysis approach was firstly employed to seek themes that emerged directly from the data (primary interview data) by using inductive coding. Following this, a deductive approach allowed the "social phenomenology" to be tested using a deductive theoretical comparison to structure and format patterns. By shifting from an inductive analysis of the experience to deductive pattern-matching with the literature, I sought to examine closely the participants' viewpoints on creativity and CPed, and to make sense of how they practiced CPed. More detail for the use of inductive and deductive approaches will explained in findings chapters (Five and Six).

3.6.2.4 Trustworthiness

While the use of reliability and validity are rooted in quantitative research, many researchers (e.g. Strauss & Corbin, 1990; Seale, 1999; Golafshani, 2003; Shenton, 2004) suggested that in qualitative research, 'examination of trustworthiness is crucial' (Golafshani, 2003: 601). Establishing trustworthiness means ensuring the research is carried out fairly and that the findings presented are 'as close as possible [to] the experiences of the people who are studied' (Ely *et al.*, 1991: 93). Bassey (1999) suggested trustworthiness should be built in the following four stages: data collection, data analysis and interpretation, and reporting the research. In this section, I illuminate how trustworthiness was ensured in this study.

Firstly, there are several ways of ensuring quality of collected data, including triangulation (Patton, 2002). Triangulation is a way of checking data through multiple sources of data-gathering, or multiple researchers studying the same phenomenon. Since this study emphasised how the participants' conceptions and practice of creativity and CPed were constructed, multiple methods, such as, observations, interviews and reflective documents, have led to more valid, reliable and diverse construction of realities.

Secondly, trustworthiness in the stage of analysis, interpretation and reporting is concerned with producing results that can be trusted and worth paying attention to. Therefore, it is important to check how the analysis is conducted, and how the results are understood and represented (Ely *et al.*, 1991; Radnor, 2001). Thus, in order to ensure the trustworthiness of the data analysis in this study, I kept asking myself: Were the strategies and steps of data analysing well explained? Was the interpretation well supported by the evidence? Meanwhile, in this study, the researcher and the participants all contributed to the interpretation of meaning as multiple realities. It is vital to be given a focus on the co-construction meanings made by the researcher and all participants and a closer focus on transformation/change. There was a need, therefore, for both a clear analytical trail and also explicit opportunities to negotiate the interpretations and meanings concerned in this study.

3.6.3 Limitations

There were a number of limitations which need to be taken into consideration, mainly relating to the methods of data collection.

Firstly, the sound quality of the recorded videos was not good at capturing the detail of the participants' interactions with each other. In addition, as the participants were divided into three groups, several details of the discussions were missing. Therefore, I tried to use post-workshop interview data and my field notes to cover the poor of quality of video data as far as possible.

Secondly, while reviewing the participants' reflective logs (sketchbooks in this study), most of the pages only contained the activity practices that we had in sessions (mostly from session 3) or records of Power Point slides that I had used in the workshop. Instead, the results of personal self-reflections that I planned to obtain appeared very little. This may be due to the Eastern (learning) culture where obedience is principle and critical thinking is

discouraged.

To resolve these issues, I placed more reliance on the interview and selected above resources as supportive data.

3.7 Summary

After the organisation of the chapter in Section 3.1, Section 3.2 I summarised the context of this study and my dual role as a researcher and an educator. In Sections 3.3, I considered the research methodology and explored how philosophical concerns informed my choice of action research and case study. In Section 3.4, a three-stage research design and the scope of this study were introduced. In Section 3.5, I dealt with ethical considerations, including informed consent, the right to withdraw, anonymity and confidentiality. Finally, in Section 3.6, I discussed the research methods and this is where my data collection, data analysis methods and limitations were outlined. The methods of data collection include interview, video-recording observations, reflective documents, and any possible visual materials. The qualitative analytical methods I used focused on both inductive and deductive approaches, and also the detail of trustworthiness in my research was identified.

In Chapter Four the rationale and organisation of the CPed workshop are presented.

CHAPTER FOUR

THE FRAMEWORK OF THE CREATIVE PEDAGOGY WORKSHOP

4.1 Introduction

This chapter explains the rationale and organisation for the workshop, which is the main vehicle used in this study to explore the research questions. Five main sections are expounded, headed as follows:

4.1 Introduction

4.2 The approach of workshop

4.3 The framework of the creative pedagogy workshop

4.4 The organisation of the creative pedagogy workshop

4.5 Summary

The chapter begins by explaining the purpose and the rationale of the choice for using a workshop (4.2). This is followed by an account of the theoretical frameworks primarily summarised from Chapter Two that informed my design for the creative pedagogy workshop (4.3), including the rationale of teaching style, approach and teaching methods. Finally, an outline of the workshop session plans is explored (4.4), including details of when and how the teaching strategies, activities, and materials were used.

4.2 The Approach of Workshop

As mentioned in Chapter Three, the approach of workshop was set up as the main method to introduce PT and its pedagogy to Taiwanese student teachers in terms of their knowledge and practice in current study. In this section, the reasons for choosing the form of a workshop are explored, and are concerned with the rationale of a workshop and the objectives of the workshop.

4.2.1 The Rationale of a Workshop

Lectures, seminars and workshops are common educational formats applied in universities (Morss & Murrary, 2005), so why should I use a workshop approach in this study, not seminars or lectures? According to the Oxford Dictionary Online a lecture is defined as 'an educational talk to

an audience, especially one of students in a university'; seminar is 'a class at university in which a topic is discussed by a teacher and a small group of students'; and workshop means 'a meeting at which a group of people engage in intensive discussion and activity on a particular subject or project'. Bullock (1998: 2) compared the traditional (academic) education (e.g. general course, seminar or lecture) and workshop in the following Table 10.

Traditional Education	Workshop
The teacher designs and implements the curriculum.	Teacher and students negotiate the curriculum, both individually and in a group.
Students practice skills and memorise facts.	Students actively construct concepts and meanings.
Content is broken down into discrete, sequential units.	Content is presented whole, in meaningful contexts.
Products (finished pieces of writing, answers on tests) are of primary importance.	Processes (composing multiple drafts; exploring how answers were arrived at; self-evaluation) are valued as much as the products themselves.
Avoiding mistakes is important.	Taking risks is a valued sign of learning
Performance on tests is valued highly.	Students are assessed by their performance on meaningful tasks, often through portfolios of their work.
Teachers do the evaluating and grading.	Students learn to assess their own learning and process.
Learning is expected to be uniform. (Expectations are the same for all students, so many students "fail".)	Learning is expected to be individual and unique. (Evaluation is oriented toward success.)
Primary resource: Bullock, R. (1998) Why workshop? Changing Course in 7-12 English. Portland, ME: Stenhouse.	

Table 10 Comparison of traditional education and workshop

It is clear that the stated intentions of a workshop are different from the general course, seminar or lecture, which places the emphasis on 'the acquisition and development of skills and an exploration of ideas through issue-based work' (Prentice, 2007: 15). It is a class in which the students learn the 'know how' of performing, and acquire performance experience with guidance from the teacher in a non-formal atmosphere. In addition,

the format of a workshop encourages risk-taking and values the learning process as well as the products, and both individual and group working experience is provided. Some scholars also emphasise active 'participation in problem solving efforts' (Webster, 1977, cited in Steinert & Ouellet, n.d.: 3) and facilitate attitudinal change (*ibid*) in the form of a workshop.

Prentice (2007) suggests the role of a workshop could benefit the initial and continuing professional teacher development of art and design. This is because a workshop provides a platform for 'active learning' (*ibid*: 15) in which 'knowing and doing are inseparable' (Schon, 1987: 78 cited by Prentice, 2007: 15). Thus, the primary direction of my workshop was to offer student teachers the opportunities for self-discovery and the self-definition of creativity and its pedagogy through visual art (or the arts). From this perspective, it may be extremely difficult for an educator to entirely or effectively change the participants' thoughts and concepts through a few sessions of a lesson, unless they have been immersed and experienced at a personal level. By using a workshop in this study, it allowed me to organise both theoretical and hands-on learning frameworks to Taiwanese student teachers in order to develop their concepts and implementation of CPed where PT has been considered as a core of creativity. Through engaging in workshop activities that include mini-lectures, demonstrations, participation and implementation planning, student teachers were encouraged to discuss their experience (from previous learning and from this workshop) and respond to the literatures in relation to creativity and CPed. This offered a vehicle to actively construct their concepts and meanings of CPed based on what the student teachers were thinking and doing, not on what the educator (myself) had prepared to say to them at pre-conceived instructional points.

4.2.2 The Objectives of the Workshop

To define the goals and objectives of a workshop is one of the most important steps in designing a workshop (Steinert & Ouellet, n.d.). I had five goals that I expected to achieve in the workshop:

1. Encourage the sharing of experiences by the participants regarding their teaching and learning of creativity through the (visual) arts.

2. Introduce PT and PTCPed.

3. Provide the participants with hands-on experiences of what PTCPed looks like and how to organise it.

4. Help the participants to establish criteria for assessing creativity (namely focus on PT) through the (visual) arts.

5. Explore whether this workshop (including the methods and materials used) can provide successful and competent supervision in the use of PTCPed.

By achieving the above goals, the student teachers would be able to:

1. Distinguish between teaching creatively, T for C, and CL

2. Understand and apply PT and PTCPed into the visual art teaching and learning

3. Identify young people's creative behaviours through the visual art

4. Evaluate young people's creativity through process and product

5. Build their confidence to implement PTCPed in the field of the visual art

In summary, the clarification of the goals and objectives of a workshop from the above helped to articulate my expectations, give clear directions to the following session planning, and allow for an evaluation of the outcomes. In the next section, the framework underpinning the workshop is addressed.

4.3 The Frameworks of a Creative Pedagogy Workshop

As indicated in the previous section, a workshop was chosen to be the main vehicle in this study to allow me to introduce a different teaching and learning experience to Taiwanese student teachers with PT and PTCPed. To achieve the goals and objectives shown above, the sessions of the

workshop were designed and taught by applying the principal constructs of PT and PTCPed (see Section 3.4.1.2) through visual art (together with an integrated arts approach) (4.3.1). In addition, regarding the teaching style and approach (4.3.2), the principles of reflective practice, interaction, and building an enabling learning climate were also utilised. Finally, general teaching methods (4.3.3) and creative pedagogical strategies (4.3.4) used in this workshop are outlined. These principles provided an initial framework in designing this workshop, in terms of concepts developed and practices explored, which are discussed (or re- addressed) below. The details of each session of the workshop plan will be further explained in Section 4.4.

4.3.1 Theoretical Framework

In the literature review chapter, varied definitions and concepts of creativity and CPed have been broadly discussed. My rationale for choosing PT and PTCPed as the main focus in this study was also detailed and explained. In order to add understanding, a brief summary of the general terms and the concepts of creativity and CPed (4.3.1.1), as well as the features and pedagogical strategies (4.3.1.2) that underpinned the research workshop, will be provided in this section. In addition, regarding the background of the participants and the content of the visual art curriculum in Taiwan, a visual art-based content workshop using an integrated arts teaching approach (4.3.1.3) was planned.

4.3.1.1 General Concepts of Creativity and CPed

■ Creativity:

The theoretical assumptions about creativity adopted are that creativity can be developed through teaching (Craft, 2000; Esquivel, 1995; Fryer, 1996; Hennessey, 1995; Fautley & Savage, 2007; Lin, Y. S., 2010, 2011). It is an everyday life capability, from inherent motivation to an active life attitude, and then to extrinsic creative expression, in which PT has been recognised as a core concept (Craft, 2000).

■ **CPed:**

CPed in this study involves a co-meaning of CT and CL. CT is seen as a teacher-focused approach which involves the meanings of teaching taught creatively and effectively; CL, on the other hand, is a learner-focused approach which emphasises "learner inclusive" pedagogy to foster learners' creativity.

4.3.1.2 PT and its CPed

As explained in Chapter Two, the features of PT and the elements of creative pedagogical strategies, including the characteristics of CT and CL in a supportive/enabling learning environment, provided an initial framework for the study in terms of concepts developed and practice explored.

■ **The features of PT:**

PT literature (Burnard, *et al.*, 2006) suggested that PT includes the following features: posing questions, play and possibilities, innovation, self-determination and direction, risk-taking, being imaginative, and immersion.

■ **PTCPed strategies:**

This study attempted to follow the PTCPed framework (Cremin *et al.,* 2006) involving the following pedagogical strategies:

∗ **Standing back**: allowing learners to do their own thinking and learning.
∗ Creating or providing opportunities, including **time and space**, for learners to explore ideas, and materials with more possibilities. On the other hand, setting challenges/tasks is also another way to stimulate creativity, such as asking questions, or using limited time or materials to create a work.
∗ **Profiling agency**: encouraging different ways of learning and employing varied activities, including both individual and collaborative works,

during which learners' individual and social creativity are developed.

4.3.1.3 Visual Art-Based Content and Integrated Arts Approach

The workshop was primarily based on the knowledge of and practice of visual art, in which a variety of hands-on examples in relation to the use of instructional strategies and teaching materials were provided throughout the workshop. However, I considered that, firstly, there were five non-visual art professional participants taking part in this study. Secondly, and most importantly, the current visual art curriculum in Taiwan is under the umbrella of AHLA, thus student teachers should acquire the ability to integrate the arts in IATE (for more details, refer to Section 2.4.5 and 2.5.2.2). Arts integration means that the subjects of the arts in the school curriculum (e.g. dance, music, drama and visual art in AHLA) constitute one or more of the certain elements of the curriculum across content fields (Lin, 1993; Beane, 1997; Lu, 1999; Chen *et al*., 2004). In practice, arts integration offers students an interdisciplinary curriculum and a dynamic approach to learning through core themes (Lin, 1993; Lu, 1999). As a result, some of the teaching examples offered in the workshop were then extended to a broader region by using an integrated arts project to demonstrate how PTCPed is applied in AHLA (mainly in Session 3; the detail of the organisation of the workshop is given in Section 4.4).

4.3.2 Teaching Style and Approach

4.3.2.1 A Reflective-Based Workshop

In recent years, reflection has been recognised as one of the most important part of a teacher's professional development, and has been used in ideological and practical linkages in initial teacher education, in Taiwan as well. Larrivee (2000) argued that developing the practice of self-reflection keeps a teacher coming back to their core beliefs and evaluating their choices that should be in accordance with each other. According to Tom and Cornford (1985; 2002 cited by Ottesen, 2007: 32), 'the ideals or

purposes of reflection in education are as manifold as the term itself: development of self-monitoring teachers, teacher as experimenters, teacher as researchers, teacher as inquirers, and teacher as activists'. Knowing and reflecting on oneself is not easy as it means acknowledging feelings in your professional life and development. However, reflective practice is vital for a teacher who wants to gain their teaching experience and teach as effectively as possible.

Thus, reflection is a key ingredient in the process of learning as it helps to shift the surface learning of new information into deeper learning and understanding. It was recommended that the participants keep a detailed, annotated journal or diary by using a sketchbook to provide an on-going record of their workshop experience, and their 'reflection-on-action' (Schon, 1983 cited by Prentice, 2007: 16). By reflecting on these learning journeys, the participants were able to identify the most significant factors in the teaching and learning activities while participating as learners in the workshop, and clarify their understanding of the methods of teaching and learning for their future practice as teachers.

4.3.2.2 Interaction-Based Approach

Interaction is often defined as "a two-way exchange" between the workshop facilitator and the participants; it can also refer to increased discussion among the participants or engagement with the content of the workshop (Steinert & Ouellet, n.d.: 18). Interaction, therefore, implies active involvement and participation by all of the workshop participants so that they do not remain passive in the learning process. This approach was applied to my workshop as the general characteristics of the Eastern learning culture are that students are often quiet, passive onlookers and that questions and discussions are frequently absent (as discussed in Chapter One). Literature has suggested that an active and joyful learning attitude and classroom climate encourage the development of creativity (Fryer, 1996; Lucas, 2001; Cremin *et al.,* 2006). However, although in this study my intention was not to foster the participants' creativity, creating a

suitable and flexible learning context for them to engage in can be regarded as a useful teaching strategy and one which enabled them to experience CPed naturally. In order to achieve this purpose, I divided the twelve participants into three groups. By engaging in a small group, the participants then had more opportunities to respond to the presented information and contribute their viewpoints. Moreover, questions and comments from the participants (both to each other and to me) were also encouraged. However, there were also some possible disadvantages in group interactions that I needed to take into account while planning the group learning, such as some participants may rely on other group members' contributions, or they may not reach a common consensus.

In addition to the above benefits to the participants, the interaction, the participants' responses and reactions also helped me, as a teacher educator, to target my material appropriately and ensure that I had met their needs and expectations. The instructional strategies I used in the workshop promoted interaction (e.g. group discussions and live demonstrations) and were carefully planned to match the workshop objectives and the participants' needs, together with experiential learning, reflection, and feedback from the participants.

4.3.2.3 Building an Enabling Learning Climate

As mentioned, a good experience, including the feel of the learning climate, may imperceptibly influence the participants' learning and future practice of PTCPed. Creativity requires new ways of thinking, an acceptance of uncertainty and the possibility of 'failure'. The teaching environment created in this workshop, therefore, was aimed at being encouraging and positive at all times. It was essential to set up an environment of trust and support in order to provide the participants with the courage to embark on this new journey. Small group work was set up to help (or stimulate) the participants' self-learning through interaction. In addition, the educator-learner relationship seriously considered that the educator acted, primarily, as a facilitator rather than as an authority figure. Through

encouraging active and flexible participation, I intended to turn the teaching itself into a CL process (Dineen & Niu, 2008).

4.3.3 Teaching Methods

An extensive variety of teaching methods was used in the workshop, including slide-lectures, demonstrations, group discussions, group and individual activities (making posters, artwork), and handouts. All sessions included the presentation of teaching examples by myself or the participants themselves, rather than just simply verbal discussions. In addition, active learning elements (e.g. group discussions, group activities) were incorporated. For example, inspirational question posing was used frequently by which the participants were encouraged to engage in active discussions. My intention to choose such teaching methods was to create a sense of excitement and enthusiasm among the participants in order to increase enjoyment and commitment that matched the concept of teaching creatively.

4.3.4 Creative Pedagogical Strategies

While introducing a new pedagogy to the participants, it could be a good way to get them actively experience and engage in the pedagogical context naturally. The teaching strategies used in this workshop, therefore, were to be considered to use as a learner-driven approach by the use of PT pedagogical strategies. Together with the group learning (profiling learning agency) and positive learning climate (mentioned in Sections 4.3.2.2 and 4.3.2.3), the other PT pedagogical strategies were planned, such as posing questions to inspire the participants' creative thinking and imagination, offering challenges, creating more choices in learning context and materials (offering opportunities), and passing ownerships to the learners (standing back).

Drawing the above principle frameworks together, the sessions in this workshop, including the use of instructional strategies or materials, were then designed. The details of each session plan are outlined in the next

section.

4.4 The Organisation of the Creative Pedagogy Workshop

Drawing on the objectives and the frameworks of this workshop, mentioned above, I designed the workshop sessions myself. The workshop was named "*Possibility Thinking in Teaching and Learning Workshop*" and included five weeks of teaching. Generally, there was one session per week, and each session lasted 90 minutes. Sessions 3 and 4 took 120 minutes due to an integrated arts teaching example that was demonstrated and provided by me. The original content of the workshop was planned as below.

Session1 What Do We Mean by Creativity?
Session 2 Can We Foster Creativity?
Session 3 A Visual Art Project - Welcome to My Hometown: Penghu
Session 4 How to Assess Creativity in Visual Art?
Session 5 Teaching Practice

However, as I mentioned this was an action-based case study, after gaining information about my participants' professional backgrounds, the teaching demonstration in session 3 was changed for an integrated arts project. Consequently, after conducting the pre-workshop interviews, the content of the workshop was also reviewed and sessions 1 and 2 were switched based on the participants' background knowledge of creativity and CPed. In addition, I added one week's individual and group tutorial after session 3, according to the participants' interests and needs. The final version of workshop plan is shown in Appendix I), and the details of session plans are discussed in the following sections 4.4.1 - 4.4.5, together with the Power Point slides that I used in sessions 1-4, as shown in Appendix J.

4.4.1 Session 1: Creative Teaching

Session 1 focused on a series of pedagogical methods in relation to creativity. The sessions started with an introduction to pedagogy rather than creativity because, in pre-workshop interviews, several participants explained CPed as "an interesting way of teaching, but creativity was absent" (for more detail please see Chapter Five). Thus, to help the participants to distinguish and understand the concepts of teaching creatively and T for C was an essential concern. Therefore, the content of session 1 (For the Power Point slides of session 1 see Appendix J) includes:

1. What does CT mean to you?

2. The meanings of teaching creatively, T for C and CL

3. The discourse of CPed in this study

4. How can we create innovative teaching?

Group discussions and demonstrations (by myself and the participants) were applied in order to help the participants truly comprehend the meaning of teaching creatively. Furthermore, as several participants lacked ideas or confidence to plan their teaching, a group activity was set up in this session: "Let's be creative: planning a teaching plan". In this activity, each group was asked to design a visual art-based teaching project and this project would also be practiced in the teaching performance in Session 5. Meanwhile, I created three simple steps to planning a visual art-based teaching plan based on the concept of PT, mainly using posed questions, divergent and convergent thinking (shown in Diagram 10). These three steps included teaching map (4.4.1.1), teaching draft plan (4.4.1.2) and teaching plan (4.4.1.3), which discuss below.
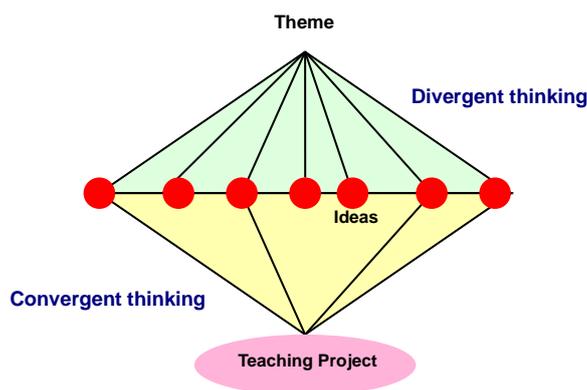
Diagram 10 The rationale of the teaching plan

4.4.1.1 Teaching Map

The idea of a teaching map was inspired by mind-mapping. Mind-mapping is usually deployed as a whole class or group activity in order to explore ideas for practical and critical investigation. It involves choosing a key word to represent a theme or issue. A key word is presented to users as a trigger to invite related ideas (Addison & Burgess, 2007: 51). A teaching map can be a perfect tool to use in teaching planning, particularly in a Taiwanese educational context because the new *Grade 1-9 Curriculum* emphasises theme-based teaching and learning where a single subject is always integrated with related subjects (e.g. Arts and Humanities Learning Area). In my study, while using a teaching map (refers to appendix G-1), "Questioning Yourself" (divergent thinking) was suggested to be used to expend/develop the ideas for the teaching map (e.g. what topics may link to the theme? what materials can I use to create it?). Through group interaction, the participants not only contributed their own ideas but also gained ideas from each other.

4.4.1.2 Teaching Draft Plan

After producing plenty of ideas, the participants were encouraged to use "Questioning Yourself" again to locate their ideas for the teaching design and practice (convergent thinking). This draft plan sheet (see Appendix G-2) was designed to help the participants to score their ideas (creating from a

teaching map) by eight possible teaching elements (e.g. teaching outcomes, starting points, assessment) through to questioning (e.g. what teaching activities are better used as a starting point? what materials are better to create this artwork? Have any artists done similar artwork?).

4.4.1.3 Teaching Plan

Finally, a formal teaching plan (see Appendix G-3) form can be completed by composing the elements from the draft plan by using "Questioning Yourself" (e.g. which topic is suited to the age group? what starting point/materials from the teaching draft plan is a better match with the teaching activities?).

In planning teaching, the Department for Education and Employment in England [DfEE] (1999: 6) suggests that 'the knowledge, skills and understanding should be involved in pupil's art and design learning'. The *Grade 1-9 Curriculum* is also concerned with the importance of leaning attitude and suggests that it should be taken into account in the lesson plan. In addition, it is also helpful to consider lesson-planning by consulting the following aspects: use of language (learn to use the correct language to describe the characteristics of art), communication technology, developing individual and collaborative work, using a range of materials and processes, and introducing artists and their works.

4.4.2 Session 2: Creative Learning (Teaching for Creativity)

Session 2 continued the group activity of planning a teaching plan, but placed the emphasis on the understanding of the concept of creativity. The content of this session (For Power Point slides of Session 2 see Appendix J) was:

1. T for C and CL
2. What is creativity? Can it be taught?
3. PT is the core of creativity

4. PTCPed

From pre-workshop interviews, several participants were found to believe in BCC, and PCC (e.g. artistic creativity in this study), which was different from my goals of this workshop (for the detail refer to Chapter Five). Thus, in this session, I explained the different degrees of creativity, and mentioned that LCC and MCC may be well situated in a learning context. The focus was particularly addressed in the introduction to PT and PTCPed. Again, group discussions and activities were used in this session.

4.4.3 Session 3: An Integrated Arts Project- Welcome to My Hometown: Penghu

In this session, the participants took the role of learners (secondary students) engaging in a PTCPed teaching project. As Gill (1990: 25) pointed out, 'true knowledge can best be acquired through experience'. Session 3 was designed to offer a series of visual art and integrated arts (mainly visual art and music) activities for the participants to experience what it is and how to apply PTCPed into practice. While planning this session, my focus was placed on the use of PT creative pedagogical methods and establishing a supportive learning environment. Thus, the elements of planning a lesson (discussed in session 1 above), such as knowledge understanding and skill learning, were quickly skimmed through. Four main activities were included in this session (For the Power Point slides of Session 3 see Appendix J):

1. Activity 1: "Let's be Wassily Kandinsky".
2. Activity 2: Making a piece of artwork- "Belong to Penghu images".
3. Activity 3: "Background- Paul Klee".
4. Activity 4: "Visualising music! Composing art!"

Throughout these activities, there were plenty of teaching strategies in relation to PTCPed, such as considering the use of play and a sketchbook, posing questions, providing a variety of materials, creating appropriate

challenges and individual and collaborative artworks, standing back, and building an enabling learning climate, that were carefully applied. In particular, three essential strategies, namely play activities (4.4.3.1), using questions (4.4.3.2), group activities (4.4.3.3), and using sketchbook (4.4.3.4) were highlighted in this session, which is discussed below.

4.4.3.1 Play Activities

Play is considered to be a highly valued strategy that is used in schools to encourage creativity and social cohesion (Fryer, 1996; Lucas, 2001; Burnard, *et al.*, 2006; Cremin, *et al.* 2006; Chappell, *et al.* 2008a). Duffy (1998) refers to the fact that play is often seen as part of the creative process and shares many of the same characteristics, such as play and creativity, that both enable pupils to create understandings of their world from their own experience and provide a challenge to develop their problem-solving abilities. Furthermore, play is characterised by its freedom as well, as through play activities, pupils can have the freedom to try and create new ideas, and express themselves in their own way. Upon critical reflection of my past teaching experiences in school, using appropriate play activity was also a suitable method to attract students' attention and enhance their learning and creativity. Therefore, in this integrated arts project, I organised my teaching activities in a play form. Taking Activity 4 - "Visualing music! Composing art" as an example, the participants worked in a group to make a picture based on a piece of music they had listened to, and swapped the pictures between groups to compose a piece of music based on the group creating art notation by using personal belongings as instruments (see Photo 1 below).
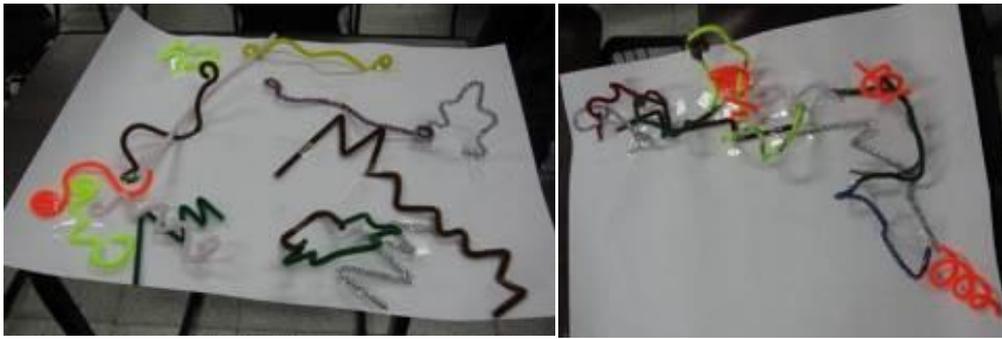
Photo 1 Two examples of group creating art notation

4.4.3.2 Using Questions

As Kyriacou (1996: 43) pointed out, using questions is one of the key effective teaching skills. Through asking open-ended questions, which encourages learners to answer or ask their own, and by allowing them time to put their thoughts into words, the teacher motivates learners' independent thinking and helps them to focus on the task. However, it is critical that teachers think about the purpose and structure of the questions they ask and the comments they make (Kear & Callaway, 2000; Chappell *et al.*, 2008a,b; Chen, 2006). In this teaching project, I used different degrees of "what if" questions to stimulate the participants' PT.

4.4.3.3 Group Activities

Some of the student teachers were afraid to lose control over the pupils, classroom order and knowledge delivery if they pass the learning ownership to students, as the result, most visual art classroom teachers prefer to plan solitary activities, such as individual painting and crafts. However, this may lose the opportunities for students to build collaborative creativity. Although in this study my intention was not to foster the participants' creativity, creating a "real-life" learning context for them to engage in can be regarded as a useful teaching strategy that enabled them to experience PTCPed authentically.

4.4.3.4 Using Sketchbooks

A sketchbook is often seen as a visual notebook and key research tool of

the artist as it can offer insights into the personal vision, material, ideas and working processes of the artist. With the characteristics of 'highly personal, often autobiographical nature' of the sketchbook, the artists explore inwards to the 'private self' and construct an 'outward-facing public self' that is represented by a final piece of artwork (James, 2007: 207).

The value of the sketchbook has been recognised and is in widespread use in an educational context (e.g. Art and Design in the National Curriculum, GCSW and GCE 'A' level in England). Robinson and his colleagues (2007) stated that a

> 'Sketchbook is a personal tool and a playground for the development of ideas, encouraging invention and creativity in the thinking process. Sketchbooks engage children in their learning, developing them as researchers by encouraging reflective practice…' (p1)

James (2007: 209) suggested that in a school setting, the sketchbook is a creative tool to encourage information-gathering, experimentation and risk-taking in the search for a creative solution to a self-generated idea or problem. He further gathered six key functions of the sketchbook:

1. Personal responses
2. Investigating and making
3. Critical and analytical skills
4. Self-awareness
5. An active and creative approach to learning
6. Documentation skills

In my project, a sketchbook not only provided a free space for student teachers to reflect on and record their learning journey as the participants (refer to Section 3.6.1.3,) but it also offers student teachers a creative stage on which to practice and make art as learners (or secondary school students) (see Appendix E).

4.4.4 Session 4: Creative Assessment in the Arts

The main focus in this session was the assessment of creativity through the (visual) arts. The content of the session (For Power Point slides of session 4 see Appendix J) is shown below.

1. Creating a joint-groups artwork
2. Final performance
3. How can we assess creativity: final product or process?
4. What criteria and tools can we use to assess creativity?

    Activity: A. Group: the assessment criteria (Appendix K);

    B. 2 stars and 1 wish

5. Sketchbook and portfolio assessment

In order to reinforce the participants' discussions of the assessment, a joint-group artwork (combining each group's artwork from session 3 into a big piece of artwork; see Photos 2, 3) and a final, integrated arts performance (joining visual art, music, dance and drama) were first set up (another reason was that a few participants were absent in the last session).

Photo 2Three group artworks

177

Photo 3 A joint-groups artwork

Group discussions were frequently used to encourage the participants to explore how to assess creativity based on their art-making experience in session 3 or at the beginning of this session. The discussions included the topics of the use of the criteria and tools for assessment. Regarding the fact that the assessments in visual art in Taiwan often pay much more attention to the product, in this session, the sketchbook was particularly introduced to be used for assessing creativity concerning both process and product.

As discussed in Section 4.4.3, the sketchbook would be an effective way to allow students the freedom to individually create and explore. Anderson & Milbrandt (2005: 173) describe a student's research sketchbook to be used as a place 'to consider one or more issues, forms, or ideas through critical, historical, and aesthetic inquiry; visual examination and note-taking; personal reflection; and creative visual expression'. Therefore, a sketchbook can also be a key document for assessment of students' creative development in art education (James, 2007: 213). A sketchbook contributes to the process of assessment as it provides evidence of pupils' progress in their learning, revealing their developing ideas, skills, and ability to work independently. Through reading it, a teacher can then have a clear understanding of their pupils' development and can plan for their needs accordingly. As well as this, it also provides an opportunity for pupils (learners) to have a dialogue or conversation with themselves that can be

valued as a self-reflection and self-evaluation (*ibid*).

4.4.5 Session 5: Teaching Practice

In the final session, group teaching performances were set up to evaluate the participants' learning throughout this CPed workshop. Each group was suggested to elect a representative to perform 20 minutes teaching (based on their visual art-based teaching project from Session 1) and then 10 minutes of discussion, and feedback from myself and the other groups. The performances were assessed using formative comments, both in verbal and written form, based on the central assessment criteria - the scope of PT and PTCPed that is created by the participants and educator (myself) collaboratively in session 4 (see the evaluation forms in Appendix L).

4.5 Summary

This chapter has concentrated on the rationale, framework, and organisation of the CPed workshop. In section 4.2, I gave the rationale for choosing the format of a workshop as the main vehicle to introducing creative pedagogy in this study, and explained the goals and objectives of the workshop. In Section 4.2, I firstly summarised the theoretical framework underpinning this workshop. Furthermore, the general use of teaching styles, approaches and teaching methods were also introduced. Finally, in Section 4.4, I discussed the session plans of the workshop where the details of the teaching methods and materials used in each session were outlined.

The findings of this study are presented in the following Chapters Five and Six. In Chapter Five, the findings of the participants' concepts of creativity and CPed in relation to Research Question One are firstly explored.

CHAPTER FIVE

THE FINDINGS TO RESEARCH QUESTION ONE

5.1 Introduction

This chapter aims to present the findings that refer to Research Question One; an analysis of the participants' perceptions of creativity and CPed before and after attending a CPed workshop. The presentation of the findings of the perceptions of creativity and CPed are divided into three stages in order to interpret the data from different perspectives, including (A) the viewpoints from the participants specialising in visual art, and then the attentions turn to focus on (B) the changes of the perceptions for the individual participants in the visual art. Five main sections are expounded, headed as follows:

5.1 Introduction

5.2 Approaches to answering research Question One

5.3 Sub-question 1: Student teachers' perceptions of creativity

5.4 Sub-question 2: Student teachers' perceptions of creative pedagogy

5.5 Summary

Firstly, the approaches applied to analyse the participants' perceptions of creativity and CPed are explained below.

5.2 Approaches to Answering Research Question One

The findings in this chapter intend to answer Research Question One: **What are visual art student teachers' perceptions of creativity and CPed?**

1.1 What were their perceptions of creativity before and after participating in a CPed workshop?

1.2 What are their perceptions of CPed before and after the workshop?

The analysis to answer Research Question One was divided into two main sections based on the two sub-research questions above, which involves the process of coding: the perceptions of creativity and CPed, and each section of analysis contains two phases, namely before and after attending

a CPed workshop. The data drawn upon to answer this research question is primarily from the seven visual art participants' pre and post-workshop interviews. Fourteen digital sound files of interview data were transcribed into English transcriptions. The selection of data resources to answer each sub-research question is shown in Table 11 below.

Research Question ONE	Data resources used for analysis	
	Pre-workshop interview transcriptions	Post-workshop interview transcriptions
1.1-1 What were the visual art participants' perceptions of creativity before attending a CPed workshop?	✔	
1.1-2 What were the visual art participants' perceptions of creativity after attending a CPed workshop?		✔
1.2-1 What were the visual art participants' perceptions of CPed before attending a CPed workshop?	✔	
1.2-2 What are the visual art participants' perceptions of CPed after the workshop?		✔

Table 11 The data resources used to analyse Research Question One

The full background information of the visual art participants has been explained in Chapter Three, but in order to aid the following interpretations in this chapter, a brief summary of the visual art participants' information, including the list of education and teaching experience, is restated in Table 12 below.

	Name	Major	Teaching experience
1	Chou	Sculpture Department	Primary schools (first degree is primary education)
2	Liao	Sculpture Department	A little teaching experience in primary and secondary schools
3	Chien	double majors in Craft and Design and Drama Department	A little teaching experience in private art institutions, and primary and secondary schools
4	Chao	Chinese Brush Painting Department	Teaching in own art studio
5	Young	fine art Department	Volunteer in a government-funded art institution (age 6-11 pupils)
6	Wu	Chinese Brush Painting Department	Private art institution and a summer camp (age 6-8 pupils)
7	Liu	Sculpture Department	1 years teaching experience in a secondary school

Table 12 A brief summary of visual art participants' background information

The general approach to the data analysis has also been explained in Chapter Three, in which an inductive approach was applied to identify the visual art participants' viewpoints of creativity (sub-question 1); and an inductive-deductive approach was adapted to answer their viewpoints on CPed (sub-question 2). Firstly, the pre- and post-workshop interview data sets were systematically examined by using an inductive coding strategy in order to search for emerging categories. The open codes were clustered into themes and refined by axial coding, seeking the relationships, links, and association between them. Additionally, the inductive themes emerged from the participants' viewpoints on CPed then further deductively pattern-matched with the definitions of CT, T for C, and CL from the literature in order to clearly identify the visual art participants' perceptions of CPed and its features.

In addition to the two sections and two phases of analysis, in order to seek a deeper and clearer picture, the further interpretations of findings to the analysis were considered to contain two stages. An overview picture of the two-stage data analysis approach to Research Question One is explained in Diagram 11 below.
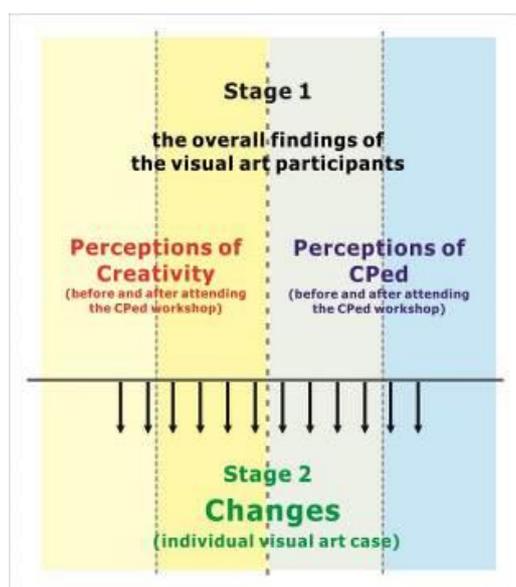
Diagram 11 Approach to analysis: Research Question One

■ **Stage 1**

In first stage, the findings contained the viewpoints from all of the visual art participants which enabled an overall look at the research questions as well as identified a general trend of their perceptions of creativity and CPed before and after attending the workshop. As explained above, Stages 1 involved a systematic thematic analysis through inductive coding process and inductive-deductive pattern-matching process in order to identify the story of the visual art participants' perceptions of creativity and CPed.

■ **Stage 2**

In second stage, the findings of each of the visual art participant's views were further explored. By closely investigating each case and comparing the results with the findings before and after the workshop, my intention was to summarise and highlight the changes in each visual art participant from attending the CPed workshop.

In the following sections, the visual art participants' perceptions of creativity (5.3) and CPed (5.4) are explored according to the two sub-research questions.

5.3 Sub-question 1: Visual Art Student Teachers' Perceptions of Creativity

In this section, the findings focus on the visual art participants' perceptions of creativity. The presentation involves the findings of stage 1 (5.3.1): before attending a CPed workshop (5.3.1-1) and after attending the CPed workshop (5.3.1-2), and stage 2 (5.3.2): the changes to the visual art student teachers.

5.3.1 Stage 1: before and after Attending the CPed Workshop

5.3.1-1 Before attending the workshop

To gain an overall picture of the seven visual art participants' perceptions of creativity before they attended the workshop, I firstly gathered the information in relation to their descriptions about creativity from their pre-

workshop interview transcriptions, and further interpreted the meanings until the final codes emerged. The common themes and sub-categories are shown in the following Table 13.

Themes	Code Categories
1. General concepts	1-1 Nature (1)/ natural (2)/both (3)
	1-2 Art based (1)/ general based (2)
	1-3 Personal experience (1)/opinion (2)
	1-4 Degree of creativity: Big-c (1), Pro-c (2), Little-c (3), Mini-c (4)
2. Characteristics	2-1 Definitions of creativity: originality (1), innovation (2), imagination (2)
	2-2 Attitudes toward creativity: facing challenges/ risk-taking (1), self-determination (2), problem-solving (3)
3. Process & product	3-1 Process
	3-2 Product

Table 13 The common themes and sub-categories of creativity in pre-workshop interviews

The definitions of the themes and codes/sub-codes in the pre-workshop interview data are presented in Table A in Appendix M-1, and the details of the coding process are given in Appendix M-2. A summary map of these categories, along with the frequency in each category, is shown in Diagram A in Appendix M-3.

In this diagram, the visual art participants' perceptions toward creativity fell into three main categories based on the similar meanings and the frequency that emerged from the coding analysis. These categories were general concepts (5.3.1-1.1), the characteristics of creativity (5.3.1-1.2), and process and product (5.3.1-1.3). Each main theme is discussed below.

5.3.1-1.1 General Concepts

In this category, the definitions of creativity from the visual art participants'

descriptions can be basically distributed into four sub-categories: (A) creativity is nurtured, natural or both; (B) general-based creativity and art-based creativity; (C) personal experience or opinions of creativity; (D) degree of creativity.

(A) Creativity is Nurtured, Natural or Both

There were four visual art participants (4/7) who believed creativity can be fostered through an effective nurturing environment and appropriate teaching or training. Among these participants, Young further pointed out that the teacher is a key factor to inspire students' creativity; and a few participants (e.g. Chao and Liu) pointed out other effects that may have a significant influent on nurturing creativity, such as personal life experiences, or "personal humane factors". As Chao stated in her interview,

> *"I only can say that education or teaching can only improve 50%, and another 50% comes from the students themselves…I think it depends on how hard they work on their work, or even through their reading or learning, or how strong the feelings or emotions they feel in their life experience…I believe that it is more about the personal humane factor…(which) actually can also be promoted or supplemented by education."*

Liu also kept the same point and explained that "*I believe it (creativity) can be accumulated by time and age … The more experience you gained, the more feelings you can express, or the more expressions you can present through your work.*"

The other three participants (3/7) indicated that, even though creativity needs acquired effort or can be stimulated through education or training, it is innate talent that actually has a more powerful influence, such as from Liao's description:

> *"I think that part of creativity is inborn, and it just has not appeared. Or it may only appear in an inconspicuous place, so that we haven't noticed it. Hence, if we can find it and promote it, it may have incredible power. So creativity also can be fostered through education."*

However, it needs to be noted in this sub-category that Chien gave an interesting conversation in her interview, where she firstly defined that creativity is about innate talent and also needed acquired effort. Replying to my question about fostering creativity through education, she asserted that

> "surely… because if it cannot (be fostered), why do arty people have a higher creativity? They were not born as creative persons; they were fostered in their creativity while they were learning art or the other arts-related subjects, and maybe from their personal life experience."

Here, this actually reveals two messages. Firstly, that Chien showed a slightly inconsistent stand in her viewpoints of creativity from nurtured and natural; secondly, she may think that artistic people have a higher level of creativity than non-artistic people, which refers to the sub-category of art-based or general.

Finally, there was no vote to support the concept of natural creativity in the visual art group.

(B) General-based creativity and art-based creativity

Referring to the second sub-category, about half of the visual art participants (4/7) showed their stance toward general-based creativity as they believed that creativity belongs to a natural concept. When describing creativity, they tended to explain creativity as a general idea or capability, and that can be presented in many ways and in any forms, particularly in our daily life without a necessary being only shown in art forms or specifically pointing to any related field or subject. As Liu mentioned,

> "[creativity] usually comes from a problem happening, and then we may find ways to solve this problem. And "the process" that we are finding the solutions or solving the problem is creativity. It may be just one problem, but there may be more than one solution…"

In contrast, three visual art participants (3/7) who believed in art-based creativity, highlighted that creativity needs to be expressed through an art

form. This simply because creativity for them was more related to personal experience in the field of art. They also suggested that fundamental training, in terms of knowledge, skills and personal internal improvement, plays an essential role in the development of creativity (also refers to the third category- product, Section 5.3.1-1.3)

There was an interesting case from Chien. In her interview, she first stood for general-based creativity, but, from her posed examples, she is more related to art-based creativity (e.g. she believes that learning art can help students to gain creativity easier). Thus, I tried to figure out her stance by asking many relevant questions from different angles. Besides this, she had a special description of creativity that emerged from her interview.

> **"M:** *… (Do) you think that you are a creative person?*
>
> **Chien:** *Compared to most people, I am; but in the University of the Arts, I think I am below the middle level in comparison to many art people.*
>
> **M:** *Why?*
>
> **Chien:** *… I think that my talent is in realism (good at drawing realistically and have the ability to memorise an image) … but in this technological time…I think creativity today refers more to abstract form (in art)."*

When reading the sentence from her interview transcription, "*I think creativity today refers more to abstract form (in art)*", I firstly interpreted that this implies her viewpoint of creativity means to be original, which refers to the next main category, the characteristics of creativity. However, after repeated reading, I found that although her drawings were more realistic, this does not mean there was no creativity or original ideas involved in her drawing process or final product as the meaning of original can only make sense to the learner themselves (e.g. mini-c creativity) and not necessarily to others. Therefore, I decided to code her viewpoint as belonging to the category of art-based creativity.

(C) Personal Experience or Opinions toward Creativity

The third sub-category highlights that all the visual art participants' perceptions of creativity came from their personal (arts) learning or art-making experience. For example, Liao was the case who verbally described her creativity based on her personal opinions. However, through repeated reading of her interview context and contrasting her definition of creativity ("*something is different from the normal; to change*") and the relative examples she provided (e.g. "*how can I deal with the same materials or topics and then give a new meaning into my work*"), it can be found that her strand of creativity actually came from her art-making experience. This finding also implied that the participants had not had any training or knowledge in relation to the idea of creativity given in their teacher training course before participating in this study. It can be proved there was no training course entitled creativity shown on the list of the National Secondary ITT Curriculum, either in MOE (MOE, 2011) or at the target university (NTUA-TEC, n.d.).

(D) Degree of Creativity

Different degrees of creativity can be identified through the interview conversations with the visual art participants. Their degrees of creativity are detailed in Table 14 below, along with the frequency of the occurrence of each creativity degree and overall.

Visual art Participants	Degree of Creativity			
	Big-c	Pro-c	Little-c	Mini-c
Chou		✔		✔
Liao			✔	
Chien		✔		
Chao		✔		
Young				✔
Wu				✔
Liu			✔	
Total	0	3	2	3

Table 14 Visual art participants' views of creativity degree before the workshop

It can be seen from Table 14 that pro-c and mini-c creativity were together placed as the most frequently mentioned creativity degree, each of which

had three participants holding the view. Three participants from the non-visual art group believed in big-c creativity. Furthermore, it can be found that some participants actually hold more than one view of the creativity degree (for example, Dai).

From Table 14, almost half the visual art participants explained their creativity by focusing on the degree of professionalism (pro-c) (3/7) or referring to it as the learning process (mini-c) (3/7). Two participants (2/7) explained their creativity more in relation to daily life experiences so I referred to their perceptions of creativity as little-c creativity. However, there were no participants who mentioned big-c creativity in the visual art group. Furthermore, it can be found that one participant held more than one view on degrees of creativity, as Chou's explanation of creativity included pro-c and mini-c creativity (e.g. *"creativity is that it must be trained or cultivated through a period of fundamental learning which can be skill or internal improvement..., and then people can have the capability to produce a creation"*).

5.3.1-1.2 The Characteristics of Creativity

The category of the characteristics of creativity can be divided into two groups based on the visual art participants' descriptions, including (A) definitions of creativity and (B) attitudes toward creativity.

(A) Definitions of Creativity

Based on the three highest frequencies, the definitions of creativity gathered from visual art participants include originality (4/7), innovation (3/7), and imagination (2/7).

(B) Attitudes toward Creativity

Several characteristics of creativity can be seen as creative attitudes that only three participants described creativity in relation to creative attitudes in their interviews, such as facing challenge (1/7), and self-determination (1/7), and problem-solving (1/7).

5.3.1-1.3 Process and Product

From the visual art participants' descriptions of or their experience of creativity, two sub-categories were apparent, namely (A) process-based creativity and (B) product-based creativity. It is significant to note that the four participants in both sub-categories suggested the need for fundamental learning or training in creativity development, including knowledge, skills and personal internal improvement.

(A) Process-based Creativity

In this category of process-based creativity, two meanings emerged. Firstly, creativity was recognised as a starting point by four of the participants (4/7), such as a thought, inspiration, capability or interests. These mental activities (e.g. thought or idea) should be innovative and original, and to prepare for further actions, such as Chao expressed "*creativity is an interest to create a piece of art*".

Secondly, three of the visual art participants (3/7) mentioned that creativity also belongs to a "process", such as the process of thinking, process of finding solutions, or process of finding/building personal style.

(B) Product-based Creativity

With regards to product-based creativity, two meanings were included: (a) through an object; and (b) that creativity is a presentation/ thought/ style. Firstly, three participants (3/7) mentioned that creativity should be expressed through an object. Among them, only Young further explained that it could be a complete product or an unfinished work, as she pointed out in her interview, "*actually even just a piece of unfinished drawing also presents creativity. But it does need to be expressed through something that people can see and feel.*"

In addition, three participants (3/7) explained creativity as a presentation of thought (2/3) (e.g. "*creativity is to express whatever you think…*" (Wu),

and "*creativity is a first-hand presentation from your creative ideas*" (Young)), or personal style in art (1/3) ("*creativity can be a personal style appearing in your work, so that people can easily tell the style from your artwork*" (Chao)). Although both "thought", "idea" and "style" belong to abstract concepts; creativity in their descriptions was not a starting point or a process. Instead, it was a substance which can be distinguished by other people or can be expressed by a person themselves. Thus, I referred to them as product-based creativity.

5.3.1-2 After Attending the Workshop

In this section, the discussion focuses on the visual art participants' perceptions of creativity after attending the workshop. The same coding process was applied to the analysis of the post-workshop interview transcriptions. Three common themes and the sub-categories are summarised in Table 15 below.

Themes	Code Categories
1. General concepts	1-1 Art based (1)/ general based (2)
	1-2 Degree of creativity: Big-c (1), Pro-c (2), Little-c (3), Mini-c (4)
2. Characteristics	2-1 Definitions: Originality (1), Innovation (2), Imagination (3)
	2-2 Attitudes toward creativity
3. Process & product	3-1 From the participants' descriptions: process (1) product (2)
	3-2 From the criteria of defining creativity: process (1), product (2), both (3)

Table 15 The common themes of creativity from the post-workshop interviews

The definitions of the themes and codes/sub-codes are presented in Table B in Appendix M-1. The detail of the coding process for the post-workshop interview transcriptions is given in Appendix M-4. Overall, more codes emerged, but the frequency of each code was actually higher. This implies that the visual art participants have a broader viewpoint of creativity in common after attending the workshop. Diagram B in Appendix M-3 summarises an overview of the themes and sub-categories with the frequency, including three main themes: general concepts (5.3.1-2.1), the

characteristics of creativity (5.4.1-2.2), and process and product (5.4.1-2.3).

5.3.1-2.1 General Concepts

In this category, the visual art participants' perceptions of creativity after attending the workshop can be generally divided into two sub-categories, including (A) general-based creativity and art-based creativity; and (B) degree of creativity. Compared to the findings before the workshop, two sub-categories were missing, namely "creativity is nurtured, natural or both"; and "personal experience or opinions toward creativity". This is because, firstly, the rationale behind my study supposed that creativity can be fostered, and this was the reason for the CPed workshop. Therefore, during the workshop, I discussed with the participants about the issues of nurtured and natural creativity, and they agreed that creativity can be fostered through appropriate pedagogy. Secondly, throughout the CPed workshop the participants were presented theories of creativity (particularly PT), and thus it was not necessary to identify where their viewpoints of creativity came from afterwards. The two sub-categories are discussed below.

(A) General-Based Creativity and Art-Based Creativity

Chao is the only visual art case who held her viewpoint of art-based creativity. As indicated in her interview, "*creativity still has to be shown through an artwork*", and she also emphasised the necessity and importance of foundational training. The others (6/7) all believed in general-based creativity (domain-free) after attending the workshop. Although those who believed in general creativity had more experience in art learning and making in their lives, they described their creativity more in relation to daily examples or general features of creativity, which it is believed to, possibly, be applied in every learning subject and not specifically focused on the field of the arts. For example, Liu said that "*…it (creativity) means to me, particularly in our daily life, that if an idea you had or the way you used to solve a problem is different from others, then this ability can be called creativity*".

(B) Degree of Creativity

During the workshop, the different degrees of creativity have been explained, and little-c and mini-c creativity (mainly focused on PT) have also been properly mentioned in a learning context. The visual art participants' views of the degree of creativity after attending the CPed workshop are detailed in Table 16 below, along with the frequency of the overall occurrence.

Visual art Participants	Degree of Creativity			
	Big-c	Pro-c	Little-c	Mini-c
Chou				✔
Liao		✔	✔	✔
Chien			✔	
Chao		✔		✔
Young			✔	✔
Wu			✔	✔
Liu			✔	
Total	0	2	5	5

Table 16 Visual art participants' views of the degree of creativity after the workshop

It can be seen from Table 5.6, about half of the visual art participants explained their creativity by focusing on the degree of little-c and mini-c creativity (5/7 each), which met my expectations and the purpose of this workshop. There were two visual art participants' viewpoints of creativity (2/7) that belonged to the degree of pro-c creativity. In addition, they both emphasised the importance of foundational training for professional knowledge and skills in order to promote more powerful creativity. Liao was the only case whose viewpoint of creativity covered from mini-c creativity to pro-c creativity, as well as Wu and Young's viewpoint that covered mini-c and little-c creativity.

5.3.1-2.2 The Characteristics of Creativity

In this category, the characteristics of creativity emerged from the interviews with the visual art participants after they attended the workshop,

including (A) definitions of creativity and (B) attitudes toward creativity.

(A) Definitions of Creativity

The definitions of creativity were chosen from the highest three frequencies that emerged from the creativity viewpoints of the participants after the workshop, including innovation (5/7), originality (5/7), and imagination (3/7). It is interesting to note that the multiple features of creativity normally overlapped in every single participant's description. For example, Lou defined that creativity "*is to use your imagination and original ideas to create something new*", which contains the features of imagination, originality and innovation toward creativity. Liao also raised the characteristics of "transformation", "innovative" and "originality" in her definition of creativity.

> "… creativity is a change; for example, for students, change is when they get information from their teacher; they can accept it but transform the information by using their own ways to express."

(B) Attitudes toward Creativity

Regarding the attitudes towards creativity, only three participants' descriptions have been identified as belonging to this category, including confidence (Chao), self-determination (Wu), and intention and joyfulness (Young).

As can be seen from Appendix M-4, there were many codes in relation to this attitude category that actually emerged. Through repeated and careful concerns for the meanings, I divided these attitude-related codes into several sub-categories, which belonged to two different main themes. The first one is the participants' definitions of creativity in relation to attitudes; for example "*(creativity is) someone seeking change and original ideas all the time*" (Young). The other is about creative attitudes that emphasise the occurrences during the learning or working process (refer to the next section below).

5.3.1-2.3 Process, Product or Both

In this category, the visual art participants' perceptions of creativity in relation to the features of process and product were designed to be analysed from two different angles: (A) directly from the visual art participants' definitions of creativity; and (B) from the criteria that the visual art participants used to identify creativity. The reason for doing this is to offer a triangulation in order to review the visual art participants' viewpoints of creativity from different perspectives. From the first angle, the participants' viewpoints toward creativity from their descriptions were considered and this is more in relation to their knowledge-based information. The second angle, on the contrary, explored how the participants determine creativity by observing the creative activities of learners (other people) and this involves the elements of practice.

(A) From the visual art participants' definitions of creativity

The visual art participants' definitions of creativity after attending the workshop can be divided into two sub-categories, namely process-based creativity and product-based creativity.

■   **Process-Based Creativity**

Creativity in this sub-category has been explained as a thought, change, or idea as a starting point to prepare for the actions that follow, such as Liu's idea of creativity. She thinks creativity "*means to me, particularly in our daily life, that an idea you had or the way you used to solve a problem that is different from others…*" Similarly, Lou also explained that, to her, creativity "*is to use your imagination and original ideas to create something new*", in which creativity is used to create a new object.

In addition to the meaning of a starting point, Young also pointed out the meaning of "process" in her interview, "*…creativity to me … it also is a process of joyful imagination…*", in which she emphasised that the learners' imagination process can be seen to be creative.

■ **Product-Based Creativity**

In this sub-category, five visual art participants (5/7) thought creativity should be presented through an object that people can see or feel. Among those, the features of being meaningful (2/5), foundation training (2/5), and positive outcome (1/5) were suggested.

Within these sub-categories, the concepts of "meaningful" objects that are gathered from the participants should be (a) based on our everyday life (1/2) or (b) based on the object's inner characteristics (1/2). Here, Wu's example is provided within her viewpoint of creativity based on an *"object's inner characteristics to create and change."* Wu further explained the meaning of inner characteristics,

> *"…just like every object has its own characteristics and principles or… maybe… I could say "foundation", thus whatever changes these features still exist. And creativity needs to be built or expressed based on these features."*

(B) From the criteria of identifying creativity

To examine how the visual art participants determine creativity, one post-workshop interview question was set up; "how do you know whether your students engage in CL or creative thinking?" In order to clearly identify the elements, I encouraged the participants to offer examples from their actual teaching experience or the learning experience from this workshop while doing the interviews. This allowed the participants to think widely about the answers by reflecting on a real situation. Table 17 below presents the visual art participants' views of identifying creativity, along with the frequency of the occurrence for each creative criteria and the overall result.

Visual Art Participants	Criteria of Creativity		
	process	product	both
Chou		✔	
Liao			✔
Chien			✔
Chao		✔	
Young			✔
Wu			✔
Liu	✔		
Total	1	2	4

Table 17 The visual art participants' view of creative criteria

It can be seen from the overall result that more than half of the participants (4/7) agreed that creativity can be both identified from final products and through the working process. Two participants (2/7) saw creativity by focusing on a product, and one (1/7) by the process. The detail of how the visual art participants judge the individuals' creativity will be explained below.

■ **Process: Attitudes, Reactions, and Responses toward Creativity**

In general, the visual art participants in this category thought that creativity was better identified from the individuals' (e.g. students) learning or making a process through the attitudes, actions and responses. These include several particular features, such as immersion (4/7), intention (4/7), self-determination (4/7), playful/joyfulness (3/7), and confidence (2/7). For example, Wu explained her criteria of judging creativity by reflecting upon her teaching experience with more detailed features, including immersion, joyfulness, and the posing of questions.

> *"I always see students' reactions or their responses…, [for instance] when you see their eyes are shining, then I realise that I have caught their attention and they are interested in it. And when they actively ask questions or they start to discuss this issue with their partners, I can tell they are engaging in creative thinking. To sum it up, you can tell that students are very different than they usually are."*

■ **Product: Through an Object**

It is interesting to find that two participants (Chou and Chao) emphasised that creativity can only be determined by a concrete object, such as a piece

of work. For example, Chou explained,

"[creativity is while] *I saw someone's work with innovative ideas or different expressions… [for example] I would be surprised how wonderful and imaginative their drawings are, and the details they actually have observed and felt, even more than me!*"

In Chou's description, he firstly pointed out the quality of students' drawing (innovative ideas and different expressions), and he further emphasised on their details which made him surprised, that are all related to the "product".

In the following section, each case of the visual art participants' perceptions of creativity is examined by comparison with the findings before and after attending the workshop.

5.3.2 Stage 2: The Changes to the Visual Art Student Teachers

5.3.2.1 The Visual Art Cases

Although the group of seven participants were all specialising in the visual art and attended the same workshop, based on the individual's professional background (e.g. fine art, design, Chinese brush painting; these specific art subjects are not only presented in different ways but also require different knowledge and skills) and their learning experience, they often have different interpretations of creativity. The changes in each visual art case's perceptions of creativity are focused on the comparisons before and after the attendance in the workshop. The presentation of each of the discussions covers the following categories: (A) general-based and art-based creativity; (B) degree of creativity; (C) process-based, product-based creativity or both. It is noted that the reasons I did not examine the characteristics of creativity (both definitions of and attitudes toward creativity) are because, firstly, from the overall results, the participants' definitions of creativity did not show a big change, and secondly, the attitudes toward creativity mostly appeared after the workshop. However, this information will be summarised in Section 5.3.2.2,

and also further compared with the literature of PT in Chapter Seven. Finally, a brief conclusion for each case will be provided in a summary figure, involving the viewpoints of general/art-based and process/product-based creativity.

Case A: Chou

Chou thought that creativity was hard to define in both of his interviews. As he explained,

> "…To define creativity, I feel that it is very difficult to give a clear definition because it involves too many meanings... Before the workshop, I may think creativity is just a feeling to make a piece of art, but after I found that this meaning may just be part of a definition of creativity. There are too many things I have to care about when I would like to foster students' creativity …. And I misunderstood that interesting means creativity before!"

His perceptions of creativity before and after the workshop, according to the categories, are summarised in Table 18 below.

Chou	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before		✓		✓		✓	✓	✓
After	✓					✓		✓
Change	○		○				○	
* ○: change; ✘ : non-change								

Table 18 The overall changes for Chou

It can be found from the above table that Chou's perceptions of creativity were changed in each category. In general, his viewpoint of creativity before the workshop was in relation to the process and the outcome of art-based learning (e.g. creativity in art-making). Consequently, it involved the degree of PCC and MCC in order to judge the quality of creative products. His stance on creativity then turned to general and product based (e.g. creativity needs to be present in a (art) product). In addition, he paid more attention to viewing creativity in teaching and learning, which belongs to MCC creativity.

However, while looking closely, creativity for him may be more related to art, more clearly as art-product based. For example, he explained that "*creativity is an inspiration to make a piece of artwork*" before he attended the workshop, in which creativity to him was more related to a personal style in artwork so it requires appropriate foundation training. Afterwards, he mentioned that students' creativity can only be assessed from their artworks and their descriptions of their artworks.

Diagram 12 below presents the details in the changes of Chou's view of creativity involving the categories of general/art-based and process/product-based creativity.

General-based creativity

Process-based creativity

Product-based creativity
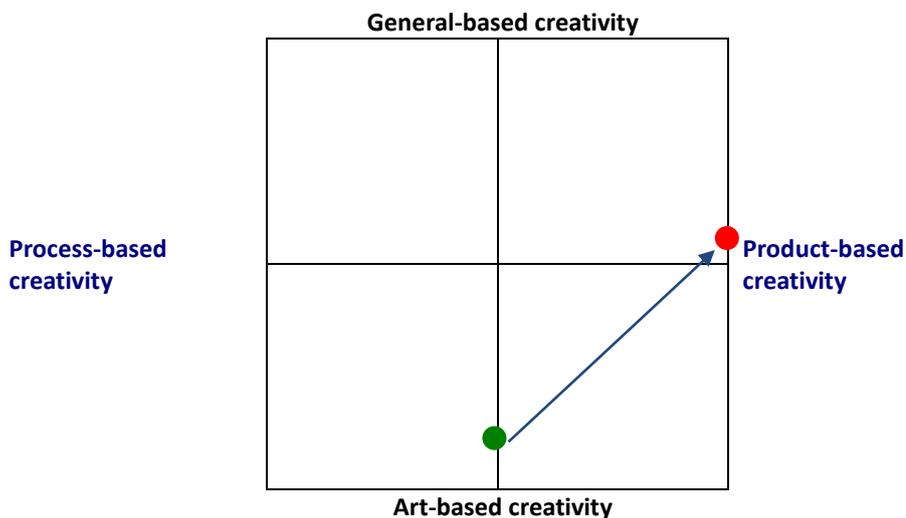
Art-based creativity
Diagram 12 The change in Chou's view of creativity

From Diagram 12, Chou's perceptions of creativity were from the art-based process and product to the general-based product, but are much closer to art-based.

Case B: Liao

Table 19 below shows the overall change in Liao's perceptions of creativity.

Liao	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before	✔				✔		✔	✔
After	✔			✔	✔	✔	✔	✔
Change	✖		○				✖	

Table 19 The overall change in Liao

It is clear to see that there was only one notable change shown in Liao's perceptions of creativity. In the category of the degree of creativity, her stance moved from LCC ("*not only in making art, creativity is important as well in doing anything*") toward the degrees covering MCC, LCC and PCC as she discussed creativity in learning and its high quality. Furthermore, Liao kept her viewpoint to general-based creativity with the idea of "change". However, when comparing her two interviews, the meanings of change seemed to involve different degrees. As she explained in the post-interview,

> "… creativity is a change… for students, … is when they get information from the teacher, they can accept it but transform the information by using their own ways to express … after the workshop I realised that creativity actually needs to be built up from a foundation… before I … focused on seeking an innovative, different idea and expression … [and] believed this is what creativity is. But now, I believe that sufficient capacity and training actually brings more powerful creativity."

From her description, the meaning of change was about the thinking process or doing something in a novel way before the workshop. This changed to ideas or the process of "transformation" and "originality" and was more concerned with product based. She also mentioned the necessity of foundation training. Thus, the change in Liao's viewpoint of creativity only showed a slight move; both in the general-based process and product (see Diagram 13 below).
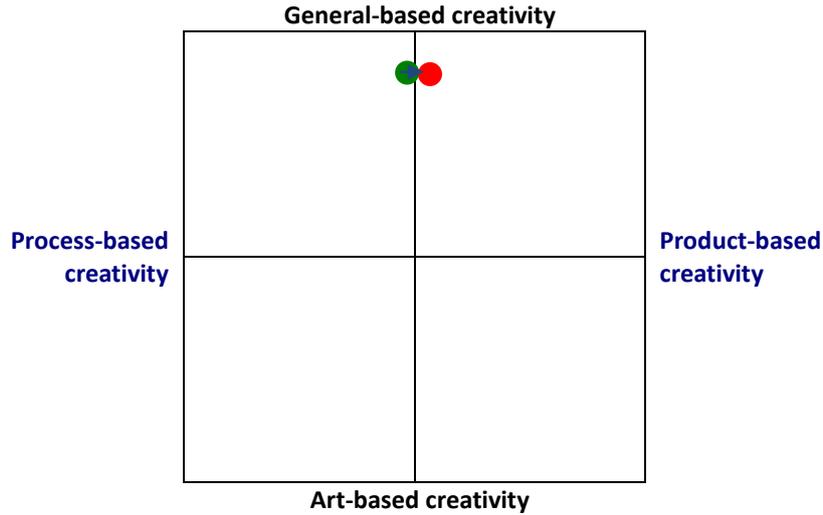
Diagram 13 The change in Liao's viewpoint of creativity

Case C: Chien

To discuss the change in Chien's perceptions of creativity, it was noted that she was late for every session throughout the workshop, sometimes even appearing 30 minutes before the session finished. Therefore, it could be expected that her acquirement would be limited somehow, although from Table 20 below the changes seem to apply to her perceptions of creativity. This limitation emerged in her interviews, in which her viewpoints of creativity and CPed (see Section 5.4.2.1 Case C: Chien) tended to be short and only on the surface. Additionally, sometimes incoherencies appeared between her interview conversations and her teaching practice in Session 5 (see Chapter Six).

Chien	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before		✔		✔				✔
After	✔				✔		✔	✔
Change	O			O			O	

Table 20 The overall changes for Chien

Referring to Chien's viewpoints of creativity, she firstly raised the point that creativity is a creative capability (general-based). She then described herself as an uncreative person, for example, because her art talent is based on realism, explaining that creativity is required to create something

203

new. Moreover, from her pre-interview, she implied that learning art could bring more creativity to students. As a result, I identified her stance on creativity was in art-based product with a PCC degree. After the workshop, her stance on creativity became an ability of breakthrough, aiming to improve the current situation, which can be made sense of by producing a positive outcome in general-based creativity. In addition, she explained learners' creativity by looking at their process and product.

The changes in her viewpoint on creativity are summarised in Diagram 14 that is shown in next page. It is clear to see from the figure that Chien's perceptions of creativity moved from an art-based product to a general-based process and product, but closer to product.
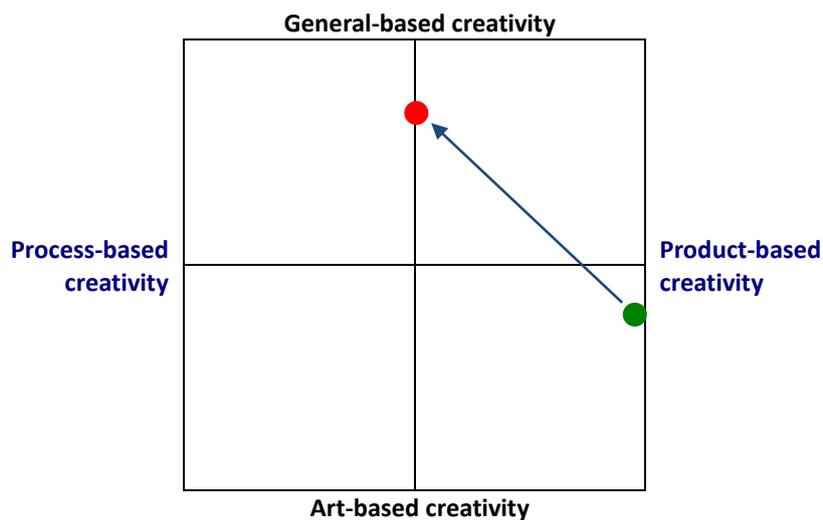
Diagram 14 The change in Chien's viewpoint of creativity

Case D: Chao

Chao is a 44-year-old student, who had studied for her first degree and was currently on a Masters course in the Department of Chinese Brush Painting. She had also had plenty of teaching experience in Chinese brush painting in her own art studio for many years. Based on her interests and brief background, I assumed that her personality and thoughts may be more conservative and follow tradition. This is because Chinese brush painting in Eastern culture requires very detailed skills training and personal internal cultivation, and the creations tend to follow the principles and standards in the books of model paintings. Bearing in mind her background information,

Chou's perceptions of creativity, therefore, tended to focus on art-based product in PCC degree, both before and after the workshop. The overall change to Chou's creativity is summarised in Table 21 below.

Chao	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before		✓		✓				✓
After		✓		✓		✓		✓
Change	✘			○				✘

Table 21 The overall change in Chou

It can be seen from the table that Chou did not have many changes overall, only in the degree of creativity by adding the concepts of mini-c creativity. More specifically, she had gained more specific concepts to help her observe students' creativity, for example, "*to leave the last 5 minutes in every class and encourage students to share and explain their works*".

In addition, Chou's creativity stance is really related to producing original creations to a certain standard, which belongs to art- and product-based creativity. She also strongly believes in the powerful foundation training for creative development, including skills and personal internal improvement. Also, in her post-interview (below), she suggested that the importance of a teacher's role was to promote creativity.

> *"… if the students can be inspired by a good teacher in terms of their emotions, skills, thinking and so on, they must show powerful creative capacity."*

Thus, Chao's viewpoint of creativity showed no change either before or after the post workshop interviews. However, there were art changes in the art-based product category, but more ideas for process were added after the workshop (see Diagram 15).

General-based creativity

Process-based creativity

Product-based creativity

Art-based creativity
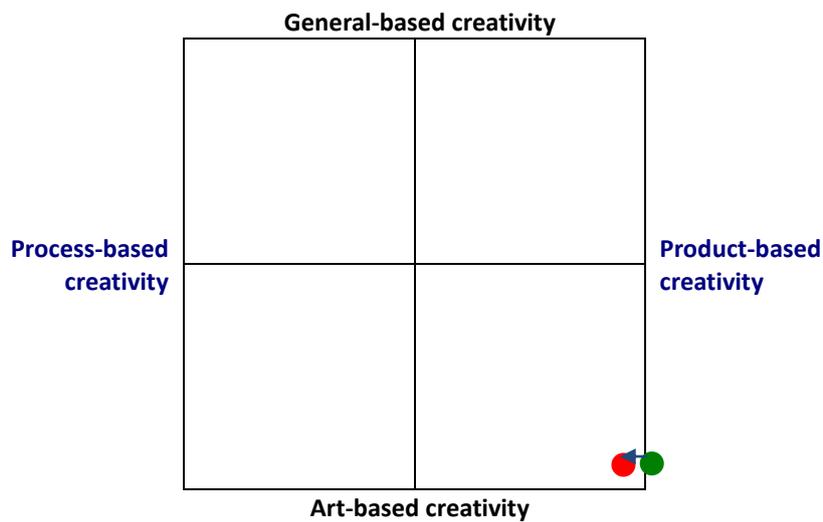
Diagram 15 The change in Chao's viewpoint of creativity

Case E: Young

Young was really interested in this CPed workshop so she was the first volunteer to take part in my study. In addition, she actually had a very flexible experience from her past learning, which was recognised as a good starting point in her conceptual development of creativity. She also had some visual art teaching experience in a government-funded art institution. During the workshop, she also booked many individual tutorials with me between the workshop sessions to discuss her teaching plans and teaching methods. Her changes in creativity for each category are summarised in Table 22 below.

Young	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before	✔					✔	✔	✔
After	✔				✔	✔	✔	✔
Change	✘			O			✘	

Table 22 The overall changes for Young

In the overall results, Young only had a change in the category of the degree of creativity where LCC was added. However, her creativity for general-based process and product had actually had a conceptual change. As she explained,

> *"… after the workshop I … found that before I had just focused on 'creativity', this vocabulary. So that creativity only made sense to me*

when I felt that someone had lots of ideas which were different from others, or someone is seeking for change and originality all the time! But, after the workshop, creativity to me contains not only the above meanings; it also is a process of joyful imagination with no limitation and burden at all." (Young)

Her change of creativity actually came from her change of viewpoint on the concepts of CPed where she finally realised that the aspect of "procedure" was missing from her teaching (see the detailed discussion in Section5.4). Consequently, this idea was then applied to her understanding of creativity from "*the process of thinking*" to develop a specific viewpoint of creativity with "*a process of joyful imagination*" in an educational context. Young's change of viewpoint to creativity is summarised in Diagram 16 below, where her creativity only shows a tiny move closer to process.

General-based creativity

Process-based creativity

Product-based creativity

Art-based creativity
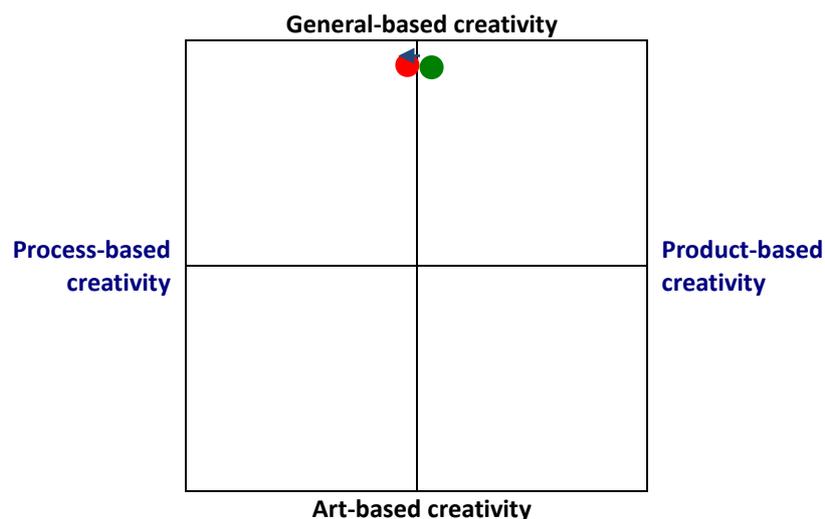
Diagram 16 The change in Young's viewpoint of creativity

Case F: Wu

Wu evaluated herself as having no change in her ideas of creativity in the post-interview. She defined the meaning of "unlimited" as creativity based on her art-making and learning experience, together with some of her life examples. Table 23 below shows the changes applying to Wu.

Wu	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before	✓					✓		✓
After	✓				✓	✓	✓	✓
Change	✗		○				○	

Table 23 The overall changes for Wu

From the table, Wu's viewpoints of creativity after the workshop included the additions of LCC and process-based creativity. In particular, she mentioned identifying learners' creativity by their learning/making process through their attitudes and behaviour, such as asking questions. Thus, the change in Wu's perceptions of creativity moved from general-based product toward general-based process and product (see Diagram 17).
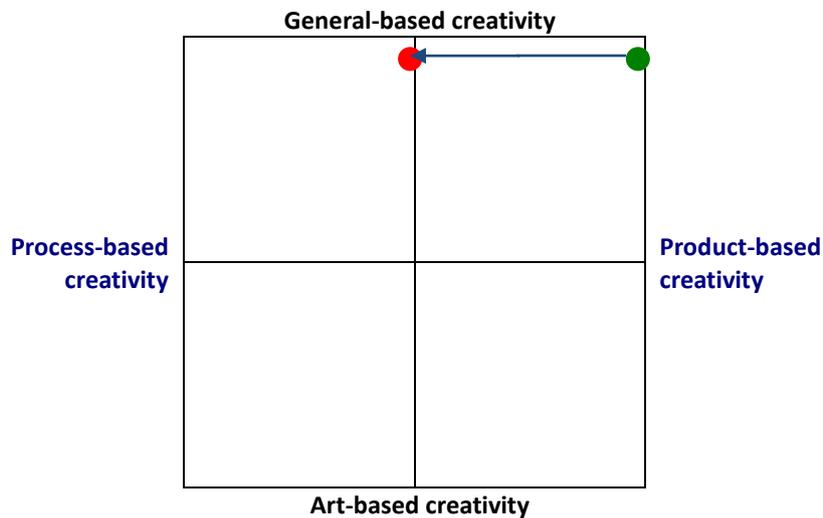
Diagram 17 The Change in Wu's viewpoint of creativity

Case G: Liu

Liu had no huge changes in her viewpoints of creativity either before or after the workshop (see Table 24 below).

Liu	General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based
Before	✓				✓		✓	
After	✓				✓		✓	
Change	✗		✗				✗	

Table 24 The overall changes for Liu

As Liu explained, her creativity did not show any big changes in before and after the workshop (also shown in Diagram 18 below), that it was general

based ability and the process of problem-finding and solving in daily life. However, she valued the fact that this workshop did help her to locate her perceptions of creativity into the teaching and learning context: *"Before the workshop, creativity … is an unclear concept, but after… it has become systematic knowledge … and also I have learned how to apply the concept of creativity systematically into my teaching …"*

General-based creativity

Process-based creativity

Product-based creativity

Art-based creativity
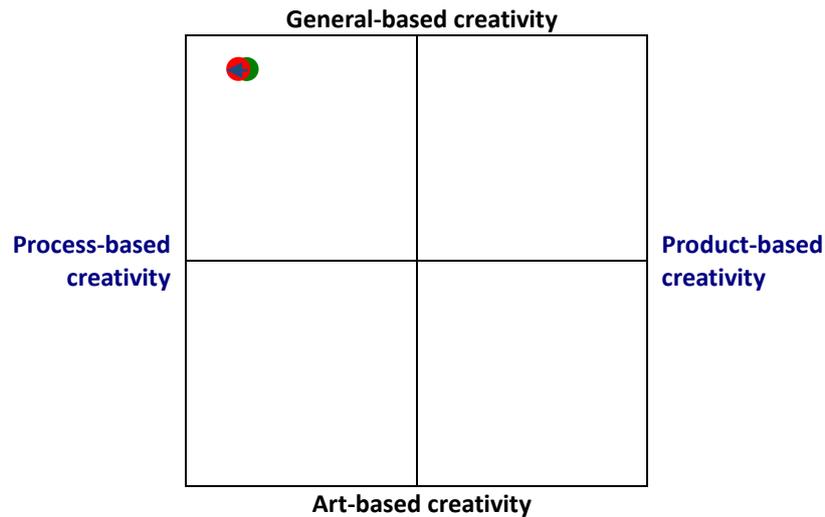
Diagram 18 The change of Liu's viewpoint to creativity

5.3.2.2 Summary of the Changes

From the overall results, the changes in visual art participants' perceptions of creativity can be summed up as below:

1. Most visual art participants' perceptions of creativity (see Diagram 19 below) tend to be located in general-based creativity, and they identified creativity to include both process and product after the workshop. From the overall most visual art participants did not have big changes in their perceptions of creativity.
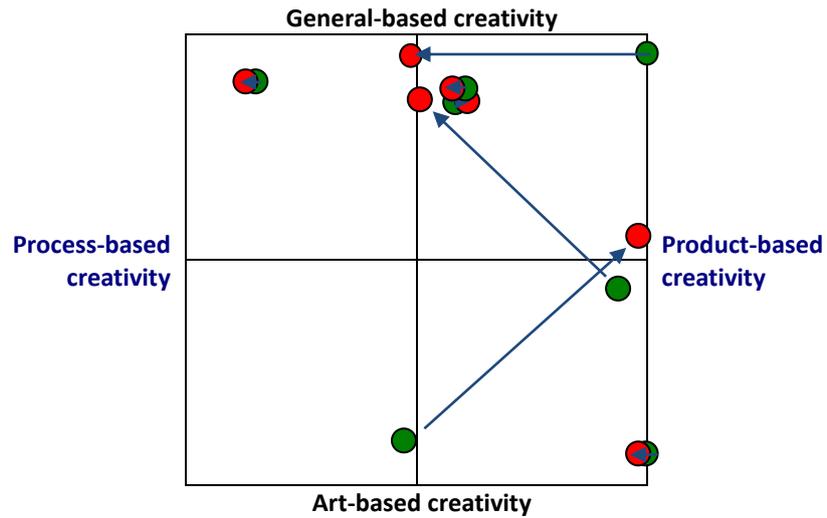
Diagram 19 The overall change of visual art participants' viewpoints to creativity

2. Visual art participants' perceptions of creativity also tend to focus on LCC and MCC, which is shown in Table 25.

Visual art participants		Degree of Creativity			
		Big-c	Pro-c	Little-c	Mini-c
Chou	before		✔		✔
	after				✔
Liao	before			✔	
	after		✔	✔	✔
Chien	before		✔		
	after			✔	
Chao	before		✔		
	after		✔		✔
Young	before				✔
	after			✔	✔
Wu	before				✔
	after			✔	✔
Liu	before			✔	
	after			✔	

Table 25 The overall change of visual art participants' viewpoints to degree of creativity

3. The characteristics of creativity from the visual art participants' viewpoints mainly include innovative, original, and imaginative shown in Table 26.

Visual art participants		The Characteristics of Creativity			
		Innovative	Original	Imaginative	Others
Chou	before				
	after	✔	✔	✔	
Liao	before	✔	✔		✔ (change)
	after	✔	✔	✔	✔ (transformation)
Chien	before	✔			
	after	✔		✔	
Chao	before	✔	✔		
	after				
Young	before		✔	✔	✔ (transformation/connection)
	after	✔	✔	✔	✔ (change)
Wu	before		✔		✔ (not limited)
	after	✔	✔		✔ (change; not limited)
Liu	before			✔	
	after		✔		

Table 26 The overall change of the characteristics of creativity

4. More features of the attitudes toward creativity (see Table 27 below) emerged from the visual art participants' descriptions after the workshop, especially when they identified learners' creativity. The high-frequency attitudes included immersion, intention, self-determination, playful/joyfulness, and confidence.

Visual art participants		Attitudes toward creativity					
		immersion	intention	self-determination	playful/ joyful	confident	other
Chou	before						
	after		✔				
Liao	before						
	after	✔	✔	✔	✔		✔ (risk-taking)
Chien	before						
	after	✔	✔				
Chao	before						
	after		✔	✔		✔	
Young	before						
	after	✔	✔	✔	✔		
Wu	before			✔			✔ (facing challenge)
	after	✔		✔	✔		✔ (question- posing)
Liu	before						✔ (problem-solving)
	after					✔	✔ (problem-solving)

Table 27 The overall change of visual art participants' viewpoints to attitudes toward creativity

Next section, the findings will focus on the visual art participants' perceptions of CPed.

5.4 Sub-question 2: Student Teachers' Perceptions of Creative Pedagogy

As explained in Section 5.2, an inductive-deductive approach was used to analyse the visual art participants' perceptions of CPed, in which the emerging inductive themes then further deductively pattern-matched with the definitions of the elements of CPed, namely CT, T for C, and CL from the literature in order to clearly identify their perceptions of CPed and its features. These terms, in relation to CPed, have been broadly discussed in Chapter Two (see Section 2.4). Similar to the section 5.3, the presentation of the visual art participants' perceptions of CPed involves the findings of stage 1 (5.4.1): before attending a CPed workshop (5.4.1-1) and after attending the CPed workshop (5.4.1-2), and stage 2 (5.4.2): the changes to the visual art student teachers.

5.4.1 Stage 1: Before and after Attending the Workshop

5.4.1-1 Before Attending the Workshop

Identifying the visual art participants' perceptions of CPed was complicated as some participants may hold more than one element of CPed (e.g. CT, CL and T for C). In addition, they saw these elements as maybe having similar or different purposes, or that these elements may become the purpose of CPed (e.g. CPed aims to achieve T for C). The common themes and sub-categories of the pre-workshop interview data are shown in Table 28 below (The definitions of the themes and codes are presented in Table A in Appendix N-1).

Themes	Code Categories
1. General Concepts	1-1 General definitions
	1-2 General purposes
	1-3 Other general features
A. Creative Teaching	A-1 The features of CT
	A-2 The purpose of CT
B. Creative Learning	B-1 The features of CL
C. Teaching for Creativity	C-1 The features of T for C
	C-2 The purpose of T for C
D. Effective Teaching	D-1 The features of effective teaching

Table 28 The common themes and sub-categories of CPed in pre-workshop interviews

As can be seen from Table 5.18, several general messages firstly emerged from the pre-workshop interview data when I sorted them into three sub-categories (1-1- 1-3). In addition, more detailed patterns that describe the features of CT, CL, T for C, and effective teaching (ET) were further presented in categories A, B, C and D (The reason to add the category of ET is explained in Section 5.4.1-1.1 (A) below). The detailed coding process, along with the frequency, for the viewpoints on CPed from the visual art participants before they attended the CPed workshop is given in Appendix N-2. A summary of the findings is shown in Diagram A in Appendix N-3. The following discussion of the visual art participants' viewpoints on CPed, therefore, is based on the diagram to be divided into five main categories,

including general concepts (5.4.1-1.1), creative teaching (5.4.1-1.2), creative learning (5.4.1-1.3), teaching for creativity (5.4.1-1.4), and effective teaching (5.4.1-1.5). Additionally, a summary of the findings of before the workshop will be provided (5.4.1-1.6).

5.4.1-1.1 General Concepts

The general concepts of CPed can be explained in the following three features: (A) general definitions, (B) general purposes, and (C) other features. Each of the features explains below.

(A) General Definitions

When I asked what CPed means in the pre-workshop interviews, nearly all of the visual art participants (6/7) defined that it is "different from the traditional teaching" (e.g. Chou: *creative pedagogy...is to use an innovative way to teach, which is different from the tradition...*"), and only one participant (1/7) described it as "effective teaching [ET]" (Chao: "*it is systematic teaching. Through this teaching strategy, students at any level can learn things more easily and quickly...*"). I further asked them more detail in order to explain what the differences meant and a variety of answers then came out from their descriptions and their examples of CPed. Firstly, in general, the definition of traditional/normal teaching to the participants means that teaching follows certain structures from the textbooks using the teacher-talk approach, and without interaction with the students (for more detail, refer to Chapter One). Consequently, through careful analysis and examination, the meanings of 'different' mostly belong to CT (4/7) and ET (3/7) in the visual art participants (see Table 29). It is noted that, although CT has been defined as "teaching creatively and teaching effectively" (where "effective" presents a learning outcome), from the interview data, some participants directly defined CPed by particularly emphasising "effective teaching". This means that it is not only the main learning purposes but also the teaching methods that are all linked to the meaning of "effective". Thus, I added a new element, ET, to distinguish the differences.

214

Visual Art Participants	CT	CL	T for C	ET
Chou	✔			
Liao				✔
Chien	✔			
Chao				✔
Young		✔		
Wu	✔			
Liu	✔			✔
Total	4	1	0	3

Table 29 Visual art participants' definitions of CPed before the workshop

It can be seen from Table 29, that nearly half of the visual art participants (3/7) indicated the features of CT as CPed (e.g. including the meanings of teaching innovatively or teaching interestingly). Two participants (2/7) mentioned CPed as ET (e.g. Liao: "*it is to change or to improve from the traditional teaching in order to achieve better learning outcomes*"), and only one participant (1/7) had a view of CPed in relation to CL (e.g. Young: "*pupils must be the main role in learning, and the teacher is just an assistant to help their learning*"). In addition, there was one participant (1/7) who defined CPed with multiple elements (e.g. Liu: CT+ET: "… *[teachers should] change the way of teaching, such as to create some puzzles and so on, students certainly will gain different knowledge…*").

(B) General Purposes

There were two purposes for the visual art participants to carry out CPed, including "T for C" and "teaching effectively". The detailed information for each of the visual art participants refers to Table 30 below.

Visual Art Participants	Teaching for Creativity	Teaching effectively
Chou	✔	✔
Liao		✔
Chien	✔	✔
Chao		✔
Young	✔	
Wu		✔
Liu		✔
Total	3	6

Table 30 The reasons to perform CPed in the visual art group

215

It can be seen from the above table that there were three visual art participants (3/7) who either directly pointed out or implied that the aim of CPed is to achieve "T for C". However, none of them was identified as T for C in the section of General Definition. This is because creativity for these participants is not an essential purpose, although they mentioned it. Instead, most visual art participants tend to believe "teaching effectively" (6/7) is the reason for CPed. For example, Wu explained her perception of CPed as follows;

"CPed involves two ideas; the first one is … about no limitation to guide students' learning and thinking … CPed could be more abstract… it is a way of teaching which is different from the normal way of teaching and can also bring a different outcome"

In Wu's description, *"a different outcome",* as she explained, means *"to get students to engage with the topic and to produce a good work, and not just to read the information from the textbook!"* Thus, this involves the meanings of teaching effectively and the achievement of the teaching outcomes.

(C) Other Features
There were several other general features also identified from the visual art participants' views of CPed, including the main role of CPed and enabling a learning environment.

■ The Main Role in CPed (4/7)
While explaining CPed, some participants mentioned the person who plays the main role in teaching and learning. In this category, two visual art participants (2/7) emphasised that learners should be the main role in CPed and that the teacher only plays the role of an assistant to help with students' learning. For example, Young suggested "*pupils must take the main role in learning, and the teacher is just an assistant to help their learning. We are not just giving; we only give when they need, and what they need*". Liu, on the other hand, stated "*I think that it is very important*

that if students do not make any effort, I won't help". Comparing Young and Liu's descriptions, it can be found that Young's teaching was surrounded by a positive learning climate; but in Liu's teaching experience, a tension seemed to exist in the relationship between teacher and learners.

One participant (Chao) directly pointed out that CPed is a teacher-focused teaching method, particularly in which teachers use their creative thoughts and behaviours in playing the key factor in teaching. As she defined, "*CPed should be a well-prepared teaching from teachers*". In addition, one participant (Liao) suggested a collaborative relationship between teacher and learners in CPed, which she explained by providing her learning example.

> *"…the course … uses "discussion" in the teaching and learning… [that] inspired me to have more ideas… in discussion we (teacher and learners) may give each other feedback, or we may discuss the artists' artworks. It is more than just to listen to what teachers give us…it is an interactive relationship in teaching and learning".*

Although Liao was not sure whether this belonged to CPed, her learning experience through an interactive relationship between teacher and learners did inspire her development of creativity and imagination.

■ **Enabling a Learning Environment (3/7)**

Three visual art participants' descriptions of CPed mentioned the importance of a supportive and enabling learning climate for creativity development, such as an enjoyable and relaxing learning climate (2/3) and verbal encouragement (e.g. positive feedback) (1/3).

After gaining the visual art participants' general concepts of CPed, in the following sections, the features of each element of CPed will be further discussed based on the visual art participants' viewpoints on CPed, namely CT (5.4.1-1.2), CL (5.4.1-1.3), T for C (5.4.1-1.4) and ET (5.4.1-1.5).

5.4.1-1.2 Creative Teaching

In this category, four participants' viewpoints on CPed have been identified as CT (4/7). Their definitions involved the meanings: (A) the features of CT; (B) the purposes of CT, as discussed below.

(A) The Features of Creative Teaching

These participants defined CPed as using an innovative (4/4) or interesting (2/4) way to teach. In addition, several specific teaching strategies were also mentioned, such as using play, integrated subjects, and interesting and funny examples.

(B) The Reasons for Creative Teaching

Two purposes were suggested by the participants to apply innovative and interesting teaching, including achieving effective teaching (4) or attracting students' attention or interest (3). For example, Chou defined his CPed:

> *"It is to use an innovative way to teach, which is different from tradition; it attracts students' interest and makes learning unwittingly…[thus] CPed makes teaching more interesting so that students can learn more and produce better artworks…It won't make students feel bored…"*

From his viewpoint, CPed means to use an innovative way to teach (CT) that is not only a good way to catch students' interest but also to make the teaching process smoother and to achieve the learning outcomes (teaching effectively).

5.4.1-1.3 Creative Learning

As explained in Section 5.4, whether the pedagogical strategies foster "learner's creativity through learner's active learning" was the main criteria for judging CL. This means that a learner's empowerment should be the priority in the teaching and learning processes. Therefore, Young was the only participant (1/7) whose perception of CPed was identified as CL. When Young described her viewpoint of CPed, she said,

"Pupils must be the main role in learning, and the teacher is just an assistant to help their learning. We are not just giving; we only give when they need, and what they need… My way is to provide pupils with many choices, but not tell them what to do…for example, when a child asked how to draw a cherry, I discussed the shape of a cherry with him/her, instead of drawing a cherry."

In her conversation, CPed is a child-centred approach and also involves the ideas of standing back and providing learning agency and opportunities, which are recognised as the features of CL. There were actually several codes that emerged from some of the other visual art participants (e.g. Liao, Wu, and Liu) that have been identified in relation to the features of CL (see Appendix M-2). They include providing opportunities (2) (e.g. providing multiple choices for students), standing back (2) (e.g. not limiting the methods and the materials and learner's ownership).

5.4.1-1.4 Teaching for Creativity

As explained in Table 5.18 (in Section 5.4), T for C in this study has been defined as the teaching methods or activities that involve the intention or purposes to foster a learner's creativity. This is a teacher-focused approach but has not yet achieved active learning for creativity. Thus, in this category, the first criterion to judge the participants' viewpoints on CPed is whether their purpose of CPed is to "teach creativity".

There were three visual art participants (3/7, e.g Chou, Chien and Young) who either directly mentioned or implied CPed as a method to foster students' creativity, but none was recognised as belonging to this category. For example, Chien thought "art" was equal to "creativity" before attending the workshop (see Case C: Chien in Section 5.3.2.1). Therefore, while she directly pointed out T for C as CPed in her pre-workshop interview, her approach was actually to use an interesting way (CT, such as playing a game) to relax students that further makes the art teaching more effective (ET, such as to make a better drawing). As she said, *"after playing the game, we still go back to our drawing, because a school teacher so far has a regular schedule progress to achieve …"*. Therefore, I recognised Chien's perception

of CPed as CT, which aims to achieve ET.

5.4.1-1.5 Effective Teaching

Three visual art participants' perceptions of CPed were recognised as ET (including one participant defined CPed with CT+ET). From their descriptions, the features of ET involve, for instance, to define CPed as systematic teaching, or to explain how teaching should meet the learning outcomes and learners 'abilities, or achieve better outcomes.

5.4.1-1.6 Summary

To conclude, the visual art participants' perceptions of CPed before they attended the workshop are briefly summarised in the following Diagram 20.
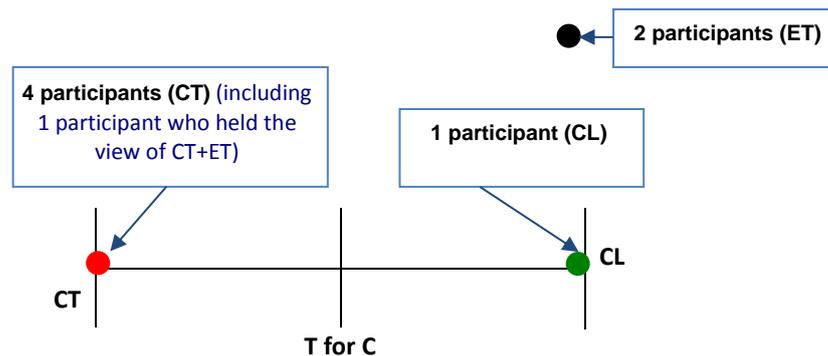
Diagram 20 Visual art participants' perceptions of CPed before the workshop

There were four participants who held the stance of CT (including one participant who held the view of CT+ET) and one participant who mentioned CL. Finally, there were two participants who thought of CPed as ET.

5.4.1-2 After the Workshop

In this section, the discussion focuses on the visual art participants' perceptions of CPed after attending the workshop. The same coding and pattern-matching processes were applied to the analysis of the post-workshop interview transcriptions. Three common themes and the

sub-categories are summarised in Table 31 below (The definitions of the themes and codes/sub-codes are presented in Table B in Appendix N-1).

Themes	Code Categories
1. General Concepts	1-1 General definitions
	1-2 General purposes
	1-3 Other general features
A. Creative Teaching	A-1 The features of teaching effectively
	A-2 The features of teaching creatively
B. Creative Learning	B-1 The features of CL

Table 31 The common themes of CPed in the post-workshop interviews

Similar to the findings before the workshop (see Section 5.4.1-1), several general messages emerged and these were sorted into three sub-categories (1-1- 1-3). Further detailed patterns that describe the features of CT and CL were presented in categories A and B. The detailed coding process, along with the frequency, for the visual art participants' views of CPed after they attended the workshop are given in Appendix N-4. Diagram B Appendix N-3 provides a brief picture.

From the overall results, the visual art participants, agreed that CPed should involve the purpose of "teaching creativity" through CL and CT approaches where CT contains teaching creatively or teaching effectively (or both) after attending the CPed workshop. Thus, the discussion in this section is divided into three main categories (the categories of T for C and ET were missing), including general concepts (5.4.1-2.1), creative teaching (5.4.1-2.2), and creative learning (5.4.1-2.3). Finally, a summary of the findings for Stage 1 will be provided (5.4.1-2.4).

5.4.1-2.1 General Concepts

The general concepts of CPed can be explained in the following three features: (A) general definitions, (B) general purposes, and (C) other features.

(A) General Definitions

Through careful analysis and examination, each visual art participant's general definitions of CPed after attending the workshop, together with the overall frequency of each element of CPed, are presented in Table 32. It is noted that in the workshop I introduced the concept that CPed should take place in a playful, joyful, safe learning context in order to encourage learners to learn effectively, as well as to cultivate active learning attitudes. As a result, the elements of the learning contexts, including a supportive learning climate [SLC] and effective teaching context [ETC], were also found in the visual art participants' descriptions of CPed after the workshop. The frequency is also presented in Table 32.

Participant		The Elements of Creative Pedagogy			Learning Context	
		CT	CL	T for C	SLC	ETC
Visual Art group	Chou	✔		✔	✔	✔
	Liao	✔	✔		✔	✔
	Chien	✔				
	Chao			✔	✔	✔
	Young		✔		✔	✔
	Wu	✔	✔		✔	✔
	Liu	✔	✔		✔	✔
Total		5	4	2	6	6

Table 32 The visual art participants' general definitions of CPed after the workshop

From the overall results, the most frequent stance held by three participants (3/7) was that CPed involves the concepts of CT + CL. The other participants held a variety of viewpoints on CPed, including CT + T for C (1/7), CL (1/7), T for C (1/7), and CT (1/7). In addition, nearly every participant (6/7) (except for Chien) suggested that a learner's creativity would be better fostered within a SLC as well as an ETC. More detail of the discussion of learning context refers to (C) Other Features below.

(B) General Purposes

From the participants' descriptions, several elements were recognised as

being related to the purposes of CPed that included all of the visual art participants agreeing that the purpose of CPed is to "teach creativity". There were five participants (5/7) indicating or implying that CPed aims to achieve ET. For example, Lou explained that "*CPed is…teaching students by using an innovative and interesting way … to improve students' creative thought and imagination, and also reaches the teaching targets.*"

(C) Other Features

With regards to the other general features of CPed, the discussion includes the learning context in CPed, and the main role in CPed.

■ Learning Context

As Table 32 shows, there were six visual art participants (6/7) who mentioned both the importance of a ELC and ETC in creativity development.

From these participants' conversations, they believe that learners' creativity, including their creative attitudes, can be well developed in a positive SLC, such as using verbal or action encouragements, and creating a playful/joyful and free learning climate. Through this friendly learning environment, students can naturally build up their confidence and enthusiasm, and become willing to face and undertake more challenges. However, this free and joyful learning environment, in their opinions, did not mean complete freedom for the learners. Instead, teachers need to provide appropriate activities and use well-designed strategies (such as giving a clear task to learners) based on the teaching targets in order to foster learners' creativity effectively.

In detail, the ideas for ETC gathered from the visual art participants' interview transcriptions can mainly be divided into two features: teaching strategies (9), and teaching content and targets (3). Teaching strategies include leading students' learning step by step (3), preparing various teaching aids, giving clear tasks in an appropriate time, and so on. Teaching

content and targets include using daily examples and having coherent teaching content and targets.

■ **The Main Role in CPed**

As PTCPed suggested a learner-inclusive approach in creativity development, which was introduced in the workshop, it is sensible to identify from the post-workshop interview data that the visual art participants mentioned the roles of teacher and students in teaching and learning while explaining CPed. There were three visual art participants (3/7) who thought that teachers and students were in a cooperative relationship, or that both were important in creative development. In addition, two participants (2/7) still believed that the teacher played the key role in CPed (Chou and Chao; for more detail refer to Case A: Chou and Case D: Chao) and one participant identified that learners should be the main role in CPed (Young). It is noted that the participants who mentioned the teacher's role in CPed suggested that teachers' characteristics, teaching concepts (creativity and CPed), and professional development and efforts may influence students' creativity development.

In the following sections, the features of each element of CPed will be further discussed based on the visual art participants' viewpoints, namely CT and CL.

5.4.1-2.2 Creative Teaching

The approach to CT in this study (in particular in the CPed workshop) has been defined as involving the meanings of teaching creatively and effectively (see Section 5.4). However, from the visual art participants' viewpoints, CT is more in relation to "teaching creatively", as described by five participants (5/7) in their post-workshop interviews. Taking the literal meaning, they thought that "teaching creatively" should involve the elements of being innovative (5) and interesting (1) in the teaching activities and strategies. In addition, two visual art participants mentioned the purposes of CT, including catching learners' attention in order to let

them concentrate on their work (e.g. Young and Wu).

5.4.1-2.3 Creative Learning

In general, CL involves the purpose of T for C and emphasises a learner-ownership or learner-inclusive approach. The features of CL were gathered from the visual art participants' viewpoints including: (A) providing opportunities and creating challenges (11 times), (B) providing learning agency (5 times), and (C) standing back (5 times). Since these sub-categories are all important equally, in this section, the order of presentation to explain these elements is based on their emerging frequency.

(A) Providing Opportunities and Creating Challenges/Tasks

The participants thought that teachers need to provide opportunities, such as unlimited time and varied materials, for learners to explore their ideas and ways with more possibilities and without pressure. On the contrary, posing questions or setting up certain conditions, such as time and materials to challenge students, were also recognised as essential elements by the visual art participants and that these should be involved in CPed. For example, Chao in her post-workshop interview said, "*…limited time or certain conditions, as you [researcher] always remained with us in the workshop; students will be challenged and be inspired by their creativity and potential.*"

(B) Providing Learning Agency

In this sub-category, the participants thought that, in CPed, teachers need to use daily life examples to help students engage with the learning content. In addition, teachers are suggested to use posting and responding questions, and use various teaching methods and aids in their teaching to inspire students' imagination and creativity, instead of always talking and giving information to students which has been defined as belonging to the traditional teaching style. Teachers should also create group and individual activities to develop students' creativity at different levels.

It is interesting that three of the visual art participants highlighted the strategy of designing activities for creativity development that particularly they paid their attention to group activities. This may be because in visual art education in Taiwan, teachers have less experience and confidence to organise group activities, and thus tend to use individual work more due to classroom management. For example, Chou mentioned his experience of using group activity in his school teaching and his reflection of participating in group activities during the workshop.

"I really like the group activities …in the workshop. We all know group activity is useful, but it is very difficult to use it in schools because of the classroom management …But it was very impressed me that you [researcher] not only had individual group activities, but also you had joint-group activities! … In the process, every group was not only provided an opportunity to introduce their own drawings, [you] created a stage to let everyone to discuss how to join our drawings from groups."

From Chou's viewpoint, different levels of group activities offer learners different ways and visions to explore their creativity through group members' discussions or interactions. This idea also applies to Liu; as she said

"…sometime I feel shy to express my ideas and opinions because of my personality. And also sometime I am afraid whether my points of view are wrong. But through those playful group activities …when other group partners contribute their ideas, this really helps me to express my ideas or helps to brainstorm my ideas …Although I may not express my idea, they [group members' opinions] are all memorised on my mind. And I think the same situation may also happen on students…"

It can be found from Liu's explanation that group activities not only help with the development of creative ideas through group member interactions, but they also encourage shy people, like Liu, to engage in the learning context.

(C) Standing Back

According to the visual art participants' viewpoints (5/7), standing back is

to give the ownership of learning to the students. These participants believed that learners' creativity will be fully developed when they are given the freedom to decide their own methods and to choose their own materials. The role of teacher, from their viewpoints, is as an assistant to offer help or even challenges when necessary and, therefore, the duty of the teacher in CPed is to foster/stimulate/encourage, but not to directly teach creativity. Young, for instance, addressed the position of the teacher as a "*third person*" (observer) to present this idea in her post-workshop interview.

> *"I think it (CPed) is child-centred pedagogy! And as a teacher, I think I am just an assistant to support their learning. Before I often took myself as a main role in my teaching and asked students to follow my ways. But this is still that I instructed my thought into students. So now, I realised that I need to leave the learning space to them and let them become the owner of their own learning. And just being a third person to observe and support their learning, particularly when they meet difficulty."*

5.4.1-2.4 Summary

Diagram 21 presents the visual art participants' perceptions of CPed after attending the workshop.
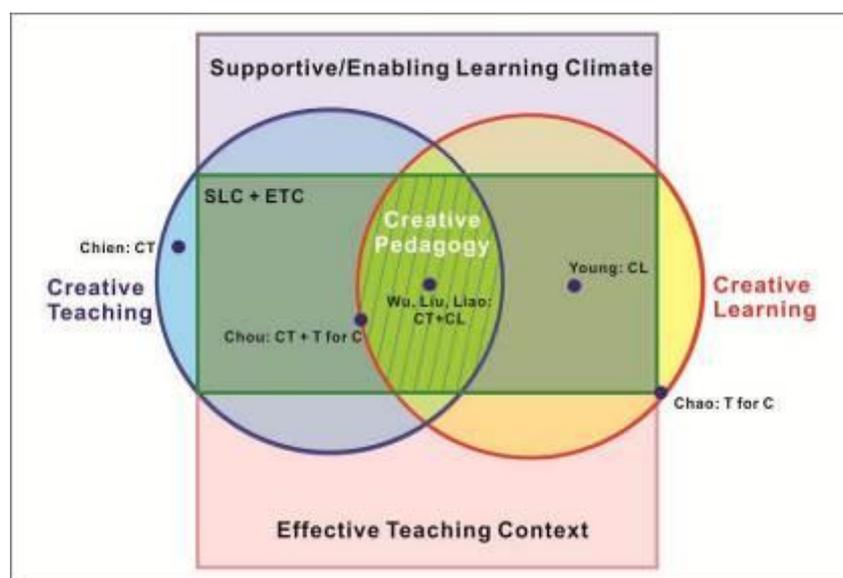
Diagram 21 Visual art participants' perceptions of CPed after the workshop

Briefly, most of the visual art participants believed in CT + CL that three people held this stance; two participants thought CT + T for C; and one

participant held the viewpoint of CT, and one other CL. It can also be seen that nearly every participant (6/7) thought that learners' creativity should be fostered in SLC and an ETC contexts. For the detail, three participants held the stance of CPed as "CT + CL in SLC and ETC contexts". In addition, one participant thought of each of the following stances: "CT + T for C", "CL", or "T for C" in both SLC and ETC contexts. Finally, one participant held the viewpoint of CT (1) but did not mention any SLC context.

In the following section, each case of the visual art participants' perceptions of CPed is examined by comparison with the findings of before and after attending the CPed workshop.

5.4.2 Change: The Changes in Perception for the Visual Art participants

5.4.2.1 The Visual Art Cases

Similar to Section 5.3.2, the changes in each visual art case's perceptions of CPed in this section are focused on the comparisons before and after attendance at the workshop. The discussions with each visual art participant cover the following categories: (A) general definition of CPed (including the definition of the elements of CPed) (B) Purposes of CPed; and (C) the main role in CPed, in which the individual's professional background, teaching and learning experience and his/her viewpoint of creativity will be taken into account, if necessary. In Section 5.4.2.2, a brief conclusion for the visual art cases will be provided.

Case A: Chou

Chou's perceptions of CPed before and after the workshop, according to the categories, is summarised in Table 33.

Chou	General Definition of CPed	The Purposes of CPed	The Main Role in CPed	
			Teacher	Students
Before	CT (for ET)	Attracts learners' attention/interest		
After	CT + T for C within a context of SLC + ETC	Teaching creativity	✓	
Change	O	O	O	
✱ O: change; ✘ : non-change				

Table 33 The overall changes of CPed for Chou

It can be seen from the above table that Chou's perceptions of CPed have been changed in each category. In general, his viewpoint of CPed before the workshop was more in relation to teaching creatively and, consequently, the purpose was to catch learners' attention and interest so that they do not feel bored with the course. His stance on CPed then turned to touch the field of creativity development and teaching creativity in SLC and ETC contexts.

It is noted that, although several elements of CL were identified in Chou's post-workshop interview transcription, such as providing many opportunities to think, standing back, and so on, he actually pointed out a "teacher-focused approach" in CPed, as the example below shows,

> *"… creativity belongs to students and CPed is more teacher based [that]… need to be complemented by each other. More clearly, students' creativity needs to be fostered by teacher. … before the workshop I only picked up the things/topics I feel interesting to teach students, but when I reflected on my teaching, actually I still followed the traditional ways to teach which pretty much focused on skill teaching and training only. And I misunderstood that interesting means creativity! However, in the workshop… I realised [CPed] involves teaching creatively and teaching for creativity, especially it provides students many opportunities to think."*

From the above example, learners' creativity for Chou can only be fostered under the teacher's instructions. This concept also appeared in his explanation about his implementation of CPed (PTCPed in this study) in practice that, from his viewpoint, CPed and his teaching ways were similar in that both used key points to lead students thinking. However, he argued the use of "question-posing" in a classroom setting, which has been

identified as one of the main features of PTCPed. I found this was probably due to his unclear concept in question-posing so we had a discussion in his post-workshop interview (see the extract from his post-workshop interview in Appendix O: Case A: Chou). Thus, Chou's perception of CPed after attending the workshop has been identified as teacher-focused T for C by using CT. To sum up, the change in Chou's perception of CPed was from "CT" to "CT + T for C", which can be seen in Diagram 22 below.
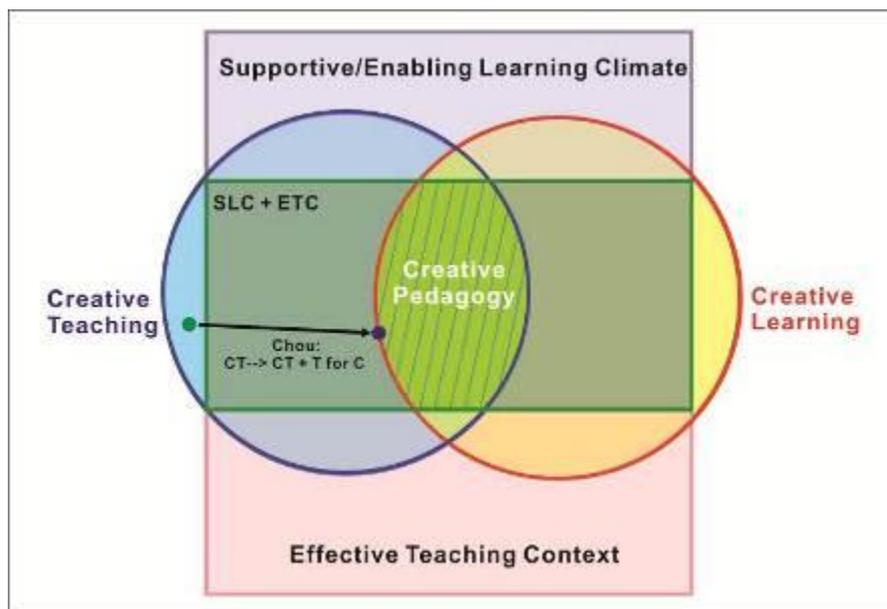
Diagram 22 The change in Chou's view of CPed

Case B: Liao

Comparing the two interviews, Liao first mentioned that CPed was very different from traditional teaching. Furthermore, her viewpoint of CPed was influenced by her concepts of creativity that involved the idea of "change" (refer to Section 5.3.2.1). Her perceptions of CPed before and after the workshop, according to the categories, are summarised in Table 34 below.

| Liao | General Definition of CPed | The Purposes of CPed | The Main Role in CPed | |
			Teacher	Students
Before	ET	Achieve better learning outcomes	✓	✓
After	CT + CL within a context of SLC + ETC	Inspire learners' creativity Teaching effectively	✓	✓
Change	⭕	⭕	✖	

Table 34 The overall changes of CPed for Liao

It can be seen from the table above that Liao's perceptions of CPed were changed in the categories of general definition and purposes of CPed. Before the workshop her stance was more in relation to effective teaching. As she explained, "*it [CPed] is to change or to improve from the traditional teaching in order to achieve better learning outcomes*". After the workshop, she then turned to fostering learners' creativity in SLC and ETC contexts and involved the features of CT + CL, as the following interview transcription shows,

"*… CPed is a teaching way in which the teacher uses a heuristic method to inspire students' learning and creative thinking. More specifically, teacher not just follows the textbooks in his/her teaching, he/she takes the essence and the key points from the textbooks, and uses innovative ways to teach his/her students. The most significant … teacher using posing questions and interesting activities to inspire students' creativity and learning step by step… by considering students' ability and interests.*"

Different from Chao, Liao emphasised, both before and after attending the workshop, that teachers and learners are both important in CPed. More specifically, for Liao, CPed does not only focus on the teacher's teaching method or strategy; instead, it is a cooperative relationship between teacher and learners. As she pointed out,

"*this is a pedagogy which is more focused on the learners, and also provides a stage for the interactions and inter-learning between teacher and students, which is not just one-way teacher-to-students teaching. This CPed is teacher not only teach students, but also can get feedback from students. In the process, it actually creates more learning opportunity to both teacher and students.*"

The Diagram 23 presents the changes in Liao's perception of CPed, moving

from "ET" to "CT + CL".
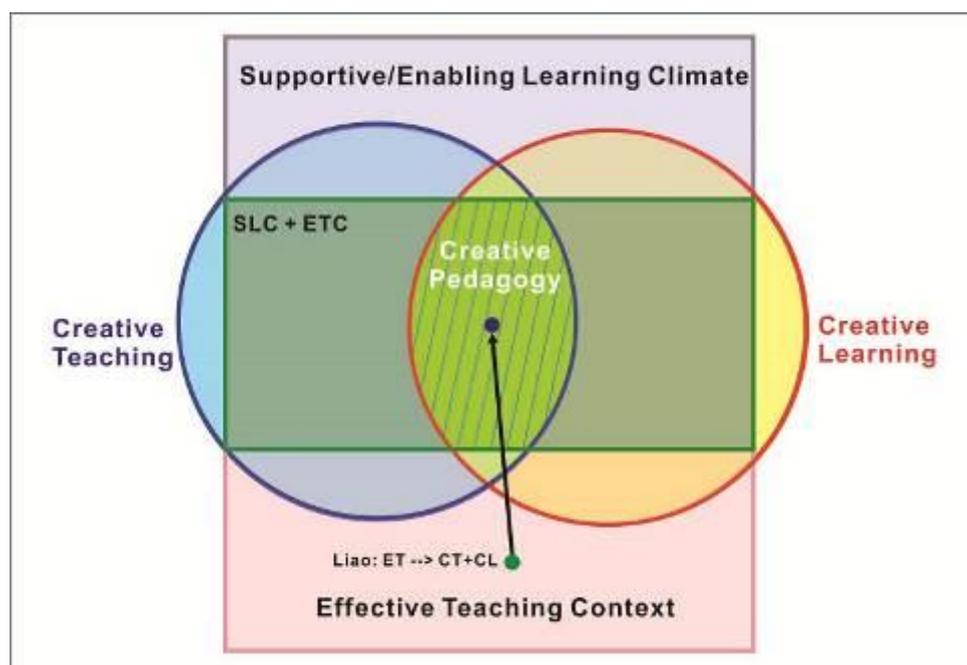
Diagram 23 The change in Liao's view of CPed

Case C: Chien

Chien's perceptions of CPed before and after the workshop, according to the categories, is summarised in Table 35 below.

Chien	General Definition of CPed	The Purposes of CPed	The Main Role in CPed	
			Teacher	Students
Before	CT (for ET)	Foster students' creativity Involving a positive outcome		
After	CT	Foster students' creativity		
Change	✖	○	✖	

Table 35 The overall changes of CPed for Chien

The above table shows that there was only a slight change in the category of the purposes of CPed that appeared in Chien's perceptions of CPed, both before and after attending the workshop. The reason for this limitation has been discussed in Section 5.3.2.1. In general, although Chien mentioned that CPed means to foster students' creativity through both creative and innovative teaching ways, her ideas were more in relation to 'teaching creatively'. For example, in her pre-workshop interview (shown below), she

suggested the use of "play" (e.g. drama activities) when teaching in order to stimulate creativity, but she misapprehended the principle and functions of "play" in creativity development.

> **"Chien:** …. But after playing the game, we still go back to our drawing, because a school teacher so far has a regular schedule progress to achieve.
>
> **M:** So the purpose of playing a game for you is to relax students and to catch their attention. Am I right?
>
> **Chien:** Yes, but while playing a game, students will become more creative and will brainstorm more ideas. As teaching in art, I think that it is fine to use more flexible ways in teaching, such as plays. Also, since art is not a serious subject, students don't really care about it, so…less pressure on the teacher…"

Additionally, Chien stated in her post-workshop interview that "*after this workshop, I have had a clearer understanding of CPed…it is to use creative teaching ways to stimulate students' creativity.*" However, reflecting on her teaching practice in the workshop (refer to Chapter Six), she tried to include many interesting play activities in her teaching plan but was not really concerned whether these activities could inspire students' creativity development. For example, she used PowerPoint to show many vivid pictures but kept the teacher-led approach in her teaching practice, which, it has been argued, still follows traditional teaching methods.

Thus, through this detailed analysis, Chien's perceptions of CPed can only be interpreted as "CT" both before and after the workshop, as shown in Diagram 24.
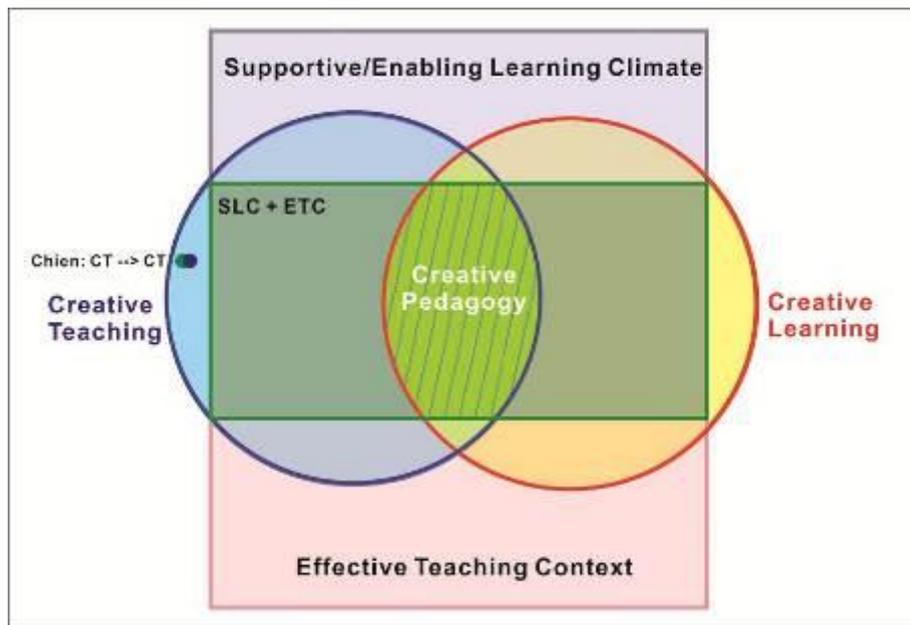
Diagram 24 The change in Chien's view of CPed

Case D: Chao

Chao's perceptions of CPed before and after the workshop, according to the categories, is summarised in Table 36 below.

Chao	General Definition of CPed	The Purposes of CPed	The Main Role in CPed	
			Teacher	Students
Before	ET	Teaching effectively	✔	
After	T for C within a context of SLC + ETC	Teaching creativity Teaching effectively	✔	
Change	○	○	✘	

Table 36 The overall changes of CPed for Chao

The above table shows that Chao's perceptions of CPed were changed in the categories of the definition and purposes of CPed. Before the workshop, Chao defined CPed as a systematic teaching method in order to provide useful foundational training (see the example below).

"…it [CPed] is a systematic teaching method. Through this teaching strategy, students in any level can learn something easily in a short time, and particularly it attracts their internal interests to work on art creations…in the teaching process, it [creativity] is not just a blue-skies imagination; creative pedagogy should be well-prepared teaching from teachers, particularly through the visual materials, students can learn something systematic, and from external to internal to guide students to express their feelings from their inside into their works … because for me it

234

[creativity] should be built on the prior knowledge or skills. "

Several features of CPed can be summarised from Chao's description above. Firstly, CPed requires teachers' to be well prepared for their teaching. Secondly, for Chao, learning art is equal to developing creativity. Therefore, she thought that fundamental skills and knowledge learning was the basic requirement for promoting creativity. In addition, Chao also posted an example from her past learning to explain her ideal CPed, in which CPed used a different way of teaching that could involve the element of surprise.

After the workshop, Chao still paid much of her attention to achieving ET, as she stated in the post-workshop interview,

> *"…[After the workshop] I realised that if I can just set up my teaching targets and plan my teaching appropriately, students then can do their artworks in certain amount lessons. And in such limited time or certain conditions… students will be challenged and inspired their creativity and potential…"*

It is clear from the above transcription that Chao's perception of CPed was opened up to include the element of T for C after the workshop, and even involved several elements of CL (e.g. setting up challenges). However, from the overall results, she still focused on a teacher-led approach for teaching creativity, and she placed her emphasis upon building an ETC context. In addition, she also mentioned providing a SLC to foster students' creativity (see Appendix N-4). The Diagram 25, therefore, presents the changes in Chao's view of CPed that has moved from "ET" to "T for C" in SLC and ETC contexts.
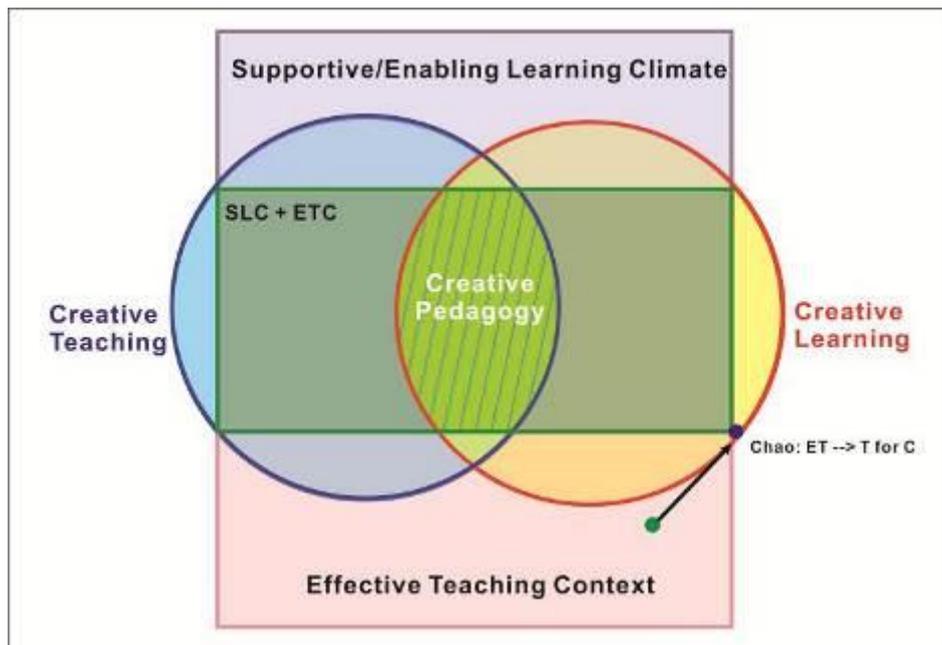
Diagram 25 The change in Chao's view of CPed

<u>**Case E: Young**</u>

Young's perceptions of CPed before and after the workshop, according to the categories, is summarised in Table 37 below.

Young	General Definition of CPed	The Purposes of CPed	The Main Role in CPed	
			Teacher	Students
Before	CL	Give the learning ownership back to students		✔
After	CL within a context of SLC + ETC	Foster students' creativity		✔
Change	⭕	⭕	✖	

Table 37 The overall changes of CPed for Young

As mentioned in Section 5.3.2.1, Young had had very flexible experience in her past learning, particularly the fact that her ideas of CPed were similar to the principle of PTCPed in this study before the workshop. Therefore, it can be seen from the above table that Young's perceptions of CPed only had a few changes.

Firstly, when she defined her thoughts on CPed, she mentioned that it should be a child-centred approach. She also emphasised that learning ownership should be given back to the learners, which has been recognised

as a feature of "CL" in this study, although she didn't highlight the purpose of "T for C" verbally. Young actually gave a similar definition of CPed (as child-centred and learner-ownership approaches) in her post-workshop interview, but her focus on CPed had been changed to pay more attention to ET strategies. As mentioned, Young was quite happy to actively discuss with me during the workshop her difficulties in teaching. Through these discussions, she found her limitation was her management of teaching skills and strategies. As she later explained in the post-workshop interview,

> "… the teaching procedure and rhythm (structure) are the two most important things in a creative pedagogy…teacher needs to give a clear task in an appropriate timing to attack students' attentions and also let them concentrate on their work. Because in a creative pedagogy students … are often too happy and excited to lose control easily in the classroom management…" (more detail refers to Appendix O)

From the above, Young's description not only emphasised the feature of effectiveness in creativity development by reflecting upon her personal teaching experience, but also highlighted the dilemma of classroom management in Eastern creativity education (e.g. Taiwan). The change in Young's view of CPed can be identified from "CL" to "CL" but the emphasis is upon SLC and ETC contexts, which is shown in Diagram 26 below.
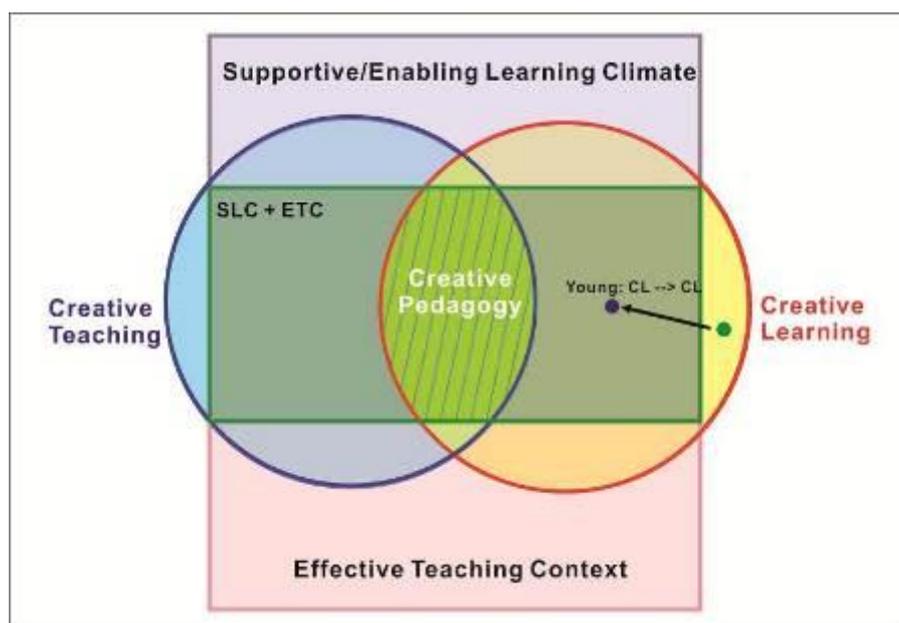

Diagram 26 The change in Young's view of CPed

Case F: Wu

Wu's perceptions of CPed before and after the workshop, according to the categories, is summarised in Table 38 below.

Wu	General Definition of CPed	The Purposes of CPed	The Main Role in CPed	
			Teacher	Students
Before	CT	Catch learners' interest Teaching effectively		
After	CT + CL within a context of SLC + ETC	Foster students' creativity	✓	✓
Change	O	O	O	

Table 38 The overall changes of CPed for Wu

It can be seen from the above table that Wu's perceptions of CPed were changed in every category. Wu's viewpoint towards CPed before the workshop, basically, follows innovative teaching methods aimed at catching students' interest in learning and to make teaching and learning effectively. However, she described CPed with several elements of CL (e.g. a child-centred approach and with no limitation on the methods and materials when students create their work). As her self-reflection shows below,

> *"Before the workshop I thought CPed only belongs to teachers' teaching... I only focused on my teaching. For example, I always spent much time on making my teaching more interesting and different. But I never thought about what children may gain from me. I always thought if they can produce a nice drawing or a good artwork, then it means they have learned something. Sometimes I also thought once I can free children's learning, then this is so-called CPed. Until in this workshop, I just realised that a well-presented artwork created through a free teaching method doesn't mean that children are creative. Creativity actually has to be promoted through the teacher's well-designed teaching activity and strategy. This shocked me very much"*

It can be seen that, after the workshop, CPed for Wu has become more specific as "*both teaching and learning should be involved with creativity*" and, in particular, it should be well presented in an ETC. Thus, the change in Wu's view of CPed, as shown in Diagram 27 below, was from "CT" to "CT +

CL".
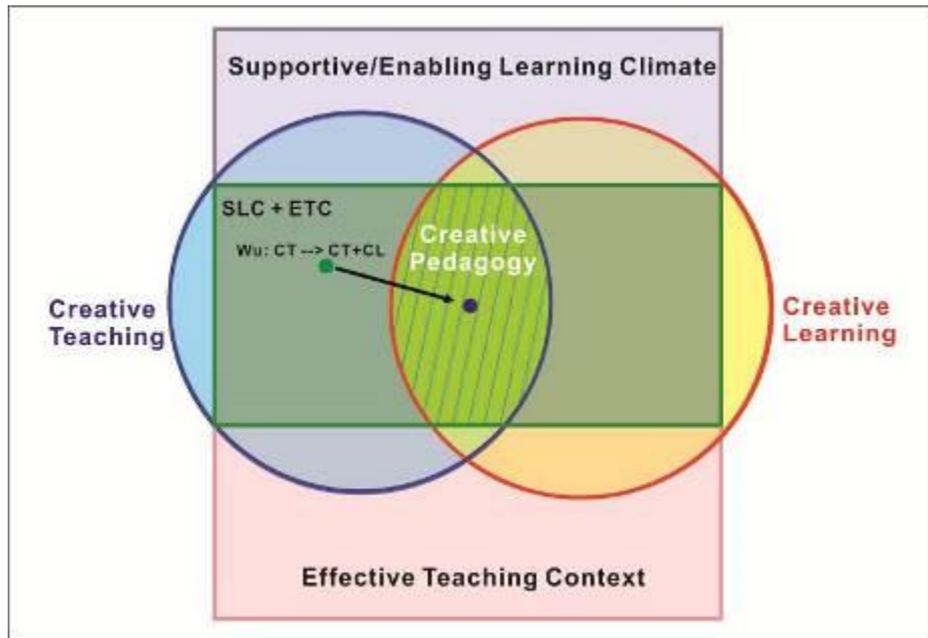
Diagram 27 The change in Wu's view of CPed

<u>**Case G: Liu**</u>

Liu's perceptions of CPed before and after the workshop, according to the categories, is summarised in Table 39 below.

Liu	General Definition of CPed	The Purposes of CPed	The Main Role in CPed	
			Teacher	Students
Before	CT + ET	Teaching effectively		✓
After	CT + CL within a context of SLC + ETC	Foster students' creativity	✓	✓
Change	O	O	O	

Table 39 The overall changes of CPed for Liu

It can be seen from the above table that Liu's perceptions of CPed were changed in every category. Liu's viewpoint towards CL before the workshop, basically, was built on her perception of creativity (her definition of creativity is "*the process of problem-solving in our daily life*"). Therefore, she placed the emphasis upon how to design and offer various contents in teaching in order to stimulate students' thinking and to "*open up their windows to look outside of their world".* Interestingly, she also highlighted child-centred and learner-ownership approaches in her teaching when she

described her teaching example. However, her approaches were intended to achieve ET and were not focussed on learners' creativity development.

On the other hand, the approach to CL, together with the elements of CT and teaching effectively, emerged in her post-workshop interview

> "… CPed is a very open-end teaching method and also it requires various subject contents and teaching creatively and effectively… [it is] a playful interaction between teacher and students, so that there is not certain teaching ways or rules I have to follow as all the teaching strategies need to depend on students' needs and reactions… this just likes…playing toss-up question game, that I post questions or challenges and then students try to think about as many possible solutions or answers as possible."

In her conversation, she firstly highlighted the importance of the teacher's role in CPed through a CT approach in an ETC. Following this, she addressed that all of these teaching strategies should depend on learners' needs and reactions. CPed, in Liu's viewpoint, thus, is seen as a "*playful interaction*" between teacher and learners. To sum up, the change in Liu's view of CPed was from the model of "CT + ET" shifting to "CT + CL" in SLC and ETC contexts (shown in Diagram 28 below).
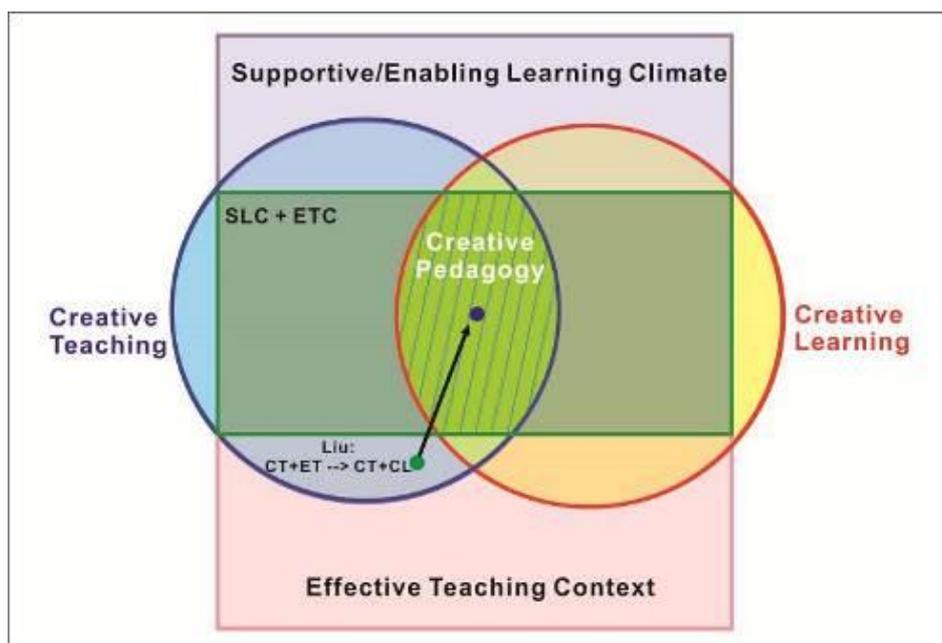
Diagram 28 The change in Liu's view of CPed

5.4.2.2 Summary of the Changes

In previous sections, the visual art participants' perceptions of CPed have been cross-analysed in different ways. From the overall results, the changes in the visual art participants' perceptions of CPed (see Diagram 29 below) can be summarised as below:
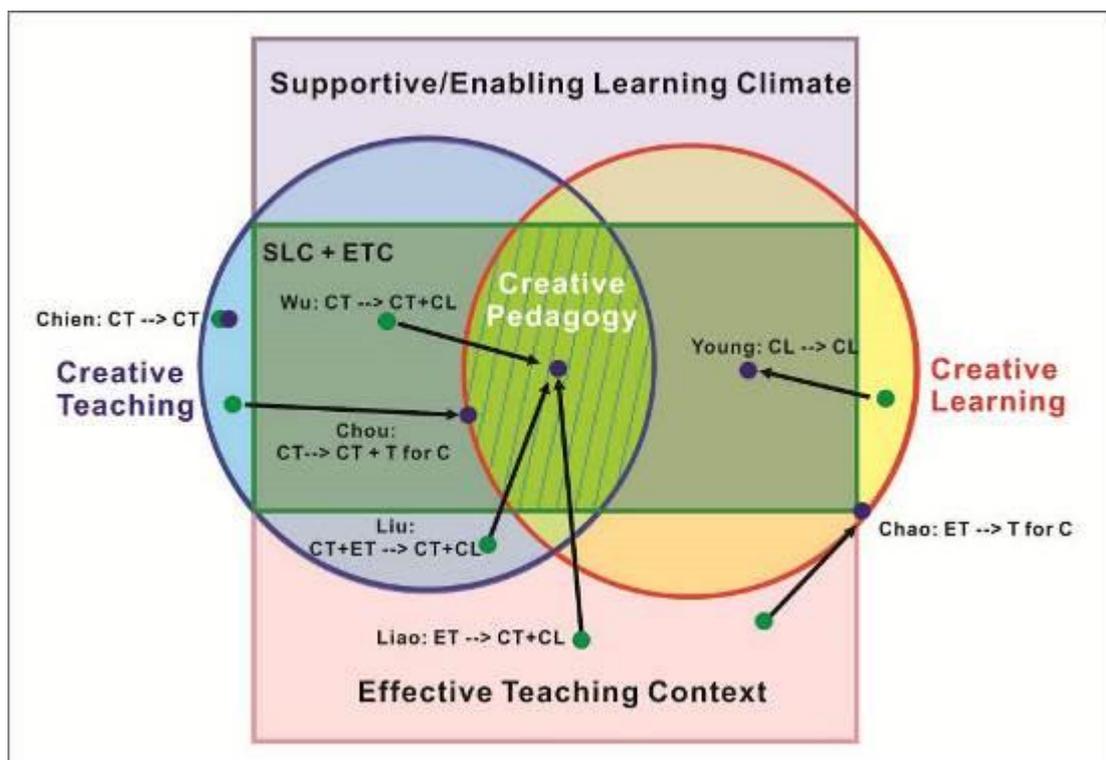
Diagram 29 The overall change of visual art participants' perceptions of CPed

1. Most of the visual art participants recognised that the purpose of CPed was to foster learners' creativity (or at least to teach creativity).

2. The details of their perceptions of CPed after the workshop included three participants who held the stances of CPed as "CT + CL". In addition, the other visual art participants held the following stances: "CT + T for C", "CL", "T for C", and "CT".

3. Nearly every participant thought that learners' creativity should be fostered in an SLC and within an ETC.

4. The main role in CPed, from the visual art participants' viewpoints, is

summarised in the following Table 40. The table presents that three of the participants thought that both teacher and learners were important in CPed; two participants believed that the teacher plays a key role in leading CPed; and, finally, one participant identified that students should be the main role in CPed and that the teacher is just a helper in the learning process.

Visual art Participants		Main role in CPed		
		Teacher	Students	Both
Chou	before			
	after	✔		
Liao	before			✔
	after			✔
Chien	before			
	after			
Chao	before	✔		
	after	✔		
Young	before		✔	
	after		✔	
Wu	before			
	after			✔
Liu	before		✔	
	after			✔

Table 40 The overall change of visual art participants' viewpoints of the main role in CPed

5.5 Summary

In this chapter, I have presented the findings of the visual art participants' perceptions of creativity and CPed that refer to Research Question One. In Section 5.2, the approaches and the theoretical framework used in the data analysis were introduced. A two-stage analysis were applied to firstly gain an overall picture of the visual art participants' views; and secondly to detail review each of cases with a comparison of before and after the workshop. In Sections 5.3 I presented the findings of the visual art participants' perceptions of creativity before and after attending the workshop through two stages analysis. The overall results showed that the visual art participants' perceptions of creativity were identified as general-based, LCC and MCC. They also believed that creativity can be

presented both in process and product, as well as through the features of the attitudes toward creativity. In Section 5.4 I explored the participants' CPed before and after the CPed workshop, including Stage 1 and 2. From the overall, the visual art participants' perceptions of CPed were identified to include the purpose of fostering learners' creativity in SLC and ETC contexts. In addition, the most frequent definition of CPed was "CT + CL", as well as more visual art participants suggesting that both teachers and learners are important in CPed.

In the next Chapter Six, the findings referring to Research Question Two will draw on the focus of the visual art participants' CPed practices in the workshop in order to triangulate their understandings of CPed. In addition, the discussion will pay attention to how they built their perceptions of CPed and, in particular, the helpful strategies and materials used in the workshop will be identified.

CHAPTER SIX

THE FINDINGS TO RESEARCH QUESTION TWO

6.1 Introduction

In Chapter Five, the analysis of Research Question One aimed to explore "what" the visual art participants' perceptions of creativity and CPed were, and how these perceptions had changed. As indicated earlier, the findings in Chapter Five were analysed in two stages. Firstly, in order to get an overall insight from a broad and general perspective, the analysis started from the context of all of the visual art participants' views of creativity and CPed. Secondly, the discussion was then narrowed down to the viewpoints of creativity and CPed for each individual visual art participant and these were compared before and after they attended the workshop.

In this chapter, by contrast, the analysis focuses on "how" the visual art participants manifested their perceptions of CPed during the workshop with reference to Research Question Two. As explained in Chapter Four, the participants were introduced to a model of PTCPed and had experience of engaging in a PTCPed-based integrated arts project (session 3 in the CPed workshop). Therefore, their perceptions of CPed, especially, were focused on the implementation of PTCPed. To answer this research question, the structure of the findings in this chapter is based on two principle categories referring to the two sub-questions in Research Question Two. Five main sections are expounded, headed as follows:

6.1 Introduction

6.2 Approaches to the analysis of Research Question Two

6.3 Sub-question 2.1: Visual art participants' conceptions of PTCPed manifested in their performance at the end of the workshop

6.4 Sub-question 2.2: The influences on visual art participants' developments of PTCPed

6.5 Summary

6.2 Approaches to the Analysis of Research Question Two

The findings in this chapter aim to answer Research Question Two: **How do**

the conceptions and practice of PTCPed develop during the workshop?

2.1 How are the visual art participants' conceptions of PTCPed manifested in their performance at the end of workshop?

2.2 What influences the development of the visual art participants' conceptions and the implementation of PTCPed?

The analysis to answer Research Question Two was divided into two main phases based on the two sub-research questions above. The general approaches to the data analysis have been explained in Chapter Three, in which both inductive and deductive approaches were adapted. The presentation of findings in this chapter includes both quantitative and qualitative data. Descriptive statistics are used to summarise the findings in order to provide an overall picture. Qualitative accounts, on the other hand, provide detailed evaluations of the visual art participants' developments. In the following section, the rationale behind and the approaches and data resources used to each sub-question in Research Question Two are explained below.

6.2.1 Referring to Sub-Question 2.1

To analysis how the visual art participants manifested their conceptions of CPed was challenging. As explained in Chapter Four, the participants were organised into three groups throughout the workshop, including their practice of PTCPed. This means that these groups were mixed-specialist (except for Group A) and all the participants were supposed to contribute to their group visual art-based teaching projects. It is noted that among these tree groups, only Group C chose non-visual art participant as the representative to carry out the teaching performance during session 5 (21/04/2010). As a result, I decided to start my analysis from the three groups' performances, in which first-hand evidence was provided by the recorded video clips and my evaluations of their teaching performances. Additionally, more supportive evidence from other visual materials, such as

photos and teaching plans, were also taken into account. I assumed that this evidence could provide an overview of the participants' practice of PTCPed. Furthermore, I particularly focused on how the visual art participants contributed (e.g. Group A and B) or viewed (e.g. Group C) their group performances.

The approach of the analysis in this category was tested by using a deductive theoretical comparison of structure and format patterns. The criteria used to assess the participants' performances in this workshop were to see whether and how the participants applied the concepts of PTCPed into their practice. Firstly, the three recorded video clips of each group's teaching performance were watched several times to identify the features of PTCPed and PT based on the literature. Secondly, these findings were triangulated with my written evaluations recorded while observing their performances (shown in Appendix H). In order to aid understanding, the pedagogical strategies in PT model are reviewed in the following Table 41 (for more detail refers to Chapter Two).

The Features of PTCPed	
Standing back	Teachers look for opportunities to stand back to allow learners to think and learn for themselves
Creating or offering opportunities	This includes time and space, for learners to explore ideas and materials with more possibilities. Furthermore, setting challenges/tasks is also another way to stimulate creativity, such as asking questions, or using limited time or materials to create a work
Profiling agency	Teachers encourage different ways of learning and employing varied activities, including both individual and collaborative works, during which learners' individual and social creativity are developed.

Table 41 The features of PTCPed

6.2.2 Referring to Sub-Question 2.2

To find out about the possible influences on the visual art participants' development of CPed, the data set was firstly gathered from the post-workshop interview transcriptions of each visual art participant's description about the implementation of CPed. The information includes

references to their confidence and the ways to carry out CPed, and the useful resources or tools that allow them to develop their implementation of CPed. The data were systematically analysed and the meanings interpreted until the final codes emerged.

In order to confirm the visual art participants' thoughts, the findings were then further triangulated with different data recourses, such as their sketchbooks, photos, recorded videos and my observations and interpretations of the participants' behaviours, as written in my personal (researcher) reflective diary. From these sets of information, I particularly paid most attention to exploring the recorded video clips taken during each session of the workshop. As explained in Chapter Three, the video data was recorded by three video recorders, including one (camera C) focusing particularly on micro-events, such as the conversations within the group discussions. The clips from this huge amount of data (there were 79 clips in total; for details refer to Table 3.3 in Chapter Three) were watched several times to select the most useful data, during which more supportive evidence from the visual art participants' conversations and viewpoints were recorded. These conversations in the video clips were then translated into detailed transcriptions (see the examples of group discussion in Appendix Q), following which the meanings were read and interpreted repeatedly. To sum up, the data sources used to answer these questions are shown in Table 42 below.

Research Question TWO	Data resources used in analysis				
	Post-workshop interview transcriptions	Recorded videos	Participants' sketchbooks	Other visual materials, (photos, posters…)	Researcher's reflective diary
2.1 How are the visual art participants' conceptions of PTCPed manifested in their performance at the end of the workshop?		✔		✔	
2.2 What influences the development of the visual art participants' conceptions and implementation of PTCPed?	✔	✔	✔	✔	✔

Table 42 A summary of data resources used to analyse both parts of Research Question Two.

Following on from this section, the analysis presented in this chapter is divided into two principle categories. These refer to the two sub-questions in Research Question Two and enable both dimensions to be analysed, namely Section 6.3: sub-question 2.1: the visual art participants' conceptions of PTCPed manifested in their performance at the end of the workshop; and Section 6.4: sub-question 2.2: the influences on the development of their conceptions and their implementation of PTCPed.

6.3 Sub-question 2.1: The Visual Art Participants' Conceptions of PTCPed Manifested in Their Performance at the End of the Workshop

It is important for the professional development of student teachers to bridge educational theory and practice. This section, therefore, examines how the visual art participants converted their understandings of CPed from the workshop into practice. As explained in Chapter Four, the participants were asked to work in groups (there were three groups in total - Groups A, B, and C), and each group was required to design a visual art-based teaching project and to elect a representative to undertake a teaching performance in front of the other two groups. In order to aid understanding, a brief summary of the procedures of the activities are shown in photos 4 -7 below. These illustrate how the groups developed a teaching plan by using divergent and convergent thinking through "questioning yourself" and, consequently, produced a teaching performance (for detail, refers to Chapter Four).

Photo 4 Using a Teaching Map to Develop Ideas
(Q: What topics may link to the theme?)
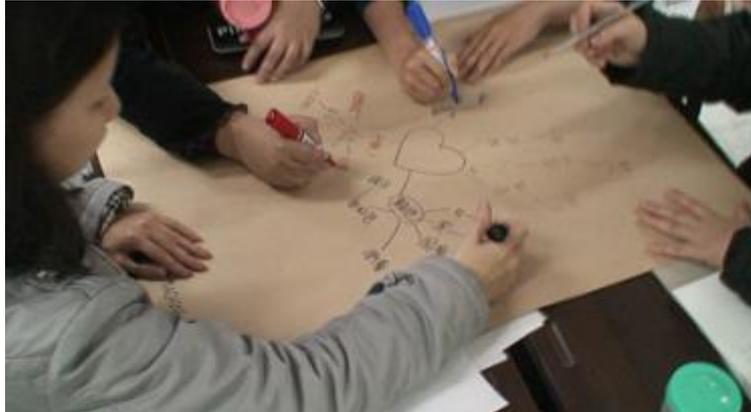
Photo 5 Enriching the Teaching Draft Plan by Using a Teaching Map
(Q: What materials linking to the ideas can I use to teach?)
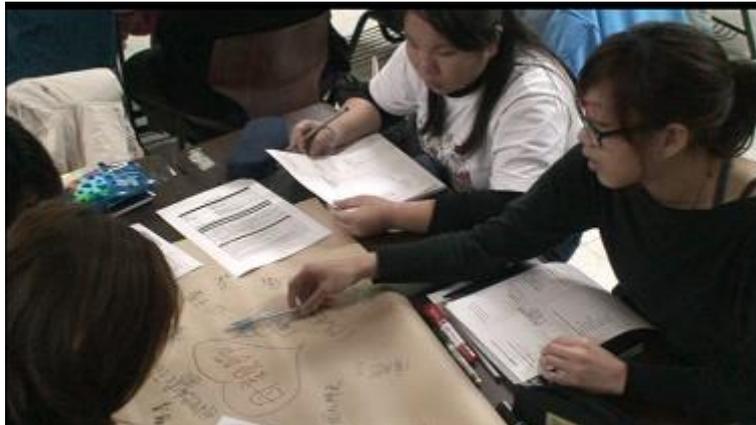
Photo 6 Organising the Teaching Plan

(Q: What teaching activities can be developed by using the starting point/materials…
from the teaching draft plan?)

Photo 7 Producing a Teaching Performance Based on the Teaching Plan

To analyse the teaching performances, including the groups' teaching plans, would be complex. It was important to take into account not only the pedagogical strategies used in the performances but how the students (the other participants as students) engaged with the teaching. However, there is insufficient space to describe all the details in this thesis. Hence, three recoded video clips of the teaching performance of each group were firstly identified using the features of PTCPed and PT in order to provide an overview of the teaching strategy frequency. The details of the quantitative analysis for each group's performance, together with the qualitative evaluation, are shown in Appendix H. Table 43 provides a quantitative summary of the findings that appeared in each group's performance (arranged from most to least popular), including teaching strategies (A), the interactions between teacher and students (B) and student engagements (C) that related to the features of PTCPed and PT.

Table 43 A summary of the participants' teaching strategies, interactions and engagements in relation to the features of PTCPed and PT

	The features of PTCPed/PT	Group A	Group B	Group C	Total	Brief descriptions of the teaching strategies Used and students' learning in each group
A. Teacher's teaching strategies in relation to the features of PTCPed	**Supportive/Enabling learning context**	4	14	11	29	GA: Positive encouragement*3; and a free learning climate*1
						GB: Positive encouragement*5; learning climate*9 (good class management makes learning effective)
						GC: Positive encouragement * 4; using video, role play for both teacher and students; making sure students understand how to do the activity*2.
	Creating/offering opportunities (e.g. Time, space, challenges)	8	5	5	18	GA: Posed questions*2 to let students observe an artist's work; group activity, offering varied material, offering opportunities to explain their artwork; challenges*4
						GB: Group activities*3; challenges*2 (limited time; use paper to make clothes)
						GC: Used video and posed questions*5 to inspire students to think; role play; challenges *2 (made a story for role play in limited time)
	Standing back	1	3	3	7	GA: Gave students opportunities to explain their artworks
						GB: Teacher gave very clear instructions/suggestions to help students to create their own work
						GC: Using Qs to inspire students to think; role play under clear instruction, but making a mother's card without teacher's instruction
	Providing learning agency	1	4	2	7	GA: Group work
						GB: Group work (3 main activities), individual work (sketchbook)
						GC: Teamwork (e.g. role play) and individual work (made cards)
B. Interaction between teacher and students in relation to the features of PTCPed and PT	**Posing and responding questions**	18 (T-P) 4 (T-R) 4 (S-P) 7 (S-R)	13 (T-P) 6 (T-R) 0 (S-P) 5 (S-R)	19 (T-P) 0 (T-R) 0 (S-P) 7 (S-R)	50 (T-P) 10 (T-R) 4 (S-P) 19 (S-R)	GA: T: yes-or-no questions*4, open-ended questions*9, and short-answer questions*5 (the open-ended questions were too general so students cannot answer or were not given chances to answer); responding questions*4 (standard answers) S: Responding questions* 7(only answered the questions required standard questions); posing questions*4 (due to the unclear task explanations)
						GB: T: yes-or-no questions*4; open-ended questions*5; and short-answer questions*4 (Qs were too general, no meaning, or only focused on knowledge); responding questions*6 (Teacher answered his own questions) S: Responding questions*5 (greater trend to answer the questions required standard questions)
						GC: T: yes-or-no questions*2; open-ended questions*10, and short-answer questions*7 (Qs were too general, teacher answered her own questions, too many questions at the same time) S: Responding questions *7

(continued)

252

	The features of PTCPed/PT		Group A	Group B	Group C	Total	Brief descriptions of the teaching strategies Used and students' learning in each group
B. Interaction between teacher and students in relation to the features of PTCPed and PT	**Play (playfulness)**		1 (T)	2 (T)	2 (T)	5 (T)	GA: T: vivid pictures on P.P; S: while engaged in making work
			1 (S)	3 (S)	2 (S)	6 (S)	GB: T: interesting examples from TV shows or everyday experience; S:leaf-rubbing, clothes making; fashion shows
							GC: used interesting video; Role play both carried out by teacher and students
	Risk-taking (offering challenges)		4 (s)	2 (S)	2 (S)	8 (S)	GA: Provided buttons, a black pen and one chosen colour as challenges but didn't give a reason why and how to use them; created a work in limited time
							GB: Used paper to make clothes in a limited time
							GC: Developed a story for role play in a limited time
C. Students' engagement in relation to the features of PT	**Immersion**		2	4	3	9	GA: Students concentrated on looking at artist's work and making their own work.
							GB: Students concentrated on teacher's talk and making their own work.
							GC: Students concentrated on watching a video and making their teamwork.
	Being imaginative		2	2	2	6	GA: The students made and explained their artwork, but the teacher didn't give them full freedom to explain their ideas (teacher asked and then students answered)
							GB: The students were making their designer clothes and explained their clothes
							GC: The students were doing role play, and making cards
	Innovation		2	2	1	5	GA: The students made and explained their artworks
							GB: Students created their printing and designer clothes under clear instructions
							GC: Students created their artworks but without teacher's inspiration or instruction
	Action-intention		1	2	2	5	GA: The students made their group work (not clear)
							GB: The students made printing and clothes
							GC: The students doing role play and making cards
	Self-determination		1	1	1	4	GA: The students discussed their group work
							GB: The students discussed how to make clothes
							GC: The students decided their story and roles in role play activity
	Total	**Teacher**	37	47	42	126	
		Students	23	21	20	64	

It can be seen from Table 43 that, in Section A, the most popular teaching strategy was "supportive/enabling learning context", which appeared 29 times in the groups' performances. It is noted that the elements of teaching effectively (e.g. classroom management, and teaching materials) were also identified to support students' learning. "Creating/offering opportunities" was the second popular teaching strategy, which appeared 18 times in the performances. In this strategy, offering challenges was the most frequently used approach, particularly in Group A. The other strategies, in order of popularity, were standing back and providing learning agency (both appeared seven times).

In section B, teacher and student interactions, the most frequently used strategy was "posing and responding to questions". In total, this appeared 83 times in the groups' performances, during which teachers asked questions 50 times and responded to students' questions 10 times. Students asked questions four times and responded to questions 19 times. Although the open-ended questions were the most frequently-posed question type (24 times in total, the other questions included 16 short-answer questions and 10 yes-or-no questions), these open-ended questions were either too general or often answered by teachers, so that students were not given the chance to think. The other methods, in order of popularity, were: play/playfulness (11 times), and risk-taking (8 times). It is noted that the feature of play in teachers' strategies refers to interesting teaching that belongs to the idea of CT.

In section C, the most frequent feature of PT in students' learning was immersion, a total of nine times. The other methods, in order of popularity were: being imaginative (6 times), innovation (5 times), action-intention (5 times), and self-determination (4 times). Finally, the total frequency of the use of teaching strategies collected from Group A was 33 times, 45 times from Group B and 40 times from Group C. Although the total usage of teaching methods was unable to exactly present whether the groups' performances belong to PTCPed, this provides a brief overview for

reference.

Finally, from the overall results the total frequency of the use of teaching strategies collected from Group A was 37 times, 43 times from Group B and 42 times from Group C. Also, the total frequency of the students' learning in respond to PT appeared 13 times in group A, 16 times in Group B and 13 times in Group C. It is noted that the results did not include the frequency of the category of "posing and responding question" due to the purposes and the contents of questions and answers that students provided in the workshop did not exactly belong to the features of PT. Although the amount of the use of teaching method and students' responds to PT unable to exactly present whether the groups' performances belong to PTCPed, this provides a brief overview for reference.

The following discussion in this section will focus on qualitative accounts by firstly providing a brief introduction to the teaching projects and then concentrating on a discussion of the highlighted points. The evidence supporting the discussion primarily originates from my evaluations of each group and any other possible visual materials, such as photos.

6.3.1 Group A

6.3.1.1 Brief Introduction to the Teaching Project

Chien was the volunteer representative for the teaching performance in Group A. Her project was to introduce an artist, Piet Mondrian that carried on in the following process:

1. Chien used PowerPoint to introduce Piet Mondrian's CV and artworks (Photo 8 below), and supplied some examples (by showing vivid pictures on PowerPoint slides) to show the Mondrian style in today's designed products. In her introduction, she tried to use questions that gave interaction with the students, such as "*Do you know the artist, Piet Mondrian?*" and "*What are the differences between his drawings and*

the drawings we normally see?"

Photo 8 Introducing artist artworks by using PowerPoint
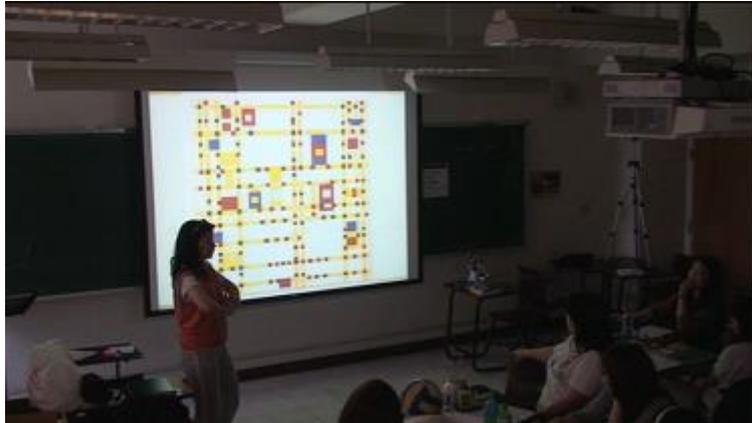
2. After the PowerPoint introduction, students were given a group task which was to complete a piece of art by using the key features of Mondrian's artworks (Photo 9). Meanwhile, Chien provided various materials (e.g. magazine pages, glue, scissors, and a black marker pen) to the students, as well as buttons and a chosen colour, as additional challenges.

Photo 9 Group activity- We are little Mondrians!

3. Finally, Chien encouraged students to share their group artworks with the whole class and concluded her performance by providing positive

but succinct feedback (Photo 10 below), such as "*hmm, it is a very good piece of artwork*" or "*well done*".

Photo 10 Showing group artworks to the class

The final pieces made by Groups A, B and C (Photo 11 below).

Photo 11 Final pieces from Groups A, B and C

6.3.1.2 An Overall Evaluation of Group A

Due to discord between the members in Group A, they did not come to an agreement for their teaching project until Session 4 of the workshop (the teaching performance was during session 5). Hence, Chien decided to work on the teaching plan and performance on her own (the reasons will be discussed in Section 6.4.2.1). However, as she was late for every session of the workshop, it was not surprising that her conceptions of creativity and CPed had not altered, and it has been shown in Chapter Five that she was

not really familiar with PTCPed.

Chien had several brief discussions with me about her teaching plan before her performance, but she could not completely understand the points I raised with her. Thus, she decided to adopt my method of teaching from Session 3 into her performance, such as introducing the artist artworks to students' art making and setting up a challenge to students. Perhaps this was because she thought it would be a safe way to carry out PTCPed. In fact, she was late for Session 3 and only joined the project for the last 30 minutes, so she only knew this project by reading the lesson handouts and getting a brief summary from the other students. However, the key points in my suggestions to her were to consider how to offer the space to nurture students' creativity by using the activities. However, she thought that engaging in more interesting activities (such as a drama play) or seeing more examples of artist's artwork would encourage students' creativity as they grew up (as she thought that creativity means being good at art that explained in Chapter Five).

This misunderstanding could also be found in Chien's teaching. For example, her methods of instructing students in her performance, including posing questions, were either too narrow or too vague and general to be answered and followed by students. For example, her question, "*Do you know the artist, Piet Mondrian?*", is categorised as a closed yes-or-no question, which cannot provide any room for the development of students' thoughts. In addition, although she provided students with many artwork examples from the artists on PowerPoint, she did not pose proper questions to lead them on to summarise the features of the artist's work. For example, she asked: "*What are the differences between his drawings and the drawings we normally see?*" This question was arguably too broad for students to follow.

In Chien's teaching, the most frequently-used strategy was "creating opportunities"; for example, after her presentation to the artists' artworks,

she directly offered many materials to students to make a group artwork. In addition, she tried to offer several changelings for students aiming to develop their creativity. However, she did not explain clearly what the purposes of this group activity were and what these materials were for. Therefore, the students were confused to ask several questions to make sure what to follow. Finally, in general her ways tended towards teacher-focused approach; for instance, while students described their work at the end of the performance, she intended to pose questions to lead students to present, rather than left a space for them to express freely.

To sum up, Chien's practice did not belong to PTCPed in terms of the content of her teaching plan, as well as her methods of teaching, which did not allow creativity to be nurtured. The detail of my feedback to Chien is displayed in the evaluation form in Appendix H.

6.3.2 Group B

6.3.2.1 Brief Introduction to the Teaching Project

In contrast with Group A, the teaching project in Group B was planned by teamwork, and Chou was chosen to be the representative for the performance. His teaching process was carried out as follows:

1. Chou introduced how to make a print work by posing humorous questions and using examples from everyday experiences (Photo 12), for example using coin-rubbing to introduce printing. Students engaged with and enjoyed his talk.

Photo 12 Posing question to students

2. Students were divided into groups to make their group print work collaboratively (Photo 13).

Photo 13 Group activity - Making leaf rubbings

3. Afterwards, students were given a further task to make designer clothes by using their print works. Before they started, Chou explained the steps of making clothes from a piece of paper by drawing an example on a blackboard (Photo 14).

Photo 14 Explaining the way to make clothes

4. Students were challenged to create their designer clothes within five minutes (Photo 15 below).

Photo 15 Group work when making clothes

Final pieces made by Groups A and C (see Photo 16).

Photo 16 Final pieces from Groups A and C

6.3.2.2 The Overall Evaluation of Group B

The full detail of my evaluation of Group B is shown in Appendix H. The most frequently-used strategies in Chou's performance (also shown in Table 43) was "supportive/enabling learning context" (14 times). Chou's performance, from the overall result, encouraged a joyful and playful climate in which students could, step by step, engage in both individual and group activities through Chou's guidance. Different from the other two groups, Chou was the only case that used clear instructions to help students gain abilities so that they could develop their creativity by using these new abilities (e.g. making leaf-rubbing and clothes). Using this strategy, he also asked several questions which were argued not relevant to the teaching (e.g. "*Do you know what we are going to do today?*" or "*Have you ever seen a Ten-Dollar coin?*") to catch the attention of the students and to make his teaching more effective (e.g. classroom management). Therefore, the students seemed to engage in teaching and learning activities actively and confidently.

However, overemphasising the teacher's instructions (teacher-focused approach) may sometimes block students' creativity. For example, in Chou's performance, he firstly posed: "*how can we make a piece of paper into an item of clothing? Can we make a hole in the middle, so that we can wear it?*" This was followed by modelling an example in his performance, while introducing how to make an item of clothing out of paper. Afterwards, the

students imitated his method by making a hole in the middle of the paper to design their paper clothing items. I would argue that he could have stopped at the first question and left a space for the students to find a solution.

"Posing questions" was the second most frequently-used strategy in Chou's performance (appearing 13 times) but it was the most significant influence on the nurturing of students' creativity. Chou often asked questions, but the questions he posed either actually implied his ideas to the students (see the above example), or he might answer his own question straight away, instead of providing students with the chance to think or to answer his question. However, Chou argued for the effectiveness of question-posing in school practice for two reasons in his post-workshop interview (see Appendix O). Firstly, he felt that, "*students may just keep silent…and are not responding*", so he chose to answer his own questions. The second concern he argued was that question posing may affect classroom management because, in his viewpoint, encouraging students to talk means allowing students to chat or to make noise, leading to loss of control and students not concentrating on the teacher's talk. As the post-workshop interview was the last chance for us to meet up and to discuss his teaching, I tried to clarify that the issue was not the use of question posing, but the appropriateness of the question. See the conversations (marked in read) in Chou's post-workshop interview in Appendix O (Case A: Chou).

To sum up, between these three groups, although Chou used most of the teaching strategies in relation to PTCPed (appearing 47 times; see Table 43), his methods of instructing students from the overall result actually intimidated or directly influenced students' creativity both verbally and in action. This may be due to his emphasis upon effectiveness in teaching.

6.3.3 Group C

6.3.3.1 Brief Introduction to the Teaching Project

Compared to the visual art-based projects from the other two groups, the teaching from Group C was more like an integrated arts-based project, named "*Mother's guardian angel*". The teaching performance was mainly carried out by Mandy, whose specialism is in drama, using the following process:

1. Mandy started her teaching by showing a video to catch students' attention and highlighted the theme of the project (Photo 17 below).

Photo 17 Showing a video as a starting point

2. After the video, one of the members from her group impersonated a pregnant mother doing housework. She then facilitated a group activity, role play, in which students created a story to experience how hard it is to be a mother (Photo 18).

Photo 18 Group activity- role play

3. Mandy invited students to share their feelings of being a mother and summarised the key points from the group activity. Furthermore, she gave students the task of drawing a card to celebrate Mother's Day in their sketchbooks. While students made their drawings, she shared her ideas as examples of what they could draw or what sentences they could write down on the cards (Photo 19).

Photo 19 Sharing ideas with students while making artwork

There are two examples of the students' drawings below (see Photo 20).

Photo 20 Two examples of students' work

6.3.3.2 The Overall Evaluation of Group C

It can be seen that the teaching project in Group C consisted of mixed elements from different art forms, such as drama and visual art. The teaching materials and activities used in the performance were also shown in various ways, compared to Groups A and B, namely through video and role play (both teacher and students). The detail of my feedback is shown in

the evaluation form in Appendix H. There are, however, two issues I would like to highlight in this section.

The first issue is about posing questions. This was the most frequently-used strategy in the performance (appearing 19 times). Compared to Group A and B, Mandy used more open-end questions (10 times) and standard-answer questions (7 times) in her teaching to stimulate students to think. However, it was suggested that she explore how to ask a proper question and practice this more in her future teaching, which is discussed from the following three aspects. Firstly, Mandy attempted to use questions such as *"who is the Mother's guardian angel"* as a starting point in her teaching, but by the end of her teaching, this question had not actually been answered, nor had Mandy provided students with an opportunity to think about this question. If this question was directly related to the purposes of this teaching project, it would be better to invite students to look back this question before the end of the teaching. Additionally, many of her questions were too general to be answered by students, such as *"Can you share your feelings on the activity of role play?"* This question was posed to encourage the students to share their thoughts of being a mother, but there was silence from the students when the question was posed, so Mandy answered her own question. I suggested she used questions, such as *"What actions did you do to be a mother in the role play?* and *"how did you feel while you were doing these actions?",* assuming these questions might provide a clearer direction for students to explain their ideas. Finally, Mandy often asked several questions at the same time. On the one hand, students can be stimulated in this way by the many challenges, but most of the time they were confused and were unable to think about their responses to these questions.

In contrast with Group B, where more attention was paid to the teacher's guidance when leading students' learning, the second issue raised from Mandy's performance was how much freedom/space should be offered to students to foster their creativity. In Mandy's performance, the activity of

role play was designed to experience how hard it was to be a mother. Consequently, she gave complete freedom to students to create their own cards as she thought it was the best way to inspire their innovative ideas. However, I would argue that, firstly, role play did not automatically inspire the students' innovative ideas in making cards and, secondly, complete freedom is not the same as offering space for students' creative development. On the contrary, complete freedom could sometimes be seen as a barrier for creative development. In Mandy's teaching, she encouraged the students to express their feelings of being a mother, but the processes of guiding students to transfer their feelings into ideas to appreciate motherhood and then to encourage hands-on practice (making their cards) were missing. In particular, for those students whose artistic abilities are not good, this may limit them to express their creative ideas or even to diminish their creative expression. Furthermore, there can be a variety of ways to make a card, not only through drawing. Mandy should have encouraged the students to find different possibilities to create their own cards. I assumed this may have been because Group C was a mixed background group and also because Mandy's own specialism is drama. Therefore, as she was not familiar with the implementation of the detailed pedagogical strategies in the field of visual art, something was missing.

To sum up, overall, Mandy's performance provided the students with many opportunities and the stimulation to develop their creativity in an enabling learning context. But, considering this was a visual art based workshop, her teaching may only be suggested as a starting point for a visual art project, which belongs to teaching creatively.

Finally, although Young (the only participant with a visual art specialism in Group C) was not a representative of the performance in this group, she also mentioned that she had faced the similar problems as Mandy had in her teaching (e.g. how to inspire or instruct students, and how to organise her teaching). Thus, I intended to discuss the teaching performance with Young in her post-workshop interview (see Appendix O: Case E: Young) in

order to get a viewpoint from the visual art stance. In the conversation (see the paragraphs marked in red), Young also realised that coherent content and teaching procedures were missing in the group performance.

6.3.4 Brief Summary to Sub-Question 2.1

In this section, each group's teaching performance was examined to explore their practices of PTCPed. From the overall results, although their practices did not fully belong to an ideal PTCPed, several strategies that the participants used in each group's performance included the features of PTCPed. The findings of this sub-question can be summed up as below: Firstly, a brief summary of each group's performance is shown below, including three categories: overall summary, good points of the performance (stars), and something that could be improved (wishes).

Group A:

Overall summary	Chien's performance followed more the traditional teaching way in which Chien played the main role in the teaching activity. She also focused on describing the knowledge-based information (the artist's background and his artworks), rather than leaving the learning ownership to the students.
Stars	Chien set up many challenges in her performance to foster students' creativity.
Wishes	1. Question posing (e.g. the content of questions) 2. Standing back 3. Offering opportunities for creativity development

Group B:

Overall summary	Chou's teaching plan offered students many opportunities to develop their creativity. While in performance, however, he tended to use a teacher-focused approach to teach creativity that may limit students' creativity.
Stars	1. Chou created a joyful and playful learning context in which students actively and confidently immersed in learning activities. 2. Well classroom management (e.g. time management, meaningless questions) supported students' learning and increased their attentions.
Wishes	1. Question posing (e.g. the content of questions) 2. Standing back

Group C:

Overall summary	Mandy's performance belongs more to CT, in which she used an interesting video and role play to catch students' attention and interest, which consequently led to students engaging in the teaching and learning. However, the processes of guiding students to link creative ideas with hands-on practice were missing.
Stars	Mandy set up an interesting group activity in her performance that fired the students' creativity.
Wishes	1. Question posing (e.g. the content of and the purposes of questions) 2. Sometimes too much freedom may hinder students' development of creativity

The most frequently-used strategies in the participants' performances (refers to Table 43) were posing questions and creating an enabling learning context. The others included creating/offering opportunities (e.g. time, space and challenges), standing back, providing learning agency and play. In regarding to students' learning in respond to the features of PT in order of the popularity were: immersion, risk-taking, playfulness, being imaginative, innovation, action-intention, and self-determination. In addition to the PTCPed strategies and the learning in respond to PT, several strategies also appeared in the group performances, such as teacher-lead teaching strategies in delivering knowledge to students (Group A) and instructing examples (group B), classroom management (group B), and giving complete freedom (non-limited) for the students to make cards (Group C). As well as several creative features also appeared in students' learning while they participating in the group performances, such as confidence, active attitude and increased attentions.

Finally, there were several concerns with PTCPed pedagogical strategies that appeared commonly in the three group performances, in terms of the purposes, the contents of the questions and standing back.

In the following section, the possible influences on how the visual art participants manifested their conceptions of PTCPed are discussed.

6.4 Sub-Question 2.2: The Influences on the Visual Art Participants' Development of PTCPed

To explore the possible influences on the visual art participants' manifestation of their conceptions of PTCPed, as explained in Section 6.2.2, the post-workshop interview transcriptions were firstly inductively analysed. The details of the coding analysis of the post-workshop interview transcriptions, along with the frequency, are presented in Appendix P. Diagram 30 below further illustrates the brief findings of the possible influences on the visual art participants' development of PTCPed.
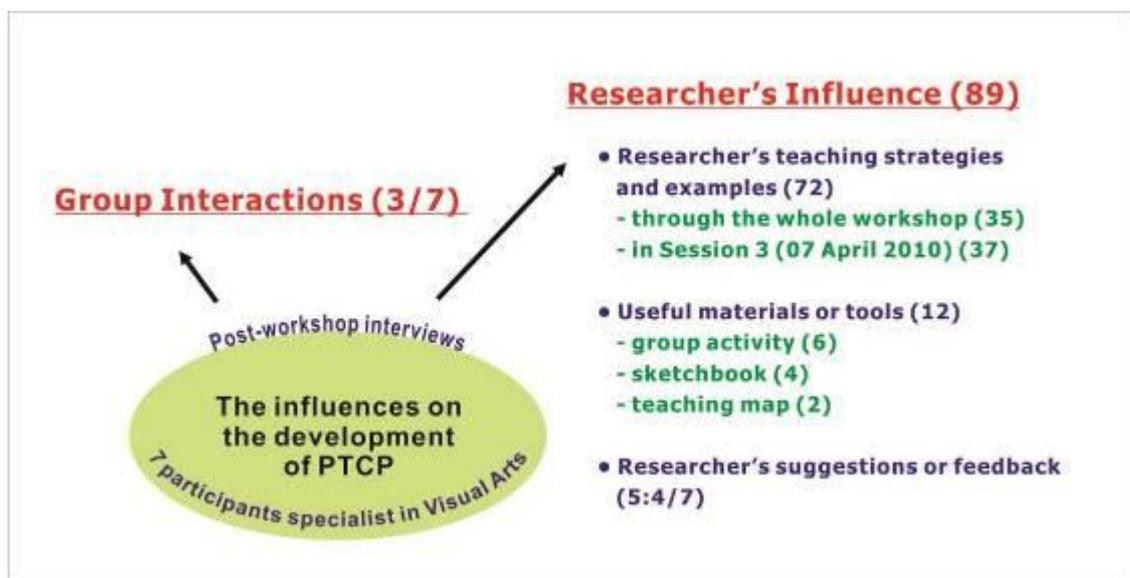
Diagram 30 Overview of the influences on the visual art participants' development of PTCPed

It can be seen from Diagram 30 that the researcher was the most frequently-mentioned factor that influenced the visual art participants' development of PTCPed, which was mentioned 89 times. In this category, the researcher's teaching strategies and examples used throughout the workshop (many visual art participants also particularly mentioned the integrated arts project in Session 3) were the major influences (mentioned 72 times in total). In this category, the project experience (particularly in Session 3) more significantly supported the visual art participants in developing their PTCPed (mentioned 37 times in total). As Liu wrote in her reflective log and that provided the best evidence, "*the theory of PTCPed*

seemed very complex and abstract to me, but after joining today's teaching project (Session 3), I suddenly realised what creative pedagogy is!" It is clear that the project-based learning directly demonstrated the abstract features of PTCPed into actual examples, thereby allowing the participants to bridge the theoretical framework with the practical implementation.

The other factors, in order of popularity, were: useful materials or tools that I introduced in the workshop (12 times), and my suggestions and feedback on the group performances (5 times: mentioned by four participants). In addition to the influence of the researcher, the factor of group interactions was the second most frequently-mentioned category, mentioned by three visual art participants (3/7).

In the following sections, the discussion of the influences on the visual art participants' development of their conceptions and implementation of PTCPed is divided into two main perspectives: influence of the researcher as a tutor in the workshop (6.4.1); and the influence of group interactions (6.4.2).

6.4.1 Influence of the Researcher as a Tutor in the Workshop

As explained in Chapter Four, this was a five-session CPed workshop, including both knowledge (the theory of PTCPed given in Sessions 1, 2, and 4), teaching techniques and the provided examples (in Sessions 1, 3, and 4). The presentation of the analysis in this section is then divided into three categories based on Diagram 6.1, namely: researcher's teaching strategies and examples (6.4.1.1), useful materials or tools (6.4.1.2), and my suggestions and feedback as the researcher (6.4.1.3).

6.4.1.1 The Researcher's Teaching Strategies and Examples

As the researcher and tutor in the workshop, I appeared to directly influence the participants' developments in PTCPed by making suggestions about how to think about PTCPed (discussed in Section 6.4.1.3), as well as

actively demonstrating the teaching techniques. In this study, my teaching strategies and examples (as the tutor) seemed to be the major influence on the visual art participants' development of PTCPed (refer to Diagram 6.1). More specifically, these modelled examples, from their viewpoints, included occurrences throughout the workshop and in session 3 when they participated in an integrated arts project. Table 44 presents a more detailed account of the useful teaching strategies and examples, with the information arranged from most to least frequently-mentioned in the visual art participants' post-workshop interviews.

	Throughout the CPed workshop	In Session 3	Total
Standing back (passing ownership to the learners)	9	10	19
Creating and offering opportunities (e.g. posing and responding to questions, offering challenges, creating more choices in the learning context and materials)	9	9	18
Profiling learner agency /(e.g. individual and group works)	6	7	13
Enabling learning climate (e.g. encouragement, free and supportive learning climate)	7	6	13
Other strategies (e.g. the structure and procedures of teaching)	4	5	9
Totals	35	37	72

Table 44 The details of the useful teaching strategies and examples

It can also be seen by Table 44 that "standing back" was placed as the most frequently-mentioned strategy from the overall result, which appeared 19 times. The second most frequently-mentioned strategy was "creating/offering opportunities" (18 times). "Profiling learner agency" and "enabling learning climate" were both mentioned 13 times. In addition to these teaching strategies relating to PTCPed, the participants also mentioned that several strategies and examples used by myself as the researcher/tutor in the CPed workshop were useful to them (11 times) and that they were more in relation to the features of effective teaching, such as the structures and the procedures of teaching. In addition, Table 6.4 also

shows that my demonstration, the integrated arts project in Session 3 in the workshop, may be more useful in building the visual art participants' implementation of PTCPed than other teaching strategies (37 times in total) mentioned in this category.

As explained in Chapter Four, the PT pedagogical strategies were especially planned in order to get the participants to experience these strategies naturally and to, consequently, acquire them actively. In the following discussion, the PTCPed strategies used by the researcher and how they supported the visual art participants' learning are discussed.

6.4.1.1.1 Standing Back and Creating/Offering Opportunities

While teachers create opportunities for learners to develop their creativity, it is important that, at the same time, the teacher realises the need to stand back in order to give the learning ownership back to the learners. By taking the dual role of researcher and tutor in this research workshop, the strategies of standing back and offering opportunities were particularly planned for the reasons stated below:

Firstly, in the role of researcher, I tried to not become involved in the participants' learning and discussions. In order to prevent their knowledge building from my own beliefs, what I often did was to create group activities (e.g. discussions) and summarise and highlight the key information they contributed throughout the workshop. Secondly, in my role as a tutor, there were two concerns when choosing the strategies used in the workshop. As explained in Chapters One and Four, my first concern was the specific learning climate in Taiwan that has been argued as a teacher-focused teaching and learning approach. To prevent this typical Taiwanese classroom learning climate, the teaching in the workshop was designed to use a learner-driven approach, aiming to pass the ownership to the learners. From the visual art participants' views, they found my strategies of creating/offering opportunities useful to them. These

strategies were: posing questions (e.g. 'what if' questions) to inspire their creative thinking and imagination, setting up challenges, creating more choices in learning contexts and the materials used.

My second concern was standing back and offering opportunities as this was evidenced as an important pedagogical strategy in the literatures. Thus, to introduce PTCPed, I was hoping to nurture student teachers within a creative context by using the strategies to offer them access to pedagogical feelings. The changes in the visual art participants can be found from the following examples taken at the beginning and the end of the workshop:

1. At the beginning of the workshop:

A reflection on Session 1 recorded in my research diary,

> *Is it because of cultural values that students always assimilate what a teacher gave to them in the lecture? It can often be seen in Taiwanese classrooms that students listen carefully to what a teacher has said or provided to them, and copy the notes from what they saw on the blackboard or PowerPoint. Teachers only ask students "Do you have any questions?" before the lesson finishes, and of course, students never have or ask any questions in reply! Unsurprisingly, in today's session I saw a similar picture. Most participants were busy taking notes all the time. I found that, most times, they just copied the sentences from the PowerPoint slides, or wrote down the summaries I made to them.*
>
> *I discovered that the participants seemed unfamiliar with sharing or talking about their ideas and criticized their partners (or maybe I need to use "give feedback to each other"). I guess this is because they can't get used to expressing their ideas and they are also not sure whether their answer is right….also I found that the behaviours of taking notes in group discussions was eventually affecting the learning climate between the group members (group 1)*. (Researcher's reflective diary, 17/03/2010)

Two impressions were found from the above reflective diary. Firstly, the participants tended to follow a *teacher-talk* approach; it seems that they preferred to be *the audience* in the teaching-and-learning relationship. The second impression was that the participants were perhaps stretching for *standard answers* in their discussions.

2. At the end of the workshop

The following example shows Liao's expectations in her post-workshop interview, in carrying out PTCPed in which she explained how to use questions to inspire students and to provide students with space.

"I may focus on how to pose and respond to questions to students. And I will try to create more open-ended questions in order to inspire students to find out more possibilities in creating their artwork, not just follow mine. I think your teaching ways and examples inspired me quite a lot!"

6.4.1.1.2 Enabling a Learning Climate and Profiling Learning Agency

In addition to offering opportunities and standing back, the visual art participants also mentioned the other PTCPed strategies that inspired their development and implementation of PTCPed. These included creating a joyful and encouraging learning climate, and profiling learner agency, such as individual and group activity. More discussion of learner agency focusing on group activity is presented in Section 6.4.1.2.1.

Enabling a learning climate, from the visual art participants' views, included verbal and behavioural encouragement, and a supportive and safe leaning environment, in which the participants feel confident, free and happy to express their ideas and thoughts, and are willing to take up the challenge.

6.4.1.1.3 Other Strategies

Several useful strategies mentioned by the visual art participants that were more in relation to effective teaching (e.g. the structure and processes of teaching), also supported the participants' development of PTCPed. For example, Chao had never previously considered fostering creativity in her art teaching, but after attending workshop Session 1, Chao wrote in her reflection that "…*I almost forget the "fun" and the "joy" of learning climate and students' needs in my teaching!*" She told me that she used to spend lots of time demonstrating and embellishing the students' drawings, but the students never learnt or improved their skills from this. As she wrote,

"… But in [tutor/researcher's] teaching example, she simplified the skills and instructed us step by step by only giving some clear points, and then we completed a drawing in such a short time! The most important thing was we created our own drawings and they looked all different even in the same topic!… I never thought drawing can be so interesting!" (Chao's reflective log)

In contrast to Chao, Young was enthusiastic about students' creative ideas before she attended this workshop. She told me about her teaching experience and about stimulating her students' imagination, in which she found her students enjoyed an activity because they felt free and were encouraged to express their own ideas, drawing what they wanted to draw in their papers. However, she had experienced tension with her colleagues and the students' parents as the students' drawings did not look very professional. Young seemed more insistent in her belief in CPed to nurture students' own creativity, as she put forward the following viewpoints in the post-workshop interview,

"we are just limited by the name of creative pedagogy that we misunderstand creative pedagogy as teaching creatively. Therefore, we always prepare creative teaching aiming to promote students' creativity; actually we only work on developing innovative teaching plan, but not for improving students' creativity."

She further explained that teaching needs to be structured which "*doesn't mean to ask students to follow your orders… it should be like what you [tutor/researcher] did in the workshop which… provide a space that allows students to develop their own ideas and create their own work.*"

6.4.1.2 Useful Materials or Tools to Help the Development of PTCPed

The category of useful materials or tools that emerged from the visual art participants' descriptions in the post-workshop interviews contains group activity, sketchbooks and teaching maps (see Diagram 6.1). Table 45 further provides the details of useful tools mentioned by each visual art participant (arranged from most to least frequently-mentioned), along with the frequency of their occurrence overall.

	Chou	Liao	Chien	Chao	Young	Wu	Liu	Total
Group activity	✓	✓	✓		✓	✓	✓	6
Sketchbook			✓		✓	✓	✓	4
Teaching map		✓					✓	2

Table 45 The useful tools to inspire the visual art participants' development of PTCPed

It can be seen from Table 45 that the most frequently-mentioned useful tool was group activity, highlighted by almost all of the participants specialising in visual art. Use of a sketchbook was the next most commonly-cited tool, mentioned by four out of seven visual art participants. Finally, two visual art participants thought that the teaching map with divergent and convergent thinking was useful to the development of PTCPed, which was half the number of participants that mentioned the sketchbook. It is noted that Chao did not mention that any of these tools were useful as she thought my teaching strategies were the most significant influence for her. Different from Chao, Liu mentioned all of these useful tools in her perception of PTCPed development.

In the next section, the useful materials or tools that helped the visual art participants manifest their conceptions and implementation of PTCPed are discussed in terms of: Group activity (6.4.1.2.1); Sketchbook (6.4.1.2.2), and Teaching map (6.4.1.2. 3).

6.4.1.2.1 Group Activity

In this study, group activity was the most powerful tool to help the visual art participants develop and manifest their perception of PTCPed as six out of seven visual art participants mentioned it. For Chao, my methods of organising group activities in the workshop were an innovative experience and he thought to bring this approach to his future teaching implementation of CPed. As he described,

> *"This is a very fresh experience for me. In the process, it not only provided an opportunity for every group to introduce their own drawings, but also*

created a stage to let everyone discuss how to join our drawings from groups"

Another participant, Liu offered a different point of view on group activity. Liu thought that a small group provided her with a comfortable environment to express her ideas, as her personality was timid and she was shy at expressing her opinions in public. Her reflection is shown below.

> *It was a challenging workshop since week 1. To speak my thoughts to other people was very scary to me. But by using the way of short discussion with group members in a limited time, I found that I had no time to be scared. And surprisingly, after sharing my thoughts with other group members for the first time, I felt we became closer to each other and I am not afraid to say something afterward because we are a team already!* (Liu's reflective log)

Liu told me that she felt it was difficult to inspire students' creative ideas through her teaching, and that she always hesitated over whether to demonstrate or not. I suggested she could use a group activity, but she did not seem to really agree with this idea. After taking part in my teaching project in session 3 on 07/04/2010, Liu had a conversation with me about the use of group activity in her teaching, which was noted in my reflective diary.

> *Liu realised that group activity is a really good way to inspire students with less intervention by the teacher after the project. She told me that today she learned a lot from her team through group collaboration and created more ideas by sharing. So she thought that it may be worth to give it a try in her teaching.* (Researcher's reflective diary, 07/04/2010)

It seems that the issue Liu met in her teaching has found a possible solution through her experience of taking part in a group activity, where she felt more freedom and had the confidence to express her ideas. In addition, she also learned how to find more possibilities through negotiating the different viewpoints with her partners in the group. As she told me, *"every member was a very important element in the team work."* This positive disposition carried though to her learning and could bring new possibilities to her future teaching. From the above discussion, she recognised the

importance of providing space to students through group activities.

6.4.1.2.2 Sketchbooks

Creativity is thought of as an active process involving "*mental and physical processes*" (Fautley & Savage, 2007: 4). The concept of the sketchbook in this workshop, therefore, was designed to record and evaluate the visual art participants' learning "process" of PTCPed. More specifically, as explained in Chapter Three, the purposes of sketchbooks for the student teachers in this workshop were, firstly, to write their reflections on their learning of PTCPed, as the participants. Secondly, the sketchbook also provided an unconstrained place in which the student teachers were able to take notes during each session of the workshop. The sketchbooks were also used to record the process of artwork making as role playing as secondary students, particularly in the teaching project I carried out in Session 3 (07 April 2010). In Wu's post-workshop interview, she made the following comment regarding her use of the sketchbook, in which she explained that the sketchbook highlighted the process of CL.

> "… I think making a sketchbook is just like writing a diary. It not only can record every detail of my learning and every idea I have ever had, but it also provides me with a record to review my progress of learning and to remind me of some points which might not have been special before but are meaningful now!"

Wu also wrote a reflection to indicate that the sketchbook was also a good tool in the implementation of PTCPed, particularly in the field of assessment of creativity, which is shown below.

> CPed for me more emphasises the learning process…. (the) experience (of learning) has already inspired their creative ideas and behaviour. But they (students) may forget this experience, so it is very important to ensure their learning is recorded by using a sketchbook. On the other hand, it is also useful for me to assess their learning because I can trace their learning in their sketchbooks! (Wu's reflective log)

In addition, Young and Chien mentioned that the sketchbook was a useful tool in their development of PTCPed in the post-workshop interviews, but

while they described their feelings about the sketchbook in their reflective logs, their viewpoints were more relevant to their own personal development of creativity. The following example is from Young's reflective log.

> *A sketchbook was helpful to my learning. I used it to take notes including important information or uncertain points. When reviewing these notes, the memories and the ideas always come to me to help me build up more new ideas. I believe that creativity or to be creative never comes properly or perfectly the first time, and it needs to be inspired over and over. And from this viewpoint, a sketchbook is a very good tool for me to record this process.* (Young's reflective log)

Finally, Liu raised an unexpected benefit of the sketchbook in the implementation of PTCPed. She drew on her personality to imagine student perspectives, voicing that sketchbooks may be a good tool for providing a space for students to express their ideas in an unpressured and less visible way. As she said,

> *"... for some shy students like me, they are not good at showing what they thought and felt, but through the sketchbooks they could write down or express their ideas and thoughts confidently."*

6.4.1.2.3 Teaching Maps

Both Liao and Liu thought that the teaching map was a useful tool to manifest a PTCPed while planning their teaching. After I introduced the teaching map in session 1 of the workshop, Liao wrote the following reflection about her use of a teaching map to express the advantages when planning a teaching project,

> *When preparing a new teaching plan, a teaching map is a very useful tool. It provides many possibilities for me to choose and to extend my thoughts, particularly when I haven't decided what to teach and how to teach. In addition, by using this teaching map I have many ways to integrate my teaching with other disciplines to produce a series of projects, but never worry about departing from the theme.* (Liao's reflective log)

She further mentioned in the post-workshop interview that the

implementation of divergent and convergent thinking was the main reason for her to use a teaching map (or mind map to her).

> *"The first thing that comes to me is the teaching map and I prefer to call it a "mind map" … this mind map will be a fantastic way to inspire students' creative ideas … for students, this really helps students to think about many possibilities. The best thing is that this mind map also provides the choices for students and helps them to make their thoughts more logical by using divergent and convergent thinking as we did in the workshop"*

To Liao, therefore, the use of a teaching map within divergent and convergent thinking is the most impressive tool, not only in planning teaching but also being used to inspire students' creative ideas while doing a PTCPed.

6.4.1.3 Researcher's Suggestion and Feedback on the Teaching Performance

There were four visual art participants who directly mentioned (5 times) that my suggestion and feedback (mostly on their teaching plans and teaching performances) helped them to develop their implementation of PTCPed; as Wu stated in her post-workshop interview:

> *"you offered very useful and detailed feedback on our teaching performances which really helped us to reflect on our teaching and find out the blind spots! Indeed, sometime we do or learn something habitually without considering whether it is suitable or can block students' creativity. And you reminded us through your suggestions!"*

Young also thought my suggestions were helpful to her PTCPed development. As mentioned in Chapter Five, Young had many extra discussions with me about her teaching (regarding her part-time teaching work in an art institution) during the workshop, and these have actually continued until now (10/2012). In our discussions, I have made many suggestions regarding her plans for teaching projects and her teaching strategies by posing questions and sharing many examples of my teaching with her (for more detail refer to Appendix O).

In the next section, the discussion will move on to the next possible influence: group interactions.

6.4.2 The Influence of Group Interactions

Diagram 6.1 shows that group interaction was another influence on the visual art participants' development of PTCPed, and three visual art participants (3/7) directly mentioned it. It is possible that group activity was the main approach throughout the workshop, and the nature of interactions among group members, such as the group climate, could therefore be considered as a possible influence. For example, in the previous Section 6.4.1.2.1, six visual art participants mentioned that group activity created significant spaces in their learning of PTCPed. However, it was not easy to identify exactly what influences originated from the group interactions. In order to clarify this potential influence, the findings of how the visual art participants, within groups, changed their perceptions of CPed (see Chapter Five) were firstly considered to provide an overall picture. Following this, the analysis, as explained in Section 6.2.2, drew on the evidence that primarily originated from the transcriptions of recorded video clips, in which the examples of discussions from the groups and photos taken in group activities were selected to provide a detailed exploration. In addition, the group members' professional backgrounds were also taken into account. More detail of the data resources adopted to explore the influence of group interactions are shown in Table 46 below.

	The findings of Chapter 6	Recorded videos	Visual materials	Participants' professional backgrounds
The influence of group interactions	✔	✔	✔	✔

Table 46 Data resources used to analyse the influence of group interactions

The following discussions are divided into three sections that each focus on one of the three groups in the CPed workshop: Group A (6.3.2.1), B (6.3.2.2), and C (6.3.2.3).

6.4.2.1 Group A: A Chaotic Group - Chao, Wu and Chien

To explore how the group interactions impacted on the participants' development of CPed in group A, an overall picture representing the participants' perceptions of CPed before and after the CPed workshop (shown in Diagram 31) firstly offers background information.
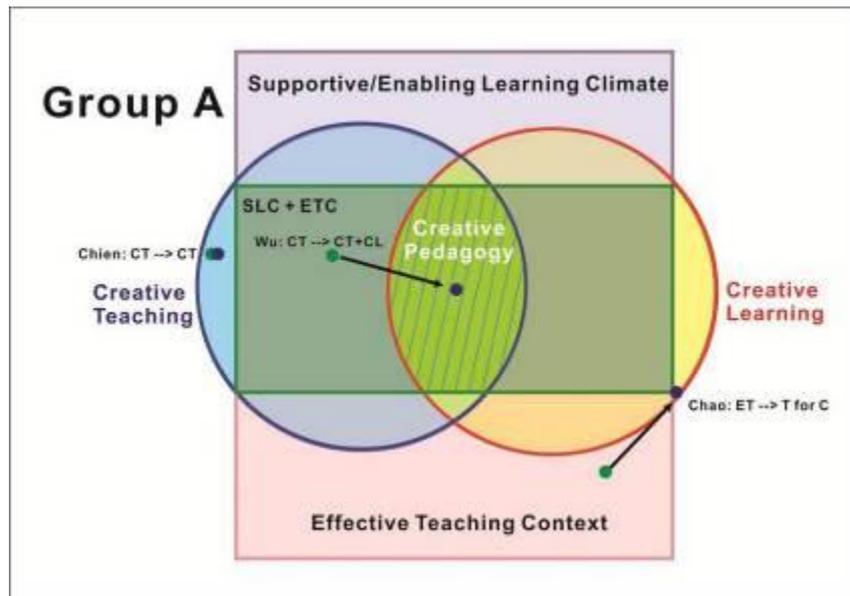

Diagram 31 The perceptions of CPed in Group A

Diagram 31 summarises the shifting perceptions of the three visual art participants in Group A, from the beginning of the workshop to after the workshop. It is noted that Chien remained in almost the same position of CPed. As explained in Chapter Five, Chien was late for every session at the workshop so, in fact, she was unable to really join in with the group activities fully. Her answer to CPed in the post-workshop interview was probably taken from the PowerPoint slides I used in the workshop.

Chao seemed to have a slight change. It was explained in Chapter Five that Chao's personality and thoughts may be conservative, and also that her teaching interests (Chinese brush painting) required more detailed skill training and personal internal cultivation. Therefore, she particularly emphasised seeking ET, but she started to notice T for C in her teaching.

Compared to Chao, Wu was enthusiastic about creativity before the workshop, and she was seeking creative and innovative ideas for her visual art teaching and learning. She ended by recognising the importance of CL.

Within the various personalities and backgrounds, the participants' interactions in Group A appeared to be a mess and a consensus could not be produced. Therefore, I named Group A as the chaotic group. This can be confirmed by an example of the group discussion in Group A on the issue of "what CPed means to you" in session 1 that is shown in Appendix Q.

From the group discussion, it could be seen that, although both Wu and Chao specialised in visual art, they held very different viewpoints of CPed, which has been considered from their distinct personalities and subject majors. While Chao emphasised traditional skills training, Wu had studied Design and was seeking new ideas to produce new designs, and these different perspectives reflected on their conceptions of creativity education. Hence, from the discussion example, the participants seemed to keep their own stance and their discussions appeared as unconnected and nullified communications.

This discordant climate within the group interaction might have affected their learning of PTCPed and teamwork, and their teaching performance at the end of workshop. A participant in group A, Wang, whose specialism was drama, decided to withdraw from the workshop after attending session 2 (28/03/2010) because she felt there was an unsupportive learning climate within the group. As her email stated,

> '…the partners in my group still followed the traditional learning way. They were always busy in note taking but made less contribution while in the group discussions. In addition, [someone] always kept her opinions! This really makes me feel uncomfortable in group learning…'

Although I tried to encourage her to continue, on the basis of ethical concerns that the participants can withdraw from the workshop at any time

for any reason, she decided to leave. A similar situation also appeared in the final teaching practice of Group A. The participants could not reach an agreement over their final teaching plan, so Chien abandoned the method of teamwork and developed her teaching practice alone.

To sum up, it can be argued that a discordant and unsupportive group climate could be a negative influence on participants' learning. As the outcomes have shown, the participants in Group A appeared as individuals learning PTCPed.

6.4.2.2 Group B: A Tranquil Group - Chou, Liao and Liu

Similar to Group A, there were also three participants specialising in visual art in Group B, but all of them were master students in the Department of Sculpture and had a few teaching experiences in primary or secondary schools (the other participant specialised in drama and also had some teaching experience in a primary school.) However, in contrast to Group A, the participants in Group B appeared to be more peaceful without strong personal opinions in their group discussions and activities, and a satisfied and consentaneous agreement emerged. Therefore, I named Group B as the "tranquil group". An example of group discussion in Group B in Appendix Q provides a close detail of their interactions, in which the participants discussed "how to implement a CPed" in session 1.

From the group discussion, it was found that the participants posted their arguments and also provided their teaching experience as examples in order to make their explanations of CPed clearer. Moreover, their common background in visual art and teaching experience helped them understand the context of the discussions and go deeper into the practice. Hence, although the participants may have raised different opinions on the issues through their discussions, they accepted and gathered all the contributions from each other to produce a summary with an open minded attitude. Diagram 32 shows that the participants in Group B began with different viewpoints of CPed but concluded with a similar perception.
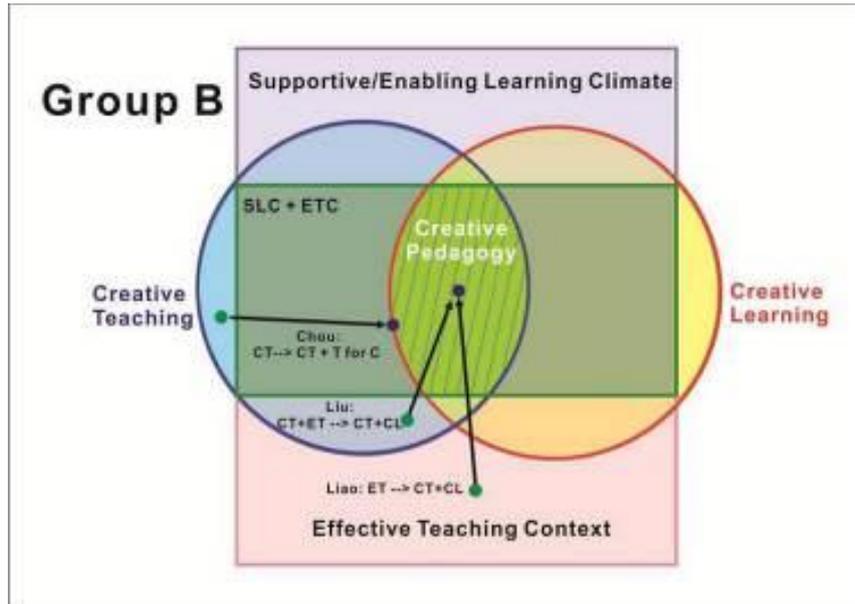
Diagram 32 An overall picture of participants' conceptions of CPed in Group B

In addition, the participants in Group B also had a happy teamwork experience. Again, their similar background (master students majoring in Sculpture) made them easily engage in the creativity learning within the context of visual art. The following photos (Photo 21-23) show a group activity in Group B, in which the participants completed a group artwork step by step collaboratively and expeditiously in a happy climate.

Photo 21 Sharing their ideas to make an artwork.

Photo 22 Making an artwork collaboratively

Photo 23 A completed artwork made by Group B

This positive group interaction was also beneficial to their implementation of PTCPed. In Chou's (Group B) teaching performance, he not only used more teaching strategies in relation to PTCPed than the other groups (refers to Table 43), but the teaching designed by Group B also appeared to have a well-structured content with the theme of nurturing students' creativity development in the field of visual art.

To sum up, it can be found that the interactions among the participants in Group B was happy and collaborative, which suggested a positive climate to their development of conceptions and implementation of CPed.

6.4.2.3 Group C: A Noisy Group - Young

Group C was a happy group and the group members always made a lot of noise and laughter during group activities. Young was the only participant

in Group C specialising in visual art (the other four participants were from music, drama and dance groups), and she was very interested in the issue of creativity and its pedagogy before participating in this workshop. Young told me that she enjoyed the group learning with her partners from various backgrounds,

> *"I love my group. Because we all come from different art specialisms, so we always looked at things in different ways from different perspectives, which helped me deviate from my vested thoughts and inspired me to create more ideas. Even in the artwork making, we also enjoyed a collaborative climate. It really doesn't matter whether they are good at visual art or not. If the workshop comes again, I would still choose a group with various backgrounds."*

Photos 24 and 25 show that the participants in Group C were enthusiastic about posing and sharing ideas, and their piece of artwork was presented in an innovative way by integrating different art forms.

Photo 24 Group C discussed their artwork enthusiastically

Photo 25 Group C presented their artwork in various art forms

Lee, specialising in dance, provided further detail in the post-workshop interview about the group interaction in Group C,

> *"**Lee:** …even though the activities in the workshop were more visual art based, we still felt very interested and we all engaged in them so much although we often had different opinions! Haha… I found that we always argued with each other and tried to convince each other!*
>
> ***M:** …how did you deal with the different opinions in your discussions or solve the arguments?*
>
> ***Lee:** … it depended on whose fist was the biggest!! I am kidding!! We decided to write everyone's opinions down on a paper, and then we discussed everything on our list to find out which one is the best answer. But most of the time, we found that all the opinions are all meaningful and we would like to keep all of them, so we used a mind map, which you taught us in the first session, to distinguish which opinions could be the main themes and which ones could be sub-themes."*

From the above data, it can be concluded that various backgrounds bring more fresh impetus and contributions in group activities. More importantly, an enthusiastic and collaborative learning climate could have been another positive motivation in the group interaction.

However, going deeper into detailed learning on CPed in the field of visual art, a variety of backgrounds may become a limitation. Diagram 33 below presents Young's change on her perception of CPed (for more detail refers to Chapter Five).
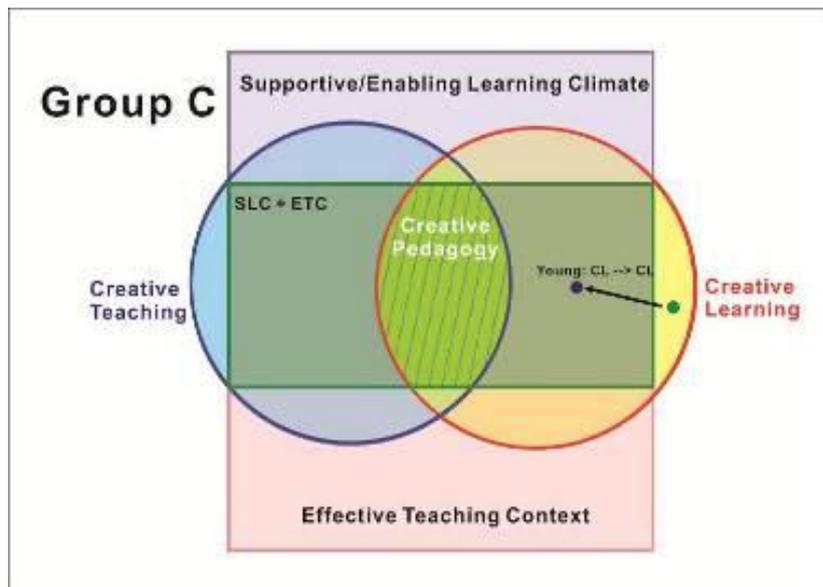
Diagram 33 The overall picture of Young's perception of CPed

Young was not the presenter in the teaching performance in Group C, so there was no first-hand information provided for the discussion of her implementation of PTCPed. As mentioned, Young had many extra discussions with me about her teaching during the workshop, and these have actually continued until now (12/2012). Hence, my belief that PTCPed can be a major influence on her conceptions and implementation of PTCPed. The influence of the group interaction on Young, therefore, could be a positive impact on her creativity development, but could also limit her development and implementation of PTCPed.

6.4.3 Brief Summary to Sub-Question 2

In this section, the possible influences on how the visual art participants manifested their conceptions of PTCPed were explored. To conclude the discussions on the three groups, the findings can be summarised as below:

1. The researcher, as a tutor, in the workshop appeared to be a major influence on the visual art participants' development of and implementation of PTCPed. In detail:

A. My teaching strategies and examples appeared to be particularly influential; the useful strategies, in order of popularity, were: standing

290

back, creating/offering opportunities, profiling learner agency and enabling a learning climate, and other strategies and examples (such as the structures and the procedures of teaching). In addition, the modelling demonstration (e.g. the integrated art project in Session 3 of the workshop) may be more useful in building the visual art student teachers' implementation of PTCPed.

B. Regarding the teaching tools that I used in the workshop, group activity was suggested as the most useful tool to help the visual art participants manifest their PTCPed, followed by a sketchbook, and a teaching map.

2. Group interactions, particularly the interactive climate within the group, could be another possible influence. The findings concluded that the participants, with same professional backgrounds, in a happy and collaborative, interactive group climate would help the members in the development and implementation of PTCPed.

6.5 Summary

In this chapter, the findings relating to Research Question Two were discussed; namely the visual art participants' manifestation of PTCPed at the end of the workshop and the influences on the development of their PTCPed. The discussion started from Section 6.2, where the approaches and data employed to do the analysis were identified. In Section 6.3, the group-based teaching performances were evaluated using the features of PTCPed. Additionally, the findings showed that the most frequently-used strategies in the participants' performances were the posing of questions and creating an enabling learning context. Two concerns in their performances were considered to be improved: the purposes and the contents of the questions, and standing back. Section 6.4 highlighted the findings of the researcher as a tutor in the workshop and that group interactions were two possible influences on the visual art participants' development of and implementation of PTCPed. In Section 6.4.1, my teaching strategies and examples appeared to be particularly influential. In

addition, group activity was suggested as the most useful tool to help participants manifest their PTCPed. Section 6.4.2 concluded that a happy and collaborative interactive group climate, together with the group members coming from the same professional background, would be positive in developing the members' implementation of PTCPed.

Following this chapter, an overall discussion drawing from the findings of Chapters Five and Six will be presented in Chapter Seven.

CHAPTER SEVEN

DISCUSSION

7.1 Introduction

In Chapters Five and Six, the visual art student teachers' perceptions of creativity and CPed, including the possible influences on their implementations of CPed, were presented separately, based on the research questions. In this chapter, these findings are brought together to answer my principal research question: **How do secondary visual art student teachers in Taiwan develop their perceptions of PTCPed in terms of knowledge and practice during a short workshop alongside a teacher-training course?** The discussion, therefore, will further focus on *what* perceptions of creativity the student teachers specialising in visual art hold and *how* they developed their perceptions of creativity (mainly focusing on the features of PT), and PTCPed in terms of knowledge and practice. References and the relevant literatures are used throughout to explore and illuminate this discussion. Four main sections are expounded, headed as follows:

7.1 Introduction

7.2 Overview of the findings to Research Questions One and Two

7.3 Discussion on the visual art participants' views and practice of creativity and CPed

7.4 Key themes and a new PTCPed highlighted from the findings

7.5 Summary

7.2 Overview of the Findings to Research Questions One and Two

In this section, the findings to Research Questions One and Two are summarised, including the visual art student teachers' views of creativity (7.2.1), their views of and practice of PTCPed (7.2.2), and the possible influences on their development of and implementation of PTCPed (7.2.3).

7.2.1 The Visual Art Student Teachers' Views of Creativity

In this section, the summary focuses on the first subsidiary research

question: What were the visual art student teachers' perceptions of creativity before and after participation in the workshop? The analysis has been systematically presented in Chapter Five by the evidence given through the student teachers' pre- and post-workshop interview transcriptions. From the overall results, the findings can be summarised as below:

Firstly, Table 47 provides a summary of the general perceptions of creativity before and after the workshop, along with the frequency of their occurrence with regards to the general tendency, the degree and the presentation of creativity.

Visual art participants		The general viewpoints of creativity								
		General based	Art based	Big-c	Pro-c	Little-c	Mini-c	Process based	Product based	Both
Chou	Before		✔		✔		✔			✔
	After	✔					✔		✔	
Liao	Before	✔				✔				✔
	After	✔			✔	✔	✔			✔
Chien	Before		✔		✔				✔	
	After	✔				✔				✔
Chao	Before		✔		✔				✔	
	After		✔		✔		✔		✔	
Young	Before	✔					✔			✔
	After	✔				✔	✔			✔
Wu	Before	✔					✔		✔	
	After	✔				✔	✔			✔
Liu	Before	✔				✔		✔		
	After	✔				✔		✔		
Total	Before	4	3	0	3	2	3	1	3	3
	After	6	1	0	2	5	5	1	2	4

Table 47 The visual art participants' general viewpoints of creativity

It can be seen from Table 47 that most of the visual art student teachers' creativity referred to general-based creativity. In total, the result shifted from four to six visual art student teachers who stayed with this stance after the workshop. Only one visual art student teacher's viewpoint of creativity still remained as art-based creativity (the case of Chao). In the category of the degree of creativity, most visual art student teachers shifted from PCC and MCC to focus on LCC and MCC. Additionally, more visual art

student teachers identified that creativity included both process and product after the workshop. In general, the student teachers whose creativity stance was general-based were also more focused on LCC and MCC and they placed their emphasis on both the creative process and the product. It is noted that the student teachers who held an art-based creativity stance also believed in PCC, and looked at creativity in product outcomes (e.g. Chao).

In addition to the general viewpoints on creativity, the features of creativity were also identified in Chapter Five. Table 48 (shown on the next page and arranged from most to least popular) presents the visual art student teachers' viewpoints of the features of creativity. The table is arranged with the frequency of the occurrence of the characteristics of creativity and the attitudes toward creativity (mainly from the participants' views on identifying learners' creativity).

It can be seen from Table 48 that the visual art participants' viewpoints of the features of creativity were more centred on innovativeness, originality, and intention after the workshop as five participants mentioned each of these. For the details, with regards to the characteristics, they included: innovative, original and imaginative (arranged from most to least popular). In addition, two visual art student teachers described creativity with the feature of change, and one student teacher mentioned transformation. It is noted in this category that Chou did not mention the characteristics of creativity before the workshop, and Chao did not describe it after the workshop. With regards to the elements of attitude; the visual art student teachers started to notice creative attitudes after the workshop. Their viewpoints included: intention, immersion, self-determination, playful/joyfulness, and confidence (arranged from most to least popular). Moreover, one student teacher mentioned risk-taking, another question-posing, and another problem-solving.

Visual art participants		The characteristics of creativity				The attitudes toward creativity					
		innovative	original	imaginative	others	intention	immersion	self-determination	playful/joyful	confident	others
Chou	Before										
	After	✔	✔	✔		✔					
Liao	Before	✔	✔		✔ (change)						
	After	✔	✔	✔	✔ (transformation)	✔	✔	✔	✔		✔ (risk-taking)
Chien	Before	✔									
	After	✔		✔		✔	✔				
Chao	Before	✔	✔								
	After					✔		✔		✔	
Young	Before		✔	✔	✔ (transformation/ connection)						
	After	✔	✔	✔	✔ (change)	✔	✔	✔	✔		
Wu	Before		✔		✔ (not limited)			✔			✔ (facing challenge)
	After	✔	✔		✔ (change; not limited)		✔	✔	✔		✔ (question- posing)
Liu	Before			✔							✔ (problem-solving)
	After		✔							✔	✔ (problem-solving)
Total	Before	3	4	2	3	0	0	1	0	0	2
	After	5	5	4	3	5	4	4	3	2	3

Table 48 The overall features of creativity from the visual art participants' viewpoints

7.2.2 The Visual Art Student Teachers' Views and Practice of CPed

The visual art student teachers' perceptions of and practice of CPed/PTCPed was systematically analysed in Chapters Five and Six was based on two subsidiary research questions:

Research Question 1.1 and 1.2: What were visual art student teachers' perceptions of CPed before and after participation in the workshop?

Research Question 2.1: How were their conceptions of PTCPed manifested in their performance at the end of the workshop?

From the overall results, the findings are summarised in Section 7.2.2.1 (the visual art student teachers' views of CPed), and Section 7.2.2.2 (the visual art student teachers' practice of PTCPed).

7.2.2.1 The Visual Art Student Teachers' Views of Creative Pedagogy

With regards to the visual art student teachers' perceptions of CPed, Diagram 34 below presents an overall picture.
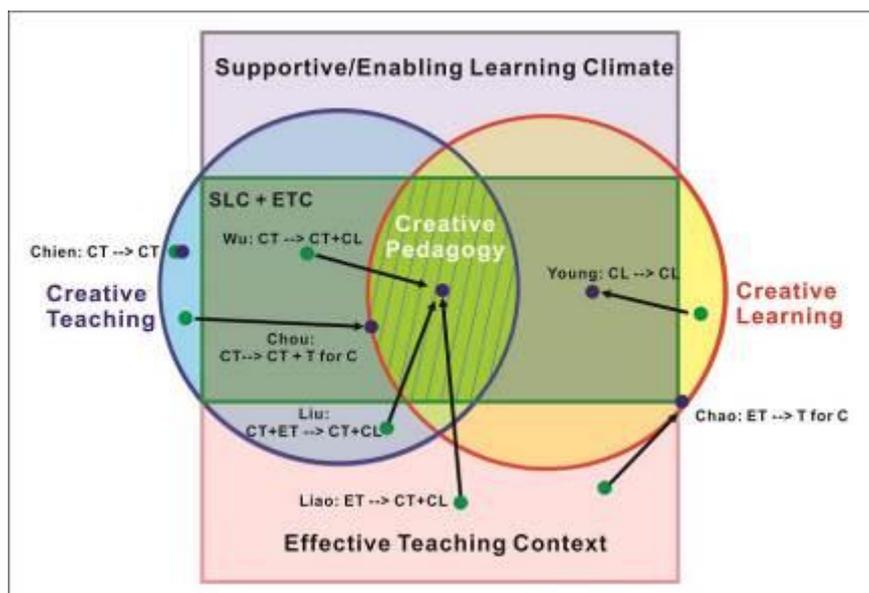
Diagram 34 The visual art participants' perceptions of CPed after the workshop

Before the workshop the visual art student teachers gave their definitions

of CPed, and these definitions and viewpoints (see Diagram 7.1) tended to recognise CPed as CT and ET. After the workshop, they gave their definitions and evaluations of CPed again. According to their viewpoints, nearly all of the visual art student teachers (6/7) recognised that CPed should involve the purpose of fostering learners' creativity (or at least to teach creativity; e.g. the cases of Chou and Chao). In addition, they also believed that learners' creativity should be nurtured in a supportive/enabling learning climate and under an effective teaching context. The details of their perceptions of CPed included three student teachers who held the view of CPed as "CT + CL". In addition, the other visual art student teachers held the following stances: "CT + T for C", "CL", "T for C", and "CT". With regards to the detail of the teaching strategies, CT includes the meanings of interesting teaching and innovative teaching. CL involves the following strategies, in order of popularity: offering opportunities and challenges, providing learning agency, and standing back.

Additionally, the issue of the teacher-student relationship in CPed was also identified in most of the visual art student teachers' descriptions, as summarised in Table 49 below.

Visual art participants		Main role in CP		
		Teacher	**Students**	**Both**
Chou	Before			
	After	✔		
Liao	Before			✔
	After			✔
Chien	Before			
	After			
Chao	Before	✔		
	After	✔		
Young	Before		✔	
	After		✔	
Wu	Before			
	After			✔
Liu	Before		✔	
	After			✔
Total	Before	1	2	1
	After	2	1	3

Table 49 The visual art student teachers' viewpoints of the main role in CPed

In Table 49, more visual art student teachers recognised the issue of who played the main role in CPed (4 to 6 participants mentioned it) after the workshop. Their viewpoints of this issue included: three of them (3/6) thought that teachers and learners were equally important in CPed; two (2/6) believed that the teacher played a key role in leading CPed; and, finally, one participant (1/6) identified that students should take the main role in CPed and that the teacher is just a helper in the learning process. It is noted that Chien did not mention this issue, either before or after the workshop. Chao and Young maintained the same view after attending the workshop; one considered CPed to be a teacher-based pedagogy and the other believed in a learner-based pedagogy.

To summarise from the above findings, the student teachers who thought that the teacher played a key role in CPed also held the view of CPed as "T for C" (e.g. Chao and Chou), which is a teacher-focussed pedagogical approach to teach learners' creativity. In contrast, the student teacher who considered it to be the learners' role then held the view of CPed as "CL" (e.g. Young), a learner-inclusive approach to fostering learners' creativity.

Finally, those who were concerned with the importance of teachers and learners held the view of CPed as "CT + CL" (e.g. Liao, Wu and Lu), where both the teacher and learners make contributions to CT and learning.

7.2.2.2 The Visual Art Student Teachers' Practice of PTCPed

As explained in Chapter Four, the visual art student teachers' practice of PTCPed was designed to carry out a teaching performance in group form. The detail of the analysis was presented in Section 6.3, and the findings are summarised below:

1. Table 50 below summarises the frequency of the teaching strategies, in relation to PTCPed, used by the visual art student teachers in their group performances (arranged from most to least popular).

PTCPed Strategies	Group A	Group B	Group C	Total
Posing and responding to questions	18 (T-P) 4 (T-R)	13 (T-P) 6 (T-R)	19 (T-P) 0 (T-R)	**50 (T-P) 10 (T-R)**
Enabling learning context	4	14	11	**29**
Creating/offering opportunities (e.g. Time, space, challenges)	8	5	5	**18**
Standing back	1	3	3	**7**
Providing learning agency	1	4	2	**7**
Play/ playfulness (e.g. CT: interesting activities)	1	2	2	**5**
Total	**37**	**47**	**42**	**126**
＊ T-P: Teacher posed questions; T-R: Teacher responded to questions				

Table 50 A summary of PTCPed strategies used in group performances

The overall result, shown in Table 50, indicates that the most frequently-used strategy in the visual art student teachers' performances was posing and responding to questions. This appeared 60 times in total (including posing questions 50 times and responding to questions 10 times). The second most frequently-used strategy was creating an enabling learning context (appearing 29 times in the performances). The other strategies, in order of popularity, were: creating/offering opportunities (e.g. time, space and challenges) (appearing 18 times); standing back and

providing learning agency (both appeared 7 times); and play/playfulness (appeared 5 times). In addition, Table 7.4 also shows that Group B used most PTCPed teaching strategies in the group teaching performance (appeared 47 times in total), and Group A used the least (appeared 37 times).

Furthermore, there were several concerns, in relation to PT pedagogical strategies, that appeared commonly in the group performances that identified in Chapter Six (e.g. the purposes and contents of the questions used, and the arrangement of standing back). Finally, in addition to the pedagogical strategies in relation to PTCPed, several strategies also appeared in the group performances, such as teacher-led teaching strategies in delivering knowledge to students (Group A) and instructing examples (Group B), classroom management (Group B), and giving complete freedom (non-limited) for the students to make artwork (Groups A and C).

To examine the teacher's teaching, it is important to make reference to the students' responses. Table 51 below presents the students' creative engagements in relation to PT when participating in the group performances.

Students' learning in response to PT	Group A	Group B	Group C	Total
Posing and responding to questions	4 (S-P) 7 (S-R)	0 (S-P) 5 (S-R)	0 (S-P) 7 (S-R)	4 (S-P) 19 (S-R)
Immersion	2	4	3	9
Risk-taking	4	2	2	8
Play (playfulness)	1	3	2	6
Being imaginative	2	2	2	6
Innovation	2	2	1	5
Action-intention	1	2	2	5
Self-determination	1	1	1	3
Total	13 (24)	16 (24)	13 (20)	42 (65)
* S-P: Students posed questions; S-R: Students responded to questions				

Table 51 A summary of PT responses when engaging in the group performances

It can be seen from Table 51 that students' learning in response to PT

appeared 13 times in Group A, 16 times in Group B and 13 times in Group C. It is noted that the category of "posing and responding to questions" has been considered as a significant feature of PT (Chappell *et al.,* 2008) and has also appeared as the most frequent feature in students' learning. However, I would argue that the purpose and content of the questions posed (mostly yes-no questions and short-answer questions) and the standard responses required in the group performances did not effectively support the fostering of the students' creative development. I will discuss this issue in Section 7.3. Besides this, for the detail, the students' learning in response to the features of PT, in order of popularity, included: immersion, risk-taking, playfulness, being imaginative, innovation, action-intention, and self-determination. In addition to the above features of PT, several creative features also appeared in the students' learning when they participated in the group performances, such as confidence, active attitude and increased attention.

7.2.3 The Influences on Visual Art Student Teachers' Implementations of PTCPed

The possible influences on the visual art student teachers' implementations of PTCPed have been analysed in detail in Section 6.4 and are based on the subsidiary research question: What influenced the development of the participants' conceptions and implementation of PTCPed? From the overall results, the findings are summarised below:

According to the visual art student teachers' viewpoints, the researcher (acting as a tutor in the workshop) could be the most major influence on their development and implementation of PTCPed. In detail, firstly, my teaching strategies and examples appeared to be particularly influential. The useful strategies, in order of popularity, were: standing back, creating/offering opportunities, profiling learner agency and enabling the learning climate, together with other strategies and examples (such as the structures and procedures of teaching). In addition, the modelling

demonstration (e.g. the integrated arts project in Session 3 of the workshop) was considered more useful in building up the visual art student teachers' implementation of PTCPed. Secondly, the visual art student teachers also mentioned that several useful teaching tools in the workshop could help to develop and manifest their PTCPed. The tools, in order of popularity, were: group activity, sketchbook, and teaching map.

In addition, group interactions, particularly focusing on the interactive climate within the group, could be another possible influence, although only three out of seven visual art student teachers mentioned this. The findings concluded that, while in a group activity, group members with the same professional background found that working in a joyful, collaborative and interactive group climate helped them to develop and implement PTCPed positively.

Having stressed the overall findings based on each research question, Section 7.3 draws all the findings together to discuss the visual art student teachers' perceptions of creativity (PT) and PTCPed.

7.3 Discussion on the Visual Art Participants' Views and Practice of Creativity and PTCPed

To identify the visual art participants' views and practice of PT and PTCPed (after the workshop), firstly the key findings of this study (from Section 7.2) will be compared with the literature of PT and PTCPed. Following this, the visual art student teachers' view of PT and PTCPed will be discussed by focusing on what and how their conceptions developed and the theoretical implications of this outcome. The relevance of literature in relation to my findings is also considered. The discussions in this section are divided into two aspects: the features of creativity (7.3.1), and the features of PTCPed (7.3.2).

7.3.1 The Features of Creativity

7.3.1.1 The Visual Art Participants' View of Creativity in Relation to PT

As explained in Chapter Two, Craft and her colleagues concluded in their empirical study (Burnard *et al.*, 2006) that seven key features of PT involved several clusters of abilities and attitudes: posing questions, play and possibilities, innovation, self-determination and direction, risk-taking, being imaginative, and immersion. Table 52 presents the findings of the visual art participants' perceptions of creativity after the workshop, along with their creative responses while engaging in the teaching performance, in comparison with the features of PT from the literature above.

The features of PT	Perceptions of creativity	Creative responses
posing questions	✓ (1)	
play and possibilities	playful/joyful	playful/joyful
Innovation	transformation; change	✓
self-determination	✓	✓
Intention	✓	active attitude
risk-taking	✓	✓
being imaginative	✓	✓
Immersion	✓	increased attention
	original	
	confident	✓
	not limitations	
	problem-solving	

Table 52 A comparison with the features of PT

It can be seen from Table 7.6 that most of the features of PT also appeared in the visual art participants' view of creativity, except the feature of posing questions. This feature of "posing questions" was missing in the category of the participants' creative response during the teaching performance, and only appeared once in their perceptions of creativity (only Wu mentioned it). Therefore, I considered removing the feature of posing questions from

the visual art student teachers' view of creativity.

Furthermore, several features of PT in this study have been mentioned in a variety of meanings by the visual art student teachers; for instance:

■ The feature of play and possibilities in Craft's work (2001b) is being open to playing with ideas and new possibilities. However, in this study, the visual art student teachers placed their emphasis upon the attitudes of playfulness and joyfulness while toying with possibilities.

■ Innovation was defined as doing something differently in Craft's work (2001b); the visual art student teachers supported this feature with the idea of "change" (e.g. a change from the normal, a change from the existing conditions) as well as the idea of "transformation" (e.g. delivering an innovative idea by transforming the ideas of others).

■ Intention is an action which can be seen as 'an outcome of a person's deliberation or processing' (Craft, 2001b: 57). In addition to this definition, in this study, this feature has also been extended to an active attitude to engaging in activities.

■ Finally, immersion means a 'deep concentration' (ibid: 57). In this study, it also presented the meaning of "increased attention" while engaging in teaching and learning.

In addition to the features of PT from the literature, the visual art participants also view creativity as having the following characteristics and attitudes: originality, confidence, no limitations, and problem solving.

■ **Originality**

As explained in Chapter Two, the feature of originality in the definition of creativity was suggested in the literature (e.g. Feldman *et al.*, 1994;

NACCCE, 1999; Craft, 2001b) and involves the formulation of high creativity or creativity in a domain-specific field. This idea was also applied in this study where the visual art participants viewed originality as making a choice, producing something new, or building a personal style that is most appealing to a person as an individual. For example, the expression that students invent "their own forms" to express their ideas and feelings is the defining benchmark of originality. Originality in this study also refers to the production of a new idea without worrying whether the idea is worthwhile or useful. For instance, Young defined being creative as when a person is brainstorming and trying to turn out as many possibilities as they can, and originality in this sense could be an idea or action that is original to the student, but not necessarily to the wider world. The difference between the features of originality and innovation is that innovation could be a transformation of or connection with other ideas.

■ **Confidence**

It seems to the visual art participants that confidence is a fundamental attitude for being creative. Many of us may have such an experience when a creative idea sparkles on our mind; we are often excited at first, but quickly doubt our idea. Therefore, a person could not be said to be manifesting creativity (PT) if they were not confident in exhibiting their ideas or actions. This finding echoes Runco and Bahleda's work (1986 cited by Niu & Sternberg, 2002) in which being confident was described as one of the core characteristics that defined creative individuals. In a recent TED talk, "How to Build Your Creative Confidence", David Kelley (2012) also raised the idea of confidence in helping creativity development. Kelley stated that 'a little confidence in creativity leads to a lot of confidence in everything else' (*ibid*) in which he took Bandura's definition of confidence as 'self-efficacy' (the sense that you can change the world and that you can attain what you set out to do) to encourage people to be confident as a creative person.

■ **No limitations**

For some of the visual art student teachers, "no limitations" is an essential element while engaged in thinking and creating something new as it involves the characteristics of complete freedom with no boundaries. This feature also emerged in the PTCPed strategy, in which teachers stand back to provide full freedom for students to play with their ideas.

■ **Problem solving**

The literature (e.g. Craft, 2000, 2001b; Jeffrey, 2005) suggested that the concept of PT fundamentally involves the engagement with a problem with both problem finding and problem solving (Craft, 2000, 2001b). However, the visual art student teachers in this study only mentioned the ability of problem solving through divergent and convergent thinking. The feature of problem solving seems to be interconnected with many features of PT. For instance, while solving a problem, a person may firstly use their imagination and play with possibilities in order to find out the best solution. Furthermore, in the process of action, it may also involve risk taking, self-determination, and confidence.

Form the overall results, the visual art participants tended to appreciate creativity as the framework of PT that involved an entirely positive ability and attitude in a general domain context. In addition, they viewed creativity from both the process and the outcome. In the next section, how the visual art student teachers developed their definitions and evaluations of creativity are discussed.

7.3.1.2 Discussion on the Implicit Knowledge of Creativity

As introduced in the literature review chapter, the notion of PT was constructed as the heart of everyday creativity, based on the Western conceptual framework, and its features have also been examined in the English educational context. In this study, some of the features of PT (namely play and possibilities, innovation, self-determination, intention,

risk-taking, being imaginative, and immersion) were also identified and accepted by the visual art student teachers in the Taiwanese classroom. To explain this finding, three possible reasons are explored. Below, I discuss the first two reasons. Firstly, I assume that the characteristics of creativity may be universally meaningful (Rudowicz, 2004) in today's global environment (7.3.1.2-1). Secondly, this finding reveals the views of creativity are deeply influenced by Western theory (7.3.1.2-2).

7.3.1.2-1 The Characteristics of Creativity are Universal Values

As explained in the literature chapter, creativity can be seen as a universal value (e.g. Craft, 2005, 2008; Hennessey, 2007; Kim, 2005), and it was suggested that several common characteristics of creativity are shared between different cultures. For instance, Rudowicz and Hui's work (1997 cited by Niu & Sternberg, 2002: 273) found that the characteristics of creativity (innovative ideas, imagination, intelligence, independence, and high levels of activity/energy) are found both in Western and Chinese conceptions. More recently, because of the increasing global interest in the economy and technology, creativity has been considered as an everyday capability (e.g. problem-solving) (MOE, 2003a; Craft, 2001b), and as common competitiveness (e.g. referring to creativity as innovation with the characteristics of originality, novelty, and usefulness) (MOE, 2003a; EC, 2006). Consequently, there is emphasis towards these conceptions and features of creativity being applied in education globally, including Taiwan. From this viewpoint and from the above empirical evidence, I assumed that the features of PT, such as "being innovative and imaginative", share, undoubtedly, the common characteristics of creativity between the two cultures. Furthermore, the features of "play and possibilities", "self-determination", "intention" and "risk-taking" can be referred to as the processes and actions of problem solving (Craft, 2001). Problem-solving has been suggested in many literatures (e.g. MOE, 2009; HSSEP, n.d. Chan & Chen, 2011) as one of the key creative abilities in recent educational guidelines in Taiwan. Therefore, these features of PT were accepted

naturally by the student teachers in this study. As explained in the previous section, the feature of "immersion" is illustrated as an attitude of deep concentration, and is a positive attitude encouraged in every effective classroom as well as in this study.

7.3.1.2-2 The Views of Creativity are Deeply Influenced by Western Theory

Additionally, in reviewing the development of creativity research in Chinese societies, researchers indicated that creativity research in Taiwan began by introducing Western creativity theories (e.g. Cheng, 2004; Vong, 2008; Niu, 2006). In addition, until recently, the publications and numerous creativity researches in Taiwan, in terms of the definitions and theoretical framework of creativity and CPed (as well as this study), were still highly dependent on Western literatures. As a result, some elements of creativity valued in Western societies may actually have been internalised by the participants' knowledge and terms of creativity. For instance, the participants' accounts of creativity reflected certain Western theories, such as the framework of PT in this study.

However, since the late 1980s, many scholars have suggested that the concept of creativity is affected by the values and social norms based on different cultures (Lubart & Sternberg, 1998; Lubart, 1990, 1999b; Niu & Sternberg, 2001, 2002). Lubart (1999b) suggested that people's values and attitudes towards the outlet of creative expression are defined differently across cultures. For instance, in contrast with Western elements of creativity, such as the celebration of individual accomplishment, and emphasising independent thinking, Chinese culture tends to emphasise knowledge and the mastering of skills, social cohesion and harmony, and the social benefit or utility of creation (Leung, Au & Leung, 2004; Rudowicz, 2004).

In this study, although all of the participants are Taiwanese, due to their

different professional backgrounds (majoring in Eastern or Western painting) their views toward creativity were somehow revealed as different characteristics. For instance, Chao majored in Chinese Brush Painting and hers creations tended to be more uniform, reflecting on a tradition that requires detailed skills training and personal internal cultivation. Therefore, when Chao described creativity, she valued creativity through an outstanding product, and strongly believed in foundation training (knowledge and master skills) for creative presentations. Young, on the other hand, majored in Fine Art, which was mainly focused on the knowledge of Western paintings. Her view of creativity involved the features of being imaginative, innovative, and placed an emphasis on playing with ideas and individual original output. She also looked at creativity in the learning process as well as the outcome, but not necessarily in a perfect outcome.

From the above examples, I realised that, even in the global society of today, cultural values may still maintain a certain degree of influence on the views of creativity. But why did the evidence in this study show that the visual art participants' views of creativity accepted the features of PT so easily? I assume that this could reflect on the value of education in Confucian-heritage societies, and, therefore, this is considered as the third reason (7.3.1.2-3).

7.3.1.2-3 Tension on the Value of Education in Confucian-heritage

Societies

As discussed in Chapters One and Two, research has been concerned that education within Eastern culture is inflicted by Confucian values, such as obedience and hierarchy, the acceptance of social obligations, and sacrifice for the in-group (Ng, 2001; Rudowicz, 2004; Kim, 2005, 2007; Vong, 2008). These values have also been reflected in the traditional conceptions of learning that have focused solely on 'measured academic performance' (Wu, 2004: 175; Tang & Biggs, 1996; Lu, 1998; Cheng, 2004; Niu, 2007;

Dineen & Niu, 2008). As a consequence, therefore, the students tended to seek a standard explanation in knowledge acquisition, such as "correct" definitions for creativity and CPed in this study. Within the classroom, Taiwanese students are expected to stay at a 'well-behaved nice boy and nice girl stage' (Wu, 2004: 176). Not only is it unwelcome to ask questions or hold different opinions from the teachers, but students also tend to easily accept ideas from authority, such as teachers or books (Cheng, 2004).

Although I have been aware of this influence, I tried to use a learner-inclusive approach while introducing the framework of PT and PTCPed to the participants (refer to Chapter Four), but this ossified classroom culture was still embedded in the workshop (see my reflection on the classroom culture in Section 6.4.1.1). For instance, the participants sought the standard definitions of creativity and CPed from me, and they seemed to appreciate the model of PTCPed without raising any doubts. However, their true views of creativity may probably be more clearly demonstrated when interpreting how they saw and valued creativity in their teaching performances. For example, I have argued that some of the participants overlooked the features of being imaginative and innovative and they saw creativity as "no limitations" when defining creativity and, therefore, they fostered learners' creativity by providing complete freedom (see Chapter Six and more discussion in Section 7.3.2).

As Oral (2008: 9) stressed, the conflicts between a teacher's cultural surroundings and universal educational objectives can influence their views and attitudes to creativity in the classroom. This tension was reflected in the participants' ambivalence toward promoting creativity in this study. For instance, the feature of "question-posing" (is generated through curiosity) has been recognised as being at the heart of PT in Western literatures (Craft, 2000, 2001b; Jeffrey & Craft, 2004; Cremin *et al.*, 2006), but was found absent in the participants' definitions of creativity (PT) and their practice of CPed in this study (only one participant mentioned it). In

reviewing the literatures, research (e.g. Wu, 2004; Ng & Smith, 2004; Beghetto, 2007) has proved that the creative behaviour (e.g. question posing, curious exploration) of students and independent thinking (e.g. unique thoughts) in many schools and classrooms, particularly in Eastern societies, are viewed as inappropriate. This is because this behaviour is incompatible with the educational goal of maintaining order, and is, therefore, often ignored by the teachers intentionally. For example, Chou reflected on the above phenomena described by the researchers. He argued against the effectiveness of question posing (both for teachers and students) in school practice (see Appendix O and the discussion in Section 6.3.2.2) because he thought that using questions may interfere with the classroom management and he may lose control over his students. This also implies his negative stance concerning "question posing" as a feature of creativity.

Reflecting on this study, participants rarely recognised "question-posing" as creative feature due to the cultural influence. This finding, however, was against PT literature that has suggested it is almost impossible that PT can occur without anyone posing a question and it has therefore been argued to be perhaps the most fundamental feature. Particularly, the work in 2008 (Chappell *et al.,* 2008) indicated that it might be possible that the students instigated their own non-verbal question-posing (see question modality in Section 2.4.2.2.1) to kick-start their creative process and to find a way to create something together. Concerning that, the non-verbal question-posing is a mental and inner activity, this may be difficult to be foreground and also difficult to be detected by teacher(s) (e.g. myself in this study) or students (e.g. participants) themselves. I would suggest this remain more space to further explore in the future study.

From the visual art participants' viewpoints, it is undoubted that they appreciated the importance of creativity and agreed that the inclusion of creativity is necessary in the classroom. However, similar to the case of

Chou, some of the participants were worried that they would not maintain their authority and would lose control over their students. Hence, I argued that they did place more of their appreciation for learners' creative contributions in the process of making a creative product (e.g. immersion, being imaginative and innovative), rather than learners' creative traits or behaviours in the classroom (Westby & Dawson, 1995, cited in Ng & Smith, 2004), such as posing questions, having an independent attitude, or raising unexpected creative ideas.

In this section, I discussed the visual art student teachers' views of creativity regarding the three possible reasons for formulating the features of PT. In the following section, I will focus on their views and practice of PTCPed.

7.3.2 The Features of PTCPed

7.3.2.1 The Visual Art Student Teachers' view of CPed in relation to

PTCPed

The literatures have suggested that the pedagogical principles for fostering students' PT were identified by Cremin *et al.* (2006: 113-115), including the following pedagogical strategies carried out in a playful classroom: 'standing back, profiling agency and creating time and space' for CL. Following on from this, the nature of question-posing and responding was suggested as an important aspect in PT development (Chappell *et al.*, 2008b) in a playful context, and, consequently has become an important pedagogical strategy. The nature of the questions posed includes 'leading questions, service questions and follow-through questions' (*ibid*: 279). Recently, a new dynamic between students, and between students and teachers/adults, was further suggested in PT empirical work (Craft *et al.*, 2012). This dynamic fosters young children's individual, collaborative and communal creativity.

To explore the visual art student teachers' views of CPed, Table 53 below presents the findings of their perceptions of CPed after the workshop, along with the teaching strategies employed in their performances, in comparison with the features of PTCPed summarised above.

The features of PTCPed	Participants' views of CPed	Participants' teaching strategies
Standing back	✔	✔
Profiling agency	✔	✔
Creating time and space	✔ (creating opportunities) *the element of space is missing	✔ (creating opportunities)
Enabling learning climate (e.g. playful classroom)	✔ e.g. encouragement, playfulness (CT: playful and interesting activities)	✔ e.g. encouragement, playfulness (CT: playful and interesting activities)
Posing and responding to questions	✔	✔
A dynamic between students and teachers	✔	Teacher-led approach
	giving complete freedom	✔
	effective teaching context (e.g. classroom management; achieve the teaching targets)	✔

Table 53 A comparison with the features of PTCPed

The overall results from Table 53 show that the visual art student teachers' views of CPed have mainly covered the features of PTCPed from the literature. Nevertheless, several features of PTCPed in this study were given the meanings on a variety of levels by the participants; for instance:

Firstly, the feature of "creating time and space" in this study has been extended as the feature of "creating opportunities" in order to consider the feature of risk-taking in PT (referring to offering challenges to students in teaching and learning). In other words, in this category, students are offered the opportunity to develop inherent creativity by engaging in elaborated activities, which the teacher has considered in terms of the elements of time, space, and challenges. It is noted that the element of enriching space was missing in the participants' descriptions of PTCPed and also presented in a narrow implementation that only focused on indoor

activities. This limitation will be discussed in the following section (7.3.2.2).

Secondly, the component of the enabling environment for PT was suggested in the literature (e.g. Craft, 2003) as the learning context for exploratory and combinatory play. In other words, a playful classroom is provided through the dynamic interaction between the students as well as the teacher and students. Therefore, in this workshop, it was introduced as a playful, joyful and safe learning environment (including using group activities) to encourage learners' CL. In the visual art student teachers' views, they explored and practiced the feature of "enabling a learning climate" to include the provision of verbal and non-verbal encouragements and building a playful learning environment. It is interesting to note that the playful learning environment, from their viewpoints, was created by their planned, interesting teaching strategies and activities. For instance, in their teaching performances, Group C used an interesting video and a role play activity, and Group B offered funny jokes and daily examples. These interesting teaching strategies and activities used were also interpreted as the features of CT. In addition, a teacher-focused approach seemed to be mainly displayed in their practices of PTCPed.

Finally, in Chapter Six, the feature of "posing and responding to questions" was highlighted as the most frequently used strategy in the group teaching performances. In total, these appeared 60 times in the groups' performances, of which teachers asked questions 50 times and responded to students' questions 10 times. Furthermore, open-ended questions were the most frequently-posed question type (24 times in total, the other questions included 16 standard-answer questions and 10 yes-or-no questions). These open-ended questions can be identified as leading questions (e.g. "*Can you share your feelings on the activity of role play?*"). Rarely, they were service questions (e.g. "*What actions did you do to be a mother in the role play?*"). I have argued in Chapter Six and Section 7.2.2 that they were either too general or were often answered by teachers

straightforwardly rather than continuing with follow-through questions to students that made them think or execute an idea.

In addition to these features of PTCPed, there were two additional teaching strategies that were identified in this study:

■ **Giving complete freedom**

It has been discussed in Section 7.3.1.1 that the participants defined "no limitations" as an essential element of creativity, and, therefore, while defining PTCPed they thought that teachers should provide total freedom for students. This feature is somehow interconnected with the feature of standing back. However, the feature of standing back involves teachers positioning themselves, such as stopping and observing, and listening and noticing students' learning (Cremin *et al.*, 2006). On the contrary, offering complete freedom may potentially neglect students' messages when they need support or help. Therefore, I would argue that offering complete freedom may not be equal to offering the space for students' creativity development. Instead, it could sometimes be a barrier to creativity development (see the evaluation of the performance of Group C in Section 6.3.3.2). I will discuss this issue further in Section 7.3.2.2.3.

■ **Effective teaching context**

ET can be seen as teaching that successfully achieves the learning objectives for the pupils, as identified by the teacher or the curriculum. In this study, nearly every participant mentioned that the practice of CPed should engage with the context of ET. This means that all the teaching strategies and activities need to achieve effectiveness and the learning objectives. The strategies included methods that make the material easier to comprehend and assimilate; strategies that place the emphasis on classroom management; and a coherent of the teaching content and targets. For most of the visual art participants, nurturing learners' creativity is a learning objective, but it is just one of many objectives in the visual art

curriculum.

In the next section, how the visual art student teachers develop their knowledge and implementations of PTCPed are discussed.

7.3.2.2 Discussion on the Implicit Knowledge and Practice of CPed

In this study, most of the visual art participants described CPed as "unconventional teaching" before the workshop - an interesting and innovative teaching that is explained as being different from traditional teaching and which aims to arouse students' interest in learning. Additionally, only some of them indicated that it is useful for inspiring the learner's creativity. Therefore, in summary, the definitions of CPed given by the visual art participants mainly focused on the aspects of "CT" and "T for C". These views have matched the literatures discussed earlier in Chapters One and Two that include two aspects of discussion of CPed in Taiwanese classrooms. Firstly, CPed was solely used for teaching creatively in order to achieve teaching goals (ET). Secondly, because of the influences from the Western theories of creativity and CPed, the role of T for C has been highlighted in the cultivation of creativity in the classroom (Hsiao, 2006; Lin, W. W., 2011; Lin, Y. S., 2011; Tsai, 2011). However, the most frequent way found was that teachers apply their own creativity in their teaching plans and activities, and that, through these creative activities, students' creativity is developed (Chen, 1990; Mao, 1994; Chao, 2004; Lin, 2008; Ting, 2008).

In this workshop, the participants were given the knowledge of PT and its pedagogy, and they also experienced my modeling project example. After that, three of the visual art participants then shifted their views of CPed to include both CT and CL, and two of them described CT and T for C in the criteria of CPed. So far, all of the visual art participants agreed that the inclusion of creativity is essential in terms of CPed in classroom teaching and learning. However, the overall results of the comparison with the

framework of PTCPed in the previous section showed that the features of PTCPed were taken into account in the visual art student teachers' knowledge and practice of CPed. However, I have argued that their overall teaching practices were somehow absorbed in a teacher-focused approach. More specifically, the space of CL was less addressed. In addition, while reviewing their practice of CPed, I also suggested that several pedagogical strategies needed to be improved (see Section 6.3.4).

In search for possible reasons, firstly, as discussed in Section 7.3.1.2, the traditional learning culture in Confucian-heritage societies may have an impact on the participants' views of creativity and may also possibly shape their views of CPed. Regarding this aspect, I will focus on the issue of the role of the teacher in order to discuss the participants' views of CPed. Additionally, concerning the findings in Chapter Six, my teaching strategies and examples were found as the most significant influence on the visual art participants' practice of PTCPed. Therefore, I assume that the second possible reason may be their misinterpretations of PTCPed from my teaching and demonstrations. For example, several features of PT/PTCPed, such as playfulness and being imaginative and innovative, were found to be magnified and, consequently, this influenced their practice of CPed. In the following sections, the discussions will look at the issues in terms of the teacher's role in CPed (7.3.2.2.1), and their misinterpretations of PTCPed (7.3.2.2.2). The following discussion starts from of the teacher's role in CPed to explore why a teacher-focused approach was emphasised in the participants' performance.

7.3.2.2.1 Teacher's Role in CPed

The literatures have suggested that a teacher's teaching methods and beliefs may foster or impede the development of creativity (e.g. Angeloska-Galevska, 1996; Yang & Hua, 2003; Wu, 2004; Wang, 2011). In a classroom context, a learner-inclusive approach (e.g. CL) has been recognised as a significant trend in creativity education, in which the

teacher plays the role of a guide (e.g. Jeffrey, 2006; Jeffrey & Craft, 2004). With regard to the framework of PTCP introduced in this study, the participants actually welcomed my unconventional role as a knowledge deliverer as well as a non-authoritarian guide in the workshop. In this approach, they felt that their opinions were respected as well as their ideas encouraged in a joyful and safe learning environment.

However, in the participants' teaching performances, their pedagogical strategies appeared mainly as a teacher-focused approach to lead creativity development. Correspondingly, the participants rarely considered the room for "learning", but saw it merely as the result of the teacher's teaching and strategies. For example, Chou, in his teaching practice, directly demonstrated how to make paper clothes rather than inviting the students to brainstorm their own ideas. This has matched the research concerns that promoting creativity in Asian classrooms is mainly emphasised by the teacher's teaching strategy choices and the teacher's role and ethos (Cheng, 2004; Puccio & Gonzalez, 2004; Horng *et al.*, 2005; Hennessey, 2007; Ng & Smith, 2004; Wu, 2004). As discussed in Section 7.3.1.2, due to the impact of traditional Confucian heritage that is highly authoritarian, and given the educational goal of maintaining order in the classroom, it is not surprising to discover that teachers in Taiwan enjoy a great deal of authority, such as in choosing materials, arranging learning activities, controlling the learning process, and even deciding the correct knowledge (Ng & Smith, 2004), as the participants did in this study. The traditional relationship between teacher and students, as a result, tends to be hierarchical and formal (Ho *et al.*, 2002; Kim, 2005; Lincoln *et al.*, 2002; Dineen & Niu, 2008; Oral, 2008), even though in the visual art classrooms. For instance, instead of using the words or actions, such as "invite" or "encourage", in building a joyful interactive learning environment, the participants tended to directly give orders or tasks for students to follow. For instance,, in this study the visual art student teachers tended to offer challenges through their pedagogy (e.g. Chou gave a limited time to let

students complete a paper clothes which he had demonstrated), rather than encouraging students to find their own way to make paper clothes. I would argue this relationship between teacher and students could also be a response to participants' opinions about question-posing as an inappropriate behaviour (e.g. Chou) in classroom (see Section 7.3.1.2-3).

I would challenge that this less-interactive relationship between the teacher and students may provide limited space for students to develop their abilities and attitudes of independent and critical thinking, and to discover new insights spontaneously, and this could result in difficulties in fostering students' creativity. In this study, although the participants did employ several pedagogical strategies in relation to PTCPed in their performance (see Chapter Six), I would argue they played the role of a controller or a director, rather than a guide and supporter. Therefore, their approaches tended to be more in relation to "teacher-focused T for C", as my perceptions discussed earlier in the literature chapter.

Additionally, under the traditional Eastern learning culture (learning by authority), students in Taiwanese/Asian classrooms may be afraid of getting lost when they need to make their own thoughts and decisions because they have been familiar with their passive role in learning for so long (Ng & Smith, 2004). This can be proved as, in the workshop the participants learned the framework of PT and PTCPed by accepting my suggestions as well as seeking my answers to their standard answers, and watching my demonstration as a model example without questions. However, they may misinterpret the notion of PT and PTCPed, which, therefore, may result in poor implementations or difficulties in fostering students' creativity. In the next section, I will further discuss the second possible reason for their misinterpretations of creativity (PT) and PTCPed.

7.3.2.2.2 Misinterpretations of PTCPed

In reviewing the visual art participants' practice, several misinterpretations

of PTCPed were found. These include:

- Overlooking the features of playfulness and innovation in pedagogical practice results in using meaningless activities in teaching.
- Giving complete freedom in instructions for pedagogy may support as well as block creativity development.

7.3.2.2.2-1 Misinterpretations of the Features of Playfulness and Innovation

The attitude of being playful is considered to be an essential characteristic of PT and in features of PTCPed (Craft, 2005). During the workshop sessions, I aimed to encourage the participants to be playful as well as requiring them to make an effort with their own learning through an interesting and joyful climate. Meanwhile, I also demonstrated an integrated arts project by adapting the elements of playfulness and innovation. This was evidently successful by the participants' descriptions that they enjoyed and were relaxed in the interesting activities and, at the same time, they endeavoured to learn and to try new things by themselves.

Therefore, while reviewing their teaching practices, it is no surprise that the elements in relation to "interesting" or "playfulness" were commonly identified in their teaching strategies/materials/activities. For instance, Group A used vivid PowerPoint slides; Group B offered life-relevant examples/jokes and organised the activities of making clothes and a fashion show; and Group C used an interesting video and role-play activity. However, I found that not all of these strategies/activities/materials used in the performance were advantageous to fostering students' creativity. Instead, I would argue that some of them appeared to be meaningless in pedagogical practice. For example, Group C offered an interesting video as a starting point to illustrate how hard it is to be a mother. The video was about a mother singing a rhythm (The Mom Song; http://www.youtube.com/watch?v=oEFXj00Gou4) to chatter about with

322

her children. Although the video was funny, it was not consistent with the teaching target (who is the Mother's guardian angel?). Therefore, I would argue that the purpose of using the video in this teaching became meaningless. Another example, Group A, introduced an artist's paintings among which some of the patterns were applied to designs in life-relevant products, such as clothes, shoes and bags. The students were very impressed and paid their attentions to these design works. However, Chien only showed these images and did not expand the students' interest by firing their imagination or providing the opportunities to further encourage more ideas. From these two examples, I would argue that the participants only achieved the feature of "CT", that of using an interesting and innovative activity in pedagogical practice, but that the room for "learning" was neglected.

By contrast, not every visual art participant in this study supported that the feature of playfulness and innovation should be included in CPed. It is interesting that, although Chao welcomed the playful learning environment created by me in the workshop, including the activities and climate, she actually argued against the appropriateness of playful activities used in "her" classroom. Chao saw playfulness, as well as innovative teaching, and serious learning to be opposing for two reasons. Firstly, as I have discussed a lot in previous sections, by recognising the Chinese philosophy of learning, the features of diligence, perseverance, and concentration in learning are valuable. Secondly, because examinations and competitions are often highlighted to evaluate the learner's efforts in the field of visual art in Taiwan (Cheng, 2004; Wu, 2004), acquiring basic knowledge and skills are also emphasised as the foundation in further creative development or presentations (Cheng, 2004; Vong, 2008). Therefore, playfulness, to Chao, firstly challenges the traditional Taiwanese classroom (e.g. teachers may lose control of classroom order), and consequently, it causes students to have less concentration on skills practice.

Yet, in recent years, worldwide studies have stressed a friendly learning environment, including playfulness, is a key to successful CPed (Esquivel, 1995; Chen, 2006; Horng *et al*., 2005; Craft, 2001, 2003; Craft *et al.*, 2012). Personally, I do not think that playfulness and serious learning (or ET) are two separate parallel lines, particularly in the visual art classrooms. Instead, these two could complement each other. As I found out during the workshop when the participants played with ideas and possibilities, they were immersed in their creating work. Additionally, when they were engaged in a playful and safe learning environment, they came out with more ideas and had more confidence to try new things in their work.

7.3.2.2.2-2 Misinterpretations of the Features of Giving Freedom

In this study (as discussed in Chapters Five and Six), several visual art student teachers explained creativity as un-reined imagination that should not be limited. Consequently, they viewed and practiced PTCPed by adopting the strategy of offering complete freedom. It is necessary to give complete freedom in instructions for pedagogy, which also means providing the space for students to explore possibilities. However, I would argue that this may block as well as support creativity development. In this section, considering the space and freedom provided in CPed, there are two issues to be addressed. Firstly, the space provided should be without limits and, secondly, the space provided needs some criteria.

7.3.2.2.2-2.1 Space Provided Should be Without Limits

Firstly, the space provided should be without limits, as some of the participants displayed in their performances. The literatures have suggested that young learners need the freedom to ask questions, to disagree, and to make what adults may consider as mistakes (Cheng, 2004: 271). Throughout these processes, students build their autonomy and self-control as well as their creative thinking by engaging in the learner's agency (Cremin *et al.*, 2006). As Hennessey and Amabile (1987: 22) claimed, 'the more freedom children experience in the classroom, the more creative

they are'. From this aspect, I see that "providing freedom" in a classroom setting could be broadly defined to include many elements, such as "time and space" (as listed by the PTCPed framework) as well as the feature of "offering opportunities and challenges" (as identified in this study to encourage learners to play with materials and ideas). It is noted that the element of space, in the PT literature (Cremin *et al.*, 2006), was seen to play a pivotal role in fostering independent attitudes or actions, including both indoor and outdoor physical environments. Thus, expecting a spiritual meaning (e.g. providing freedom), space also involves a physical meaning as, for example, indoor and outdoor environments. In a Taiwanese classroom, "offering space" is more about indoor activities due to security and good order with effective classroom management concerns. More specifically, Asian teachers (e.g. Taiwanese) tend to follow the traditional criteria by establishing their authority when delivering knowledge/skills and advising on students' actions in the classroom (Cheng, 2004; Wu, 2004), thus preferring to keep learners sitting on their chairs for good order management. From this viewpoint, and in order to review the participants' performances in this study, I appreciated that they were willing to use my suggestions to provide space for learners to play freely in the classroom during their practices (e.g. Group B: fashion show and Group C: role play).

7.3.2.2.2-2.2 Space Provided Needs Some Criteria

However, from the participants' teaching practices, I found "offering freedom" may not fully equate to developing students' creativity. On the contrary, it could sometimes be a boundary for creativity development. Hence, the second issue is that the space provided needs some criteria. There are two reasons for saying so. Firstly, in addition to the participants worrying that providing space may lead to unsuccessful teaching and classroom management, I also saw that complete freedom without checking students' learning may result in the neglect of their needs. Taking the example of Group A, Chien stood back in her performance to provide complete freedom for the students to create their artworks, but she did not

watch whether the students needed any help. As a result, the students asked several questions, such as how to use the materials.

Secondly, my other concern is with the quality of creativity being fostered. For example, in this study, Group C tasked students with drawing a card for the mother after the role-play activity (Mandy then stood back so to provide students with the full freedom to create their own cards). However, the result was that the students' work appeared in various qualities. In the context of the classroom, it is important to develop opportunities for students to "possibility think", where creativity is not seen as a product, but as a process involving the serious play of ideas and possibilities. As explained in the literature review chapter, this generative, problem finding/problem solving process may require rational and non-rational thought, such as imagination, but mostly the application of knowledge and skills (Grainger & Barnes, 2006), in particular in the field of visual art. Hence, in order to enhance their creative abilities, I would suggest that students should be given considerable knowledge/rules in a domain. However, this does not mean it is necessary to place all the emphasis on mastering skills and techniques. On the other hand, as researchers have suggested, the role of the teacher should be to develop learners' creativity by adapting teaching strategies that balance the generation of new ideas and abilities in order to translate theory into practice (Sternberg & Williams, 1996). Therefore, in the above case, Mandy could have helped the students by organising a further discussion in relation to the aspect of linking their ideas with the materials and techniques, or maybe providing some cards as examples for them to discover. I believe that students not only keep to their own creative ideas, but have more abilities to play with materials to produce better quality creative expression.

In this section, I discussed the visual art student teachers' views of CPed regarding the role of the teacher and their misinterpretations of PTCPed. In the following section, I consider the key issues arising from these findings.

7.4 Key Themes and A New PTCPed Highlighted from the Findings

In this section, key themes learning from the findings were firstly identified (7.4.1); following it, a new landmark of PTCPed emerged from the findings (7.4.2).

7.4.1 Key Themes Highlighted from the Findings

Learning from the above findings, the values behind them and the adoption of PT and PTCPed in the Taiwanese educational classroom, two themes can be summarised and highlighted, including:

- the influence of traditional values on the student teachers' conceptions and practice of creativity and CPed
- the neglect of the gaps

In the following sections, I will briefly summarise these two themes (7.4.1.1), including the influence of traditional values (7.4.1.1.1) and the neglect of the gaps (7.4.1.1.2). Following it, I will discuss these two themes with my reflection from the perspective of the role of teacher educator (7.4.1.2).

7.4.1.1 Two Themes in Adopting PTCPed

7.4.1.1.1 The Influence of Traditional Values

From the above discussions, the findings in this study reveal that the visual art student teachers' knowledge of creativity, and consequently their views and practice of CPed, still appear to be influenced by traditional Confucian values. With regard to Chinese tradition, authority is respected without being challenged. It is paradoxical to discover that they passively see and respond to the learners' creative attitudes and behaviours while in lectures, such as independent thinking, being critical and curious (e.g. posing questions, trying new things), argued as highly celebrated in Western

societies. Yet, the learners' creative abilities and attitudes to the expressions of their artworks, by contrast, are found to be much more welcomed by the visual art participants, such as being imaginative, innovative and immersive, and engaging with original thinking. These cultural contexts and beliefs are also reflected in their ethos and implementation of CPed that reveals they essentially adopt a teacher-focused approach in their pedagogical strategies for fostering learners' creativity. Correspondingly, the main focus is still on "pedagogy" rather than "learning".

7.4.1.1.2 The Neglect of the Gaps

In this study, the gaps have been perceived and considered as a major theme, involving those between the value systems of two different cultures and between the student teachers' knowledge and practice of PTCPed (e.g. Western theoretical framework of creativity in an Eastern classroom context, such as the slippery balance between freedom and order).

As being discussed in the introductory and literature review chapters, the Western conceptions of creativity and CPed are commonly adopted in Taiwanese classrooms, from the perspectives of policy makers and research elaborators to the school practitioners (Cheng, 2004; Niu, 2006; Vong, 2008). In other words, the attempts at a thorough in-depth research to explore the characteristics of creativity within the Taiwanese cultural context or to consider the role of local educational discourses have been rare. For example, this has not been addressed in any of the recent creative education projects, such as the *White Paper of Creativity Education*, or in the reformed *Grade 1-9 Curriculum*.

Given the recent development in creative education, many researchers have shown an awareness of the distinctive ways of conceptualising creativity in different cultures, and have, therefore, challenged the concept of and attitude toward creativity as being value-neutral (Craft, 2005, 2008;

Hennessey, 2007; Kim, 2005; Ng & Smith, 2004; Rudowicz, 2004; Wu, 2004; Craft *et al.*, 2008). It is reasonable for me to notice that receiving a Western theoretical framework (e.g. the framework of PT and PTCPed) without concern to traditional values may, in practice, bring about many paradoxes. For example, from the visual art participants' experience in this study, they showed their appreciation and acceptance of this new pedagogy but adopted it with their own interpretations. I would argue that this gap is due to the lack of fundamental research into creativity within the Taiwanese context and also, for the participants, the lack of a critical attitude towards adopting Western theories or practices. Or perhaps, as many participants described, the gap came from the short of practice due to the limitations of time:

> *"The workshop was too short! Only five sections!! I just learned the knowledge of creativity and creative pedagogy, and had a little practice, then it's over!!! If we can have more time, I think that I can practice it more and feel more confident."*
> (Liao's post-workshop interview transcription)

7.4.1.2 My Reflection: Contextualising the Conceptions of CPed

Personally, my view of promoting creativity is not only to see it as a global trend to raise competitive capacity, but that I also value creativity as an expression of self-actualisation (refer to Chapter Two, Section 2.6). Therefore, it is unreasonable for a person to only present their own creativity with artwork and not their behaviour or attitudes. To expend this viewpoint in a classroom, it is also absurd for a teacher to limit the learners' ownership and autonomy when learning with pedagogy. Drawing from the two issues highlighted in the previous section, I understand that creativity, as well as its pedagogy, under different cultures has been built around different values and, therefore, appears in different criteria. In this study, as a researcher as well as a teacher educator, I have also suffered the tug of war between traditional cultural values and the Western framework of creativity (PT) and PTCPed while planning this study and introducing this PT framework to the participants. I actually struggled with several questions,

such as: What should be the criteria for creativity in the Taiwanese context and in the field of visual art? What kind of ideas and behaviours should be encouraged in the Taiwanese classroom concerning the enhancement of creativity? What kind of teaching and learning can be accepted by Taiwanese students/teachers, and from whose viewpoint? How can I help the participants to bridge the cultural differences and to inspire their views when looking at CPed in different ways? Similarly, I also found this sense of conflict happened to some of the participants between the concept of proper teaching and learning, and creative behaviours/ideas. For example, Chou looked at question-posing as an inappropriate behaviour and Chao overemphasised serious learning in the visual art classroom. However, my intention in this study was not to claim that the student teachers have successfully changed their views or reached a consensus with me on the framework of creativity and PTCPed through my teaching. Yet, I am more convinced that, through this experience, a conversation between these different values was actually initiated in their minds through the introduction and adoption of the framework of creativity and PTCPed.

Some Asian researchers, such as those in Hong Kong, Singapore or Korea, have proposed the formulation of a local model for creativity education which would maximise the strengths of the traditional culture (Cheng, 2004; Choe, 2006; Kim, 2005; Ng & Smith, 2004). In Taiwan, Lin Y. S. (2010), in her recent work on fostering pupils' PT in Taiwanese drama classrooms, also endeavoured to bridge the cultural gaps. She proposed an idea of a 'third space' (p116) to suggest 'contextualising creative pedagogy' (*ibid*: 117) through re-evaluating and finding a balance between the different perceptions of learning, pedagogical strategies, and teacher ethos that would fit in with Taiwan's unique education system (see Section 2.6). Likewise, in this study, during the experience of adopting visual art and PTCPed, the participants' beliefs of creativity and CPed were informed by two sets of culture (e.g. from my introduction of Western PT framework during the workshop and their previous personal learning and teaching

experiences in Taiwan). Meanwhile, the concept of "third space" was also embodied in a sharing space of co-learning (not only in my teaching during the workshop also in participants' teaching practice), which is not completely teacher-led (sage on the stage) or learner-led (guide on the side), but balanced between the two (meddler in the middle). These features gave not only the participants but also me more chance to interact, negotiate with each other, or even for me to persuade the participants. Through the process of interaction and exchange, it does not mean that the traditional values need to be discarded. Instead, participants were encouraged to re-evaluate traditional culture and to cherish its strengths whilst also adopting Western theories and practices with an open, yet critical, attitude. Therefore, new values, discourses, or practices could be transformed or even emerge as new methods that are desirable. This is what I came to understand, building on Lin's work (2010) as the process of "contextualising CPed" with the idea of "third space", in which both the participants and I adopted reflective and critical thinking to evaluate both traditional and new values, and in doing so, come to accept, to evaluate, or to change perceptions and practice of creativity and CPed. For instance, Young kept discussing with me about her teaching dilemmas during the workshop and we have maintained these discussions, even now (December 2012). We have shared the values between theoretical knowledge and practice by exchanging and negotiating our views to find out the best possible ways for her teaching.

In the next section, a new landmark of PT in relation to pedagogy is further suggested through the process of contextualising.

7.4.2 A New Landmark of PT in Relation to Pedagogy

Through the enquiry of adopting Western values and educational practices in a short workshop alongside Taiwanese art teacher training course, the criteria of creativity, in relation to the teacher's role and teaching strategies, appeared in different ways due to the different cultural values. These gaps

brought out the participants' misinterpretations when accepting and adopting the framework of PT and PTCPed. By negotiating between the two cultures and value systems, and the participants' responses and evaluations of the pedagogical framework, a new landmark of PT in relation to pedagogy emerged through "contextualising" (see Diagram 35).

Diagram 35 A new framework of PT in relation to pedagogy

In terms of the nature of PT in this study, Diagram 35 represents the views of the student teachers' creativity in a Taiwanese visual art classroom involving the new characteristics of originality and no limitations along with the attitude of confidence.

■ **Originality**

In this study, the visual art participants viewed originality as making a choice, producing something new, or building a personal style that is most appealing to a person as an individual. They also see originality as the production of a new idea without worrying whether the idea is worthwhile or useful, and originality in this sense could be an idea or action that is original to the student, but not necessarily to the wider world.

■ **No limitations**

In this study, "no limitations" is an essential element while engaged in thinking and creating something new as it involves the characteristics of complete freedom with no boundaries.

■ **Confidence**

The visual art participants believed that confidence is a fundamental attitude for being creative. This finding echoes Runco and Bahleda's work (1986 cited by Niu & Sternberg, 2002) in which being confident was described as one of the core characteristics that defined creative individuals.

Diagram 35 also represents the other features of PT previously identified: play, immersion, innovation, being imaginative, self-determination, intentionality and risk-taking, driven by the processes and outcomes of problem-solving.

■ The feature of play and possibilities in this study has been emphasised on the attitudes of playfulness and joyfulness while toying with possibilities.

■ In this study, the visual art student teachers supported innovation with the idea of "change" (e.g. a change from the normal, a change from the existing conditions) as well as the idea of "transformation" (e.g. delivering an innovative idea by transforming the ideas of others).

■ Intention is an action which can be seen as 'an outcome of a person's deliberation or processing' (Craft, 2001b: 57). In addition to this definition, in this study, this feature has also been extended to an active attitude to engaging in activities.

■ Immersion not only covered the previously definition of a 'deep concentration' (*ibid*: 57). In this study, it also presented the meaning of "increased attention" while engaging in teaching and learning.

■ **Problem solving**

The literature (e.g. Craft, 2000, 2001b; Jeffrey, 2005) suggested that the concept of PT fundamentally involves the engagement with a problem with both problem finding and problem solving (Craft, 2000, 2001b). However, the visual art student teachers in this study only mentioned the ability of problem solving through divergent and convergent thinking. The feature of problem solving seems to be interconnected with many features of PT. For instance, while solving a problem, a person may firstly use their imagination and play with possibilities in order to find out the best solution. Furthermore, in the process of action, it may also involve risk taking, self-determination, and confidence.

Finally, the features of question-posing and question-responding, which had been identified as being at the core of the Western conception of PT and the pedagogical strategy, were only vaguely found in participants' features of creativity (PT) as well as in teaching and learning in this study. It was argued in the previous sections (eg. Section 7.3.1.2-3 and 7.3.2.2.1) and Chapter One that this could result in the influence of Confucian cultural tradition (e.g. students' questions were not welcomed in most Taiwanese classrooms). This also applied to the feature of risk-taking that was regarded by the student teachers as teachers offering challenges, rather than being generated by the learners themselves.

In terms of how the pedagogy relates to PT, Diagram 35 also shows that this study extends the existing Western literatures of how pedagogy nurtures PT by considering the cultural differences. Pedagogy-nurturing PT in this study involved practitioners adopting an effective "CT" context, together with creating a friendly and safe "CL" environment where practitioners

highly value learners' agency (including individual and group activities), and which offers them opportunities to play with the possibilities of materials and ideas, including time, space (mainly focusing on indoor activities in this study), and challenges. Furthermore, this study highly addressed how practitioners stand back and the value of offering freedom to learners in pedagogical practice, in which teachers' 'stepping forward' (Craft *et al.*, 2012: 59) into the learners' learning space is suggested as an important stimulation for supporting learners' creative ideas and contributions in practice.

Finally, the findings propose to build an environment that embodies an enabling learning climate and an effective teaching context in order to foster learners' PT. "Environment" is used here as a broad term that, therefore, includes certain elements, such as classroom settings, the roles of the teacher, teaching strategies, and learning agencies and climate. Setting up situations and environments which encourage learners to take ownership of ideas, and thus their learning, is equally demanding.

7.5 Summary

This chapter has provided a discussion of the findings that were presented in Chapters Five and Six. The discussion started from Section 7.2 that consisted of an overview of the findings to Research Questions One and Two. Section 7.3, firstly, focused on comparisons between the findings in this study and the frameworks of PT and PTCPed in the literatures in order to identify the visual art participants' knowledge and practice of PT and PTCPed. Secondly, the detailed discussions placed an emphasis on how the visual art student teachers formulated their views and the implementation of creativity and CPed. Section 7.4 was firstly devoted to the issues highlighted from the discussions in terms of the influence of traditional values, and neglect of the gaps. Following, a short reflection from my role as a teacher educator was further provided. Finally, a new landmark of PTCPed was introduced to the Taiwanese context.

In Chapter Eight a conclusion is provided, along with implications for policy and practice.

CHAPTER EIGHT

IMPLICATIONS AND CONCLUSION

8.1 Introduction

In the previous discussion chapter, I teased out the visual art participants' responses and their practice to creativity and the CPed according to the research questions. I also explored the insights based on the responses informed by the literatures and summarised the key themes identified through the findings. Finally, through the negotiations between the two cultures and value systems, a new landmark of PTCPed emerged based on the Taiwanese ITAE context. In this final chapter, I intend to use this new model of PTCPed to further discuss the implications for policy and practice, considered from the perspective of IATE. In addition, I will provide a reflection on the limitations of the research as well as suggestions for future research in PTCPed. The chapter is divided into four sections, headed as follows:

8.1 Introduction

8.2 Implications

8.3 Final Reflection

8.4 Conclusion

8.2 Implications

In the final section of Chapter Seven, I highlighted two key themes emerging from the discussions: the influence of traditional values and the neglect of the gaps between the different cultural values, and between knowledge and practice. Meanwhile, I also provided a brief personal reflection to suggest an idea of "third space" for 'contextualising' (Lin, Y. S., 2010: 117) that could be borrowed and applied while introducing a Western framework of PT and PTCPed to Taiwanese student teachers. Finally, a new model of PTCPed based on the Taiwanese IATE context was suggested. In this section, I will scrutinise three specific implications for practice and policy by considering "contextualising creativity and PTCPed" within the context of IATE in Taiwan. These include:

- A balance of the paradoxes when adopting PTCPed (8.2.1)

- Building a classroom community in teacher education (8.2.2)

- Bridging the gap between policy and practice (8.2.3)

Next section, the emphasis particularly places on the four pedagogical strategies in order to balance the paradoxes of adopting CPed in Taiwan. More specifically, I will suggest a possible space for the occurrence of CL.

8.2.2 A Balance to the Paradoxes of Adopting PTCPed

The concept of an idea of "third space" for "contextualising" (Lin, Y. S., 2010) has been used to suggested the extended model of PT and PTCPed in Chapter Seven (see Section 7.4.2; repeats in Diagram 36 below to add understanding). In this section, I would further use this new landmark of PT model to provide improvements to the gaps and paradoxes that emerged from the participants' knowledge and practice of PTCPed (as discussed in Chapters Five, Six and Seven).

Diagram 36 A new framework of PT in relation to pedagogy

As discussed in Section 7.4, the ideas of a "third space" in this study could be seen as a different sort of learning environment for the student teachers (i.e., my CPed workshops); and a shared space for co-learning (i.e., balanced between teacher-led and learner-led). In other words, by blending values from both perspectives (Western theory and Eastern classroom context), the application of CL can be highly encouraged in Taiwanese classrooms by asking the following questions. For example, how can a visual art teacher structure the lessons to include the features of PT? How can a teacher encourage learners and allow their own interests, simultaneously, in a typical Taiwanese visual art classroom? What approaches and criteria should a teacher use for the evaluation or assessment of learners, in terms of creative behaviours and the quality of the artwork? The discussions include the role of the teacher (8.2.2.1), playfulness vs. meaningfulness pedagogy or serious learning (8.2.2.2), and freedom: standing back vs. stepping forward (8.2.2.3).

8.2.2.1 The Role of the Teacher

Compared to the suggested role of the teacher in Western PT literatures as a guide and supporter when delivering creativity, the teacher in the Taiwanese visual art classroom tends to play the role of a controller or an authoritative director (Cheng, 2004; Wu, 2004) in order to maintain good order in their classroom and achieve good standard results in artworks. In addition, the findings in this study also showed the participants' learning was impacted by the traditional learning culture (learning by authority) where a standard/correct answer from the teacher educator (myself) was common.

However, Lucas (2001) suggested that nurturing creativity requires the capacity to live with complexity and uncertainty; in other words, 'it will be difficult to nurture it in communities where only certainty is rewarded' (p42). Reflecting on the subject of visual art, it is full of imaginative visual images and possibilities, rather than isolated components (see Section

2.5.2.2). It has been suggested that the content of visual art curriculum in AHLA should cover 'mediums and skills, aesthetic and forms, and meanings and contents' (Kuo, 1994: 5). Therefore, to nurture creativity (PT) in Taiwanese visual art classrooms, I suggest there needs to be a balance between the two poles of the teacher's role, in which the teacher plays both (or either) a directive role which values traditional virtues (in terms of behaviours) and (or) a facilitating role which values opportunities and pedagogical strategies for nurturing the learner's creativity.

Sternberg and Grigorenko (2004 cited by Beghetto, 2007: 108) stated, the 'best way to promote students' creativity is for teachers to encourage and model the creative thinking and behaviours in the classroom'. This idea also responds to Hetland's (Hetland *et al.*, 2007; more detail see Section 2.5.1.2.2) identification of three studio structures for visual art learning (teachers were encouraged to demonstrate the process and product in the beginning of visual art learning, students then make artworks based on teachers' assignments, and finally the learning ended up with a discussion and reflection). Through this structure, eight studio habits of mind were developed, including 'develop craft, engage & persist, envision, express, observe, reflect, stretch & explore, understand arts community'(*ibid*: 6). In this study, I would suggest that it is important for a visual art teacher to use a creative model in which they design inventive activities and encourage the learners to be playful when engaging in both individual and group creative activities, stand back to offer space/freedom, and create opportunities that challenge learners' creative ideas and abilities. Through this way, teachers not only have chances to offer art theoretical knowledge and practical techniques for the learners, but also leave spaces for the learners to explore their creative development based on these fundamental learning. Meanwhile, I would also suggest that learners are more likely to be motivated if the learning environment is stimulating and well-resourced and if they contribute to the environment themselves or help to construct it. In this context, visual art learning is not the transmission of knowledge

or the training of skills from teachers to novices but is an active and productive partnership where meanings are questioned and negotiated to help construct a learning community (Addison & Burgess, 2007: 37).

8.2.2.2 Playfulness, Meaningfulness Pedagogy or Serious Learning

As explained in Chapter Seven, the participants appeared to overlook the feature of playfulness in PTCPed that used interesting and novel teaching activities/strategies in practice. However, these strategies were argued as being meaningful in pedagogy and in fostering the learners' creativity (e.g. Chien). In contrast to this misinterpretation, the view of learning held by several participants (e.g. Chao and Chou) was related to serious learning or learning art theory and techniques with effort. Therefore, many argued against the feature of playfulness.

Concerning the examinations and competitions that are often highlighted and which evaluate the learner's efforts in the field of visual art in Taiwan (Cheng, 2004; Wu, 2004), the emphasis on acquiring essential knowledge and techniques is believed to be the foundation of further development or innovation (Cheng, 2004; Vong, 2008). Furthermore, imitation and persistent practice are common methods in visual art teaching and learning, in which the teacher's authority and direct demonstrations are, therefore, considered central. Vong (2008) indicated that a teacher-directed pedagogy involving direct instructions and demonstrations was still essential for the development of learners' creativity within the Chinese context. Hetland (Hetland *et al.*, 2007) also highlighted the importance of teachers' demonstrations help learners in building up knowledge and techniques in American visual art classrooms (see previous section). Hence, it is undoubted that the accumulation of basic knowledge and skills is necessary to be taken into account in the Taiwanese art teaching and learning context. Nevertheless, the questions then are "how" to carry out the demonstrations and then move forward to students' learning.

From the discussion in Section 7.3.2.2.2-1, the cultural difference caused the participants' to view playfulness as only conducive to arousing students' interest in learning, rather than providing a space for learners' ownership during a playful activity. Personally, I agree that it is possible to achieve a balance between CL and traditional serious learning (or ET) in visual art teaching and learning. In this aspect, I consider that the feature of 'enjoyment' (Wu, 2004: 177) can be used to describe 'playfulness', as embedded in PTCPed, which involves innovative, playful, and relevant teaching and learning to arouse the learners' enthusiasm and confidence. The balance of the sources of enjoyment and serious learning that the participants evidenced in this study were that, for example, they concentrated on playing with ideas and possibilities, and, consequently, developed more creative ideas with a better quality outcome while engaging in a playful, free and safe learning context and environment.

8.2.2.3 Freedom: Standing Back vs. Stepping Forward

As discussed in Chapter Seven, several visual art student teachers viewed and practiced PTCPed by offering complete freedom. The literatures suggested that learners need freedom to fire their creativity (Cheng, 2004; NACCCE, 1999; Cremin *et al.*, 2006; Hennessey & Amabile, 1987), including enough time and a safe space (Cremin *et al.*, 2006; Dower, 2008). In this process, it is important for a teacher to not only offer learning agencies for learners but also to stand back in order to return learning ownership back to the learners as well as allow them to try any possibilities, to play with their ideas, and even to make mistakes (e.g. "stretch and explore" in Hetland's Studio Habits of Minds (Hetland *et al.*, 2007)). However, from the participants' practices, I found that "too much freedom", on the contrary, can restrict creativity development. Therefore, I would suggest that the space provided needs some criteria. The reasons are: firstly, that providing freedom may lead to unsuccessful classroom management due to the traditional learning culture in Taiwan; secondly, I also see that allowing complete freedom without offering foundational knowledge and skills and

checking through students' learning may result in the neglect of their needs; and the quality of the creativity being fostered (as learners may do not have enough hand-on skills to bloom their creativity through artworks). Thirdly, I would argue that if students can do whatever they like, how teacher ensure statutory curriculum content and assessment criteria are covered? Although as mentioned in Chapter One and Two there is no clear guideline to define creativity in AHLA, creative, artistic development is not an automatic consequence of maturation (Zimmerman, 2005: 64). It is impossible for visual art teachers to foster learners' creativity in unclear and loose structures in the classroom (Siegesmund, 1998; Hickman, 2005a; Fleming, 2010).

In participants' practice, offering freedom (space) means that the teacher stands back to offer the opportunity for learners to follow their own interests and shape their own learning. In a classroom setting, this can involve many elements (e.g. time and space, as the previous framework of PTCPed listed, as well as the feature of "offering opportunities and challenges" in my new model of PTCPed). However, I also suggest that freedom should be offered in the right way and at the right time as well as serious consideration given to how and when a teacher should position themselves. As the researchers (Cremin *et al.*, 2006: 113) indicated, standing back was considered central to learner ownership and engagement. When teachers stand back to offer freedom, they should also 'step forward' as a 'meddler' (McWilliam, 2008 cited by Craft *et al.*, 2012: 58-59) when necessary, which means co-constructing alongside learners by stopping and observing, listening and noticing, and giving and receiving the learner's engagement with sensitivity in order to prioritise their learning. For example, taking the above suggestions to review the performance of Group A (refers to the discussion in Section 6.3.1, I argued that Chien only showed artists' works in PowerPoint without further discussions and then let students to work on their group pictures), Chien could encourage and model the expression of original ideas in order to evaluate the artists' work

from various perspectives, such as colours, shapes, textures, and materials. She should then stand back at the right time in order to create opportunities for students and to encourage them to use their evaluations to play with more source materials and ideas so as to create their own work. However, it is also important that she should always observe and check over whether the students need support at any time and any point.

In the next section, the emphasis is placed on the implications for IATE in Taiwan.

8.2.3 Building a Classroom Community in Teacher Education

In this section, two implications for the aspect of practice, from the perspective of IATE, were obtained based on the experience of this study:

- A workshop-based and group-based course (8.2.3.1)
- Challenging student teachers to be reflective practitioners (8.2.3.2)

The detailed discussions for each suggestion are illustrated below.

8.2.3.1 A Workshop-based and Group-based Course

In this research, the forms of workshop and group learning were carried out to introduce the framework of PT and PTCPed. This is based on Western theory and practice in which the teacher plays an important role in either stifling or supporting CL. Therefore, many cultural shocks and value differences were involved. I would argue that using the traditional training ways in Taiwanese teacher education courses, including IATE, that mostly focus on individual learning through lectures and seminars, are not suitable for adoption. My intentions when choosing the workshop were to consider the emphasis placed on the acquisition and development of skills and an exploration of ideas through issue-based work (Prentice, 2007: 15). In addition, through peer learning, not only were the student teachers' fundamental concerns and varied values shared, but they also learnt the

work collaboratively.

I chose a workshop-based course that was available for practice. In addition to the student teachers' practice, I, as a teacher educator, also modelled several examples of PTCPed. To an extent, the student teachers engaged in experiential learning, both for themselves and as teachers. Through the processes they learned independent learning strategies, teaching strategies and reflective practice. In this enquiry, I would consider "modelling" as a successful teaching strategy; through "modelling", the teacher educators can have an opportunity to explain decisions and negotiate progression to suit the participants. These not only provided the participants with the rich potential of actual and virtual environments for material and digital enquiry, but also, through their engagement in different kinds of activities, they became able to enquire into making and responding to creativity through visual art and the methods of teaching and learning. As the researchers suggested, a workshop provides 'a transaction with a situation in which knowing and doing are inseparable' (Schon, 1987, cited in Prentice, 2007: 15) and this fosters learning modes that are experiential to ensure that 'knowledge is not divorced from knowers' (Salmon, 1995, cited in Prentice, 2007: 15). Therefore, I would suggest that this could be a considerable way to cultivate Taiwanese visual art student teachers to adopt the methods of a workshop and working in a group.

8.2.3.2 Challenging Student Teachers to be Reflective Practitioners

In this study, the student teachers were required to write a reflective journal in their sketchbooks after every session they participated in the workshop. Although this function did not work well in this study (discussed later in Section 8.3.1), literature and also some participants have illustrated the powerful role of reflective practice in teacher training (e.g. Harris *et al.*, 2010; Loughran, 2002; Larrivee, 2000; Fautley & Savage, 2007; Prentice, 2007); for example, Young told me that '*I reflected on what I have learned from the workshop and how I apply these pedagogical strategies to my*

future practice'.

Given the experience of this study, I consider that the introduction of Western theories and conceptions into a Taiwanese education context without critical and reflexive thinking has contributed to the paradoxes (refers to Section 7.3.2.2.2). For example, in this study, the participants' misinterpretations of knowledge and the implementation of the pedagogy to foster creativity have been argued as coming from their "transplantation", yet without critical "transformation". While seeking to develop an integrated approach to CT and CL by bridging the two different cultural values, it is important to note that every teacher goes through their own process to find a balance between the roles, as each teacher's disposition and starting point is different. As researchers have encouraged, reflection can be recognised as the standard way in which 'teachers can become better acquainted with their own story' (Conle, 2000 cited by Fautley & Savage, 2007: 122). Schon (1983 cited by Prentice, 2007: 13) proposed three models of reflection: 'reflection-in-action, reflection-on-action and reflection on reflection-on-action'. He described the former as reflection taking place during the event; and the second as reflection taking place after an event. The third one, in Cowan's word (2006, cited in Harris & Lowe, 2010: 16), 'reflection-for-action' is where student teachers begin to identify the actions required to improve learning and pedagogy for their future actions. From the perspective of a teacher educator, I would also suggest that a student teacher should place reflective practice at the heart of their work in order to keep a critical attitude towards a reflection "on", "in" and "for" teaching and learning, and to be open and flexible toward accepting the learners' creative behaviour and contributions.

In the next section, the emphasis is placed on linking practice with policy.

8.2.4 Bridging the Gap between Policy and Practice

A gap was perceived between the practices of the school teachers and government policy which informs the core competences and attainments of the curriculum. For example, as argued in Chapters One, Two and Seven, creativity still seemed to be a watchword in the most current Taiwanese classrooms. Given my view of the gap between policy and practice, it is due to the dependence on Western definitions of creativity education in Taiwan. Cheng (2004) also suggested the reason is because the policies contradict the interests or the actual practice of schools, teachers or even parents and, as a consequence, they cannot be fully implemented in schools. Concerning the above implications for the theory and practice in the Taiwanese visual art classrooms and secondary teacher education, it is important to note that these efforts should also get support from the Taiwanese government and academic community. To suggest improvements in policy is not an easy task, it requires comprehensive concerns and plans. Hence, in this section, I propose to bridge the gap by providing an initial point, based on my study and personal reflection, with the support of academic research.

Firstly, I would suggest that research should focus on the local definitions and scope of creativity and PTCPed in a Taiwanese art educational context. Secondly, research should also pay attention to understanding the relationship between the theories and actual practical problems that are pertinent to creativity education in Taiwan (e.g. in the field of art education in this study). Through such enquiry, the foundational questions should explore specific instances, such as: What is the meaning of "creativity education" in Taiwan? How can it be defined in a school setting? What kind of creative capabilities do students need to achieve in visual art and at secondary levels? What is the role of the art teacher and how can they foster students' creativity? How and in what ways can teachers assess students' creativity in the subject of visual art? Through being familiar with the indigenous concepts of creativity and CPed, the implications of adopting Western values and educational practices could be sought.

8.3 Final Reflection

Through this study, I identified the findings by analysing the qualitative data. A qualitative analysis is an on-going process (Stake, 1995), and the interpretations and insights will always depend on who goes back to the data and when, and in which ways the data is documented and organised in the analytical cycle. With time and new insights from each reading, this thesis could be just the starting point. It is essential to open up the findings and arguments in this study to different interpretations and applications. Therefore, in this section, I consider the limitations of this research (8.3.1) that mostly focus on the methodology, and I also suggest areas for further investigation (8.3.2).

8.3.1 Limitations

Firstly, I originally intended to set up a study of twelve target participants specialising in visual art. However, half of my actual participants came from other art specialisations. In Chapters Three and Four, I explained the reasons for using the alternative choices of the participants (allowing non-visual art participants to take part in the workshop) and how I adjusted the content of the workshop in the best way in order to collect the data. Although the multiple data perspectives from the different participants' professional backgrounds employed in this study enriched their interpretations of PT and PTCPed and were useful in a simulated secondary classroom in which students had varied interests, I believe the tensions of the multitude of professional backgrounds also created more complications in actual practice. On reflection, if I could have collected the data as I originally planned, the interactions among the participants' knowledge and practice may have been different and simpler. This could have enabled me to gain a deeper insight into the student teachers' knowledge and practice of CPed in the field of visual art.

Secondly, with regard to the tools used for collecting the data, such as

sketchbooks, videos recordings and group discussions, I have discussed how I employed these strategies and the limitations in the actual practice of my own research in Chapters Three and Four. However, I did not highlight the challenges involved in the use of these strategies in suggestions for the participants' interpretations of PT and PTCPed, such as the use of sketchbooks. In this study, I only provided a brief instruction and suggestions on how the participants used the sketchbook to record their reflections on their learning during the workshop. However, the function of the sketchbook did not provide real insights into their thoughts and reflections as I expected. Instead, the participants tended to use the sketchbook to focus on note-taking throughout the sessions and, as a consequence, they all looked similar to each other. I would argue that this shortcoming of using a sketchbook may have affected the participants' critical learning of and reflections on PTCPed. From this experience, it is important to be aware that all of the strategies and tools involve complex skills and processes and are influenced by a range of factors that are specific within the context of the particular research as well as the participants' backgrounds. As a result, it may be necessary to offer more detailed information when introducing the tools or maybe provide several actual examples on their usage for the participants.

Thirdly, in this research, the CPed workshop only lasted five sessions plus the opportunity of one tutorial session to interact with the participants (each session was for two hours, including the last session which was teaching practice). However, I would argue that the shortage of time not only limited my design of the workshop but also constricted the participants' practice of PTCPed as it was only available as a group, rather than as individual participants. If this workshop could be administered for longer, every participant could then be offered the opportunity to implement their knowledge of PT and PTCPed and put this knowledge into practice. This would enable a deeper insight and investigation into every participant's development of CPed. Additionally, this time concern also

applied to the nurturing of the participants' values and practice of PT and PTCPed. Even though the participants welcomed the novel experience of learning and reported their development in pedagogical abilities and attitudes, I would suggest that it is necessary to extend the time in order for participants to become more familiar with the values and practices of PT and PTCPed over a longer period, for instance a semester course. As many participants described, "*the workshop was too short! …I just learned the knowledge of creativity and creative pedagogy, and had a little practice … If we could have more time, I could practice it more and feel more confident*" (Liao's post-workshop interview transcription).

Finally, due to the word limitations, the findings and the discussion in this study have been mainly focused on the exploration of the visual art participants' general perceptions and practice of creativity and PTCPed. Therefore, the applications of visual art in PTCPed from a domain-specific viewpoint were less addressed.

8.3.2 Areas for Further Investigation

In this study, I focused on studying student teachers' responses to creativity and CPed, and to introduce a framework of PTCPed in IATE. The themes emerging from this study offer further insight into the continued research. Firstly, I would suggest more attention be placed on understanding how these student teachers blend their new values of creativity and CPed in a real secondary classroom and how they nurture students' creativity. For example, how these student teachers approach this new pedagogy by concerning the traditional learning culture, and how the students reflect on this new pedagogy? Secondly, the driving PT features, question-posing and question-responding, were found to be absent in the participants' definitions of creativity (PT) and their practice of CPed in this study. However, since they have been recognised as the core of the PT framework in the western literature, and they could be identified through verbal and non-verbal forms. Hence, it would be worth to further explore how they

may be expressed in Eastern (e.g. Taiwanese) classrooms. Thirdly, concerning the limitations of the participants of this study, in further studies I would suggest placing an emphasis on the context of only visual art student teachers. It was my original intention to make such a context. However, due to the concerns of methodology and ethics, I had many more spontaneous participants from other art specialisations. Hence, it would be interesting to concentrate on an analysis of visual art participants and further investigate how they respond to PTCPed without the interaction with other art specialisms. Fourthly, as mentioned in the previous section, how PTCPed can be applied in the visual art classrooms could be another specific focus in further studies.

Related to the suggestions directly above, it would also be worthwhile to investigate the responses of participants in different groups or positions. In this study, the small sample focused on student teachers from an arts university in Taipei city and, therefore, the implementations of the pedagogy is limited to a certain group. For future studies, I would propose an investigation of the indigenous perceptions of CPed through respondents with different positions in the educational system, such as school teachers, school students, and policy makers. It would also be useful to extend the research to different education levels (e.g. student teachers at primary level, and primary school teachers and pupils) or different social backgrounds (e.g. to select universities/schools in different parts of Taiwan). These are all possible ways to extend our knowledge of the range of different views of CPed in a Taiwanese context.

Another area of interest could focus on studying how creativity is facilitated in visual art. For instance, how the nature of PT is situated in the field of visual art, and from what aspects and how the teacher uses the nature and approaches of visual art in order to nurture the PT of the learners? In addition, as much more weight has been put on the scientific research of creativity in Taiwan (see Chapter Three), I would suggest interpreting these

questions through in-depth qualitative descriptions in order to capture the unique instances and complex interactions between teaching and learning in the visual art process. From this viewpoint, an investigation into socio-cultural factors in fostering creativity in education is also suggested. Finally, as the most recent PT work has placed an attention on a new approach of "narrative" (Cremin *et al.,* 2012), this could be another possibility for further creativity study in Taiwan.

8.4 Conclusion

Previous investigations of PT and PTCPed were focused on the relationship between teacher and child creativity. However, this study set out to explore visual art student teachers' knowledge and practice of PT and PTCPed, and, hence, the student teachers' experience. In this thesis, the relevant theories of creativity in the Western world, including the earlier traditions of creativity research and more recently developed approaches, were explored. Furthermore, the factor of the cultural context of the East was explored, in particular the gaps between the Eastern and Western conceptualisation of and discourse for creativity. The scope for reviewing the literatures was then narrowed down to insights related to fostering creativity in educational settings. The terms and practice of CT, T for C, and CL were then discussed to identify the attributes of CPed in Eastern and Western educational contexts, including the models of CPed and the role of the teacher, and the possible paradox for promoting creativity in Asian classrooms. The objectives and approaches to the visual art were also elaborated so as to reveal the close relationship between the visual art, creativity and CPed in a Taiwanese educational context.

A series of workshop sessions, based on the theoretical framework of PT and its PTCPed as well as the concerns of two sets of educational values, were designed to introduce the Western concept of creativity and PTCPed to the secondary student teachers in an arts university. Through adopting a

case study approach within the action research concept, an in-depth understanding of a specific context on the participants' knowledge of and practice of creativity in relation to pedagogy was explored. Qualitative data were collected from the participants' interviews together with the reflective documents of the participants and the researcher, and any possible visual materials. Observations were also video-recorded. The analytical methods focused on both inductive and deductive approaches to explore how student teachers developed their perceptions of creativity and PTCPed and the possible influences in practice.

Learning from the findings on the values behind and the adoption of PT and PTCPed in the Taiwanese educational classroom, two themes were summarised and highlighted. These were the influence of traditional values on the student teachers' conceptions and practice of creativity and PTCPed; and the neglect of the gaps between two sets of cultural values as well as between the knowledge and the practice. Therefore, an idea of third space to "contextualise" was borrowed from similar empirical work (Lin, Y. S, 2010) in order to suggest implications for theory, practice and policy in the context of Taiwanese IATE, and therefore, a new landmark of PTCPed emerged.

To summarise, my research has contributed to the understanding of the complexity and richness of visual art student teachers' knowledge and practice of PT and PTCPed, and the possible influences when building their conceptions in and around such practice. This study confirmed most features of PT, but found question-posing to be absent and it, significantly, identified several emerging PT characteristics and attitudes: originality, confidence, no limitations, and problem-solving. These features were fostered by teacher's CT and learners' CL in an enabling and effective context in which teachers offered the learners' opportunities (including time, space and challenges) to develop ideas and confidence to play with

the materials, prioritised learners' agency (including individual and group activities), and stood back to offer freedom, and at the same time moved step forward to observe the learners' engagement and check when to offer help. From the context of teacher education in Taiwan, teacher educators are suggested to appreciate this complexity, and to understand and allow student teachers to interact with different perspectives or approaches when interpreting their pedagogy through reflective practice.

APPENDICES

Appendix A   A Map of the Research Plan

Knowledge of creativity and its pedagogy

Stage 1:

Participants' perceptions of creativity and its pedagogy before the workshop (Q1.1)

- **Pre-workshop Interviews (A)**

Stage 2:

Creative Pedagogy Workshop (Q2)

- **Observations (video), participants' sketchbooks, researcher's reflective diary, any possible visual materials & participants' performance**

Stage 3:

Participants' perceptions of creativity and its pedagogy after the workshop (Q1.2)

– **Post-workshop Interviews (B)**

Skills of creative pedagogy

357

Appendix B   Ethical Approval Form

UNIVERSITY OF EXETER

STUDENT HIGHER-LEVEL RESEARCH

School of Education and Lifelong Learning

Certificate of ethical research approval

STUDENT RESEARCH/FIELDWORK/CASEWORK AND DISSERTATION/THESIS

For further information on ethical educational research access the guidelines on the BERA web site: http://www.bera.ac.uk/publications/guides.php and view the School's statement in your handbooks.

Your name:	Hou Yi Ting
Your student no:	550029168
Degree/Programme of Study:	4 year PhD Programme
Project Supervisor(s):	Anna Craft
Your email address:	hyt203@exeter.ac.uk
Tel:	07878522967

Title of your project:

Fostering Creativity Through Art: Introducing Possibility Thinking as a core of Creative Pedagogy in Secondary Art Teacher Education in Taiwan

Brief description of your research project:

This study aims to offer an intervention in an Art teacher-training course in Taiwan, in exploring how this intervention may help student teachers to develop their conceptions of creative pedagogy in terms of knowledge, teaching techniques and confidence. Through introducing the concept of possibility thinking (PT) creative pedagogy to Taiwanese student teachers, this work seeks to locate the idea and power of 'creative learning' within creative pedagogy in order to explore implications for learning futures at a systemic level and to provide an original contribution to the field of Secondary school Art education in Taiwan.

Give details of the participants in this research:

It is anticipated that data will be collected from 12 secondary initial Teacher Training (ITT) student teachers in Art specialism (in their final year of two years course) in a university in Taiwan from 2009-2011

Give details regarding the ethical issues of informed consent, anonymity and confidentiality:

In this study, informed consent will be firstly obtained from all participating student teachers and from appropriate staff in the National Taiwan University of the Arts before the research process begins. Each participant will be given an information sheet, fully informing students about the study, its context and purpose and indicating their rights to withdraw at any time for any and no reason.

Chair of the School's Ethics Committee

Participants will be asked to sign to indicate their informed consent. Participants will also be assured in this document that confidentiality and anonymity will be protected in every stage of this study and that the data will be stored securely.

Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

Data collection will be divided into three stages, in which the research instruments include questionnaire, interviews, group discussion, video-recorded observations, participants' sketchbook/log and the researcher's field notes. As indicated above, participants will be assured that anonymity will be protected, and that the data will be stored securely. Particularly, video and photographs are to be only used for observation purposes and to be viewed solely by the researcher. Care is to be taken in designing and operationalising both instruments to ensure minimum stress and disruption, and maximum care of the participant.

Give details of any other ethical issues which may arise from this project (e.g. secure storage of videos/recorded interviews/photos/completed questionnaires or special arrangements made for participants with special needs etc.):

In this study, it is planned that interviews, group discussions and observations are audio-recorded, and photographs will be taken of the participants' sketchbooks and written materials. A log will be made of activities during the workshop, such as discussing posters. The resultant transcripts and photos will be used as evidence and may be shown in the thesis, therefore it is important to obtain the agreements from participants, and protect their right of privacy and anonymity.

Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):

None

I hereby certify that I will abide by the details given above and that I undertake in my thesis to respect the dignity and privacy of those participating in this research.

I confirm that if my research should change radically, I will complete a further form.

Signed:.. date:...19./.05./.09.......

This project has been approved for the period: 2008.10 *9.5* **until:** 2011.09

By (above mentioned supervisor's signature): .... date:...20/5/9........

N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occurs a further form is completed.

SELL unique approval reference:..........D.|.28.|.09.|.41...............

Signed:.. date:...19/06/09....
Chair of the School's Ethics Committee

Chair of the School's Ethics Committee

Appendix C   Sample of Consent Form

可能性思考創意教與學工作坊 Possibility Thinking in Teaching and Learning Workshop

主任及各位同學：

我是University of Exeter的博士研究生，我的研究題目為「**培育台灣中等美術師資培育學生之創意力教學法：以可能性思考為核心的創造力教學工作坊為初探**」(Fostering Creative Pedagogy among Secondary Art Teacher Training Students in Taiwan: Investigating the Introduction of Possibility Thinking as a Core of Creative Pedagogy in a Workshop Intervention)。在徵得師資培育中心主任的同意之下，希望在接下來的2個月的時間裡各位同學可以給我一個機會與分享可能性思考創造力教學法在美術課程的運用相關議題。

研究計畫 (Project)：

培育台灣中等美術師資培育學生之創意力教學法：以可能性思考為核心的創造力教學工作坊為初探
(Fostering Creative Pedagogy among Secondary Art Teacher Training Students in Taiwan: Investigating the Introduction of Possibility Thinking as a Core of Creative Pedagogy in a Workshop Intervention)

研究人員(Researcher)：

英國艾斯特大學博士研究生 丁后儀 (e-mail: hyt203@exeter.ac.uk)

一、 研究時間 (Duration)：2010.03 - 04

二、研究目的 (Purpose)：

隨著經濟型態的轉變，「創意」逐漸成為未來競爭力的指標；身為未來的教師的您，除了需要培養自身的創意思考，在未來如何透過「創意教學」來提升學生的創造力更是您不可輕忽的。本研究將藉由「視覺藝術教學並結合藝術與人文的實作工作坊」形式，讓您輕鬆學會「創意教學」的內涵及方法。

三、研究方法 (Methods)：

1. 訪談(interview)：參加工作坊前後各一次訪談。
2. 參與創意教學工作坊: 課堂錄影及照片、參與者之反省扎記等

四、實施方式與教學活動內容 (Procedure & Project plans)：

1. 第一次訪談: 2010.03.08-12
2. 創意教學工作坊: 2010.03.17-04.21 共五堂課 (包含最後一次為教學演示)
3. 第二次訪談: 2010.04.26-28

五、 參與者的隱私與權益 (Ethical rights)：

1. 本研究中與所有參予者的個人資料都講予以保密，訪談記錄及參與意教學工作坊等相關資料也都將妥善收藏於研究室的檔案櫃中，並受到研究者嚴密的保管。
2. 在研究期間，所有參與者在任何時間皆可決定停止參與，屆時訊息與文件的處理方式，您可選擇 a. 願意繼續提供研究。 b. 由研究者代為銷毀。 c. 或歸還，您的權益將不受任何影響。

研究生 丁后儀 (Hou-Yi Ting) 2010.03.08

可能性思考創意教與學工作坊 Possibility Thinking in Teaching and Learning Workshop

參與研究同意書 Consent Form

我已經被告知本研究的目的，同時我也了解的我擁有以下權利及義務 (請於下方方格中打勾)：

I have been fully informed about the aims and purposes of the project. I understand that (*Please tick the appropriate boxes*):

我已經於 2010 年 3 月 8 日了解本研究的目的、資料使用說明及彼此權利義務。
I have read and understood the project information sheet dated 08 March 2010.

在說明會中，我有提出問題詢問本研究的機會。I have been given the opportunity to ask questions about the project.

我同意參與本研究，內容包括個人一對一的訪談以及為期 5 週的工作坊；研究期間我同意全程以錄音及錄影進行，並於工作坊結束時提供本研究的速寫本內容做為研究媒材。
I agree to take part in the project. Taking part in the project will include being interviewed and recorded (audio or video) through the whole workshop. In the end of workshop, I have to provide my sketchbook as research material.

我自願參與本研究並了解我隨時擁有拒絕繼續參加研究的權利。
I understand that my taking part is voluntary; I can withdraw from the study at any time and I will not be asked any questions about why I no longer want to take part.

請勾選以下任一個代表您意願的選項: *Select only one of the next two options:*

A. 在研究期間，我同意將自己的真實姓名記錄於論文或本研究相關的公開發表中。
I would like my name used where what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognised.

B. 我希望以匿名方式進行本研究。I do not want my name used in this project.

我了解我的個人資料，例如電話或 email 等資料，將不會被研究者以外的人取得。
I understand my personal details such as email address will not be revealed to people outside the project.

我了解我所提供的資料，包括訪談內容，將可能會被使用於研究論文及相關公開發表的刊物中；但是我的真實姓名及任何可能涉及提供辨識身分的資料都將被保密，除非我同意公開。
I understand that my words may be quoted in publications, reports, web pages, and other research outputs but my name will not be used unless I requested it above.

我了解如果有其他的研究者，例如指導教授，希望了解或參閱我所提供本研究的相關資料，亦必定遵循保密原則。
I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of that data and if they agree to the terms I have specified in this form.

我了解如果有其他的研究者，例如指導教授，希望使用我所提供本研究的相關資料於任行相關的公開刊物中，亦必定遵循匿名的原則。
I understand that other researchers may use my words in publications, reports, web pages, and other research outputs according to the terms I have specified in this form.

我同意無條件提供於本研究中所有資料的使用權給本研究的研究者丁后儀小姐。
I agree to assign the copyright I hold in any materials related to this project to the researcher, Hou-Yi Ting.

參與者姓名 (Name of Participant)　　　　簽名 (Signature)　　　　日期 (Date)

研究者姓名 (Name of Researcher)　　　　簽名 (Signature)　　　　日期 (Date)
2010/3/8

如果您對於本研究有任何疑慮或問題，請隨時與研究者聯繫。If you have any concerns about the project that you would like to discuss, please contact: Hou-Yi Ting, hyt203@exeter.ac.uk ; (TW) +886-972335728 ; (UK) +44-7878522967
One copy of this form will be kept by the participant; a second copy will be kept by the researcher.

Appendix   D Pre- and Post-workshop Interview Questions

Pre-workshop Interview Qs (A): participants' definitions/opinions and experience of creativity and creative pedagogy

■ Participants' background information (e.g. age, educational background, teaching experience)

1. What do you mean by creativity? Where do you get this information from?
2. Do you think that you are a creative person? Why/ Why not? Please provide an example.
3. What do you mean by creative pedagogy? Where do you get this information from?
4. Can you give an example from your learning or teaching experience which you think belongs to creative pedagogy?
5. In your point of view, do you agree that creativity can be fostered through teaching?
6. What do you expect to gain from this coming PT workshop?
7. Any questions?

Post-workshop Interview Qs (B) : participants' great understanding, and willingness and useful approaches

1. What do you think about creativity after this workshop?
2. What is your understanding about creativity pedagogy after this workshop?
3. How do you know whether young people engage in creative learning?
4. Would you implement this concept into your teaching? Why/Why not? And how?
5. Do you have confidence to foster young people's creativity? Why/Why not? And how?
6. What have you learned from this workshop for your future teaching? Any useful approaches or materials?
7. Any questions, suggestions or reflections to this workshop?

Appendix E　　Examples of Participants' Sketchbooks

Appendix F   Examples of Researcher's Reflective Diaries

@ Reflection :

from the literature !!
↓ discuss in literature !!

the eastern culture ?? or traditional teaching ??

Maybe it is culture background ... IN TW. Students get used to listen to a ... a lecture .... IN Today's lesson. I found that students do not know how ... or talk about their ideas or to critice (maybe give feedback to their p... or maybe they are shy to express their feelings, ideas, and even answe... or ... they are not sure what is the right answers ... even tho... not 'yes or no' Qs ... and there is no 'right' answers... Qs I asked.

Another thought !! Maybe I didn't give a clear instruction what to discuss... give an example ?! or ...

So, I tried to go around every table to check up, what they discussed need more help or hints to inspire their discussion. see how they discuss...

A. instructions
"PT Pedagogy → using 'Questions' to answer 'Questions'   Posing Qs !!
B. using 'Questions' to inspire students to think
Another, students are used to taking notes during the lecture without thinking ... thi... their discussion (Table 1)   copy what they seen from Blackboard or P.P. Better... { or group learning climate | Solution : or what they hear from their discussion.
real experience !!   Do I give them p.p handout before the lecture?
— using 'Teaching Example' is a very useful and powerful strategy to catch students'... could be from myself or students themselves.   etc. interesting teaching   to let students unde... help   which is what they nati...
— Time management : not enough time for 'discussion A"   2 example S !! etc.
: need more time for teaching plan.

Reflection :

very impressed with their final performance !! and the final p... of ARTWORK !! Students are also surprised that they could create suc... good work in Such "playful way" !!

→ I don't know wether students reflect on this creative proce... creating etc. teaching way & learning ... maybe I have to re... them since last week !!
↓
(a point) to refler on prior two weeks learning !!

⇒ when doing today's activities, I tried to add assessments bot... formal & informal ways. Actually, for me .... ARTS is meaningful ... when the creaters understand what is it / does it mean and how communicate with the audience !! So that it is important th... students can talk about what they think about / what they would... to say through ARTWORK !!

ART Assessment in TW contains: "Knowledge, skills, and feeling"!!

From students' discussions ... they are easy to focus on the details of these three deminitions .... but where is creativity?! Has creativity been covered in it?! And what kind of creativity has been covered?! In which form? Can it be recorded? big C? little c? knowledge SKILL? feeling? final product? process?

@ Using Sketchbook!! → how to use. → what to record ? can it be used in different ! ART forms.?

↓ how to assess sketchbook !!

- for me, it's a good way to record the learning { process ? through writing exit comes.} & Drawing.
- when I provide an example of sketchbook from a pupil to guide how to use sketchbook in teaching.
- another RP. to show and summarise the powerful of sketchbook !!

* this part seemed too much TALK from myself ... maybe need to give students chance to describe what they how use sketchbook ?

© Students seemed still not really engage in (PT) and (PTP) when they set up the learning criteria !! Maybe it is because in the week 1.3 or no homework, so that they forgot what they learned !! not enough time.
© even though they have to write reflective log !!

After teaching in week 4.5, more students love to share their teaching experience with me, including the problems they meet !! good to make friends with them !!

when discussing with them, good timing to make them more clear what PT & PTP are.

Appendix G-1   Examples of Group Teaching Map
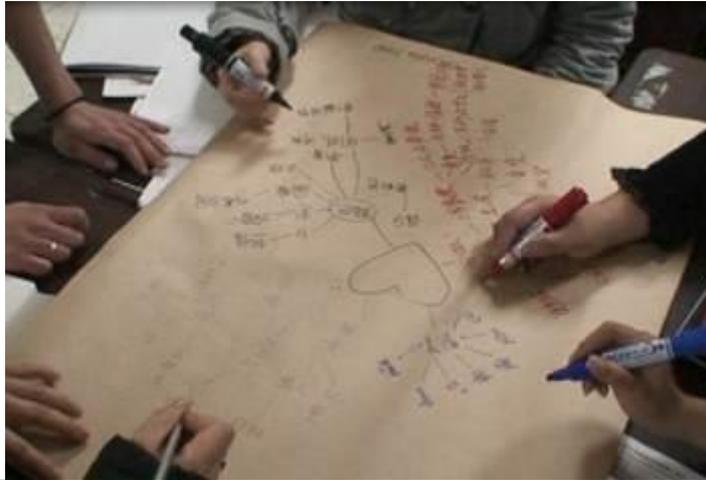
Group A
Group B
Group C
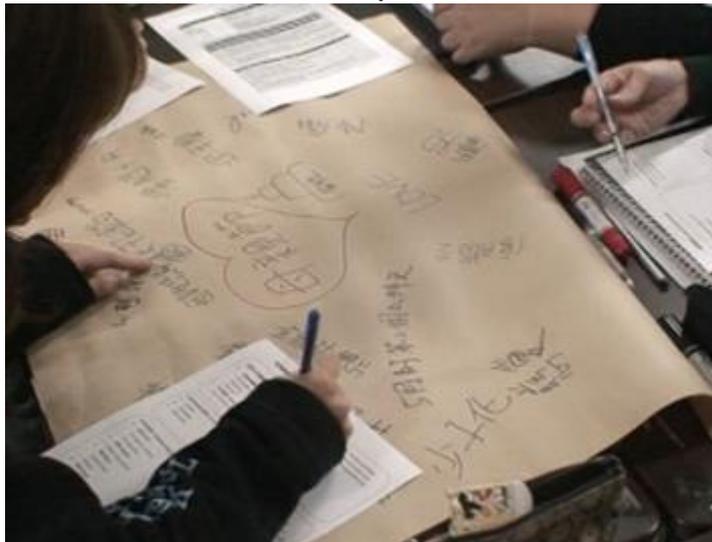
Appendix G-2   Teaching Draft Plan

可能的引起動機 Possible starting point:
- Visual/hearing:
  ➢ Using artists' artwork
  ➢ Storytelling
  ➢ School trip
- Thinking:

學習目標 Learning outcomes:
1. can express the image of the seafront with appropriate tools...

可以使用的技巧教學
Possible technique:
- Drawing:
- Printmaking

Welcome to my hometown:
Penghu
- Fishing village
- Image of sea front
- Fishing activity

可以介紹的藝術家
Possible artists/artwork:
- Mei-Chu Cheng 鄭美珠
- Ching-Hsiang Hsu 許景翔

可行性的成品
Possible presentation final artwork:
- **Form:**
  ➢ 2D: watercolour painting...
  ➢ 3D: mixed media...
- **Content:**
  ➢ Stones in the seafront...
- **Style:**
  ➢ Impressionism

可行的媒材
Possible materials:
- Drawing: watercolour, colour ink, adhesive tape...

可以融合的其他藝術活動
Possible integrated arts:
- **Drama**
- **Dance**
- **Music**

可能性的評量方式 Possible assessment:
- **Self- assessment:**
- **Peer-assessment:**

Appendix G-3   Group Teaching Plan

Session 1:	(Course Title)			
Group:	Students:	pupils	Lesson time: mins	Lesson: /

● Aims	The aims of this session are to:
● Intended Learning Outcomes	By the end of the session, students will be able to:

● Prior Learning	
● Resources	

Time		Teaching Strategies/aids	Students' Learning	Formal/informal Assessment
5'

(50')
10' | 1. Introduction:

2. Main Task:
　Activity 1:

　Activity 2:

3. Conclusion: | | Eg: Students are confident to use vocabularies and to discuss with partners | |
| Teacher's personal reflection: | | | | |

Appendix H-1　An Example of Pre-workshop Interview Transcriptions

APPENDIX:

INTERVIEW TRANSCRIPTION – 抄寫 (1)

Date of interview: 2010.03.18 12.15pm
Place: Conference Room at NTUA

M: Melanie (Interviewer)
Chou: Interviewee 周凭慈

M: Before the interview, I have several questions to ask about your personal background. Firstly, which department and which year are you in currently?

Chou: I am a master student in the sculpture department in secondary... the first year in the secondary teacher training programme.

M: Have you had any teaching experience?

Chou: Do you mean teaching in the school? Or...

M: Any teaching experience, it doesn't matter if in a school or private art institution or centre.

Chou: I have some experience of being a substitute teacher in a school, but only for a short period... It happened whenever the teachers were unavailable, the school manager would contact with me to arrange it, so that the lessons were not always in my professional subject, visual arts, because it happened by chance.

M: How old were the pupils?

Chou: Mostly in primary schools, because my first degree is primary education. Basically I prefer to teach in primary schools.

M: Well, but you have studied in the secondary teacher training programme, haven't you?

Chou: Yes, if in secondary level, I prefer to teach in senior high school. Actually, once I taught in junior high school for a whole semester... I didn't feel good...

M: Would you like to tell me the reason?

Chou: It was a visual art course for a semester which is about 21 weeks, and I shared the lessons with my friends... and we divided all the lessons into several units, so that everyone had their own complete unit to teach. However, we all felt that the students didn't concentrate on the course... maybe it is because we have had the preconception of junior high school students that they are difficult to teach... plus the unpleasant experience...

M: So do you prefer to teach in senior high school in the future?

Chou: Primary or senior high school... Yes.

M: May I ask how old you are?

Chou: 24.

(The content of this interview was selectively transcribed with relevant information to the interviewer's questions, omitting some irrelevant conversation.)

M: The first question I would like to ask is, what you mean by creativity. Can you give a definition?

Chou: Creativity.... I think it is difficult to define!

M: Please, just based on your point of view.... not necessary to give a professional explanation?

Chou: If in creating an artwork, then creativity is an "inspiration"...hmm... that is a feeling...while we are making a piece of art... I think you must understand it! For myself, I feel difficult to describe it ... It could be prepared by reading a book or observing the world, but it comes/happens by chance and unexpected... maybe one day you get an idea, suddenly...I believe that it must exist and should be prepared friendly, but I cannot describe clearly when and where it exist.

M: So, for you creativity is an inspiration or a thought

Chou: Yes.

M: What about daily life, what do you think creativity is? But that's fine if you think creativity is better described in art.

Chou: I think it is in relation to the personal experience, so that I still think for me, it is more related to art

M: Why do you think like this?

Chou: Why... hmm...

M: For example, does this idea come from yourself or from any information you have read, so that you think of creativity like this?

Chou: Hmm... this is my idea...it comes from myself... I think... that's because I started my art learning quite late...I studied in art-specialist gifted classes since senior high school, even though I have enjoyed creating art since I am little, even just making some drawings in my textbooks. It is because my parents don't like me to study art! Actually, my older brother was studying in a professional art training in a secondary vocational school. But my parents think that art isn't a good choice for our future careers, so they want me to change my mind when they found out I passed the entry exam to the art-specialist gifted class... so I was quite depressed then...and started my art specialist gifted class...

learning very late....

M: Hmm....that's sad...Let us move on to the next question. Do you think that you are a creative person?

Chou: I think that I am not. *intend to be accumulated in order to be creative!* → cus creativity comes from personal experience

M: Why? Why do you think you are not creative?

Chou: For me, now it only can be described as an initial stage. I am still seeking how to improve myself. I think that creativity can be a personal style appearing in your work, so that people can easily tell the style from your artworks. And I am still in the master level, I am required to produce a series of artwork. Particularly in the master level, I am required to produce a series of artwork for the graduate exhibition.

ART BASED

M: From your descriptions, can I summarise your point of view to creativity is that it must be trained or cultivated through a period of fundamental learning which can be the skill or internal improvement, and then people can have the capability to produce a creation.

creativity is for making ART

Chou: Yes, that's right. It is very important to learn or have fundamental knowledge or skills.

ART - BASED - :Leslie's work

M: Great. In your point of view, what do you mean by creative pedagogy?

Chou: I think... creative pedagogy is ... it occurs to me the English teaching or the TV, which the teacher use assonances to help students memorise vocabularies. It is to use an innovative way to teach, which is different from the tradition. It attracts students' interests and makes learning unwillingly. this is what creative pedagogy means to me.

M: Can I say creative pedagogy for you is an interesting way of teaching and different from the tradition?

Chou: Yes. And it should be able to resonate with students, too. It won't make students feel bored.

M: And where do you get this information from? Is this your conception or from somewhere else?

Chou: Hmm...it seemed to come from the TV... just like the example I have mentioned above.

M: So you watched the examples on the TV, and you think they are creative pedagogy.

Chou: Yes, when I saw it, I feel this is creative pedagogy.

M: Thanks. Now would you please give an example from your learning or

3

teaching experience which you think belongs to creative pedagogy?

Chou: Hmm... I think creative pedagogy is ... do I have to give an example in a certain subject?

M: Any subject!!

Chou: Hmm... from my prior teaching experience, the head teacher always asked me to do some preparation before teaching. But I believe that through creative pedagogy you can provide students with more things than the textbooks. So I don't like to just read through the textbooks in order to catch the scheduled progress that is requested from the head teacher. I hope that students can learn something new, or have a different attitude after my teaching, rather than just acquire knowledge.

different from else tradition

M: Ok. Let's move on to the next question. In your point of view, do you believe that creativity can be fostered through teaching?

different from else tradition ART?

Chou: Yes, I believe so. Just like my description above, that fundamental learning is very important. And just as I said creativity is an "inspiration" and it can be accumulated. It doesn't matter if from the teaching, self-learning or our surroundings, creativity can be learned or assimilated from everywhere.

internal improvement

M: The next question.... The workshop is coming next week. Before the workshop, what do you expect to gain from this coming PT workshop?

Chou: Hmm... as I said that creativity can be explained in multiple ways, so that I cannot describe what I have now... The reason I would like to attend this workshop is hoping to help develop myself particularly while I am preparing my artworks for my graduate exhibition or future career.

personal ART

M: All right! Thank you. Do you have any question to me?

Chou: Yes. I would like to know more about this PT creative pedagogy workshop? Will you add anything from this interview into your content?

M: Basically, the content of the workshop is based on the outlines I gave to you last week, but I really hope to know about your interests to enrich the workshop. I think that everyone has different conceptions of creativity, yours may be different from mine, just as there are thousands of definitions of creativity in literature, but there is nothing about right or wrong. So maybe leave your conception of creativity behind, and give yourself a free mind to accept other ideas of creativity!

4

Appendix H-2 An Example of Post-workshop Interview Transcriptions

APPENDIX:

INTERVIEW TRANSCRIPTION – 廖某 (2)

Date of interview: 2010. 03. 10 12.15pm
Place: Conference Room at NTUA

M: Melanie (interviewer)
Liao: Interviewee 廖某某

[The content of this interview was selectively transcribed with relevant information to the interviewer's questions, omitting some irrelevant conversation.]

M: The first question I would like to ask is after the workshop, what you mean by creativity.

Liao: Now I think creativity is a change; for example for student, change is when they get information from teacher, they can accept it but transform the information by using their own way to process.

M: Do you find any differences from you thought before and after the workshop?

Liao: hmm... after the workshop I realised that creativity actually needs to be built up from a foundation. I think that before I always focus on seeking an innovative and different idea and expression which I used to believe this is creativity. But now, I more believe that a sufficient capacity and training actually brings more powerful creativity.

M: Thanks. Then after the workshop what do you mean by creative pedagogy?

Liao: ...right, I think that creative pedagogy is a teaching way in which teacher using holistic method to inspire students learning and creating thinking. More specifically, teacher not just follows the textbooks in his/her teaching, he/she takes the essence and the key points from the textbook and uses innovative way to teach his/her students. The most significant part in the this pedagogy I think is that teacher using creativity and inspiring activities to engage student creativity and learning step by step and posing questions and... Therefore, this is a teaching method which is very different to the traditional teaching way. Teacher not only has to be familiar to the teaching project, and also should be able to plan the teaching by considering the students ability and interest.

M: Do you find any differences from you thought before and after the workshop?

Liao: As I just mentioned, before my thought, just focused on the surface, for example, I always focused on the outcomes/results after the change, so that I did lots of the efforts on seeking the interesting ways to make my teaching attractive and original. But I forgot the key point is the meanings of the

M: The next question is after the workshop, can you tell whether your students engage in creative learning or creative thinking? And how we teach? What we teach? And how we teach? And this is the most significant reflection I learned from you. Another, I also learned the importance of creativity in visual arts education. Of curse I believe how important the creativity is in visual arts education, but I think before I didn't really think about it, and sometime I even thought while students are working on arts, their creativity are developing or showing... after workshop I just realised creativity needs to be nurtured by... effort by creating some certain teaching strategies in an enable learning environment.

Liao: I think that we can tell it from students faces and actions; for example, do they concentrate on their thinking/making/discussing? Are they interested in their work? And their participation in it. Besides... their artwork is also another important standard to assess their creativity. But after workshop they... I have learned not only assess from their final product, not I, as a teacher, have to focus on the process, such as how they planed their artwork... Have they done their best to make their artwork? Have they challenged themselves and tried to create their work in a different way?

M: Have you thought about how to apply it into your teaching?

Liao: Yes, I would like to. Because I think this is a pedagogy which more focus on... between learner and also provides a stage for the interaction and teacher to students teaching. The creative pedagogy is teacher not only to each students, but also can get feedback from students, in the process it actually creates more learning to both teacher and students.

M: The next question is, do you have confidence to foster young people's creativity after the workshop?

Liao: I never thought about it, but at least I know that I would like to make more effort to achieve it. Because I think in a real teaching, even just explain a phenomenon, it still requires skills. And I think that particularly I need to practice more how to ask questions in order to inspire students' imagination. Even though we have learned a lot in the workshop, I believe that it is still different from a real classroom. Hence, it probably will be better if we can have more practice in the workshop then I can have more confident to use it in my real practice.

M: So do you feel that the workshop was too short, so that you felt not enough in practice?

Liao: Yes, exactly. I think this is very important in teacher training that we have to practice more, and then we can understand what teaching method is suitable to us. Also, more practice brings more confidence and help us to apply the teaching method more proficiently.

M: O.K. Is there a concept, or anything, you learned in this workshop that you think is useful for your future teaching?

Liao: The first thing comes to me is the mind map. I think this is very useful to me and can be used in anywhere for anything. This mind map for me is quite new and I didn't really see it or use it in my learning before. I think that's because the mind map actually quite open up our thoughts and most teachers will feel afraid that they can handle students' thoughts if they have too many open thoughts from this mind map. Therefore, if teacher has the ability to manage it, the mind map will be a fantastic way to inspire students' creative ideas.

M: Right, mind map is really good for students to brainstorm their work and open up their thought!

Liao: And this really helps students to think about many possibilities. The best thing is that this mind map also provides the choices for students and helps them to make they thought more logical by using divergent and convergent thinking as we did in the workshop.

M: Well, It will be more powerful if you use it in groups, because more ideas come out!

Liao: Right!!

M: The final question, do you have any suggestions of how to improve our workshop?

Liao: hmm... maybe as I mentioned above, this workshop was too short! I think this is a really useful workshop. If it can be continued or extended to our teaching placement and even until in-service teacher training, teachers then can grain more from you!

M: Do you think this workshop was useful to you?

Liao: Sure. Even though I am studying in the teacher training programme and some of courses also provided us opportunities to do teaching practice, the tutors actually didn't give us as clear feedbacks as you gave us in the workshop... maybe we have too many students in one course. Hence, I didn't really gain a lot from the courses, not only in teaching practice, but also in our thought and even in the teaching plan as well. But, in our
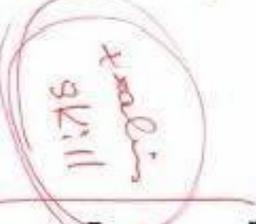
workshop, we were divided into small group, so that we not only had your attendees, but we also can learn from our partners. I would like to say that I felt more comfortable to be in the workshop because I really learned a lot!

M: So under this training, would you like to try to use this pedagogy into your teaching?

Liao: I think I would like to. Because in these weeks in the workshop even we were being as students, this actually likes being observation to your teaching. And in which I was student and I felt happy and interested in the whole learning process. So I really would like to bring this experience to my students in the future.

M: O.K. Do you have any question?

Liao: hmm...can I say something about my reflection that from our last teaching practice section in the workshop. I found that teacher has to make sure whether students can understand and follow the context the teacher gave, and then students can really engage in the learning activity. The reason I mentioned this is because I found most classmates who were doing the practice always couldn't explain or give a clear order so that I, as a student, was often confused what to do!

M: Right, this often happened on a student teacher or a newly teacher when doing teaching practicing or teaching. I am glad that you noticed this point! Actually this problem can be solved by self-observing a video record, peer observation, or more prepare and more practice. Taking myself as an example, I actually spent much time on preparing our workshop, including what kinds of questions are appropriate? When to post these questions? What kinds of answers I may get back from you? Does the answer match with my purpose? What kinds of activities I can use to enhance your learning? And so on... such as lots of things I, as a teacher, have to think about it and prepare it for my teaching.

Liao: It sounds really difficult! I think I really have to practice more and consider more!!

Appendix I A Plan for Possibility Thinking in Teaching and Learning Workshop

Date	Rough Plan
01/03 March	Talk- seeking participants (12 student teachers)
08 March	PT in T and L workshop meeting (20 mins)
08-12 March	**Pre-interviews (10-15mins/ each participant)**
17 March (90 mins)	**Session 1 Creative Teaching** 1. What does CT mean to you? 2. The meanings of teaching creatively, T for C and CL 3. The discourse of Creative Pedagogy in this study 4. How can we create innovative teaching? ■ **Activity: Let's be creative: planning a teaching plan** (Teaching map (Appendix G-1), Teaching draft plan (Appendix G-2), and Teaching plan (Appendix G-3))
24 March (90 mins)	**Session 2 Creative Learning (Teaching for creativity)** 1. T for C and CL 2. What is creativity? Can it be taught? 3. Possibility thinking (PT) is the core of creativity 4. PT creative pedagogy
31 March (90 mins)	**Tutorial- designing your teaching plan** ■ **Informal Feedback A from students**
07 April (120 mins)	**Session 3 Integrated arts project- Welcome to my hometown: Penghu** 1. Introduce artist- Wassily Kandinsky; **Activity 1: "Let's be Wassily Kandinsky".** 2. Welcome to Penghu; **Activity 2: Making a piece of artwork- "Belong to Penghu images".** 3. Introduce artist- Paul Klee; **Activity 3: "Background- Paul Klee".** 4. Brief introduce what/how to integrate with other art forms; **Activity 4: "Visualising music! Composing art!"**
14 April (120 mins)	**Session 4 Creative assessment in the arts** 1. Creating a joint-groups artwork 2. Final performance 3. How can we assess creativity: final product or process? 4. What criteria and tools can we use to assess creativity? ■ **Activity: A. Group: the assessment criteria (Appendix K); B. 2 stars and 1 wish** 5. Sketchbook and portfolio assessment ■ **Informal Feedback B from students**
21 April (90 mins)	**Session 5 Teaching practice** 3 groups (30 mins/per group: 20 mins practice+ 10 mins discussion and) ■ **Feedback (Appendix L)**
26-28 April	**Post-interviews (10-15mins/ each participant) -** Collecting reflective logs/sketchbooks
Assignment (Group Discussion Questions)	**A: The role of the art teacher: Do they have to be creative?** **B: What do you think of creative pedagogy? Do you think it is workable in school practice?** **C: What creativity was covered in today's session?** **D: Does creative pedagogy mean to foster students who could produce creative products?**

Appendix J   PowerPoint Slides Used in the Workshop Sessions

Session 1 Creative Teaching

POSSIBILITY THINKING CREATIVE TEACHING & LEARNING WORKSHOP

2. 如 何 教 的 有 創 意?
HOW CAN WE CREATE AN INNOVATIVE TEACHING?

使用想像力的方法將學習變得更有趣.更令人期待.更有效。...而這樣的教學不僅可以點燃孩子的興趣,同時更能引起他們的學習動機。

◎ 同學經驗分享

POSSIBILITY THINKING CREATIVE TEACHING & LEARNING WORKSHOP

■ Activity 1:

哇!!! 原來素描可以這樣上!!
Let's be creative: an innovative teaching example

POSSIBILITY THINKING CREATIVE TEACHING & LEARNING WORKSHOP

■ Activity 2:

我們都是創意尖兵: 教案設計
Let's be creative: How to plan our teaching
(use the concepts of PT)

POSSIBILITY THINKING CREATIVE TEACHING & LEARNING WORKSHOP

■ 運用發散性思考和聚斂性思考來建構我們的教案
Divergent thinking and convergent thinking

主題 Theme
發散性思考 Divergent Thinking
教學點子 Ideas
聚斂性思考 Convergent thinking
教學點子 Ideas
教學位置 Teaching Project

■ 運用發散性思考和聚斂性思考來建構我們的教案
Divergent thinking and convergent thinking (see the examples of Teaching map and Teaching draft plan)
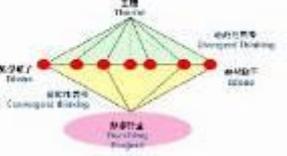
1. 使用" 訪問自己" 的方式來延伸教案的點子
Using "Questioning yourself" to expend/develop the ideas for your teaching plan
例如: 有什麼題目可以連結到這個主題呢? 有什麼材料可以用來教學?
What topics may link to the theme? What materials can I use to teach?

2. 使用" 訪問自己" 的方式來檢視並確認教案設計及教學
Using "Questioning yourself" to locate the ideas for your teaching design and practice
例如: 有什麼題目是適合我的學生呢? 什麼樣的教學活動如可以用來引起動機呢?
Which topic suits to the age group? What teaching activities can be developed by using the staring point/materials...from the teaching draft plan?

SEA
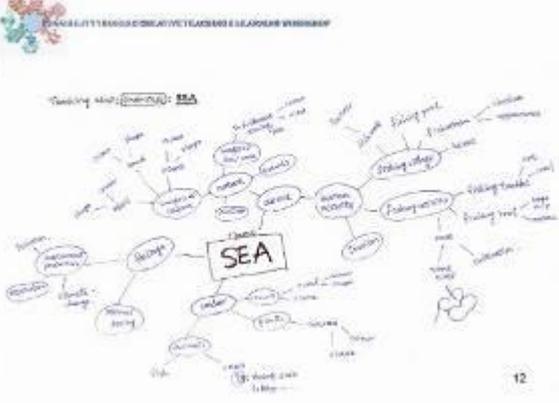
Possible starting point:
- Visual/hearing:
  - Using artists' artwork
  - Storytelling
  - School trip
- Thinking:
  - Issue discussion

Learning outcomes:
1. can express the image of the seafront with appropriate tools...
2.
3.

Possible technique:
Drawing:
Printmaking
Mixed media...

THEME 歡迎參列我的家鄉:深圳

Possible artists/artwork:
- Mei-Chu Cheng鄭美珠
- Ching-Hsiang Hsu 許景翔

Possible materials:
Drawing: watercolour, colour ink, adhesive tape...

Possible presentation final artwork:
- Form:
  - 2D: watercolour painting...
  - 3D: mixed media...
- Content:
  - Stones in the seafront...
- Style:
  - Impressionism
  - Realism
- Others

Possible assessment:
- Self-assessment:
- Peer-assessment:

Possible integrated arts:
- Drama
- Dance
- Music

Session 2 Creative Learning

Activity 1:

這些創造力的定義有什麼相同或相異處呢?
哪一個定義是你最認同的?為什麼?

WHAT ARE THE DIFFERENCES AMONG THESE DEFINITIONS
OF CREATIVITY? WHICH ONE YOU PREFER? WHY?

---

3. 如何啟發學生的創造力?

HOW TEACHERS FOSTER PUPILS' CREATIVITY?

Dimensions of creativity

個人的
Individual
creativity

團體的
Collective
creativity

發明及創造的
Invention

轉化的
Transference

個人的
Individual

創新的創造力
Invention

轉移的創造力
Transference

合作的
Collective

Dimensions of creativity

個人的
Individual
creativity

團體的
Collective
creativity

領域特殊的
Subject-
specific

一般的
Generalized
creativity

個人的
Individual

專門科目
Subject-Specific

一般的創造力
Creativity
as General

合作的
Collective

CREATIVITY IN EDUCATION

- 發問 Posing Questions
- 連結 Making connections
- 具想像力 Being Imaginative
- 探索意見 Exploring Options
- 沉浸於批判性的反省 Engaging in Critical Reflection/ Evaluation

(QCA, 2005)

創意學習可以發展學習者的想像力,而其成果具有原
創性及有價值性,但需經由適當的觀察者來評斷。

Creative learning develops our capacity for imaginative
activity, leading to outcomes judged by appropriate observers
to be original and of value.

Spendlove, D., Wyse, D., Craft, A. and Hallgarten, J. (2005) Creative Learning.
Unpublished working document, May 2005. Cited in Craft, A. (2005). *Creativity
in Schools: Tensions and Dilemmas*. Abingdon: Routledge

Session 3 Integrated Arts Project

RuLeS

- LINES · SHAPES · CLOURS -

■ **Activity 3:**

BACKGROUND: PAUL KLEE

VISUALING MUSIC! COMPOSING ART!

GaME!

■ **Activity 4:**

WE ARE COMPOSERS!!

AnD nOw…
…CREATE!

Session 4 Creative Assessment in the Arts

Appendix K　Group Assessment Criteria (Session 4 Creative Assessment in Art)

評量 **PT** 創造力的標準及細則 **Assessment Criteria and Guidance (Completed by group)**

期望的學習成果 **Intended Learning Outcomes**			理想達成目標的標準 **Criteria for satisfactory completion**
成果 **product** (　知識、情意、技能)		在這個單元/課程，學生能夠… **In this lesson/session, students will be able to:**	當學生做到/達成/顯示… **Students will provide evidence of:**
	1	提出問題 **Posing questions** 遊戲 **Play** 沉浸、專心 **Immersion** 革新、創新 **Innovation** 冒險 **Risk-taking** 富想像力 **Being imaginative** 自我決策 **Self-determination**	
	2		
	3		
	4		
過程 **process** (　知識、情意、技能)	**5**	提出問題 **Posing questions** 遊戲 **Play** 沉浸、專心 **Immersion** 革新、創新 **Innovation** 冒險 **Risk-taking** 富想像力 **Being imaginative** 自我決策 **Self-determination**	
	6		
	7		
	8		
其他 **Others** (　知識、情意、技能)	**9**		
	10		
	11		
Teacher's Self-Reflection 教師自我教學反省			

Appendix L   The Analysis of the Group Performances

Evaluation Form: Group A

試教評量表 Teaching Evaluation Form

組別 Group: A   試教主題 Topic: Piet Mondrian

在這個單元/課程，我是否做到… In this session, I support students in …ways	我是否用…方式協助學生達成… do I support students to … in … way
學生為中心的教學方式 **Standing back** ☑ Only teacher talked throughout the whole performance → could use Qs, activities to interact with learners ⊖ teamwork → But without observing while learners are working → gave full freedom, but less attentions	提出問題 **Posing questions** •= Do you know the artist, Piet Mondrian?" •= what the differences between his works & others?" *Closed & unclear Qs (can't inspire learner's thoughts) ⊕ be aware the content of Q < main Qs / sub-Qs ② No chances for learners to answer. 遊戲 **Play** / *Playfulness* e.g. vivid P.i.P.
創造及提供學習的機會 **Creating and offering opportunities** (e.g. Time and space) ⓐ challenge : many materials & buttons to make work _(black pen, one pigment)_ ⓑ Time : many information in a limited time → suggest to choose main focus & offer opportunities to explore artist works, rather than teacher-provided information solely	沉浸・專心 **Immersion** - learners engaged in group artwork making yes. 革新・創新 **Innovation** yes. group artwork was innovative. → suggest to summarise the key features of artist's works in order to provide a clear content for learners to create their own work.
設計學習活動 **Providing learning agency** ◦ teamwork ◦ offer a chance to present their work — but without proper feedback	冒險 **Risk-taking** challenge (button, time, black pen, one pigment) 富想像力 **Being imaginative** while learners made / explained their work. • But for teaching plan (No) → only copy artist work
適合學習的情境 **Enabling learning context** Yes - surface positive encouragements but less cares on learner's reactions or what they created works. (how)	自我決策 **Self-determination** while discussed group work! (teamwork) 行動意圖 **Action-intention** while created group work.' (But not clear)

教學內容是否符合該組所設訂的教學主題及教學目標？
Does the teaching coherent to teaching topic and targets?

Yes. But more in relation to let learners copy the artist work, rather than to discover the features of Artist's work & to use them to create their own works.

2 Stars and 1wish ☺
2 stars : ① provided many materials.
     ② offered a chance to let learners present their works.

1 wish : ① the space for students to develop their creativity.
     ② the explanation was not clear, so that students got lost in the learning process.

The Records of the Analysis: Group A

Records of PTCP / PT in Group Performances

Group: A

The features of PTCP	The features of PT
Standing back / (while students making artworks. but teacher ① took rest → not to watch their working) ② watch their working.	**Posing questions** • Yes- or - No Qs.: //// **Teacher:** • Open- ended Qs. > ////| //// • Standard answered Qs : //// **Students:** : • Responding Qs : //// → to student · Qs Responding Qs : ////| // (only answered standard Qs. to teacher posing Qs : //// (due to unclear task explanation) **Play/playfulness** (eg. vivid pictures on P.P.) **Teacher:** / **Students:** / (while making work)
Creating and offering opportunities challenges: //// (time, button, only black pen; one pigment) offering opportunities: //// (group work. material) — encourage students to explain their work. but teacher asked. students answers) — posed Qs to let students to observe artist's work.	**Immersion** **Teacher:** **Students:** // (e.g. while looking at artist's work. creating work) **Innovation** **Teacher:** **Students:** // (while making work) while explained their work
Providing learning agency • group work / • individual work	**Risk-taking** offering challenges //// **Teacher:** **Students:** //// (button. time, black pen) one pigment **Being imaginative** **Teacher:** **Students:** // (while making work) while explain their work
Enabling learning context • positive encouragements: /// • Positive learning climate / (full freedom)	**Self-determination** **Teacher:** **Students:** / (while discussed their artwork) **Action-intention** **Teacher:** **Students:** / (making artwork)
Others	

Evaluation Form: Group B

試教評量表 Teaching Evaluation Form   (leaf - rubbing)

組別 Group: **A**   試教主題 Topic: Making clothes

在這個單元/課程，我是否做到... In this session, I support students in ...ways	我是否用...方式協助學生達成... do I support students to ... in ... way ↑
學生為中心的教學方式 **Standing back** - while students making leaf-rubbing & clothes → (clear instructions to introduce students how to do but may △ suggestion: limit to their creativity. give the learning ownership back to students (e.g. open to students to discuss & decide how to do, or pose Qs to inspire students to find the ways	提出問題 **Posing questions** · Do you know what we're going to do today? → general, no meaning (e.g. "Have you had an experience to make a coin-rubbing?" = How to make a piece of paper become clothes? can we make a hole in the middle of paper? → the quality of Qs ① need to give opportunities to answer, not by teacher. ② more works as ·
創造及提供學習的機會 to make it !!) **Creating and offering opportunities** (e.g. Time and space) , clothes leaf-rubbing, paper / making clothes. challenge: time / presentation Control the tempo of activity could be (time) a good way to well-manage students' learning.	遊戲 **Play** interesting content that close to students' life experience. ⊙ making clothes. ⑧ fashion show. 沉浸、專心 **Immersion** yes. 革新、創新 **Innovation** making clothes. leaf-rubbing. yes.
設計學習活動 **Providing learning agency** ① individual work - making leaf-rubbing on sketchbook & on paper ② group work - making leaf-rubbing & clothes. explaining clothes.	冒險 **Risk-taking** limited time. yes. 富想像力 **Being imaginative** making clothes & exploring clothes. yes.
適合學習的情境 **Enabling learning context** positive encouragement free learning climate. Joyful. (e.g. fashion show. making clothes) very interesting examples. jokes. superise (content) ask no meaning Qs → catch students attentions.	自我決策 **Self-determination** (discussion) yes. 行動意圖 **Action-intention** yes. making clothes; leaf-rubbing
教學內容是否符合該組所設訂的教學主題及教學目標? **Does the teaching coherent to teaching topic and targets?** yes.	

2 Stars and 1wish ☺

2 stars : ① CT.
② provide space for students to create their own clothes.

I wish : ① the ways to guild students (making clothes) → making hole !!
② not to offer opportunities to students to answer Qs.

389

The Records of the Analysis: Group B

Records of PTCP / PT in Group Performances

Group: B

The features of PTCP	The features of PT
Standing back /// *while students (making leaf-rubbing, clothes, fashion show).* *(give suggestions how to make leaf-rubbing)*	**Posing questions** yes- or NO Qs: //// open-ended Qs: ╫╫ *(too general, or more focus on memory(sig))* **Teacher:** Standard -answer Qs: /// Responding Qs: ╫╫/ ② *answered by teacher self)* **Students:** Responding Qs: ╫╫ *(more answer standard-A Qs)* posing Qs: **Play/playfulness** — *using interesting example from daily life (TV show.* **Teacher:** // *— explaining how to make leaf-rubbing* **Students:** /// *making leaf-rubbing clothes fashion show.*
Creating and offering opportunities *→ clothes) (paper → clothes)* challenges: // *(limited time)* offering opportunities ./// *while students (making clothes & presentation). & .leaf-rubbing*	**Immersion** **Teacher:** **Students:** Y//// *while listen to teacher's talk. making leaf-rubbing. clothes .fashion show* **Innovation** **Teacher:** **Students:** // *making clothes. leaf-rubbing.*
Providing learning agency • individual work / *(leaf-rubbing)* • group work ./// *(leaf-rubbing.) clothes presentation*	**Risk-taking** *(offering challenges)* **Teacher:** ///. **Students:** // *(completed clothes. in limited time) paper → clothes* **Being imaginative** **Teacher:** **Students:** // *making clothes., presentation*
Enabling learning context • positive encouragement : ╫╫ *(conclusion).* • enabling learning climate: ╫╫ //// *(joyful. surprise. use jokes. use example* *(x2) context →(use leaf to make clothes)* ask no meaning Qs → catch students attention, classroom management .	**Self-determination** **Teacher:** **Students** / *— discussion* not clear **Action-intention** *demonstration → leaf-rubbing clothes.* **Teacher:** //. **Students:** // *(making leaf-rubbing. clothes)*
Others *demonstration → teaching skills.*	

Evaluation Form: Group C

試教評量表 Teaching Evaluation Form *making cards for (Mother's Day)*

組別 Group: C   試教主題 Topic: *Mother's guardian angel*

在這個單元/課程，我是否做到… In this session, I support students in …ways	我是否用…方式協助學生達成… do I support students to … in … way
學生為中心的教學方式 **Standing back** — while students carried on the role play, & made card. ② gave a clear guidance to let students do role play → open spaces to let them develop their ideas. ② without guidance, no limitation does not mean foster creativity. more teacher focused approach.	提出問題 **Posing questions** ② *who is mother's guardian angel?* the main Qs in this project?! but didn't link to the purpose of card making & the content of this project. 遊戲 **Play** / play fulness → role play. watching the video teacher → students
創造及提供學習的機會 **Creating and offering opportunities** *limited.* (e.g. Time and space) — role play → make a story → lead student to imagine being a mother. ➤ full free to make card.	沉浸、專心 **Immersion** ① role play. ② while watch the video
	革新、創新 **Innovation** role play. made cards → ie was too open to students …. could be an limitation perhaps. no every students has the ability to create a card themself
設計學習活動 **Providing learning agency** role play → group work. made card → individual.	冒險 **Risk-taking** role play in limited time yes.
	富想像力 **Being imaginative** role play. making card.
適合學習的情境 **Enabling learning context** positive encouragement. positive climate. (joyful. playness) (role play)	自我決策 **Self-determination** — role play.
	行動意圖 **Action-intention** — role play. making card.

but need to consider what the main purpose of this project.

教學內容是否符合該組所設訂的教學主題及教學目標？
Does the teaching coherent to teaching topic and targets?
- what's the main purpose & activity in this project?
  - → How role play linked to this teaching?
  - → or the main Qs war wrong?

2 Stars and 1 wish ☺
2 stars: ① using role play to inspire students thought ‼
    ② joyful learning climate.
1 wish: ① "how to make card" may need more attentions on it? to pay
    ② the content did not coherence to the main Q!

The Records of the Analysis: Group C

Records of PTCP / PT in Group Performances

Group: C.

The features of PTCP	The features of PT
Standing back /// • while students watching video. • (using Qs) to inspire students thinking • role play (students?) → discussed with students, but ☆ also teachers role ← may influence their thought? play may influence	**Posing questions** Yes-or-No Qs: // **Teacher:** open-ended Qs: //// → continued Qs. Standard-A Qs: //// // (answered by teacher) **Students:** Responding Qs: //// (make sure student under) ASK Qs: Responding Qs //// // (standed answers) open-end Qs. ////
Creating and offering opportunities limited time challenges: // (time, a role play. & students) offering opportunities: /// • using video & Qs to inspire students to think • role play → but not enough discussion to link to the purpose	**Play/playfulness** - role play **Teacher:** // - video **Students:** // (while watching video) role play. **Immersion** **Teacher:** **Students:** ///. (while watching p.p. video) " doing role play making cards? **Innovation** using video. **Teacher:** / **Students:** / role play
Providing learning agency • individual work: / (make card). • group work : / (role play)	**Risk-taking** (offing challenges) **Teacher:** **Students:** // (role play in limited time). **Being imaginative** **Teacher:** **Students:** // (role play. cards).
Enabling learning context • posing encouragements: //// • enabling learning climate: //// // joy feel, playful. (make sure students ↓ understand what video • teacher's role play the activity • student's role play. works)	**Self-determination** **Teacher:** **Students:** /. (how to make role play) discussion **Action-intention** **Teacher:** / (role play → demostration?) **Students:** // (role play. make cards)
Others — while students didn't answer the Qs, what to do?	

Appendix M-1   Definitions of the Themes & Codes toward Creativity

Identified in the Pre- and Post-Workshop Interviews

Table A Pre-Workshop Interview: Visual Art Participants

Code	Code Definition
Theme 1: General concepts	**Visual art student teachers' general images of creativity**
1-1 Nature/ natural/both	Visual art participants' views of whether creativity can be fostered
1-2 Art based/ general based	Visual art participants' views of how they look at creativity in domain, including art or general -based
1-3 Personal experience/ opinion	Visual art participants' views of what shaped their creativity, including personal experience or opinion
1-4 Degree of creativity	Visual art participants' views of how they look at creativity in different degrees, including pro-c, little c and mini-c
Theme 2: Characteristics	**Visual art student teachers' views of the characteristics of creativity or what can be called creative.**
2-1 Definitions of creativity	Visual art participants' definitions of creativity, including originality, innovation, imagination
2-2 Attitudes toward creativity	Visual art participants' attitudes toward creativity, including facing challenges, self-determination, and problem-solving
Theme 3: Process & product	**Visual art student teachers' views or experience of creativity in teaching and learning, including process and product-focused**
3-1 Process	Visual art participants' views or experience of creativity in relation to process
3-2 Product (through an object)	Visual art participants' views or experience of creativity in relation to product

Table B Post-Workshop Interview: Visual Art Participants

Code	Code Definition
Theme 1: General concepts	**Visual art student teachers' general images of creativity**
1-1 Art based/ general based	Visual art participants' views of how they look at creativity in domain , including art or general based
1-2 Degree of creativity	Visual art participants' views of how they look a creativity in different degrees including, pro-c little c and mini-c
Theme 2: Characteristics	**Visual art student teachers' views of the characteristics of creativity or what can be called creative.**
2-1 Definitions of creativity	Visual art participants' definitions of creativity, including originality, innovation, imagination
2-2 Attitudes toward creativity	Visual art participants' definitions of creativity in relation to attitude
Theme 3: Process & product	**Visual art student teachers' views of creativity in teaching and learning, including process and product-focused**
3-1 Process	Visual art participants' views of creativity in relation to process, including a starting point
3-2 Product (through an object)	Visual art participants' views of creativity in relation to product, including positive outcomes, being meaningful, foundation training
3-3 Process, product, or both	Visual art participants' views of the criteria of creativity or what can be called creative while observing other's creativity, including process, product, or both

Appendix M-2   Coding of Pre-Workshop Interview Data: Creativity

RQ 1: What are the perceptions of the participants regarding creativity and creative pedagogy employed in the workshop?

1.1 What are their perceptions of creativity and its pedagogy before the workshop?

Open codes	Analysis	Axial code	Final code
Chou: 1. in creating an artwork, creativity is an inspiration or a thought (it comes/happens by chance and is unexpected… maybe one day you get an idea suddenly. hmm…I believe that it must exist and should be hardly prepared, but I cannot describe clearly when and where it exists) 2. creativity is related to personal experience, and for me it is more in art 3. creativity can be a personal style appearing in your work, so that people can easily tell the style from your artworks 4. creativity is that it must be trained or cultivated through a period of fundamental learning which can be skill or internal improvement…, and then people can have the capability to produce a creation	• art based • an inspiration/ thought • personal experience • personal style in your work (original; product) • process of learning and finding style • fundamental learning which can be skill or internal improvement • nurture • mini-c & pro-c	• art based(3)/ general(4) • Personal experience (7)/ opinion (0) • an inspiration/ thought/idea (3) • through an object (3) • fundamental training (knowledge, skill or internal improvement) (4) • nurture(4)/ natural/ both(3) • original(4) • innovative(3) • process(3)/ product(3) • imagination (2) • problem-solving (1) • challenge(1) • self-determination(1) • positive outcome (1) • transform/ connection (1) • big c (0)/pro-c (3)/little-c (2)/mini-c (3)	**General concepts** - **Nature/ natural/both** - **Art based/ general** - **Personal experience/ opinion** - **Degree of creativity (big c, pro c, little C and mini c)** **Characteristics** - **Definitions:** Originality, Innovation, Imagination, Connection/ transformation - **Attitudes:** Facing challenges/ risk-taking, self-determination
Liao: 1. use my own way to complete or carry out a task in a novel way 2. Because creativity for me means something different from the normal; to change 3. not only in making art, creativity is important as well in doing anything 4. how can I deal with the same materials or topics and give a new meaning to my work…I often deliberate upon what to do, and I think that the process of my thinking is also the process of creativity. 5. part of creativity is inborn, and it does not just appear	• general • your own way (original) • through an object • making experience • innovation • change • giving a new meaning • process of thinking/doing • natural and nurture • little -c		
Chien: 1. Creative capability which is about our innate talent and also needs acquired effort	• ability • natural and nurture		

			Process & product
2. creative capability **3.** Because I've learned art since I was a child, creativity is always an important concern **4.** I think that my talent is in realism…haha.. This style may have attracted people's attentions when the camera hadn't been invented…But in this technologic time… **5.** Especially art includes everything and art is flexible and creative **6.** They were not born as creative persons; they were fostered in their creativity while they were learning art or other subjects, and maybe from their personal life experience **7.** There are several fields which also need creative ability, such as people working on the radio, television and film…Many fields …any work which doesn't deal with numbers. For example, management also needs creativity	• general • art-based • learning experience • creativity is abstract form in art • creating something new (innovative) • **learning art can increase creativity** • personal life experience • pro-c		**Process:** - thought/ idea/ inspiration/ motivation: (e.g. Problem-solving, no limitation) **Product (through an object):** - **Positive outcomes** - **Fundamental training:** skill, knowledge, personal experience or improvement
Chao: 1. Creativity is an interest to create a piece of art **2.** I think that it may be in relation to my life experience. **3.** It must need some foundation to help me work better **4.** While I am making my paintings, I still follow the ideas of the traditional principles in Chinese brush paintings from our history. **5.** It (creativity) should be built on prior knowledge or skills. Why I taught students these skills in this lesson, because it is very important for them to learn fundamental skills. And I believe that these skills will have significant outcomes in their future art career **6.** I only can say that… education or teaching can only improve 50%, and another 50% comes from the students themselves…I think it depends on how hard they work on their work, or even through their reading or learning, or how strong the feelings or emotions are that they feel in their life experience.	• art based • through an object • life experience • fundamental training • to break the tradition (original) • innovation • positive outcome • nurture (teacher and student self) • pro-c		
Young: 1. First-hand presentation from your creative ideas which may be stimulated by something or comes from the person him/herself **2.** Actually even just a piece of unfinished drawing also presents creativity. But it does need to be expressed through something that people can see and feel. **3.** I would like to write whatever I like through the 'blue-sky thinking'; that there are lots of interesting or imaginative fantasies.	• general • ideas • originality • transform/ connection (?) • through an object but doesn't matter whether		

396

4. Sometimes you make an artwork, actually you have been influenced by something, so that it is not original indeed. 5. I think that this idea comes from me, and from my learning experience 6. This work must come from my soul…It may be similar to someone's work because people may have analogue daily experiences. But still this work has to come from you, and is not influenced by something. 7. I believe that creativity can be fostered through education. It just depends on how and what you inspire them with, so that I think the key factor is the teacher.	an unfinished or brilliant work • blue-sky thinking • imagination • learning experience • nurture • mini-c
Wu: 1. Creativity is to express whatever you think… not to be limited. 2. I remember that once I made a clay piece… Another experience … But my parents sometimes said: "I like the house you built yesterday!!" Hence, I would follow their likings and build certain houses day by day in order to please them. However, I don't think this is being creative!! 3. It became difficult for me to face challenges 4. 70% of creativity can be fostered through education or efforts, but 30% of creativity is still innate 5. in my point of view, 30% of creativity comes from inborn talent, and only 70% of creativity can be made efforts for	• general • thoughts/ideas • no limitation (self-determination) • personal experience (original) • facing challenge • natural (70%) and nurture (30%) • mini-c –little c
Liu: 1. It usually comes from a problem happening, and then we may find ways to solve this problem. And "the process" that we are finding the solutions or solving the problem is creativity. It may be just one problem, but there may be more than one solution... 2. I think it may be in relation to … that I have always taken part in art competitions since I was little. … I have been trained to find the solutions or the best way to solve or complete this task. 3. It can be accumulated by time and age. Let's say it is a "profundity of life"!! The so-called "profundity of life" can be explained as personal experience. The more experience you gain, the more feelings you can express, or the more expressions you can present through your work. 4. (example of pastries)	• general • personal experience • problem-solving • process of solving the problem • personal experience enhances creativity • nurture • imagination • little c

Appendix M-3   The Overview Findings of the Visual Art Participants'

Perceptions of Creativity in the Pre- and Post-Workshop

Interviews

A. General Concepts

- creativity is nurtured (4), natural (0) or both (3)
- the general-based (4) and art-based creativity (3)
- personal experience (7) or opinions (0) toward creativity
- Degree of creativity:
  - big-c (0), pro-c (3), little-c (2), and mini-c (3)

Pre-workshop interviews

Creativity
7 student teachers
in Visual Arts group

C. Process & Product

- **Process**
  - A starting point: thought/inspiration/ability/interest/ideas (4):
  - process (3) (e.g. processes of problem solving and thinking, change)

- **Product**
  - through an object (3)
  - Presentation/style (3)

＊Both process and product need fundamental training (4) (e.g. skill, knowledge, personal experience or improvement)

B. Characteristics of Creativity

- **Definitions of creativity:**
  - originality (4), innovation (3), imagination (2)
- **Attitudes toward creativity (3)** (e.g. facing challenge/risk taking, self-detemination, problem-solving)

Diagram A An overview findings of the visual art participants' perceptions of creativity

A. General Concepts

- the general-based (6) and art-based creativity (1)
- Degree of creativity:
  - big-c (0), pro-c (2), little-c (5), and mini-c (5)

Post-workshop interviews

Creativity
7 student teachers
in Visual Arts group

C. Process & Product

- **From the participants' descriptions**
  - Process
  - A starting point (5) (e.g. creating, problem solving)
  - Process (4) (e.g. process of working)

  - Product (through an object) (5)
  - being meaningful (2)
  - foundational training (2)
  - positive outcome (1)

- **From the criteria of defining creativity**
  - Process (1), Product (2) or Both (4)
  - Process: Attitudes/actions/responds toward creativity: (Immersion (8), self-detemination (6), intention (6), playful/joyful (5), confident (4))
  - Product: through an object

B. Characteristics of Creativity

- **Definitions of creativity:**
  - innovation (5), originality (5), imagination (3)
- **Attitudes toward creativity (4)** (e.g. confidence, intention, joyful, self-determination)

Diagram B An overview of the categories after the workshop

Appendix M-4   Coding of Post-Workshop Interview Data: Creativity

RQ 1: What are the perceptions of the participants regarding creativity and creative pedagogy employed in the workshop?

1.2 What are their perceptions of creativity and its pedagogy after the workshop?

Open codes	Analysis	Axial code	Final code
Chou: 1. A systematic thought, needs to be carried out step by step. 2. Someone's work with innovative ideas or different expressions 3. Actually you will be surprised how wonderful and imaginative their drawings are, and the details they have actually observed and felt 4. To define creativity, I feel that it is very difficult to give a clear definition because it involves too many meanings. I can't find an exact definition for it. Before the workshop, I may think creativity is just a change, but after I found this is meaning may just be part of definitions for creativity. There too many things I have to care about when I would like to foster students' creativity.	• general • a systematic thought • innovation • through an object • original • imaginative • intention • mini-c • product	• art based(1) general(6) • thought/idea/way/ expression (5) • innovation(5) • through an object(5) • original(5) • imagination (3) • intention(4) • transform (1) foundational training (skills and internal improvement) (2) attitudes/actions/re sponds (4) product(2)/process(1 / both (4) immersion (4) playful/ joyful (3) self-determination (3) risk-taking(1)	**Personal concepts** **Art based/ general** **Degree of creativity: big-c/pro-c/little-c/mini-c** **Characteristics** **Definitions of creativity: Originality, Innovation, Imagination** **Attitudes toward creativity: Confidence, self-determination, intention and joyfulness** **Process & product** **1. From the participants' definition:** **Process: (1)** A starting point: thought/ idea/ expression/ decision/ choice to create something, to transform or to discover & solve problems
Liao: Creativity is a change; for example for the student, change is when they get information from their teacher, they can accept it but transform the information using their own ways to express After the workshop I realised that creativity actually needs to be built up from a foundation. I believe more that sufficient capacity and training actually brings more powerful creativity. We can tell it from students' faces and actions; for example, do they concentrate on their thinking/working/discussing? Are they interested in their work and their participation and so on… Besides this, their artwork is also another important standard to assess their creativity. But after the workshop, I have learned not only to assess from their final product. I, as a teacher, have to focus on the process, such as how they planned their artwork? Have they done their best to make their artwork? Have they challenged themselves and	general transform innovation originality through an object foundational training attitudes/actions product/process (2) immersion playful self-determination intention risk-taking mini-c - pro-c		

tried to create their work in a different way?		Positive outcome(1) teacher is the key factor(1) confident(2) no limitation(2) based on the inner characters--meaningful(1) Daily life(1) Problem-solving(1) Posing question (1) big c (0)/pro-c (2)/little-c (5)/mini-c (5)	**Product (Through an object): Positive outcomes Meaningful: based on object's inner character/ daily life Foundation training**
Chien: Creativity is <mark>the ability to</mark> break the current situation and development. People should have this breakthrough ability to create or maybe I have to improve our current situation and to make our further even better When I post open-ended questions, students can think of many imaginative answers; it means they are thinking creatively.(p.58); when students fully concentrate their attentions on their learning, working or thinking.	general innovation positive outcome attitudes/actions/responses imagination intention immersion little-c product/process		
Chao: I found that if the students can be inspired by a good teacher in terms of their emotions, skills, thinking and so on, they must show powerful creative capacity. Creativity still has to be shown through an artwork I think I can tell it from whether I can ask questions bravely and whether I can make my work confidently I think I prefer to leave the last 5 mins in every class and encourage students to share and explain their works I prefer to let them work by themselves	art based through an object (art) teacher is the key factor foundation training (skills and internal improvement) confidence (A) intention self-determination mini-c & pro-c product		**2. From the criteria of creativity: Process, product, or both Process: Attitudes/actions/responds (2) Self-determination Confidence Immersion Playful/joyful Intention Product; through an object/work (2)**
Young: Someone has lots of ideas which are different from others, or someone is seeking for change and originality all the time! … it also is a process of joyful imagination with no limitation and burden at all. To tell is their smiles, for example when they are very happy to do their work. Next, when I am not saying: "No! Not this way!" or "Why don't you make it in another way!" But I give them full freedom to work on their works. It can be easy to tell from their work. Beside these, the straightest way to tell whether they are engaged in creative learning is actually from their reactions and attitude, such as whether they are concentrating on their work.	general innovation change (intention-A) original joyful process(1) (A) imagination no limitation self-determination immersion product/process (2) attitude/reactions little-c & mini-c		

Wu: Creativity is a change, but it should be based on the object's innate character to create and change. Hence, creativity also has another meaning, unlimited…just like every object has its own characteristics and principles or… maybe… I could say "foundation", thus whatever changes these features still exist. And creativity needs to be built or expressed based on these features. For example, you could create varied great artworks by using your creativity, let's say drawings for instance, but drawing is always a drawing, it cannot become a piece of music. You can tell whether the audiences are engaged in creative learning from their reactions and the expressions on their faces and their behaviour. It is very different when the audience was bored while a practice teacher kept talking knowledge and writing down the keywords on the blackboard; or when a practice teacher can really catch the audiences' attention I always see students' reactions or their responses When you see their eyes are shining, then I realise that I have caught their attention and they are interested in it. And when they actively ask questions or they start to discuss this issue with their partners, I can tell they are engaging in creative thinking.	general change through an object based on the inner characters innovation no limitation (original; self-determination) reactions/attitude/ responses joyful immersion posing questions product/process
Liu: Particularly in our daily life, an idea you had or the way you used to solve a problem is different from others, then this ability can be called creativity. From students' responses or their reactions. Some shy students, they are not good at showing what they thought and felt, but through the sketchbooks they could write down or express their ideas and thoughts confidently.	general daily life idea/way through an object problem-solving originality responses/reaction thought/felt process(2) confidently little-c

Appendix N-1   Definitions of the Themes & Codes toward Creative Pedagogy Identified in the Pre- and Post-workshop Interviews

Table A Pre-Workshop Interview: Visual art Participants

Code	Code Definition
Theme 1: General Concepts	**Visual art student teachers' general images of CPed**
1-1 Definitions	Visual art student teachers' first image of what CPed is, including different for traditional teaching, and varied terms in CPed
1-2 Purposes	Visual art student teachers' views of what CPed aims for, including teaching effectively, teaching creativity, and others
1-3 Other features	Visual art student teachers' views of CPed: the main roles in CPed, enabling learning environment, and others
Theme A: Creative Teaching	**Visual art student teachers' perceptions of CPed relating to CT**
A-1 Features of CT	Visual art student teachers' views of CPed relation to the characteristics and teaching strategies of CT
A-2 Purposes of CT	Visual art student teachers' views of CPed relation to the purposes of CT
Theme B: Creative Learning **B-1 Features of CL**	**Visual art student teachers' perceptions of CPed relating to CL**
	Visual art student teachers' views of CPed relation to the characteristics and teaching strategies of CL
Theme C: Teaching for Creativity	**Visual art student teachers' perceptions of CPed relating to T for C**
C-1 The features of T for C	Visual art student teachers' views toward CPed relation to the characteristics of T for C
Theme D: Effective Teaching	**Visual art student teachers' perceptions of CPed relating to ET**
D-1 The features of ET	Visual art student teachers' views of CPed relation to the characteristics and teaching strategies of ET

Table B Post-Workshop Interview: visual art participants

Code	Code Definition
Theme 1: General Concepts	**Visual art student teachers' general images of CPed**
1-1 Definitions	Visual art student teachers' first image of what CPed is, including varied terms in CPed
1-2 Purposes	Visual art student teachers' views of what CPed aims for, including teaching creativity and teaching effectively
1-3 Other features	Visual art student teachers' views of CPed: the main roles in CPed and learning context
Theme A: Creative Teaching	**Visual art student teachers' perceptions of CPed relating to TE and CT**
A-1 Features of TE	Visual art student teachers' views of CPed relation to the characteristics and teaching strategies of TE
A-2 Features of CT	Visual art student teachers' views of CPed relation to the features and teaching strategies of CT
Theme B: Creative Learning	**Visual art student teachers' perceptions of CPed relating to CL**
B-1 Features of CL	Visual art student teachers' views of CPed relation to the characteristics and teaching strategies of CL

Appendix N-2   Coding to Pre-Workshop Interviews Data: Creative Pedagogy

RQ 1: What are the perceptions of the participants regarding creativity and creative pedagogy employed on the workshop?

1.1 What are their perceptions of creativity and its pedagogy before the workshop?

Open codes	Analysis	Axial code	Final code
Chou: (A+C but C is not the main purpose)→ A for ET It is to use an innovative way to teach, which is different from the tradition; it attracts students' interests and makes learning unwittingly … maybe it could be said that creative pedagogy makes teaching more interesting so that students can learn more and produce better artworks. And it should be able to resonate with students, too. It won't make students feel bored… from my prior teaching experience, the head teacher always asked me to do some preparation before teaching. But I believe that through creative pedagogy you can provide students with more things than the textbooks. So I don't like to just read through the textbooks fundamental learning is very important; it doesn't matter if from the teaching, self-learning or our surroundings, creativity can be learned or assimilated from everywhere	different from the tradition use an innovative way to teach (AS) attracts students' attentions/interests (AP) learn more and produce better artworks (ET-AP) more information (ET-GP) teaching interestingly (AF) fundamental learning/internal improvement to achieve better creativity(ET-A; C)	different from the traditional teaching(6) teaching innovatively (4) teaching interestingly(2) attracts students' attentions/interests(4) needs fundamental learning/internal improvement (1) effective teaching (5/7) teaching for creativity (5/7) learners' ownership(2) multiple choice to students (providing opportunities) (3) Positive enabling learning climate(3) standing back (3) <mark>main role (t (1)/s (2)/b (1))</mark> discussion (1) play (1) integrated subject (1) CP= teaching art (1) More flexible ways in teaching (1) Related to daily life & environment (2) learner-centre approach (2)	A: CT B: CL C: T 4 C ET: effective teaching **General concepts** **General definitions:** - different from the traditional teaching (11) -ET (3)/CT (8)/ B (1)/ C(4) **General purposes (GP):** - ET (7) - T 4 C (9) **Other features:** Main Role (T(5)/S(2)/B(1)) enabling learning environment (5) **CT (8)** **Features (AF)&** - characteristics: teaching innovatively (7), teaching interestingly (6)
Liao: (ET+B but not to for creativity)→ ET A change/improvement to the traditional teaching ways; it is to change or to improve from the traditional teaching in order to achieve better learning outcomes. uses "discussion" in the teaching and learning, I have no idea whether it belongs to creative pedagogy… but they inspired me to have more ideas though these discussions… It is more than just to listen to what teachers give us…it is an interactive relationship in teaching and learning. If it can belong to a part to creative pedagogy…	different from the tradition to achieve better learning outcomes (ET-GP) uses "discussion" to inspire me to have more ideas (BS) an interactive relationship in teaching and learning (collaborative relationship between teacher and learners) (BS; R)		
Chien: (A+C- but she thought art =creativity)→A for ET beyond the traditional teaching creative pedagogy is not only different from the traditional teaching, but also means to foster students' creativity. It involves a positive outcome, such as to make a better drawing. if we can integrate our subject with another subject… the lesson will become very interesting. Especially art includes everything and art is flexible and creative…let's play a	beyond the traditional teaching foster learners' creativity (C) positive outcome (ET-GP) integrate subjects (AS) teaching interestingly (AF) play (AS; C) to <mark>relax</mark> students and to catch their attentions		

game!! But after playing the game, we still go back to our drawing, because a school teacher so far has a regular schedule progress to achieve... So the purpose of playing a game… is to relax students and to catch their attentions. while playing a game, students will become more creative and will brainstorm more ideas. I think that this is a good strategy and more flexible way to use in art teaching. Also, since art is not a serious subject, students don't really care about it, so…less pressure on the teacher…	(AP; PE) cp= teaching art; CT more flexible ways in teaching (AS) less pressure on the teacher		**- Strategies (AS):**: play, integrated subjects, funny examples **Purpose(AP):** - attracts students' attentions/interests (6) - effective teaching (6)
Chao: (ET+A but A is not really necessary)→ ET it is a systematic teaching. Through this teaching strategy students in any levels can learn things more easily and quickly, and particularly it attracts their internal interests to work on art creations. both teacher and students enjoy the teaching activity I feel that creativity does not just come though playing, even though I believe play is a good way to promote creativity, but I think it really depends on the person. creative pedagogy should be well-prepared teaching from teachers …in his every course by demonstration…. really shocked me	systematic teaching(ET) effective teaching and learning (ET-GP) attracts their interests (GP) enjoyable (enabling teaching &learning climate) (PE) well-prepared teaching (ET) Teacher-focused teaching (teacher's role) Different learning experience (innovative teaching) (AS)		**CL** **Features (BF):** - providing opportunities (3) - profiling agency (2) - standing back (3) - learner's ownership (2) - More flexible ways in teaching (1)
Young: (B+C)→ B This workshop really discards the traditional teaching and gives the learning ownership back to pupils themselves you are still aware that they have to work by themselves. Pupils must be the main role in learning, and the teacher is just an assistant to help their learning. We are not just giving; we only give when they need, and what they need. My way is to provide pupils with many choices, but not tell them what to do when a child asked how to draw a cherry, I discussed the shape of a cherry with him/her, instead of drawing a cherry.	teaching for creativity (C) different from the traditional teaching learners' ownership (BS) Child-centre approach (CS) the teacher is just an assistant (teacher's role) Pupils must be the main role in learning (B) provide multiple choices(BS) standing back(BS)		**T for C (9)** **Features:** Learner-centre approach (4) (Related to daily life & environment (2)) Purpose: teaching creativity
Wu: (A+B but creativity is not her purpose+ ET)→ A for ET I had nice feedback on my artwork presenting…I do not tell them how to do certain steps which they should follow. And I don't limit the ways and the materials… they can use anything to create their pieces. The purpose is to get students to engage with the topic and to produce a good work, and not just to read the information from the textbook! In relation to the teaching topic, it will be something more related to their daily life; it must not get beyond their experience or just follow the textbooks creative pedagogy involves two ideas; the first one is what I have described above about	nice feedback (PE) they can use anything to create their pieces (Learner's ownership) (BS) I don't limit the ways and the materials (standing back) (BS) engage with the topic and to produce a good work (GP) something more related to their daily life (CS) not get beyond their experience (ET-S)		**ET** **Features**: (e.g. meet the learning outcomes, systematic teaching, well-prepared teaching)

no limitation to guide students' learning and thinking…creative pedagogy could be more abstract… it is about a way of teaching which is different from the normal way of teaching and can also bring a different outcome. It is a form of teaching which is different from the traditional way of teaching Most teachers may start from the introduction of the western history straightway, not from other issues which students are interested in.	different the traditional teaching bring a different/better outcome (ET-GP) using innovative way (AS) to catch students' interests(AP) learner-centre approach (CS)
Liu: (A+ET)→ A+ET learning from the surroundings of the environment….creative pedagogy is to open up their windows to look outside of the world I don't limit the materials they use… nothing was limited I think that it is very important that if students do not make any effort, I won't help. I would never help too much unless students are willing to make efforts on their works. Taking an example from the literature lesson, before a teacher may just read through the textbook, but now he/she would like to change the way of teaching, such as to create some puzzles and so on, students certainly will gain different knowledge	learning from the environment (C). open up their windows to look outside of the world (GP) nothing was limited (standing back)(BS) Child is the main role (ET-S; R) various contexts in teaching (BS) willing to make efforts (ET) differed from traditional teaching teaching innovatively (AS) gain different knowledge (ET-GP)

Appendix N-3   The Overview Findings of the Visual Art Participants'

Perceptions of CPed in the Pre- and Post-Workshop Interviews

General Concepts
- **General definitions:**
  - Different from the traditional teaching (6)
  - CT (4)/ ET (3)/ T for C (0)/CL (1)
- **General purposes: TE (6)/T for C (3)**

- **Other features:**
  - main role in CP: Teacher(1)/Learner(2)/Both(1)
  - enabling learning environment (3)

Pre-workshop interviews

Creative Pedagogy
7 student teachers
in Visual Arts group

A. Creative Teaching (4)
- **Features of CT**
  - characteristics:
    teaching innovatively (4),
    teaching interestingly (2)
  - Strategies
    (e.g. play, integrated subjects)
- **Reasons:**
  - attracts students' attention /interest (3)
  - effective teaching (4)

B. Creative Learning
- **Features of CL**
  - providing oppotunities (3)
  - standing back (3)
  - learner's ownership (2)

C. Teaching for Creativity(0)
- **Features of T for C**
  - learner-centred approach (2)
    (e.g. related to daily life & environment)
- **Purpose**
  - Foster learners' creativity (4)

D. Effective Teaching
- **Features of ET**
  (e.g. meet the learning outcomes, systematic teaching, well-prepared teaching)

Diagram A The visual art participants' perceptions of CPed before the Workshop

General Concepts
- **General definitions:**
  - CT+CL (3)/CT+T for C (1)/CT (1)/
    T for C (1)/CL (1)

- **General purposes: T for C (7)/ET (5)**

- **Other features:**
  - the learning context:
    - enabling learning environment (6/7),
    - effective teaching context (6/7):
      (e.g. content & target (3), strategies (9))
  - main role in CP: Teacher(2)/Learner(1)/Both(3)

Post-workshop interviews

Creative Pedagogy
7 student teachers
in Visual Arts group

A. Creative teaching
- **Features of CT:**
  - teaching innovatively (5),
  - teaching interestingly (1)
- **purposes of CT (2)**

B. Creative Learning
- **Features of CL**
  - learner's ownership (5)
  - providing opportunities & setting challenges/tasks (11)
  - learning agency (5)
  - standing back (5)

Diagram B The perceptions of CPed by visual art group after the workshop

Appendix N-4   Coding to Post-Workshop Interviews Data: Creative Pedagogy

RQ 1: What are the perceptions of the participants regarding creativity and creative pedagogy employed on the workshop?

1.2 What are their perceptions of creativity and its pedagogy after the workshop?

| Open codes	Analysis	Axial code	Final code
Chou: (A+D+C+B, but more teacher-focused)→ A+ C within EC & D creativity belongs to students and creative pedagogy is more teacher-based. And I think these two things need to be complemented each other. More clearly, students' creativity needs to be fostered by teacher. it is about using daily life examples to lead students step by step to think, but not to explain the learning topic to students straight away. Therefore, students can learn under a relaxed and interesting climate and without pressure. And students won't lose their confidence at the beginning. It involves teaching creatively and teaching for creativity, especially it provides students many opportunities to think. I tried to just walk around and see their working I won't tell them what to do straight away, I may just give some hints and key points and let them work by themselves. But now, I mean after workshop, I found that how to lead students use their imagination but not to limit their thinking is very important in creativity education. **argument: Question posing**	students' creativity needs to be fostered by teacher (R-T/B) daily examples (D) Learning step by step(D) relaxed and interesting climate (EC) teaching creatively (A) teaching for creativity (C-GP) providing many opportunities(BS) standing back (BS) let them work by themselves (learner's ownership, standing back) (BF;R-S)	different from the traditional teaching(1) effective teaching(6/7) teaching creatively(5/7) teaching for creativity(6/7) learning agency(5) standing back(5) daily examples(1) Learning step by step(3) enabling learning climate(8-6/7) learner-centre(2) learner's ownership(5) inter-learning between teacher and students (co-participants)(1) teacher's effort (1) teacher as the main role (1) teacher is an assistant (1) playful interaction – EC/R-B (1) posing and responding questions(4) challenge(2) teacher's concept(1) teacher's characteristic (1) teacher's	A: teaching creatively B: creative learning C: teaching creativity D: teaching/learning effectively EC: enabling learning climate **General Concepts:** **Definitions:** - A+B (3) - A (1) - A+C (1) - B (1) - C (1) **Purposes (GP):** - teaching creativity (7/7) - teaching effectively (5/7) **Other features(GF)** the learning context: EC (6/7), D (6/7) - R: T (2)/ S (1)/B (3) **CT:** **Features(AF):** -A: teaching creatively
Liao: (A+D+B+C) → A + B within D & EC a teaching way in which teacher using heuristic method to inspire students' learning and creative thinking. uses an innovative ways to teach students using posing questions and interesting activities to inspire students' creativity and learning step by step. a teaching method which is very different from the traditional teaching ways. to plan the teaching by considering the students' ability and interests creativity needs to be fostered by teacher's effort to create some certain teaching strategies in an enabling learning environment. this is a pedagogy which more focuses on the learner, and also provides a stage for the interactions and inter-learning between teacher and students focus on how to post and respond questions to students. And I will try to create more open-end questions and try to inspire students to find out more possibilities in creating their artwork, not just follow me. **Question: explaining/questioning skill**	CP=heuristic method (GF) interesting activities (learning agency) (BS)(AS) innovative ways (AS) inspire creativity (C-GP) learning step by step (DS, GP) learner-centre (ability and interests) (D, C)co different from the traditional teaching ways (GF) teacher's effort (R-T) certain teaching strategies (D) enabling learning (EC) inter-learning between teacher and		

	students (co-participants)(R) pose and respond questions (BS) open-end questions (setting challenges)(BS) learner's ownership (BS R-S) providing opportunities (BS)	self-improvement (1) CP=open-end teaching method (1) coherence in the content(1) various contents and methods – DC/DS(1) providing many opportunities (4) CP=heuristic method (GF)	(6/7) -D: teaching effectively (2/7): content & target **CL:** **Features(BF):** - learner's ownership (9) - standing back (9) - setting challenges/tasks (9) - learning agency (8) - providing opportunities (5)
Chien: (A+B+C, but teacher-focused)→ A Creative pedagogy is not only a teaching which aims to foster students' creativity, it also a teaching in very creative and innovative ways. it is to use a creative teaching ways to stimulate students' creativity. use group activity and give them more opportunities to discuss or express their ideas.	teaching creatively, innovative (A) teaching for creativity(C-GP) group activity(learning agency)(BS) providing more opportunities (BS)		
Chao: (D+C+B but more teacher-focused)→ C within EC & D teacher has to prepare his/her teaching and remain students the main points of the project in a clear and simple way. And also teacher needs to inspire his/her students creating their own artworks by using some teaching materials, such as pictures, PowerPoint, and so on. This teaching process must be joyful and helps them to reach self-affirmation. in such limited time or certain conditions, as you always remained us in the workshop, students will be challenged and inspired their creativity and potential. Once students' potential can be fostered, then it is the best teaching method. to re-plan my teaching and to simplify my teaching steps, not just focus on pushing them to complete a great drawing. Moreover, I also need to enrich my teaching aids, such more vivid pictures, to help my students' learning. Take drawing as an example, now I may let students to practice tone firstly, not just to start from drawing an object. I did step by step engage in the learning through your vivid explanations, teaching aids and whole learning environment. you always encouraged us quite a lot so that I felt more confident to create my work and never worry to make mistakes. during their learning I will just respect their learning ways and let them become the owners in their learning. I may just remain them some key points but basically I prefer to let them work by themselves. to add the elements from music and drama into visual art. And also I would like to encourage them to use multiple materials in their work. you provided quite a lot of different materials for us and also encourage us to use different ways to create our work. So even in a short time, we can choose the materials or the ways we felt comfortable most to work. I found this way can help students to build their confidence and their ideas immediately! And also for some students who are not very good at drawing, they can find their way to engage in art making.	Teacher as the main role (R-T) the main points of the project in a clear and simple way (D-GP) various teaching aids(DS) joyful and helps (EC) limited time or certain conditions (challenge-time, tasks) (BS) their creativity and potential (C-GP) make learning step by step (D) whole learning environment (EC) encourage for confidence(EC) confidence (creative attitude) (C-GP) standing back (BC) respect their learning ways (BS) learner's ownership (BC R-S) creating various learning context and materials(learning agency) (BC)		

Young: (B+C+D) → B within D & EC creative pedagogy to me… becomes just a tool! … students can enjoy in their learning. Because only when pupils joyfully enjoy in their learning or work and don't feel limited from teachers or adults, their creativity are naturally be fostered! it is child-centre pedagogy! And as a teacher, I think I am just an assistant to support their learning. to leave the learning space to them and let them become the owner of their own learning. And just being a third person to observe and support their learning the teaching procedure and rhythm (structure) are the most two important things in a creative pedagogy…teacher needs to give a clear task in an appropriate timing to attack students' attentions and also let them concentrate on their work. **Question: teaching structure**	Enjoy, joyful (EC) their creativity are naturally be fostered (C-GP) don't feel limited from teachers or adul (providing opportunities, standing back (BS) learner's ownership (BF R-S) CP=child-centre approach (C) an assistant to support their learning (R-T, standing back-BS) teaching procedure and rhythm (structure) (D-co) clear task in appropriate time (D; BS) to attack students' attentions(D-GP) concentrate on their work(DP) teaching for creativity (C-GP)
Wu: (A+B+C+D)→ A+B within D & EC Creative pedagogy is to let children keep their learning ownership, and to let them have their own stages to perform themselves. Besides, teacher's teaching has also to be creative and original, and the most important is not to strangle children's creativity. To sum it up, creative pedagogy is that both teaching and learning should be involved with creativity. Creativity actually has to be promoted through the teacher's well-designed teaching activity and strategy. … I realised I have to change not only my teaching strategy, but also my teaching concept and my teaching plan. when a practice teacher can really catch the audiences' attention and allow the learners (audience) to ask questions. to try the team work exercises which you used in our workshop... maybe I didn't link my main theme into my starting point and the conclusion! But in your teaching practice, I can find that you actually just kept one or two key themes and took them into the whole teaching I would like to appreciate students' works more and also create an enabling learning environment for students by using 'what if' questions instead of providing students solutions straight away. **Question: teaching performance practice**	learner's ownership (BF R-S) standing back (BS) teaching creatively (creative and original) (A) teaching for creativity (C-GP) both teaching and learning should be involved with creativity(GF) well-designed teaching activity and strategy (D-co) teacher's concept (R-T) catch learners' attention (D) allow learners to ask questions students' observation and questioning ability (C-GP) teamwork (learning agency) (BS) coherence in the content (D-GP)co appreciate students' works (EC) 'what if' questions (posing question) (challenges) (BS)

410

Liu: (A+B+C+D)→ A+B within D & EC I found even though to imitate a painting, it has become different. The teacher has to lead students to observe many things before they start to draw the painting, such as colour, form, shape, tone, and so on. And after these observations and discoveries, students actually are not just copying the painting but they are using the elements they have learned from the painting to create they own drawings. I think as a teacher, I have to train myself to have an ability of response sensitivity not only to students, but also to our surroundings. Because I found that creative pedagogy is a very open-end teaching method and also it requires various subject contents and teaching creatively and effectively. It (creativity) becomes very easy to tell … whether students engage in creative learning or they focus on learning and thinking teachers have to improve themselves all the time in order to provide better quality teaching. And this will be a win-win situation, in which students' creativity also get improved. reative pedagogy you introduced to us feels like a playful interaction between teacher and students, so that there is not certain teaching ways or rules I have to follow as all the teaching strategies need to depend on students' needs and reactions. … this just likes we are playing toss-up question game, that I post questions or challenges and then students try to think about as many possible solutions or answers as possible. I don't have to worry whether my students get bored. **Question: PT pedagogy in school practice**	systematic teaching(?)(D) leading students to observe (profiling agency) (BS) CP=open-end teaching method (GF) teaching creatively and effectively (A, D) teacher's characteristics (GF; R-T) various contents and methods(D) provide better quality teaching (D-GPco) playful interactions(EC, R-T & S) posing questions/challenge (challenges) (BS) Enjoy (AP) Teacher's self-improvement (GF, R-T) Teaching for creativity (C) Learner's ownership (BF; R-S)

Appendix O   Raising Issues in the Visual art Participants' Post-Workshop

Interviews

Case A: Chou (extract)

M [researcher]: Next question is, will you apply what you have learned from this workshop, for example creativity as possibility thinking and PT creative pedagogy, for your future teaching?

Chou: Sure, I would like to. I think this pedagogy is quite similar to my teaching way by leading students to think. Just likes what I said above, when I started a new topic, I won't tell them what to do straight away, I may just give some hints and key points and let them work by themselves. But now, I mean after workshop, I found that how to lead students use their imagination but not to limit their thinking is very important in creativity education. This just likes that we can find young pupils (up to primary school pupils) are very creative at drawing and making things, but when they are getting older and learn more skills, they only follow the certain patterns on their drawings, which is never creative at all.

M: What do you think any difference between your teaching and creative pedagogy?

Chou: hmm…in some degrees they are quite similar. These two teaching ways all use conductive pedagogy…I mean both using key points to lead students think.

M: well, PT creative pedagogy quite focuses on a child-inclusive teaching and learning approach. For example, teacher posts questions to lead students to think, and also responds their questions by questioning. And through discussions, teacher and students find out the solutions or answers together.

Chou: But I always argue this way of question posing, students may just keep silent…and no answers responding.

M: Right, I agree with it, especially this situation often happens in Eastern classrooms.

Chou: So… because in school practice there are always many students (averagely 35 students) in one classroom, so that I have to give my attention to every student. Hence, for better classroom management, I always found that I must to give students something in a short time and then push them starting their drawings as soon as possible. But if I only have 1 or 2 students, then this question posing pedagogy would be very useful.

M: But have you noticed that when you told the hints or key points to students, actually they followed your instruction to draw?

Chou: Yes… they quite followed what I suggested to draw… maybe they used to learn through imitation or listen to teacher or adults' opinions. For example the topic is 'my favourite animal in the zoo'; I may say monkey is my favourite animal in the zoo…then most of the students only draw monkey, but maybe monkey is

not their favourite. They just followed my hints!

M: So this is your ideas and plan for the drawing not from the students, isn't it? It may because your words have influenced their ideas or implied the answers…

Chou: Yes.

M: O.K. Let's talk about this teaching from another way. If teacher stared this lesson by asking questions; for example, have you been to a zoo? How was the weather on that day? What colours on the sky? What have you seen in the zoo? only animals, what else…and so on. Using such as details but specific questions to lead students to think and let them are able to answer…because these questions for them are not difficult, everyone can answer the questions easily.

Chou: Right.

M: On the other hand, these questions somehow provide certain degree of opportunities for students to transfer their memories into art. When we ask what colours on the sky, students have to describe their image into colours. This also helps them to build up their ideas of their paintings.

Chou: Yes, this just likes what we did in the workshop- the game of drawing our names!!!

M: Yes. You got it! Actually from the teaching practice in the last week of our workshop, I found that your practice was very great, and only a few places you have to be aware not to talk too much or probably using questions instead of talking. And also do practice more about how to ask questions and what questions are good questions.

Chou: Did I ask questions in my practice…I forgot!! Haha…

M: Yes, you did. I noticed that you often asked questions, but you didn't give students chance to answer. You always answered your own questions straight away. Moreover, you often asked inappropriate questions which actually have implied students' ideas to yours.

Chou: oh!! Can you give me an example?

M: For example, in your practice, to make clothes by a piece of paper. You asked them a question, 'how can we make a piece of paper become clothes? Can we make a hole in the middle, so that we can wear, can't we?' In these questions, I may stop at the first question. And then let students to work on it. Or maybe I continue to provide a solution for students likes what you did. But I would use one more question to ask; 'Except for making a hole in the middle, what else can we make paper become clothes?' I am sure that from this question they would think about lots of ways to design their clothes. Compared to the second question you asked, it is a yes or no question which has no space for students to develop their thoughts, and also it has also implied students how to work.

Chou: That's right! I see… I never thought about it before…

413

Case E: Young (extract)

M: Will you apply what you have learned from this workshop, for example creativity as 'possibility thinking' and PT creative pedagogy, for your future teaching?

Young: I am willing to use this creative pedagogy, but to be honest I am not sure whether I can carry it out well because I think that I always have many ideas which come very quickly. This may be the so-call flight of ideas! Therefore, before I often forgot to follow the planned rhythm in my teaching. My colleagues who are working with me in Huashan1914 Creative Park always said that my teaching plan seemed really good, but when I used it in teaching, there were always some problems came out. And I was very sad and couldn't find out the reasons. Until in this workshop, I saw your teaching and also discussed my teaching with you, finally I realised that it is the rhythm of the teaching! I didn't manage my teaching rhythm well in my teaching. Even though I still can't manage it very well now, I have already found out my problem and tried to practice it.

M: Alright, let's focus on the teaching plan. You have discussed with me about the difficulties you met when planning a teaching. How do you feel now? Any better? Or still have any questions?

Young: Hmm… I used to pay my attentions to make my teaching more interesting, so that my plans were always full of blue-sky thinking. But after discussed my project, My Lovely Cow, with you, I really followed your suggestions to restructure my plan into a clear rhythm. Also I tried to work on the process at home and found it really worked. Yesterday I also discussed this new teaching plan with my colleagues in Huashan1914 Creative Park. They were all very surprised and impressed that I can plan such structured and creative project. Haha! They knew how awful my teaching was… jumping all the time!! We are all very looking forward to this project next week!! Now I am working on the teaching projects planning for a summer camp. Well, I have not really finished it, but I have realised the importance of the rhythm and the structure in a teaching. Of course there will be some different requirements in this summer camp due to the limitations of equipments and place. Therefore, to plan a teaching somehow challenges me, particularly how to structure the teaching! Maybe I still need more practice!

M: Right, another reason I asked you this question is because when I looked at the teaching plan from your group, I found actually you have the most creative ideas, and also the every single section in your planned project (a project contains 4 sections) are brilliant enough to become an individual project. However, in your group, the coherent and the flow of the teaching in the plan were missing. If a teaching project contains 4 series of teaching sections, as we did in our workshop, every single section should be coherent with other 3 sections to make them as a whole, as well as every single activity in a section. For example, in your teaching you asked a question that who is the mother's guardian angel? However, until your teaching finished you actually have not answered this question or you have not provided your students to think about this question, have you?

Young: Yes, we didn't.

M: So why would you ask this at the beginning of your teaching? This question became meaningless, didn't it? And then after posing this question, you jumped to

next role play activity. The role play was great. But would you please tell me the purpose of this activity?

Young: hmm… we planned this role play activity aimed to let students to feel how hard it is to be a mother.

M: Therefore, actually it didn't really coherent with your topic: Mother's guardian angle, did it? I would like to suggest that probably to consider the logicality and the coherent between the activities and the main theme and arrange these activities carefully. Which activity can be a great starting point? And which activity can inspire students to enter the topic? And so on, they all have to consider it very carefully and also to think about the possible reactions or reply from students.

Young: Yes, I can't agree with you more. Indeed, I really found this is my big problem; probably this is because of my personality. For example, most art people would like to make a plan or draw a draft before they make a big work. However, I am the one who is never to make plan or draft in advance. I always like to make my artwork freely, and when some new ideas come out, I put them into my work. Therefore, my artwork often has very different feedback. I think that because for me art is a very relax and free style, since I studied in the teacher training programme and later on I taught in Huashan1914 Creative Park, I really felt that teaching is really challenge to me.

M: Right, maybe let us think about it from another way. I think you must learn how to mix colours before. Can you think about how did you learn to mix colours at very first time, probably in your primary school?

Young: hmm… I was not a smart student before, I think. I remember that I made a table to record that which colour mix which colour will become which colour. Also I used "+" to present the meaning of "mix"; and mark "more" and "less" to present the quantity of the colours I used to produce this colour. Very stupid way!

M: Wow very experimental!! Right, from your description, have you noticed that this is actually your learning "process" that you learned how to mix colour. I am sure that there must be lots of similar experience in your learning in any subject. You just never noticed them or never recorded them, so that you cannot remember it. If you recoded them on your sketchbook as we did in the workshop, then you can tell these learning processes very clear. And this is also the most important part in a teaching that teacher has to plan for students; of course some students may find their own way to learn, but for some students who can't learn by themselves, teacher then have to arrange an interesting activity to help them to learn. And I think that this is also the missing part in your teaching and your teaching plan. Can you understand it?

Young: Yes, this is really the part I have to practice more.

Appendix P   The Implementation of Possibility Thinking Creative Pedagogy

Open codes	Analysis	Axial code	Final code
Chou: when I started a new topic, I won't tell them what to do straight away, I may just give some hints and key points and let them work by themselves. after workshop, I found that how to lead students use their imagination but not to limit their thinking is very important in creativity education. I think especially after this talk with you, I have fond my problem. I will try to consider and plan my questions in my teaching before I ask. I really like the group activities you used in the workshop; you not only had individual group activities, but also you had join-group activities! So that we can have group drawing and also have one big completed drawing combined by all the groups! This is a very fresh experience for me. In the process, it not only provided an opportunity for every group to introduce their own drawings, it but also create a stage to let everyone to discuss how to join our drawings from groups	using hints/key points to lead students to think (SB)-> both not to limit their thinking (SB) -> both my suggestions individual group activities and join-group activities (LA)-example create a stage to let everyone to discuss (OO) → example	my suggestions/feedbacks (5) group activity (6) my teaching example (3) my teaching strategies (4) teaching map (2) group interaction (3) sketchbook (4) interaction between teacher and students (2) SB (whole) (9) SB (example)(10) OO (whole)(9) OO (example) (9) LA (whole)(6) LA (example) (7) EC (whole)(7) EC (example) (6) others (whole)(4) others (example) (5)	**standing back [SB]** **offering opportunities [OO]** **profiling learning agency [LA]** **enabling learning climate [EC]** **others** **researcher's influence (89)** **my teaching strategies and examples (72)** (e.g. through the whole workshop (35), in Session 3 (07 April 2010) (37)) **useful materials and tools (12)** (e.g. group activity (6), sketchbook (4), teaching map (2)) **my suggestions/feedbacks (5)** **group interaction (3/7)**
Liao: this is a pedagogy which more focuses on the learner, and also provides a stage for the interactions for students and an inter-learning between teacher and students, which is not just one-way teacher-to-students teaching. This creative pedagogy is teacher not only teach students, but also can get feedback from students. In the process, it actually creates more learning opportunity to both teacher and students. I may focus on how to pose and respond questions to students. And I will try to create more open-end questions in order to inspire students to find out more possibilities in creating their artwork, not just follow mine. I think your teaching ways and examples inspired me quite a lot! The first thing comes to me is the mind map (teaching map)... this mind map will be a fantastic way to inspire students' creative ideas this (the form of teaching map) really helps students to think about many possibilities. The best thing is that this mind map also provides the choices for students and helps them to make their thought more logical by using divergent and convergent thinking clear feedbacks as you gave us in the workshop…	learner-centred (SB)→ both interaction for students inter-learning between teacher and students (co-participants) creates more learning opportunity(OO) -whole posing and responding questions(OO, SB)→both teaching strategies and example (overall) felt happy and enjoyed learning thoroughly (EC) →both teaching map my feedback		

in our workshop, we were divided into small group, so that we not only had your attentions, but we also can learn from our partners. in these weeks we were being as students in the workshop, this actually likes being observation to your teaching, and I felt happy and enjoyed learning thoroughly. Also, I experienced a really creative pedagogy, particularly the ways to nurture our creativity. So I really would like to bring this experience to my students in the future.	group activity(LA)→ both group interaction
Chien: use group activity and give them more opportunities to discuss or express their ideas. Actually through your teaching in this workshop, I just found I am a creative person I believe that I can take the concept form your teaching examples into my further teaching, then my students must become more creative. …they then would like to look at your sketchbooks, because they would like to understand your learning process and your thoughts and creativity... and I found this is really a good way to record my learning process and thought a different classroom climate and management. Before I only thought that teaching and learning should be managed in a certain condition; for example teacher provides knowledge by talking and explaining, and students take notes or make their own artwork by practicing the skills. I never think teaching and learning can be so interesting, particularly in such a relaxing climate.	Group activity (LA)→ both OO → both my strategy (to participant's creativity) my teaching examples (both) sketchbook relaxing learning climate and management (EC, others)→whole
Chao: I really shocked from the workshop and started to reflect my teaching. after this workshop I found that maybe I need to re-plan my teaching and to simplify my teaching steps, not just focus on pushing them to complete a great drawing. Moreover, I also need to enrich my teaching aids, such more vivid pictures, to help my students' learning. you always encouraged us quite a lot so that I felt more confident to create my work and never worry to make mistakes. This remains me if I find my students feel less confident next time, I think I will use encouragement instead of drawing/demonstrating for them. I have thought to add the elements from music and drama into visual art. And also I would like to encourage them to use multiple materials in their work. I hope I can at least continue this joyful and warm teaching and learning way to my students in the future.	Researcher's influence re-plan my teaching and to simplify my teaching steps (others: effective teaching)→ examples SB→ example creating more choices in learning context and materials (OO) → example enabling learning climate (EC)→ both learner's ownership (SB), → example enabling learning climate

417

you provided quite a lot of different materials for us and also encourage us to use different ways to create our work. So even in a short time, we can choose the materials or the ways we most felt comfortable to work. I found this way can help students to build up their confidence and their ideas immediately! And also for some students who are not very good at drawing, they can find their way to engage in art making. I did learn much from the interactions with classmates and from your teaching. Especially the joyful learning environment really makes me feel comfortable and no pressure at all to engage in creative learning.	(EC)→ example group interaction(LA)→ both
Young: teacher needs to give a clear task in an appropriate timing to attack students' attentions and also let them concentrate on their work. Hence, I think the procedure and the timing control are very important to me. Until in this workshop, I saw your teaching and also discussed my teaching with you, finally I realised that it is the procedure of the teaching! I didn't manage my teaching procedure well in my teaching. Even though I still can't manage it very well now, I have already found out my problem and tried to practice it. after discussed my project, My Lovely Cow, with you, I really followed your suggestions to restructure my plan into a clear procedure. I feel that I am more positive and confident to work on it. But we discussed before and in this interview, I really have to practice to contain "process" into my teaching. In the workshop and also from our several one-to-one discussions, finally I found the answer. Even though there was no enough time in our workshop, but I can see the process and the structure in your teaching. This was also a very positive teaching example to me. After the workshop, I have taught several sections in Huashan1914 Creative Park, and all my colleagues said my teaching became much more structure than before. I am really feeling more confident than before. I really think structure and process of teaching "Structure" for me should like what you did in the workshop which is a coherence and a procedure, but provide a space where allows students develop their own ideas and create their own work. Others, such as the use of sketchbook and group activities, are also very powerful tools that I learned from you teaching	give a clear task in an appropriate timing (OO) → example procedure and the timing control (others)→ both immerse (EC)→ whole my teaching examples my suggestions/feedback structure and process of teaching (others) → whole/suggestions SB→both OO→ both the use of sketchbook group activities
Wu:	catch the audiences'

when teacher can really catch the audiences' attentions and allow the learners (audiences) to ask questions, the audiences would really engage with the teaching.	attentions (others) → both allow the learners (audiences) to ask questions
Compared to the teaching practice in the last semester, I found that I am more confident now, and I understand what good teaching is, especially after attending this workshop!!	(OO, SB)→ whole questioning ability
I will focus on the training of questioning ability.	teamwork (LA)→ both
And I really believe in the power of the sketchbook that you introduced to us, because a sketchbook can help to record every detail of their learning.	one or two key themes and took them into the whole teaching (others: effective
in classroom practice, I would like to try the teamwork exercises which you used in our workshop and project.	teaching → examples
I didn't link my main theme into my starting point and the conclusion! But in your teaching practice, I can find that you actually just kept one or two key themes and took them into the whole teaching, which was clear and powerful.	EC→ both using 'what if' questions (SB, OO)→both
I would like to appreciate students' works more and also create an enabling learning environment for students by using 'what if' questions instead providing students solutions straight away, as you did in the workshop.	sketchbook researcher's influence feedback and suggestion
I am very positive. I think that my confidence started at 20 and then during the workshop was 50-60, but now after the workshop, wow, I think I am at over 90!!! Guess what! Last week while I did my teaching practice in one of teacher training courses, my friends said my teaching has become so different!! And also I even raised several useful suggestions or points to their teaching!!	
If in practice, I would like to recommend that the sketchbook is the most useful thing I have learned from the workshop.… Therefore, we rarely focus on the process but much more on the final product! … we just realise what all of our learning processes have missed. I think making a sketchbook is just like writing a diary. It not only can record every detail of my learning and every idea I have ever had, but it also provides me with a record to review my progress of learning and to remind me of some points which might not have been special before but are meaningful now! So I would like to take sketchbooks into my future teaching.	
This workshop not only involved knowledge, but also you led and inspired us in how to apply this knowledge into practice.	
you offered very useful and detail feedback to our teaching performances which really helped us to reflect on our teaching and find out the blind spot! Indeed, sometime we do or learn something habitually without considering whether it is suitable or block	

students' creativity. And you remained us through your suggestions!	
Liu: in your teaching we used the sketchbooks quite often; maybe for some shy students, they are not good at showing what they thought and felt, but through the sketchbooks they could write down or express their ideas and thoughts confidently. I really believe that this is a very successful and powerful teaching method, so that I will do my best to take this concept into my future teaching. Maybe some people may feel that it will take much our time to think about the teaching plan and to prepare the teaching activities by using creative strategies. But I really believe that teachers have to improve themselves all the time in order to provide better quality teaching. And this will be a win-win situation. Your teaching strategies made teaching plan become systematic and easy, such as the use of group discussion and teaching map. I really enjoy doing things with my group. the creative pedagogy you introduced to us feels like a playful interaction between teacher and students… this just likes we are playing toss-up question game, that I post questions or challenges and then students try to think about as many possible solutions or answers as possible. I really like this teaching way. I particularly like the way you used to inspire our thinking!! when we were in the workshop, I found that for a new activity or discussion most people actually needed more time to think or needed your instructions to help them brainstorm their thoughts. They cannot just start from a topic and linked to details. And I believe that this situation must be same as most students do. Probably it may explain why some of my students always cannot catch my teaching up. From this experience, I realise that I need to learn how to slow down my teaching, and try to reorganise and divide my teaching into several activities/sections in order to help students step by step follow my teaching easily, which just likes what you did in the workshop. through those playful group activities in the workshop, I found that creativity needs an open-mind and there are always no right or wrong answers or any certain rules in the world of creativity. This understanding actually quite encourages me to express my ideas more… I think the same situation may also happen on students, therefore, I think that I would like to try this way (group activity) on my teaching.	Sketchbook SB, OO→ both Group discussion(LA)→ both teaching map playful interaction between teacher and students (EC)→ both posing questions ,challenges (OO, SB) →both the way to inspire our thinking (OO) →whole structure and process of teaching (others)→ example enabling learning climate(EC)→ examples playful (EC)→ whole group activity (LA)→both group interaction

Appendix Q   Examples of Group Discussion Transcriptions

Group A (extract)

Time: workshop session 1 02:35-08:51 Chao (VISUAL ART), Wu (VISUAL ART) and Wang (DRAMA- withdrew after week 2) ※Chien (VISUAL ART) was missing in this discussion	
Name	**Dialogue**
Chao	*I believe that creative pedagogy is a well-prepared teaching. And teacher is the most important element to lead students to learn systematic. In addition, creative pedagogy to me should build on the prior knowledge and skills. From these skill training, students can learn how to present their paintings properly and not to diverge from the tradition too much.*
Wu	*It sounds like very similar to the traditional teaching…*
Chao	*I think creative teaching is more about making the teaching more effectively, compare to the traditional teaching.*
Wu	*To make teaching more effectively…(think…)*
Chao	*Yes. Creative teaching is to use an interesting way to teach but it also has to achieve the teaching targets. So as teachers we have to be careful how to teach. In my point of view, I think that it is important to start by teaching foundational skills and knowledge.*
Wu	*How to teach… hmm… this remained me that I really appreciate a teachers' teaching because he used to make his teaching as a story. For example, when he taught "colour-mixed", he would made a story that Queen Yellow marries to King Red and then one year later they have a baby named Orange. He always used stories to catch students' attentions because all the children love story. And also he also took the foundational knowledge and skills, as you mentioned, into stories so that students can learn in a joy climate. (Look at Wang) hey, what do you think?*
Wang	*Go on your discussion … (drawing on her sketchbook)*
Chao	*I would like to emphasis that the foundational skill is very important! Without this training, it is impossible to create something new because everything comes from tradition.*
Wu	*But I think being creative needs to be different from the tradition. Therefore, you can give a new meaning or function to old elements. This is what creativity means and this is also what we are going to teach students; to encourage them to create something different, doesn't it?*
Chao	*When you use the traditional elements, this means to start from the tradition, doesn't it? Old elements mean traditional elements. So I still think that in our teaching it is important to teach traditional skills and knowledge. Without this training, how students can draw a nice painting?*
Wu	*I think that that is because we always use similar methods and materials to create the artworks, but of course we only have these methods… haha…so that this seems that we follow the tradition or learn from tradition… but this doesn't mean we need to be traditional! Creativity means doing something new. What do you think? (look at Wang)*
Wang	*But I think that I agree creativity is to do something new, but it is also important that to be creative… we have to be aware whether our ideas or behaviours could be accepted by the others. Because we share of life with other people, so while we are teaching, it is important to teach students that their creative ideas need to be appropriated by the public and can be accepted by the others. Being creative doesn't mean to seek peculiar.*
Wu	*…needs to be appropriated and accepted by the public… (think for 3 secs)* *But I believe that creative pedagogy itself also means not to be limited! For example, in*

	my teaching I did provide them some drawing examples or ideas to them. But I don't like to demonstrate or …
Wang	*Ask them to follow your ways!*
Wu	*Yes, only if this is a really difficult task. I don't want to let students copy my work or follow my ways to make their artworks. Hmm…Now… I feel that creative pedagogy may have more than one meaning or definition…*

Group B (extract)

Time: workshop session 1 20:29-25:31	
Chou (VISUAL ART), Liao (VISUAL ART), Liu (VISUAL ART) and Dia (DRAMA)	
Name	**Dialogue**
Chou	*I think creative pedagogy is a change from the traditional teaching. In general class, students may feel bored when we are teaching by using a formal or general strategy. Of course, it is difficult for them to concentrate on their learning or to learn what we are going to teach if they feel bored. Therefore, to carry on a creative teaching is to use some interesting teaching methods to help students immerse in their learning. In a word, they would love a funny teacher and a fancy teaching!*
Others	*Haha…(laugh)*
Liao	*So creative pedagogy to you means to be a funny teacher! It sounds that it needs to make a lot of efforts to be a good teacher.*
Others	*Haha…(laugh)*
Dia	*This sounds very tired!*
Chao	*More specifically creative pedagogy means that teacher needs to plan the lesson carefully and to design and add some special but interesting scenarios to catch students' attentions. This just likes a drama. You need to have a well-design script and create some funny or special moments to catch your audiences' attentions. Therefore, creative pedagogy to me is to wrap the materials that we are going to teach in an interesting and fancy cover. Never think about to use the traditional and formal teaching methods! It is out of date!! Just don't let them feel bored.*
Liao	*Hmm… This makes sense to me! I agree with you, but I would more prefer to use teaching strategies. For example, we can inspire students' ideas by asking them questions that they are interested in, or we can extend their thoughts by offering them our experience, and so on. Moreover, as the integrated learning has been highlighted in our curriculum, it would be a great idea that we can also combine arts with other subjects to teach students.*
Liu	*But… does doing a creative teaching only means being interesting?*
Liao	*What do you mean?*
Liu	*Because I feel that what you said in my understanding is more emphasis on interesting or funny! But does being interesting really equal to doing creative pedagogy? Besides interesting, what else should we be aware of while carrying on a creative pedagogy? What about not to limit students' thoughts and creative behaviours? I think to gave spaces to students is really important in my teaching!*
Others	*…(think)*
Dia	*Can you give an example?*
Liu	*Hmm… for example, in my teaching I always encouraged my students to create their own artworks, and I demonstrated rarely because I don't want to influence their ideas.*
Chao	*Hmm… I agree with you! This sounds similar to my teaching.*
Liao	*So, shall we conclude that to carry on a creative pedagogy, teachers need 1. to create an interesting learning climate to students; 2. to use effective teaching strategies to catch stusents' attentions; and 3. not to limit students' thoughts.*

GLOSSARY OF THE KEY TERMS

_____

Term	Definition
Action-based Case Study	A research methodology adopting a case study approach with an action–research-like approach, which not only involved the teacher-researcher's reflexivity and evaluation on practice, but also provided an in-depth understanding of a specific context on participants' concepts of, and practice in, creative pedagogy.
Creative Pedagogy [CPed]	Pedagogical practices to nurture learners' creativity.
Possibility Thinking Creative Pedagogy [PTCPed]	The pedagogical principles of fostering learners' creativity (in which possibity thinking is the core) based on Cremin et al's 2006 study. The pedagogical strategies are important in the evolution of PT through standing back, profiling learner agency and creating time and space.

References

Abbs, P. (1994) *The Educational Imperative: A Defence of Socratic and Aesthetic Learning*. Washington: Falmer Press.

Addison, N. & Burgess, L. (2007) Learning in Art and Design Education. In N. Addison & L. Burgess (eds.) *Learning to Teach Art and Design in the Secondary School: A Companion to School Experience.* 2nd edition. Oxon: Routledge Falmer.

Addison, N. (2010) Art and Design in Education: Ruptures and Continuities. In N. Addison, L. Burgess, J. Steers & J. Trowell (eds.) *Understanding Art Education: Engaging Reflexively with Practice*. Oxon: Routledge.

Afzalkhani, M. (2011) Survey on High School Curriculum Structure for Development of Individual and Group Creativity in Learning Process, *Middle East Journal of Scientific Research*, 8 (4), 837-845. Available from: http://www.idosi.org/mejsr/mejsr8(4)11/24.pdf [Accessed 5th July 2012]

Albert, R. S. & Runco, M. A. (1999) A History of Research on Creativity. In R. J. Sternberg (ed), *Handbook of Creativity*. New York: Cambridge University Press.

Allam, C. (2008) Creativity Activity and its Impact on Student Learning- Issues of Implementation, *Innovations in Education and Teaching International*, 45 (3), 281-288.

Alvesson, M. & Sköldberg, K. (2000) *Reflexive Methodology: New Vistas for Qualitative Research*. London: Sage.

Amabile, T. M. (1996) *Creativity in Context*. Boulder, CO: Westview Press.

Amabile, T. M. (in press) Componential Theory of Creativity. In E. H. Kessler (ed) *Encyclopedia of Management Theory*. USA: Sage Publications.

Anderson, T. & Milbrandt, M. K. (2005) *Art for Life: Authentic Instruction in Art*. Boston, MA: McGraw Hill.

Angeloska-Galevska, N. (1996) Children's Creativity in the Pre-school Institutions in Macedonia, *Psychoanalysis and Contemporary Thought, 21, 359-382.*

Backer, F.D., Lombaerts, K., Mette, T. D., Buffel, T. & Elias, W. (2012) Creativity in Artistic Education: Introducing Artists into Primary Schools. *International Journal of Art & Design Education*, 31, 1, 53–66.

Baer, J. & Kaufman, J. C. (2006) Creativity Research in English-speaking Countries. In J. C. Kaufman & R. J. Sternberg (eds.) *The International Handbook of Creativity*. New York: Cambridge University Press.

Bailey, J. (2008) First Steps in Qualitative Data Analysis: Transcribing. *Family*

Practice, 25, 127–131. Available from: http://fampra.oxfordjournals.org/content/25/2/127.full.pdf+html [Accessed 19th August 2012]

Banaji, S., Burn, A. & Buckingham, D. (2010) *The Rhetorics of Creativity: A Review of the Literature*. 2nd edition. London: Creativity, Culture and Education.

Banks, M. (2007) *Using Visual Data in Qualitative Research*. London: Sage.

Barbosa, A. M. (2008) Preface: The Politics of International Art Education. In T. Eca & R. Mason (eds.) *International Dialogues about Visual Culture, Education and Art*. Bristol, UK: Intellect Press.

Barker, K. (2010) *Visual Culture Art Education: Critical Pedagogy, Identity Formation and Generative Studio Practices in Art*. Unpublished MA dissertation: Boise State University.

Bassey M. (1995) *Creating Education through Research: A Global Perspective of Educational Research for the 21st Century*. Edinburgh: British Educational Research Association.

Bassey, M. (1999) *Case Study Research in Educational Settings*. Buckingham: Open University Press.

Beane, J. A. (1997) *Curriculum Integration: Designing the Core of Democratic Education*. New York: Teachers College Press.

Bechtoldt, M. N., De Dreu, C. K. W. & Nijstad, B. A. (2007) Team Personality Diversity, Group Creativity, and Innovativeness in Organisational Teams. *The Fondazione Eni Enrico Mattei Series, SUSDIV Paper 1*. Available from: http://www.susdiv.org/uploadfiles/RT3.2_PP_Carsten.pdf [Accessed 15th April 2012]

Beetlestone, F. (1998) *Learning in the Early Years: Creative Development*. Leamington Spa: Scholastic.

Beghetto, R. A. (2007) Creativity Research and the Classroom: From Pitfalls to Potential. In A. G. Tan (ed.) *Creativity: A Handbook for Teachers*. Singapore: World Scientific.

Beghetto, R. A. & Kaufman, J. C. (2007a) Toward a Broader Conception of Creativity: A Case for "Mini-c" Creativity. *Psychology of Aesthetics, Creativity, and the Arts*, 1 (2), 73–79.

Beghetto, R. A. & Kaufman, J. C. (2007b) The Genesis of Creative Greatness: Mini-C and the Expert Performance Approach. *High Ability Studies*, 18 (1), 59-61.

Blaikie, N. (2000) *Designing Social Research.* Cambridge: Polity Press.

Blaxter, L., Hughes, C. & Tight, M. (2001) *How to Research.* Second Edition. Buckingham: Open University Press.

Bleakley, A. (2004) Your Creativity or Mine?: A Typology of Creativities in Higher

Education and the Value of a Pluralistic Approach. *Teaching in Higher Education*, 9 (4), 463-475.

Blichfeldt, B. S., & Andersen, J. R. (2006) Creating a Wider Audience for Action Research: Learning from Case-Study Research. *Journal of Research Practice*, 2 (1), Article D2. Available from: http://jrp.icaap.org/index.php/jrp/article/view/23/69 [Accessed 10th August 2012]

Boden, M. A. (1999) Computer Models of Creativity. In R. J. Sternberg (Ed) *Handbook of Creativity*. Cambridge: Cambridge University Press.

Boyatzis, R. (1998) *Transforming Qualitative Information: Thematic Analysis and Code Development*. Thousand Oaks, CA: Sage.

Bragg, S. (2011) Now It's Up to Us to Interpret it: Youth Voice and Visual Methods in Creative Learning and Research. In P. Thomson & J. Sefton-Green (eds.) *Researching Creative Learning: Methods and Issues*. Oxon: Routledge.

Bullock, R. (1998) *Why Workshop? Changing Course in 7-12 English*. Portland, ME: Stenhouse.

Burnard, P., Craft, A., Cremin, T., Duffy, B., Hanson, R., Keene, J., Haynes, L. & Burns, D. (2006) Documenting 'Possibility Thinking': A Journey of Collaborative Enquiry. *International Journey of Early Years Education*, 14 (3), 243-262.

Burnard, P., Craft, A., Cremin, T. & Chappell, K. (2008) *Developing Methodology for Exploring 'Creative Learning' and 'Possibility Thinking'.* Paper presented at American Educational Research Association Annual Meeting, New York, March 2008.

Burton, J. M. (2001) Lowenfeld: An(other) Look. *Art Education*, 54(6), 33-43.

British Educational Research Association [BERA] (2000) *Good Practice in Educational Research Writing*. Southwell: BERA.

British Educational Research Association [BERA] (2004) *Revised Ethical Guidelines for Educational Research*. Available from: http://www.bera.ac.uk/publications/ [Accessed 15th August 2012]

Carter, R. (2004) *Language and Creativity: The Art of Common Talk.* New York: Routledge.

Chan, D. W. (2002) Fostering Creativity in Schools in Hong Kong: Issues and Challenges from a Systems Perspective. *Journal of Contemporary Chinese*, 5(1). Available from: http://www.fed.cuhk.edu.hk/~hkier/jecc/journallist.htm [Accessed 5th May 2012]

Chan, J. C. & Chen, Y. H. (2011) Developing Imagination for Taiwan's Future: The Role That Education Can Play [發揮想像力共創臺灣未來－教育系統能扮演的角色]. *Journal of Educational Resources and Research*, 100, 23-52. Available from: http://192.192.169.230/edu_paper/data_image/g0000219/0n100/20110600

/p0000023.pdf [Accessed 5th June 2012]

Chang, R & Richard, C. P. (1991) Characteristics of the Self-actualized Person: Visions From the East and West, *Counseling & Values*, 36 (1), 2-10.

Chang, S. H. (2011) An Exploration of Teaching for Creativity, Learning and Assessment [創造力教學、學習與評量之探究]. *Journal of Educational Resources and Research*, 100, 1-22.

Chao, C. L. (2004) *The Study of the Teaching Effectiveness on Scientific Creative Games Training Program for Elementary School Gifted Students* [以科學創意遊戲教學訓練方案激發國小資優班學生創造力之研究]. Unpublished Master dissertation: Cha-Yi University.

Chao, H. L. (2003) Paradigm and Compromise: Taiwanese Secondary Art Teacher Preparation [典範與妥協：我國中學階段視覺藝術師資之培育]. *Research in Arts Education*, 5, 49-81.

Chao, H. L., Chiu, Y. F., Chang, S. C., Fu, B. H., Cao, S. Y. & Chong, C. Y. (2006) The Contemporary Art Education: Visual Culture Art Education [當代藝術教育思潮：視覺文化藝術教育]. In H. L. Chao, Y. F. Chiu, S. C. Chang, B. H. Fu, S. Y. Cao & C. Y. Chong (eds.) *The Teaching Handbook of High School Arts Curriculum, Vol.1- Art*. Taipei: National Taiwan Arts Education Centre.

Chappell, K. (2007) Creativity in Primary Level Dance Education: Moving Beyond Assumption. *Research in Dance Education*, 8(1), 27-52. Available from: https://eric.exeter.ac.uk/repository/bitstream/handle/10036/68770/Creativity%20in%20primary%20level%20dance%20ed.pdf?sequence=1 [Accessed 15th March 2012]

Chappell, K., Craft, A., Burnard, P. & Cremin, T. (2008a) *Features of Possibility Thinking in Fostering Creative Learning*. Paper presented at BERA 2008.

Chappell, K., Craft, A., Burnard, P. & Cremin, T. (2008b) Question-posing and Question Responding: The Heart of 'Possibility Thinking' in the Early Years, *Early Years*, 28(3), 267- 286.

Chen, C., Kasof, J., Himsel, A. J., Greenberger, E., Dong, Q., & Xue, G. (2002) Creativity in Drawings of Geometric Shapes: A Cross-cultural Examination with Consensual Assessment Technique. *Journal of Cross-Cultural Psychology*, 33, 171–187.

Chen, J. W., Lai, M. L. & Chang, C. Y. (2005) *White Paper on Arts Education Policy* [藝術教育政策白皮書]. Taiwan, Taipei: MOE.

Chen, C. Y., Wu, W. T. & Chen, C. C. (2005) The Development of Creativity Education in Taiwan: A Historical Review [我國創造力教育發展史]. *Educational Resource Papers*, 30, 97-112.

Chen, H. H. (2001) How to Develop Children's Creativity through Picture Books [如何利用圖畫書發展兒童的創造力]. *Journal of Language Education*, 23, 64-78.

Chen, H. W., Freng, C. L. & Zen, J. H. (2004) Curriculum Integration and the Transformation of Teachers' Professional Knowledge: The Case of Arts Teachers [課程統整與教師知識的轉化-以「藝術與人文」領域教師為例]. *Journal of Normal University: Education*, 49(1), 103-122.

Chen, H. Y. (2005) The Application Creativity on Fine Arts Teaching [創造力在美術教學上的運用]. *Journal of Aesthetic Education*, 145, 66-79.

Chen, J. C. H. (2004) After Rethink Grade 1-9 Curriculum: The Guideline and Arts and Humanities Learning Area and the Selections of Visual Arts Education Materials and Sources [「後」九年一貫之再思考：「藝術與人文」學習領域課程綱要與視覺藝術教材之選取]. *New Horizon Bimonthly For Teachers in Taipei*, 11, 407-420.

Chen, L. A. (1990) *The Establishment and Proof of 'ATDE Creative Teaching Module'* [「問想做評」創造思考教學模式的建立與驗證--智能結構模式在創造思考教學上的應用]. Unpublished PhD Thesis: National Taiwan Normal University.

Chen, L. A. (2006) *The Theory and Practice of Creative Pedagogy* [創造思考教學的理論與實際]. Sixth Edition. Taipei: Psychological Publishing.

Chen, M. Y. (1997) Reflections on and Breakthrough in Traditional Oppressive Teaching Method: To be a Creative Professional Teacher [傳統「壓迫式教學法」的省思與突破-成為一為有創意的專業教師]. *Secondary Education*, 48(1), 111-120.

Chen, Y. C. (2006) Current International Situation of Cultural Creative Industry and Establishment of Its Intercourse Platform [文化創意產業的國際現況與交流平台之建立]. *Journal of Aesthetic Education*, 154, 4-11.

Chen, Y. F. (2007) *An Action research of Applying Creative Thinking Activity in Visual Arts Teaching in Elementary School High Graders* [國小高年級以創造思考活動為中心的視覺藝術教學之行動研究]. Unpublished MA dissertation: National Taichung University of Education.

Chen, Y. H. (1996) *An Experimental Study of Creative Teaching on Art Performance of Elementary School Students* [創造性取向教學對國小兒童繪畫表現之實驗研究]. Unpublished MEd Dissertation: National Taichung University of Education.

Cheng, V. M. Y. (2004) Progress from Traditional to Creativity Education in Chinese Societies. In S. Lau, A. N.N. Hui & G. Y. C. Ng (Eds.) *Creativity: When East Meet West*. Singapore: World Scientific Publishing.

Cheng, T. Y. (2012) *An Action Research of Curriculums on the Education of Creative Thinking Teaching Strategies to Promote the Ability of Drawing of the High Graders of Elementary School* [國小視覺藝術課程以創造思考活動為中心對五年級學生描繪能力影響之行動研究]. Unpublished MA dissertation: National Taichung University of Education.

Chien, J. J. (2004) Considering the Problems About Arts and Humanities Teachers Training Program from Teacher Selection [從教師甄選看藝術與人文教師的甄選與培育問題]. *Art*, 137, 52-55. Taipei: National Taiwan Arts Education Publications.

Choe, I. S. (2006) Creativity – A Sudden Rising Star in Korea. In J. C. Kaufman & R. J. Sternberg (eds.) *The International Handbook of Creativity*. New York: Cambridge University Press.

Chou, W. M. (2004) *A Study of the Effects of "Creative Picture Books Instruction" on the Creativity and Art Performance of the Fourth Graders* [「創造性圖畫書教學」對國小學童創造力與繪畫表現之研究]. Unpublished Med dissertation: National Sun Yat-Sen University.

Clark, G. A., Day, M. D. & Greer, W. D. (1987) Discipline-Based Art Education: Becoming Students of Art. *Journal of Aesthetic Education,* 21(2), 129-193.

Claxton, G. (2003) *Creativity: A Guide for the Advanced Leader (and Teacher)*. Adapted from: National Association of Head Teachers' Leadership Papers. Available from: http://www.guyclaxton.com/documents/New/A%20Guide%20for%20the%20Advanced%20Learner.pdf [Accessed 15th March 2012]

Clay, G., Hertrich, J., Jones, P., Mills, J. & Rose, J. (1998) *The Arts Inspected: Good Teaching in Art, Dance, Drama, Music*. Oxford: Heinemann Educational Publishers.

Cochrane, P., Craft, A. & Jeffery, G. (2008) Mixed Messages or Permissions and Opportunities? Reflections on Current Policy Perspectives on Creativity in Education. In J. Sefton-Green (ed) *Creative Learning*. London: Creative Partnerships, Arts Council England. Available from: http://www.shenton.wa.edu.au/dreamgirl/filesend/238/Creative%20Learning.pdf [Accessed 15th April 2012]

Coghlan, D. (2002) Putting "Research" Back into OD and Action Research: A Call to OD Practitioners. *Organizational Development Journal*, 20(1), 62-66.

Cohen, L. Manion, L. & Morrison, K. (2007) *Research Methods in Education.* Sixth Edition. New York: Routledge.

Computer Centre of Ministry of Education [CCME] (Taiwan) (2008) Available from: http://www.edu.tw/moecc/content.aspx?site_content_sn=1577 [Accessed 15th May 2012]

Cotton, T. (2011) From Voice to Choice: Evaluation and Action Research into Creativity. In P. Thomson. & J. Sefton-Green (ed.) *Researching Creative Learning: Methods and Issues*. Oxon: Routledge.

Crotty, M. (2005) *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage.

Craft, A. (2000) *Creativity cross the Primary Curriculum*. London, Routledge.

Craft, A. (2001a) *An Analysis of Research and Literature on Creativity in Education*. Report prepared for the Qualifications and Curriculum Authority. London, QCA.

Craft, A. (2001b) Little c Creativity. In A. Craft, R. Jeffrey & M. Leibling (eds.) *Creativity in Education*. London and New York: Continuum.

Craft, A. (2002) *Creativity and Early Years Education: A Lifewide Foundation*. London: Continuum International Publishing Group.

Craft, A. (2003) Creative Thinking in the Early Years of Education. *Early Years: An International Journal of Research and Development*, 23(2), 143–154.

Craft, A. (2005) *Creativity in Schools: Tensions and Dilemmas*. Abingdon: Routledge.

Craft, A. (2008) Tensions in Creativity and Education: Enter Wisdom and Trusteeship? in A. Craft, H. Gardner, & G. Claxton (eds.) *Creativity, Wisdom, and Trusteeship: Exploring the Role of Education*. London: Sage.

Craft, A. (2011a) *Creativity in Education: Learning in a Digital Age*. Keynote talk in 8th Annual Galway Symposium on Higher Education, "Creative Thinking: Re-imagining the University", 10th June 2010. Available from: http://www.nuigalway.ie/celt/webcasts/Craft_Keynote/Craft_Keynote.html [Accessed 15th July 2012]

Craft, A. (2011b) *Creativity and Education Futures: Learning in a Digital Age*. Stoke-on-Trent: Trentham Books.

Craft, A. (2011c) Approaches to Creativity in Education in the United Kingdom. In J. Sefton-Green & P. Thomson, K. Jones & L. Bresler (eds.) *The Routledge International Handbook of Creative Learning*. Oxon: Routledge.

Craft, A., Cremin, T. & Burnard, P. (eds.) (2008) *Creative Learning 3-11*. Stoke-on-Trent: Trentham Books.

Craft, A., Cremin, T., Burnard, P. & Chappell, K. (2007) Teacher Stance in Creative Learning: A Study of Progression. *Journal of Thinking Skills and Creativity*, 2(2), 136–147.

Craft, A., Dugal, J., Dyer, G., Jeffrey, B. & Lyons, T. (eds.) (1997) *Can You Teach Creativity?* Nottingham: Education Now.

Craft, A., Gardner, H. & Claxton, G. (2008) Nurturing Creativity, Wisdom, and Trusteeship in Education. In A. Craft, H. Gardner & G. Claxton (eds.), *Creativity, Wisdom, and Trusteeship: Exploring the Role of Education*. Thousand Oaks, CA: Corwin Press.

Craft, A., Grainger, T., Burnard, P. & Chappell, K. (2006) *Progression in Creative Learning (PICL Pilot): A Study Funded by Creative Partnerships*. Available from: http://www.creative-partnerships.com/content/researchAndEvaluationProjec

ts/139847/?version=1 [Accessed 19th July 2012]

Craft, A. & Jeffrey, B. (2008) Creativity and Performativity in Teaching and Learning: Tensions, Dilemmas, Constraints, Accommodations and Synthesis. *British Educational Research Journal*, 34(5), 577-584.

Craft, A., McConnon, L. & Matthews, A. (2012) Child-initiated Play and Professional Creativity: Enabling Four-year-olds' Possibility Thinking. *Thinking Skills and Creativity*, 7(1), 48–61. Available from: http://www.sciencedirect.com/science/article/pii/S1871187111000642 [Accessed 19th July 2012]

Creek, P. (2006) *EFPM216: Unite: 3: Teaching Art and Design in the Primary School: dcs Sept 2006*. Exeter: Department of Lifelong Learning.

Cremin, T. Burnard, P. & Craft, A. (2006) Pedagogy and Possibility Thinking in the Early Years. *Thinking Skills and Creativity,* 1(2), 108-119.

Cremin, T., Chappell, K. & Craft, A. (2012) Reciprocity between Narrative, Questioning and Imagination in the Early and Primary Years: Examining the Role of Narrative in Possibility Thinking. *Thinking Skills and Creativity.* DOI: http://dx.doi.org/10.1016/j.tsc.2012.11.003

Creswell, J. W. (1998) *Qualitative Inquiry and Research Design: Choosing among Five Traditions*. Thousand Oaks, CA: Sage.

Cropley, A. J. (1992) *More Ways Than One: Fostering Creativity.* NJ, USA: Ablex Publishing Corporation.

Crotty, M. (2005) *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage.

Csikszentmihalyi, M. (1988) Society, Culture, and Person: A Systems View of Creativity. In R. J. Sternberg (ed) *The Nature of Creativity*. New York: Cambridge University Press.

Csikszentmihalyi, M. (1990) *Flow: The Psychology of Optimal Experience*. New York: Harper & Row.

Csikszentmihalyi, M. (1997) *Creativity: Flow and the Psychology of Discovery and Invention*. New York: HarperCollins.

Csikszentmihalyi, M. (1999) Implications of a Systems Perspective. In J. Sternberg (ed) *Handbook of Creativity*. Cambridge: University Press.

Csikszentmihalyi, M. & Wolfe, R. (2000) New Conceptions and Research Approach to Creativity: Implications of a Systems Perspective for Creativity in Education. In K. A. Heller, F. J. Monk, R. J. Sternberg & R. F. Subotnik (eds.) *International Handbook of Giftedness and Talent*. New York: Elsevier.

Cunliffe, L. (2008) Using Assessment to Nurture Knowledge-rich Creativity. *Innovations in Education and Teaching International*, 45(3), 309-317.

Cunliffe, L. (2010) *Wittgenstein's and Gombrich's Parallel Therapeutic Projects from Modernity and Art Education*. Submitted to British Journal of Philosophy of Education. Available from: http://education.exeter.ac.uk/download.php?id=11864 [Accessed 23th July 2012]

Davies, C. A. (1999) *Reflexive Ethnography: A Guide to Researching Selves and Others*. New York: Routledge.

Department for Education and Employment [DfEE] (1999) *The National Curriculum for England- Art and Design, Key stages1-3*. London: DfEE.

Denzin, N. K. & Lincoln, Y. S. (eds.) (1998) *Strategies of Qualitative Inquiry*. London: SAGE.

Dineen, R. & Niu, W. (2008) The Effectiveness of Western Creative Teaching Methods in China: An Action Research Project. *Psychology of Aesthetics, Creativity, and the Arts*, 2(1), 42-52.

Dobbs, S. M. (1988) *Research Readings in Discipline-based Art Education: A Journey beyond Creating*. Reston, VA: National Art Education Association.

Dobbs, S. M. (1992) *The DBAE Handbook: An Overview of Discipline-Based Art Education.* Santa Monica: The J. Paul Getty Trust. Available from: http://www.eric.ed.gov/PDFS/ED349253.pdf [Accessed 19th July 2012]

Dower, R. C. (2008) Fostering Creative Learning for 3-5 Year-olds in Four International Settings. In A. Craft, T. Cremin & P. Burnard (eds.) *Creative Learning 3-11*. Stoke-on-Trent: Trentham Books.

Duffy, B. (1998) *Supporting Creativity and Imagination in the Early Years*. Second Edition. Maidenhead: Open University Press.

Duncum, P. (2001) Visual Culture: Developments, Definitions, and Directions for Art Education. *Studies in Art Education*, 4(2), 101-112.

Duncum, P. (2001) Visual Culture Art Education: Why, What, and How. *International Journal of Art & Design Education*, 21(1), 14-23.

Duncum, P. (2002) Clarifying Visual Culture Art Education. *Art Education*, 55(3), 6-11.

Duncum, P. (2004) Visual Culture Isn't Just Visual: Multiliteracy, Multimodality and Meaning. *Studies in Art Education*, 45(3),252-264.

Eisner, E. W. (1972) *Educating Artistic Vision.* London: Collier-Macmillan.

Efland, A. D. (1990) *A History of Art Education: Intellectual and Social Currents in Teaching the Visual Arts.* New York: Teachers College Press.

Eglinton, K. A. (2003) *Art in the Early Years*. London: Taylor & Francis.

Ellinger, A.D., Watkins, K.E., & Marsick, V.J. (2005) Case Study Research Methods.

In R. A. Swanson & E. F. Holton III (eds.), *Research in Organizations: Foundations and Methods of Inquiry*. San Francisco, CA: Berrett-Koehler.

Ely, M., Anzul, M., Friedman, T., Garner, D. & Steinmetz, A. M. (1991) *Doing Qualitative Research: Circles within Circles.* London: Falmer Press.

Esquivel, G. B. (1995) Teacher Behaviours that Foster Creativity. *Educational Psychology Review*, 7, 185-201.

European Commission [EC] (2006) *The Economy of Culture in Europe.* Available from: http://ec.europa.eu/culture/key-documents/doc873_en.htm [Accessed 9th May 2012]

European Trade Union Committee for Education [ETUCE] (2008) *Teacher Education in Europe*. An ETUCE policy paper. ETUCE. Available from: http://etuce.homestead.com/Publications2008/ETUCE_PolicyPaper_en_web.pdf. [Accessed 9th February 2013]

European Union Seventh Framework Programme [EUSFP] (2012) *Creative Little Scientists: Enabling Creativity through Science and Mathematics in Preschool and First Years of Primary Education: Conceptual Framework.* Available from: http://www.creative-little-scientists.eu/sites/default/files/CLS_Conceptual_Framework_FINAL.pdf [Accessed 10th January 2013]

Fautley, M. & Savage, J. (2007) *Creativity in Secondary Education*. Exeter: Learning Matters Ltd.

Fasko, D. Jr. (2006) Creative Thinking and Reasoning. In J.C. Kaufman & J. Baer (eds.) *Creativity and Reason in Cognitive Development*. New York: Cambridge University Press.

Feldman, D. & Benjamin, A. C. (2006) Creativity and Education: An American Retrospective. *Cambridge Journal of Education*, 36(3), 319-336.

Feldman, D. H., Csikszentmihayi, M. & Gardner, H. (1994) A Framework for the Study of Creativity. In D. H. Feldman, M. Csikszentmihayi & H. Gardner (eds.) *Changing the World: A Framework for the Study of Creativity*. CT, USA: Praeger Published.

Fereday, J. & Muir-Cochrane, E. (2006) Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods*, 5(1), 80-92.

Ferrance, E. (2000) *Action Research*. Providence, RI: LAB at Brown University.

Ferrari, A., Cachia, R. & Punie, Y. (2009) *Innovation and Creativity in Education and Training in the EU Member States: Fostering Creative Learning and Supporting Innovative Teaching:* Literature Review on Innovation and Creativity in E&T in the EU Member States (ICEAC). Luxembourg: European Communities.

Fleming, M. (2010) *Arts in Education and Creativity*. Second Edition. Newcastle: CCE.

Ford, C. M. (1996) A Theory of Individual Creative Action in Multiple Social Domains. *Academy of Management Review*, 21(4), 1112-1142.

Fox, J. E. & Pittlly (2000) Integrating the Visual Arts-building Young Children's Knowledge, Skills, and Confidence. *Dimensions of Early Childhood*, 29 (1), 3-10.

Freedman, K. (2000) Social Perspectives on Art Education in the U.S.: Teaching Visual Culture in a Democracy. *Studies in Art Education*, 41(4), 314-329.

Freedman, K. (2003) Recent Shifts in US Art Education. In N. Addison & L. Burgess (eds.) *Issues in Art and Design Teaching*. Oxon: RoutledgeFalmer.

Freedman, K. & Stuhr, P. (2004) Curriculum Change for the 21st Century: Visual Culture. In E. W. Eisner & M. D. Day (eds.) *Handbook of Research and Policy in Art Education*. Mahwah, NJ: Lawrence Erlbaum Associates.

Fryer, M. (1996) *Creativity Teaching and Learning*. London: Paul Chapmam Publishing Ltd.

Furlong, J. Barton, L. Miles, S. Whiting, C. & Whitty, G. (2000) *Teacher Education in Transition: Re-forming Professionalism*. Buckingham: Open University Press.

Gardner, H. (1990) *Art Education and Human Development.* Los Angeles: The Getty Centre for Education in the Arts.

Gardner, H. (1993) *Creating Minds.* New York: Basic Books.

Geertz, C. (1973) Thick Description: Toward an Interpretive Theory of Culture. In C. Geertz, *The Interpretation of Cultures: Selected Essays*. New York: Basic Books. Available from: http://www.alfrehn.com/fahlner/tko/resources/Kultur/Thick-Description.pdf [Accessed 9th August 2012]

Gill, L. (1990) *The Arts – Do We Need Them*?, London: Franklin Watts Ltd.

Golafshani, N. (2003) Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), 597-607. Available from: http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf [Accessed 23rd August 2012]

Goncalo, J. A. & Staw, B. M. (2006) Individualism-collectivism and Group Creativity. *Organizational Behavior and Human Decision Processes*, 100, 96-109. Available from: http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1000&context=obpubs [Accessed 9th May 2012]

Gordon, M. & O'Brien, T. V. (eds.) (2006) *Bridging Theory and Practice in Teacher Education*. Rotterdam: Sense Publishers.

Grainger, T. & Barnes, J. (2006) Creativity in the primary curriculum. In: Arthur, James; T. Grainger & D. Wray (eds.) *Learning to Teach in the Primary School*.

London, UK: Routledge.

Greer, W. D. (1984) Discipline-based Art Education: Approaching art as a Subject of Study. *Studies in Art Education*, 25(4), 212-218.

Greer, W. D. (1993) Developments in Discipline-based Art Education (DBAE): From Art Education toward Arts Education. *Studies in Art Education*, 34(2), 91-101.

Grierson, E. (2011) Art and Creativity in the Global Economies of Education. *Educational Philosophy and Theory*, 43(4), 336-350.

Grix, J. (2004) *The Foundations of Research*. New York: Palgrave Macmillan.

Gruber, H. E. & Wallace, D. B. (1999) The Case Study Method and Evolving Systems Approach for Understanding Unique Creative People at Work. In R. J. Sternberg (ed) *Handbook of Creativity*. Cambridge: Cambridge University Press.

Guba, E. G. & Lincoln, Y. S. (1994) Competing Paradigms in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (eds.) *Handbook of Qualitative Research*. Thousand Oaks, USA: Sage.

Halstead, M. F. (2008) Discipline-based Art Education: A Fresh Approach to Teaching Art. *The Journal of Adventist Education*, 71, 43-47. Available from: http://circle.adventist.org/files/jae/en/jae200871014305.pdf [Accessed 18th June 2012]

Habermas, J. (1996) *Between Facts and Norms*. Cambridge: MIT Press.

Harris, A., Bruster, B., Peterson, B., & Shutt, T. (2010) *Examining and Facilitating Reflection to Improve Professional Practice*. Lanham, MD: Roman and Littlefield.

Hartley, J. (2003) *A Short History of Cultural Studies*. London: SAGE.

Hartley, J. (2005) *Creative Industries*. Oxford: Blackwell Publishing.

Hennessey, B. A. (1995) Social, Environmental, and Developmental Issues and Creativity. *Educational Psychology Review*, 7(2), 163-183.

Hennessey, B. A. (2007) Creativity and Motivation in the Classroom: A Social Psychological and Multi-cultural Perspective. In A. G. Tan (ed.) *Creativity: A Handbook for Teachers*. Singapore: World Scientific.

Hennessey, B. A. & Amabile, T. (1987) *Creativity and Learning*. National Education Association of United States.

Hennessey, B. A. & Amabile, T. M. (1988) The Conditions of Creativity. In R. J. Sternberg (ed) *The Nature of Creativity: Contemporary Psychology Perspectives*. New York: Cambridge University Press.

Helson, R. (1996) In Search of the Creative Personality, *Creativity Research Journal*, 9, 295-306.

Hetland, L., Winner, E., Veenema, S., Sheridan, K. M. (2007) *Studio Thinking: The Real Benefits of Visual Arts Education*. New York: Teachers College, Columbia University.

Hickman, R. (2005a) *Why We Make Art and Why It Is Taught*? Bristol: Intellect Books.

Hickman, R. (ed) (2005b) *Critical Studies in Art & Education*. Bristol: Intellect Books.

Ho, D. Y. F., Peng, S. Q. & Chan, S. F. (2002) Authority and Learning in Confucian-Heritage Education: A Relational Methodological Analysis. In F. Salili, C. Y. Chiu, & Y. Y. Hong (eds.) *Multiple Competencies and Self-regulated Learning: Implications for Multicultural Education*. Greenwich, CT: Information Age Publishing.

Hong, J. C., Lin, Y. L. & Lin, C. L. (2004) A Study of Teaching Strategies and Effectiveness of Great Creative Teachers at Elementary and Junior High Schools[國中小創意教師教學策略之研究 – 四位創意教學特優教師的個案分析]. *The Bulletin of Educational Psychology*, 35(4), 375-392.

Hong, R. J. (2005) The Development and Implement of E-learning [E-learning 的發展與運用]. *Taiwan Education*, 631, 2-10.

Horng, J. S., hong, J. C., ChanLin, L. J., Chang, S. H. & Chu, H. C. (2005)Creative Teachers and Creative Teaching Strategies. *International Journal of Consumer Studies*, 29(4), 352–358.

Hsiao, C. C. (2006) *The Experiences Sharing of the Work in Creative Math Teaching Competitions in Elementary and Junior High Schools* [中小學數學教師創意教學競賽的推廣實務與經驗分享]. In 2006 Creative Math Teaching Conference. Taiwan: National Ping Tung University of Education, pp. 12-43.

Hsiao, C. C. & Tu, C. H. (2012) The Developmental of "The Inventory of Teachers' Teaching for Creativity" [教師創造力教學行為量表之發展]. *Curriculum & Instruction Quarterly*, 15(2), 87-118.

Hsiao, H. S., Hong, W. T. & Wu, J. X. (2009) A Study on Technological Creativity Instruction by the On-line Game [以網路遊戲實施科技創造力教學之研究]. *Journal of National Taiwan College of Arts*, 84, 93-116.

Hsiao, Y. W. (2010) *A study of the Effect of ATDE Musical Education Creative Thinking Program on The Middle-schoolSstudents* [「問想做評（ATDE）」音樂教育創造思考教學方案對國中學生創造力影響之研究]. Unpublished Master dissertation: University of Shih-Chien.

Hsu, L. S., Wang, L. Y., Lin, M. J. & Lu, Z. H. (2008) *Taiwan Arts Education History.* [台灣藝術教育史]. Taipei: National Taiwan Arts Education Center.

Huang, L. C. (2008) *A Study on Junior High School Students' Graph Creativity and Related Influential Factors in Two Junior High Schools in Taipei County* [國中

生圖形創造力表現及其相關影響因素之研究--以臺北縣某兩所國中為例]. Unpublished Master dissertation: University of National Taiwan Normal University.

Huang, S. H. (2003) *A Study on the Visual Arts Curriculum and Instruction Using Creative Thinking Strategies in Elementary School* [國小視覺藝術創造思考課程與教學之研究]. Unpublished MEd dissertation: National Ping Tung University of Education.

Huang, S. M. (2004) *A Study of Teaching Effectiveness of Visual Arts Curriculum with Creative Thinking Instructional Strategy in Elementary Schools* [國小視覺藝術課程實施創造性思考教學成效之研究]. Unpublished MEd dissertation: National Kaohsiung Normal University.

Humanities and Social Science Education Programme of the Ministry of Education Adviser Website [HSSEP][教育部顧問室人文社會科學教育計畫網站] (n.d.) Available from: http://hss.edu.tw/index.php [Accessed 5th June 2012]

Hus, T. L. & Kuo, J. J. (2007) The Influence of Creative Art Teaching Activity to Older Children's Creative Performance in Kindergarten [創造性藝術教學活動對幼兒園大班幼兒創造力表現影響]. *Art Review*, 80, 165-183.

Hwang, R. L. (1999) The Three-C Approach for Art Education [藝術教育的三 C 策略]. *Arts Education, 107*, 6-25.

Jackson, M. (2006) *Creativity in Higher Education: Creating Tipping Points for Cultural Change*. SCEPTrE Scholarly Paper 3. Available from: http: www.surrey.ac.uk/sceptre/documents/PAPER3DEVELOPINGCREATIVITYINTERTIARYEDUCATION.doc [Accessed 5th April 2012]

Jagodzinski, J. (2009) Beyond Aesthetics: Returning Force and Truth to Art and its Education. *Studies in Art Education*, 50(4), 338-351.

James, H. (2007) Attitudes to Making. In N. Addison& L. Burgess (eds.) *Learning to Teach Art and Design in the Secondary School: A Companion to School Experience.* Second Edition. Oxon: RoutledgeFalmer.

James, V., Lederman G. R., & Vagt-Traore, B. (2004) Enhancing Creativity in the Classroom. In M. Orey (ed.) *Emerging Perspectives on Learning, Teaching, and Technology*. USA: Department of Educational Psychology and Instructional Technology, University of Georgia.

Jeffrey, B. (1997) Framing Creativity in Primary Classrooms. In A. Craft (ed) *Can You Teach Creativity*? Nottingham: Education Now.

Jeffrey, B. (2005) *Final Report of the Creative Learning and Student Perspectives Research Project (CLASP)*, a European Commission Funded project through the Socrates Programme, Action 6.1, Number 2002 – 4682 / 002 – 001. SO2 – 61OBGE. Milton Keynes. Available from: http://clasp.open.ac.uk. [Accessed 15th March 2012]

Jeffrey, B. (2006) Creative Teaching and Learning: Towards a Common Discourse

and Practice. *Cambridge Journal of Education*, 36(3), 339-414.

Jeffrey, B. & Craft, A. (2001) The Universalization of Creativity. In A. Craft, B. Jeffrey & M. Leibling (eds.) *Creativity in Education*. London: Continuum.

Jeffrey, B. & Craft, A. (2004) Teaching Creatively and Teaching for Creativity: Distinctions and Relationships. *Educational Studies*, 30(1), 77-87.

Jeffrey, B. & Craft, A. (2006) Creative Learning and Possibility Thinking. In B. Jeffrey (ed) *Creative Learning Practices: European Experiences*. London: The Tufnell Press.

Jeffrey, B. & Woods, P. (1997) The Relevance of Creative Teaching: Pupils' views. In A. Pollard, D. Thiessen & A. Filer (eds.) *Children and Their Curriculum: The Perspectives of Primary and Elementary Children.* London: Falmer.

Jin, L. & Cortazzi, M. (1998) Dimensions of Dialogue, Large Classes in China. *International Journal of Educational Research*, 29, 739-761.

Jones, R. & Wyse, D. (2004) *Creativity in the Primary Curriculum*, London: David Fulton.

Joubert, M. M. (2001) The Art of Creative Teaching: NACCCE and Beyond. In A. Craft, B. Jeffrey, & M. Leibling (eds.) *Creativity in Education*. London: Continuum.

Kahl, C. H. (n.d.) Creativity is More Than a Trait: It's a Relation. *In-Mind Magazine*, 6. Available from: http://beta.in-mind.org/node/130 [Accessed 9th June 2012]

Kang, T. S. (2002) *The Research Report of the Teaching Strategy in the Arts and Humanities Learning Ares in new Grade 1-9 curriculum*. Taiwan, Taipei: NAEC.

Kangas, M. (2010) Creative and playful learning: Learning through game co-creation and games in a playful learning environment. *Thinking Skill and Creativity*, 5(1), 1-15.

Kaufman, J. C. & Beghetto, R. A. (2009) Beyond Big and Little: The Four C Model of Creativity. *Review of General Psychology*, 13(1), 1–12.

Kelley, D. (2012) *How to Build Your Creative Confidence*. Available from: http://www.ted.com/talks/david_kelley_how_to_build_your_creative_confidence.html [Accessed 3rd November 2012]

Kear, M. & Callaway, G. (2000) *Improving Teaching and Learning in the Arts*. London: Falmar Press.

Kemmis, S. & McTaggart, R. (1992) *The Action Research Planner.* Third Edition. Victoria, Australia: Deakin University Press.

Kemmis, S. & McTaggart, R. (2005) Participatory Action Research. In: N. K. Denzin, & Y. Lincoln (eds.) *Qualitative Research*. Third Edition. London: SAGE.

Kersting, K. (2003) What Exactly is Creativity? Psychologists Continue Their Quest to Better Understand Creativity. *Monitor on Psychology*, 34(10), 40. Available from: http://www.apa.org/monitor/nov03/creativity.aspx [Accessed 6th June 2012]

Kim, K. H. (2005) Learning from Each Other: Creativity in East Asian and American Education. *Creativity Research Journal,* 17(4), 337–347.

Kim, K. H. (2007) Exploring the Interactions between Asian Culture (Confucianism) and Creativity. *Journal of Creative Behavior*, 41(1), 28-53.

Kindler, A. M. (1996) Myths, Habits, Research, and Policy: The Four Pillars of Early Childhood Art Education. *Arts Education Policy Review*, 97(4), 24-30.

Kozbelt, A., Beghetto, R. A., & Runco, M. A. (2010) Theories of Creativity. In J. C. Kaufman, R. J. Sternberg (eds.) *The Cambridge Handbook of Creativity*. New York, NY: Cambridge University Press.

Kristeller, P. (1990) Afterword: Creativity and Tradition. *Renaissance Thought and the Arts, Collected Essays*. Princeton: Princeton University Press.

Kuo, J. J. (1994) The Prerequisite before the Transformation of competence indicators in Arts and Humanities learning Area- Visual Arts as an Example [藝術與人文能力指標轉化之前提－以視覺藝術為例]. *New Horizon Bimonthly For Teachers in Taipei*, 130, 4-13.

Kuo, Y. L., T, S. L. & Ding, Y. (2007) Implications of Creativity in Gifted Programs: Csikszentmihalyi's Approach. [Csikszentmihalyi 創造力理論在資優教育之應用] *Gifted Education*, 103, 19-28.

Kvale, S. (1996) *InterViews: An Introduction to Qualitative Research Interviewing*. London: SAGE.

Kvale, S. & Brinkman, S. (2009) *Interviews: Learning the Craft of Qualitative Research Interviewing*. Second Edition. Thousand Oaks, CA: Sage.

Kyriacou, C. (1996) *Effective Teaching in Schools- Theory and Practice*. Second Edition. Cheltenham: Thornes.

Lai, M. C. (2011) *An Action Research on Developing the Instructional Program for Future Imagination about the "Myself in 2030"* [「與 2030 年的我對話」未來想像教學方案發展之行動研究]. Unpublished MEd dissertation in National Taipei University of Education.

Lachapelle, R. (1997) Experiential Learning and Discipline-based Art Education. *Visual Arts Research*, 23(2), 135-144.

Lan, H. M. (2002) The Present Issues of Art Teacher Education in Elementary and Junior High Schools [目前我國中小學一般藝術教育師資培育的相關問題]. In S. J. Syu (ed) *NTAEC Conference Proceedings of General Art Teacher Education in Elementary and Junior High Schools*, pp. 44-52. Taipei: NTAEC Press.

Larrivee, B. (2000) Transforming Teaching Practice: Becoming the Critically Reflective Teacher. *Reflective Practice*, 1(3), 293-307.

Lau, S., Hui, A. N. N. & Ng, G. Y. C. (2004) Creativity: A Metting between the East and the West. In S. Lau, A. N. N. Hui & G. Y. C. Ng (eds.) *Creativity: When East meets West*. Singappore: World Scientific Publishing.

Lee, Z. P. & Wu, Y. W. (2009) An Experimental Study on the Teaching in Geometric Figures for the Form-Creativity of Elementary School Students [畫骨或畫形？以基本幾何圖形引|導學童繪圖的造形創造力表現研究]. *Journal of National Pingtung University of Education: Liberal Arts & Social Science*, 32, 215-242.

Leung, K., Au, A. & Leung, B. W. C. (2004) Creativity and Innovation: East-Weat Comparisons with an Emphasis on Chinese Societies. In S. Lau, A. N.N. Hui & G. Y. C. Ng (eds.) *Creativity: When East Meet West*. Singapore: World Scientific Publishing.

Lima, M. G. (1995) From Aesthetics to Psychology: Notes on Vygotsky's Psychology of Art. *Anthropology & Education Quarterly*, 26(4), 410-424.

Lin, C. H. (2012) *The Development of Scale for Determining Factors That Influence Pupils'Visual Artistic Creativity* [國小視覺藝術創造力影響因素之量表發展]. Unpublished Med dissertation: National Taichung University of Education.

Lin, H. F. (2012) A Review on the Pragmatic Approaches in Educating and Learning Creativity, *International Journal of Research Studies in Educational Technology,* 1(1), 13-24.

Lin, M. L. (1993) *A Reference Book of Arts Education Integrated Curricula in the Elementary and Secondary Schools of the Important Nations* [世界重要國家中小學藝術教育課程統整模式參考手冊]. Taipei: National Taiwan Arts Education Centre.

Lin, P. F. (2008) Construction and Related Study of the Inventory of Self-efficacy for Creative Teaching [創意教學自我效能感量表之編製與相關研究], *Journal of Educational Research and Development*, 4(1), 141-170.

Lin, Y. L. (2002) *A Study of Creative Teaching Strategies and Effectiveness on Teachers in Elementary and Junior High Schools* [國中小創意教師教學策略與成效之研究]. Unpublished MEd dissertation: National Taiwan Normal University.

Lin, Y. S. (2002) The Recent Fifty Years of Reforms and Developments in Visual Arts Education in Secondary School [近五十年來我國中等學校視覺藝術教育的改革與發展]. In Taiwan Arts Education Association (eds.) *Proceedings of Asian Regional Congress and the 3rd Annual Cross-Strait Art Education Symposium 2001*, 45 - 4 6. Changhua: Taiwan Arts Education Association.

Lin, Y. S. (2010) Drama and Possibility Thinking—Taiwanese Pupils' Perspectives Regarding Creative Pedagogy in Drama. *Thinking Skills and Creativity*, 5(3), 108-119.

Lin, Y. S. (2011) Fostering Creativity through Education—A Conceptual Framework of Creative Pedagogy. *Creative Education*, 2(3), 149-155.

Lin, W. W. (2011) Creative Teaching and Cultivation of Creativity: The Exemplar of Design Thinking [創意教學與創造力的培育-以「設計思考」為例]. *Journal of Educational Resources and Research*, 100, 53-74.

Lincoln, Y. S., Cole B.R., Wang, X. & Yang, X. (2002) The Context for Higher Education Reform in China: An Analysis of Faculty Issues. In D. Chapman and A. E. Austin (eds.) *Higher Education in the Developing World: Changing Contexts and Institutional Responses*. Westport, CT: Greenwood Press.

Lo, M. L. (2006) A Cross-Cultural Study of Art Teacher Education in Taiwan and England. *International Journal of Art & Design Education*, 25, 182–193. Available from: http://0-www.blackwell-synergy.com.lib.ex.ac.uk/doi/pdf/10.1111/j.1476-8070.2006.00483.x [accessed 10th October 2012].

Loughran, J. (2002) Effective Reflective Practice: In Search of Meaning in Learning about Teaching. *Journal of Teacher Education*, 53, 1, 33–43.

Loveless, A., Burton, J. & Turvey K. (2006) Developing Conceptual Frameworks for Creativity, ICT and Teacher Education. *Thinking Skills and Creativity*, 1(1), 3-13. Available from: http://ac.els-cdn.com/S1871187105000027/1-s2.0-S1871187105000027-main.pdf?_tid=b9b97903af7da1b1afe350cccf385563&acdnat=1344065417_69b909946d390c652e2f7363617c4a39 [Accessed 4th August 2012]

Lu, S. H. (1998) *The Relationships among Creative Life Experiences, Creativity, Age, Gender, Achievement Goals and Goal Orientation* [年齡、性別、成就目標、目標導向與創意生活經驗、創造力之關係]. Unpublished MEd dissertation: National Chengchi University.

Lu, Y. C. (1999) The Concept of Integrated Curriculum Design and Arts and Humanities Learning Area Guideline [藝術與人文學習領域綱要與統整性互融式課程設計之觀念]. *Journal of Aesthetic Education*, 106, 29-38.

Lubart, T. I. (1990) Creativity and Cross-cultural Variation. *International Journal of Psychology*, 25(1), 39-59.

Lubart, T. I. (1999a) Component Models. In M. A. Runco & S. R. Pritzker (eds.) *Encyclopedia of Creativity*, vol.1. California, USA: Academic Press.

Lubart, T. I. (1999b) Creativity across Cultures. In R. J. Sternberg (ed) *Handbook of Creativity*. New York: Cambridge University Press.

Lubart, T. I., & Sternberg, R. J. (1998) Creativity across Time and Place : Lifespan and Cross-cultural Perspectives. *High Ability Studies*, 9(1), 59-74.

Lucas, B. (2001) Creative Teaching, Teaching Creativity and Creative Learning. In A. Craft, B. Jeffrey, & M. Leibling (eds.) *Creativity in Education*. London:

Continuum.

Lyu, Y. C. (2003) The Reflection on Curriculums of General Art Education in Elementary and Junior High Schools [中小學一般藝術教育師資培育的課程內容之省思]. In S. J. Hsu (ed) *International Conference on "The Formation of the Teachers in the Arts and Humanities Field of the Junior and Elementary School"*, Taipei, pp 29 – 148.

Maker, C. J., Sonmi, J. & Muammarb, O. M. (2008) Development of Creativity: The Influence of Varying Levels of Implementation of the DISCOVER Curriculum Model, a Non-traditional Pedagogical Approach. *Learning and Individual Differences*, 18(4), 402–417.

Mao, L. W. (1994) The Meaning of Creativity and its Analysis [創造力的涵意及其概念的闡析]. *The Special Education in Primary Schools*, 17, 1-17.

Mao, L. W. (1995) *The Gifted Education: Curriculum and Pedagogy* [資優教育-課程與教學]. Taipei: Wu-Nan Book Inc.

Mao, L. W., Kuo, Y. G., Chen, L. A. & Lin, S. T. (2000) *Research on Creativity* [創造力研究]. Taipei: Psychological Publishing.

Mason, J. (2002) *Qualitative Researching*. Second Edition. London: SAGE.

Mathison, S. (1988) Why Triangulate? *Educational Researcher*, 17(2), 13-17.

Mayer, R. E. (1999) Fifty Years of Creativity Research. In R. J. Sternberg (ed) *The Nature of Creativity*. New York: Cambridge University Press.

McBride, R. & Schostak, J. (2003) *Action Research*. Available from: http://www.uea.ac.uk/care/elu/Issues/Research/Res1Cont.html. [Accessed 15th April 2012]

McNiff, J. (1988) *Action Research: Principles and Practice*. London: Routledge.

Merriam, S. B. (1998) *Qualitative Research and Case study Applications in Education*. San Francisco, CA: Jossey-Bass.

Meyer, J. (2000) Evaluating Action Research. *Age and Ageing*, 29, 8-10.

Ministry of Education, Republic of China [MOE] (Taiwan) (2002a) *General Guidelines of Grade 1-9 Curriculum of Elementary and Junior High School Education (English)*. Available from: http://english.moe.gov.tw/public/Attachment/66618445071.doc [Accessed 15th June 2012]

Ministry of Education, Republic of China [MOE] (Taiwan) (2002b) *White Paper on Creative Education: Establishing a Republic of Creativity (R.O.C.) for Taiwan* [創造教育白皮書-打造創造力國度]. Taipei: MOE.

Ministry of Education, Republic of China [MOE] (Taiwan) (2003a) *Arts and Humilities Learning Area* [藝術與人文領域]. Available from:

http://teach.eje.edu.tw/9CC2/9cc_97.php [Accessed 15th March 2012]

Ministry of Education, Republic of China [MOE] (Taiwan) (2003b) *Teacher Education Act Enforcement Rules*. Available from: http://english.moe.gov.tw/content.asp?CuItem=481&mp=1 [accessed 30th September 2012].

Ministry of Education, Republic of China [MOE] (Taiwan) (2005) *Teacher Education Act*. Available from: http://english.moe.gov.tw/content.asp?CuItem=474 [accessed 30th September 2012].

Ministry of Education, Republic of China [MOE] (Taiwan) (2008) *High School Curriculum: Art Curriculum Guideline* [普通高級中學必修科目「美術」課程綱要]. Available from: http://www.edu.tw/files/site_content/B0035/%E7%BE%8E%E8%A1%93-%E5%BF%85%E4%BF%AE.pdf [Accessed 15th March 2012]

Ministry of Education, Republic of China [MOE] (Taiwan) (2009) *Creativity and Imagining the Future in Education: Mid-term Plan*. Available from: http://future.nccu.edu.tw/intro/super_pages.php?ID=intro16 [Accessed 15th March 2012]

Ministry of Education, Republic of China [MOE] (Taiwan) (2011) *National Initial Teacher Training Curriculum in Secondary Education*. Available from: http://www.edu.tw/high-school/content.aspx?site_content_sn=8449 [Accessed 6th September 2012]

Moga, E., Burger, K., Hetland, L. & Winner, E. (2000) Does Studying the Arts Engender Creative Thinking? Evidence for Near But Not far Transfer. *Journal of Aesthetic Education*, 34, 91–104.

Moon, J. (2001) *Short Courses & Workshops: Improving the Impact of Learning, Training & Professional Development*. London: Kogan Page Limited.

Moran, S. & John-Steiner, V. (2003) Creativity in the Making: Vygotsky's Contemporary Contribution to the Dialectic of Development and Creativity. In R. K. Sawyer, V. John-Steiner, S. Moran, R. J. Sternberg, D. H. Feldman, J. Nakamura & M. Csikszentmihalyi (eds.) *Creativity and Development*. New York: Oxford University Press.

Morris, M. W., & Leung, K. (2010) Creativity East and West: Perspectives and parallels. *Management and Organization Review*, 6(3), 313-327.

Morss, K. & Murrary, R. (2005) *Teaching at University: A Guide for Postgraduates and Researchers*. London: Sage.

Mortimer, A. (2000) Arts Education in the 21st Century- Frill or Fundamental? *Education 3-13*, 28(2), 2-8.

Mumford, M. D. (2000) Something Old, Something New: Revisiting Guilford's Conception of Creative Problem Solving. *Creativity Research Journal*, 13(3, 4), 267-276.

Mumford, M. D., Reiter-Plamon, R. & Redmond, M. R. (1994) Problem Construction and Cognition: Applying Problem Representations in Ill-defined Domain. In M. Runco (ed) *Problem Finding, Problem Solving, and Creativity*. Norwood, NJ: Ablex.

National Advisory Committee on Creative and Cultural Education [NACCCE] (1999) *All Our Futures: Creativity, Culture and Education*. London: DfEE.

Newton, L. & Beverton, S. (in press) Pre-service Teachers' Conceptions of Creativity in Elementary School English. *Thinking Skills and Creativity.*

Ng, A. K. (2001) *Whv Asians are Less Creative than Westerners*. Singapore: Prentice- Hall.

Ng, A. K. & Smith, I. (2004) Why is There a Paradox in Promoting Creativity in the Asian Classroom? In S. Lau, A. Hui and G. Ng (eds.) *Creativity: When East Meets West*. Singapore: World Scientific.

Nickerson, R. S. (1999) Enhancing Creativity. In R. J. Sternberg (ed) *Handbook of Creativity*. New York: Cambridge University Press.

Niu, W. H (2006) Development of Creativity Research in Chinese Societies: A Comparison of Mainland China, Taiwan, Hong Kong, and Singapore. In J. C. Kaufman & R. J. Sternberg (eds.) *The International Handbook of Creativity*, New York: Cambridge University Press.

Niu, W., & Sternberg, R. J. (2001) Cultural influences on artistic creativity and its evaluation. *International Journal of Psychology*, 36, 225–241.

Niu, W. & Sternberg, R. J. (2002) Contemporary Studies on the Concept of Creativity: The East and the West. *Journal of Creative Behavior*, 36(4), 269-288.

Niu, W. & Sternberg, R. J. (2003) Societal and School Influences on Student Creativity: The Case of China. *Psychology in the Schools*, 40(1), 103-114.

Niu, W. & Sternberg (2006) The Philosophical Roots of Western and Eastern Conceptions of Creativity. *Journal of Theoretical and Philosophical Psychology*, 26(1-2), 18-38.

Ochse, R. (1990) *Before the Gates of Excellence*. Bristol: Cambridge University Press.

Oral, G. (2008) Creative Learning and Culture. In A. Craft, T. Cremin & P. Burnard (eds.) *Creative Learning 3-11*. Stoke-on-Trent: Trentham Books.

Orlik, S. (2007) The Professional Framework and Professional Values and Practice. In V. Brooks, I. Abbott & L. Bills (eds.) *Preparing to Teach in Secondary Schools: A Student Teacher's Guide to Professional Issues in secondary Education.* Second Edition. Berkshire: Open University Press.

Ottesen, E. (2007) Reflection in Teacher Education. *Reflective Practice*, 8(1), 31-46.

Parkhurst, H. B. (1999) Confusion, Lack of Consensus, and the Definition of Creativity as a Construct. *Journal of Creative Behavior*, 33, 1-21.

Patton, M. Q. (2002) *Qualitative Research & Evaluation Methods*. Third Edition. London: SAGE.

Peshkin, A. (2001) Angles of vision: Enhancing perception in qualitative research. *Qualitative Inquiry*, 7(2), 238-253.

Pillow, W. S. (2003) Confession, Catharsis, or Cure? Rethinking the Uses of Reflexivity as Methodological Power in Qualitative Research. *Qualitative Studies in Education*, 16(2), 175-196. Available from: http://web.utk.edu/~cdavis80/documents/qual/Pillow%20Reflexivity.pdf [Accessed 19th September 2012]

Prentice, R. (2007) Making Connections between Subject Knowledge and Pedagogy: The Role of Workshop. In N. Addison & L. Burgess (eds.) *Learning to Teach Art and Design in the Secondary School: A Companion to School Experience.* Second Edition. Oxon: RoutledgeFalmer.

Pring, R. (2005) *Philosophy of Educational Research*. New York: Continuum.

Prosser, J. (2007) Visual Methods and the Visual Culture of Schools. *Visual Studies*, 22(1), 13-30.

Puccio, G. J. & Gonzalez, D. W. (2004) Nurturing Creative Thinking: Western Approaches and Eastern Issues. In S. Lau, A. N. N. Hui, & G. Y. C. Ng (eds.) *Creativity: When East meets West*. Singapore City: World Scientific.

Radnor, H. (1994) *Collecting and Analysing Interview Data*. Exeter: University of Exeter, Research Support Unit, School of Education.

Radnor, H. (2001) *Researching Your Professional Practice: Doing Interpretive Research*. Buckingham : Open University Press.

Rice, P. & Ezzy, D. (1999) *Qualitative Research Methods: A Health Focus*. Melbourne: Oxford University Press.

Ridenour, C. S. & Newman, I. (2008) *Mixed Methods Research: Exploring the Interactive Continuum*. Carbondale, IL: Southern Illinois University Press.

Robison, G., Hulston, D. & Mountain, A. (2007) *Think Inside the Sketchbook: A Playground for Ideas*. England: Teknoy Press.

Robson, C. (2002) *Real World Research*. Second Edition. Oxford: Blackwell.

Economy, Part 2: The Problem of Development: A Conference on the Institute for the Study of Free Enterprise Systems, 98(5), S71-102.

Rose, G. (2006) *Visual Methodologies: An Introduction to the Interpretation of Visual Materials*. Second Edition. London: Sage.

Ross, J. (2010) Was That Infinity or Affinity? Applying Insights From Translation

Studies to Qualitative Research Transcription. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 11(2), Art. 2. Available from:
http://www.qualitative-research.net/index.php/fqs/article/view/1357/2942
[Accessed 21st August 2012]

Rubenson, D. L., & Runco, M. A. (1992) The Psychoeconomic Approach to Creativity. *New Ideas in Psychology*, 10(2), 131–147.

Rudowicz, E. (2003) Creativity and Culture: A Two Way Interaction. *Scandinavian Journal of Educational Research*, 47(3), 273-290.

Rudowicz, E. (2004) Creativity among Chinese people: Beyond Western perspectives. In S. Lau, A. N. N. Hui & G. Y. C. Ng (eds.) *Creativity: When East meets West*. Singappore: World Scientific Publishing.

Rudowicz, E. & Ng, T. S. (2003) On Ng's Why Asians are Less Creative than Westerners (Book review). *Creativity Research Journal*, 15(2&3), 301-302.

Runco, M. A. (2004) Creativity. *Annual Review of Psychology*, 55, 1, 657-687.

Runco, M. A., & Chand, I. (1994) Problem Finding, Evaluative Thinking, and Creativity. In M. Runco (ed) *Problem Finding, Problem Solving, and Creativity*. Norwood, NJ: Ablex.

Runco M. A. & Chand, I. (1995) Cognition and Creativity. *Educational Psychology Review*, 7(3), 243-267.

Ruppert, S. S. (2010) *Creativity, Innovation and Arts Learning Preparing All Students for Success in a Global Economy.* Washington DC: Arts Education Partnership.

Russell, G. M. & Kelly, N. H. (2002) Research as Interacting Dialogic Processes: Implications for Reflexivity. *Forum: Qualitative Social Research*, 3, 3. Available from:
http://www.qualitative-research.net/fqs-texte/3-02/3-02russellkelly-e.htm
[Accessed 15th August 2012]

Ryhammar, L. & Brolin, C. (1999) Creativity Research: Historical Considerations and Main Lines of Development. *Scandinavian Journal of Educational Research*, 43(3), 259-273.

Safford, K. & Barrs, M (2005) *Creativity and Literacy: Many Routes to Meaning: Children's Language and Literacy Learning In Creative Arts Projects*. A research report from the Centre for Literacy in Primary Education. London: Centre for Literacy in Primary Education.

Sawyer, R. K. (2006) *Explaining Creativity: The Science of Human Innovation*. New York: Oxford University Press.

Sawyer, R. K. (2010) Individual and Group Creativity. In J. C. Kaufman & R. J. Sternberg (eds.) *The Cambridge Handbook of Creativity*. Cambridge, UK: Cambridge University Press.

Schadewitz, N. & Jachna, T. (2007) *Comparing Inductive and Deductive Methodologies for Design Patterns Identification and Articulation*. In International Design Research Conference IADSR 2007 Emerging Trends in Design Research, 12-15 November 2007, Hong Kong.

Scott, D. & Morrison, M. (2007) *Key Ideas in Educational Research*. London: Continuum.

Seale, C. (1999) Quality in Qualitative Research. *Qualitative Inquiry*, 5(4), 465-478.

Sefton-Green, J., Parker, D. & Ruthra-Rajan, N. (2008) Introduction: What is 'Creative Learning'? In J. Sefton-Green (ed) *Creative Learning*. London: Creative Partnerships, Arts Council England.

Seltzer, K. & Bentley T (1999) *The Creative Age: Knowledge and Skills for the New Economy*, DEMOS.

Shaheen, R. (2010) Creativity and Education. *Creative Education*, 1(3), 166-169.

Sharp, C. & Métais, J. L. (2000) *The Arts, Creativity and Cultural Education: An International Perspective*. London: QCA.

Shenton, A. K. (2004) Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information*, 22, 63–75.

Siegesmund, R. (1998) Why do We Teach Art Today? Conceptions of Art Education and Their Justification. *Studies in Art Education*, 39(3), 197-214.

Silverman, D. (2001) *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*. Second Edition. London: Sage.

Simonton, D. K. (1990) History, Chemistry, Psychology, and Genius: An Intellectual Autobiography of Historiometry. In R. S. Albert & M. A. Runco (eds.), *Theories of Creativity*. London: Sage Publications.

Simonton, D. K. (1997) Creative Productivity: A Predictive and Explanatory Model of Career Trajectories and Landmarks. *Psychological Review*, 104(1), 66-89.

Simonton, D. K. (2004) *Creativity in Science: Chance, Logic, Genius, and Zeitgeist*. Cambridge, UK: Cambridge University Press.

Skovsmose, O. & Borba, M. (2004) Research Methodology and Critical Mathematics Education. In P. Valero & R. Zevenbergen (eds.) *Researching the Socio-political Dimensions of Mathematics Education: Issues of Power in Theory and Methodology*. London: Kluwer Academic Publishers.

Smith, A. (2011) *Book Reviews: Creativity and Education Futures: Learning in a Digital Age.* Available from: http://escalate.ac.uk/8226 [Accessed 15th July 2012]

Smith. G. J. W. (2005) How Should Creativity Be Defined? *Creativity Research Journal*, 17, 2-3, 293-295.

Snoek, M., Uzerli, U. & Schratz, M. (2008) Developing Teacher Education Policies through Peer Learning. In B. Hudson & P. Zgaga (eds.) *Teacher Education Policy in Europe: A Voice of Higher Education Institutions.* Umeå: University of Umeå: Faculty of Teacher Education.

Snoek, M. & Zogla, I. (2009) Teacher Education in Europe: Main Characteristics and Developments. In A. Swennan & M. van der Klink, (eds.) Becoming a Teacher Educator: Theory and Practice for Teacher Educators. New York: Springer.

Somekh, B. (1995) The Contribution of Action Research to Development in Social Endeavours: A Position Paper on Action Research Methodology. *British Educational Research Journal*, 21(3), 339-355.

Spendlove, D. (2005) Creativity in Education: A Review. *Design and Technology Education: an International Journal*, 10(2), 9-18.

Spendlove, D. & Wyse, D. (2008) Creative Learning: Definitions and Barriers. In A. Craft, T. Cremin & P. Burnard (eds.) *Creative Learning 3-11*. Stoke-on-Trent: Trentham Books.

Stake, R. (1995) *The Art of Case Study Research.* Thousand Oaks, CA: Sage.

Starko, A. J. (2010) *Creativity in the Classroom: Schools of Curious Delight*. Fourth Edition. New York: Routledge.

Steinert, Y. & Ouellet, M. (n.d.) *Designing Successful Workshops*. McGill University: Faculty Development Office. Available from: http://www.mcgill.ca/files/medicinefacdev/DesigningWorkshopsWorkbook.pdf [Accessed 31st August 2012]

Sternberg. R. J. (2000) Origins of Genius by Dean K. Simonton. *Trends in Cognitive Sciences*, 4(6), 246-247.

Sternberg, R. J. (2003). *Wisdom, Intelligence, and Creativity Synthesized*. New York: Cambridge University Press.

Sternberg, R. J. & Lubart, T. I. (1991) Creating Creative Minds. *The Phi Delta Kappan*, 72(8), 608-614.

Sternberg, R. J. & Lubart, T. I. (1995) *Defying the Crowd: Cultivating Creativity in a Culture of Conformity*. New York: Free Press.

Sternberg, R. J. & Lubart, T. I. (1999) The Concept of Creativity: Prospects and Paradigms. In R. J. Sternberg (ed), *Handbook of Creativity*. New York: Cambridge University Press.

Sternberg, R. J., & Williams, W. M. (1996) *How to Develop Student Creativity*. Alexandria, VA: Association for Supervision and Curriculum Development.

Strauss, A. & Corbin, J. (1990) *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage.

Sturman, A. (1999) Case Study Methods. In J. P. Keeves & G. Lakomski (eds.) *Issues*

in Educational Research. Oxford: Elsevier Science Ltd.

Tang, C. & Biggs, J. B. (1996) How Hong Kong Students Cope with Assessment. In D. A. Watkins & J. B. Biggs (eds.) *The Chinese Leaner: Cultural, Psychological, and Contextual Influences*. Hong Kong: Comparative Education Research Centre.

The Team of Special Education in MOE (2007) *Wise Parents: Knowing Gifted and Talented Education* [智慧父母-認是資優教育]. Taipei: MOE. Available from: http://trcgt.ck.tp.edu.tw/introduction.aspx [Accessed 29th February 2012]

Thomson, P. & Sefton-Green, J. (eds.) (2011) *Researching Creative Learning: Methods and Issues*. Oxon: Routledge.

Ting, H. Y. (2007) The Comparative Study: Initial Art Teacher Education in Secondary Schools between England and Taiwan. Unpublished MEd Dissertation: University of Exeter.

Ting, H. Y. (2008) *The Conceptions of Creative Pedagogy among Secondary Art Teacher Training Students in Taiwan: A Case Study.* Unpublished MSc Dissertation: University of Exeter.

Tsai, C. C. (2011) An Action Research of Teaching for Creativity: The Example of Children's Art Curriculum [創造力教學之行動研究：以幼兒藝術課程為例]. *Journal of Southern Taiwan University*, 36(2), 31-48. Available from: http://ir.lib.stut.edu.tw/bitstream/987654321/17706/1/03 蔡其叅.pdf [Accessed 25th July 2012]

Tsai, K. C. (2012) The Interplay between Culture and Creativity. *Cross-Cultural Communication*, 8(2), 15-20.

Unsworth, J. M. (1992) Re-Thinking Lowenfeld. *Art Education*, 45(1), 62-68.

Vong, K. L. (2008) Creative Learning and Pedagogies in China. In A. Craft, T. Cremin & P. Burnard (eds.). *Creative Learning 3-11*. Stoke-on-Trent: Trentham Books.

Wang, A. Y. Y (2011) Contexts of Creative Thinking: A Comparison on Creative Performance of Student Teachers in Taiwan and the United States. *Journal of International and Cross-Cultural Studies*, 2, 1. Available from: http://www.scientificjournals.org/Journals2011/articles/1490.pdf [Accessed 25th June 2012]

Wang, L. Y. (2008) The Reform of School Visual Arts Education (1987-2006) [解除戒嚴後學校視覺藝術教育的改革(1987 年-2006 年)]. In L. M. Hsu, L. Y. Wang, M. J. Lin & C. H. Lu (eds.) *Taiwan Arts Education History*. Taipei: National Taiwan Arts Education Centre.

Wang, L. Y. & Cheng, M. H. (2011) A Century of Visual Education in Taiwan [蛻變中的成長-台灣視覺教育百年]. *Journal of Aesthetic Education*, 180, 6-15. Available from: http://ed.arte.gov.tw/uploadfile/periodical/2582_蛻變中的成長─台灣視覺教育百年.pdf [Accessed 25th June 2012]

Ward, T. & Sonneborn, M. (2009) Creative Expression in Virtual Worlds: Imitation,

Imagination, and Individualized Collaboration. *Psychology of Aesthetics, Creativity, and the Arts*, 3(4), 211-221.

Watt, D. (2007) On Becoming a Qualitative Researcher: The Value of Reflexivity. *The Qualitative Report*, 12(1), 82-101. Available from: http://www.nova.edu/ssss/QR/QR12-1/watt.pdf [Accessed 25th August 2012]

Weiner, R. (2000) *Creativity and Beyond*. Albany: State University of New York Press.

Weisberg, R. W. (1999) Creativity and Knowledge: A Change to Theories. In R. J. Sternberg (ed), *Handbook of Creativity*. New York: Cambridge University Press.

Weisberg, R. W. (2006) *Creativity: Understanding Innovation in Problem Solving, Science, Invention, and the Arts*. Hoboken, NJ: Wiley.

Wellington, J. (2003) *Educational Research: Contemporary Issues and Practical Applications*. London: Continuum.

Wills, J. W., Jost, M. & Nilakanta, R. (2007) *Foundations of Qualitative Research: Interpretive and Critical Approaches*. Thousand Oaks: SAGE.

Winner, E., Hetland, L., Veenema, S., Sheridan, K. M., Palmer, P., & Locher, I. (2006) Studio Thinking: How Visual Arts Teaching Can Promote Disciplined Habits of Mind. *New Directions in Aesthetics, Creativity, and the Arts*, 189-205.

Wonder, J., & Blake, J. (1992) Creativity East and West: Intuition vs. Logic? *Journal of Creative Behavior*, 26(3), 172-185.

Wong, K. M. B. & Piscitelli, B. A. (2009) Early Childhood Art Education in Hong Kong: Is any Theory Informing Practice? *Asia-Pacific Journal for Arts Education*, 7(1), 1-30. Available from: http://www.ied.edu.hk/cca/apjae/Vol%207%20No%201.pdf [Accessed 17th May 2012]

Wong, W. Y. (2008) Promoting Children's Creativity through Teaching and Learning in Hong Kong. In A. Craft, T. Cremin & P. Burnard (eds.) (2008) *Creative Learning 3-11*. Stoke-on-Trent: Trentham Books.

Woods, P (1995) *Creative Teachers in Primary Schools*. Buckingham: Open University Press.

Wu, C. S. (2002) The Essential Conceptions of Creative Teaching and its Implement [創意教學的重要理念與實施策略]. *Taiwan Education Review*, 614, 2-8.

Wu, J. J. (2004) Recognising and Nurturing Creativity in Chinese Students. In S. Lau, A. N.N. Hui & G. Y. C. Ng (eds.) Creativity: When East Meet West. Singapore: World Scientific.

Wu, R. L. (2009) Future Ability: The Urgent Need for Individuals and Industries [未

來力，個人和公司現最需要]. *Economic Daily News, 2*009.09.24. Available from: http://www.cw.com.tw/article/index.jsp?page=1&id=39037 [Accessed 25th Jun 2012]

Wu, W. D. & Chen, Z. Y. (2001) *The Research Report for While Paper on Creative Education: The Final Report for the Proposal of Creative Education Policy in Secondary Education* [「創造力教育政策白皮書」子計畫 (三)-我國中等教育階段創造力教育階段政策規劃白皮書期末報告]. Taipei: National Taiwan Normal University.

Wu, C. Y. & Hung, C. Y. (2003) Cover Story: Taiwan, Touch Your Heart [心動產業－讓世界哈台]. *Common Wealth: Taiwan's Leading Magazine*, 288, 128-140.

Wu, M. H., Hsu, P. S., Rau, D. C., Jian, M. Z., Chen, C. H., Chang, C. Y. & Huang, S. Y. (2008) The Development of Teachnological Creativity Indicatiors for Vocational High School Students [高職學生技術創造力指標建構之研究]. *Journal of Research in Education Sciences: Education*, 53(3), 67-93.

Yang, C. H. & Hua, S. B. (2003) A Survey Report on the Characteristics of Creative Teachers [創造型教師的品質特徵問卷調持報告]. In Y. H. Wang & C. H. Yang (eds.) *The Characteristics of Creative Teachers and its Training*. Beijing: China Science and technology Publishing.

Ye, R., Lu, C. N., Ke, B. J. & Zhu, S. L. (2004) (eds.) *Theories on Creative Learning Abilities*. Tianjin: Tianjin education Publishing House.

Yeh, Y. Z. (2006) *Teaching for Creativity: Past, Present and Future* [創造力教學-過去、現在、未來]. Taipei: Psycology.

Yin, R. K. (2008) *Case Study Research: Design and Methods.* Fourth Edition. Thousand Oaks, CA: SAGE.

Yuan, R. Y. (2001) Reflection on Arts and Humanities Learning Area in Elementary and Junior High School Level [國民教育階段「藝術與人文」領域之思考], *Journal of modern education forum*, 6, 234-242.

Zeichner, K. (2010) Rethinking the Connections between Campus Courses and Field Experiences in College and University-based Teacher Education. *Journal of Teacher Education*, 61, 89-99.

Zimmerman, E. (2005) It Takes Effort and Time to Achieve New Ways of Thinking: Creativity and Art Education. *The International Journal of Arts Education, 3*(2), 57-73.

Zimmerman, E. (2009) Reconceptualizing the Role of Creativity in Art Education Theory and Practice. *Studies in Art Education*, 50(4), 382-399.

Zimmerman, E. (2010) Creativity and Art Education: A Personal Journey in Four Acts. *Art Education*, 63(5), 84-92. Available from: http://www.arteducators.org/research/LowenfeldLecture_2010_EnidZimmerman.pdf [Accessed 25th July 2012]