PHOTOESSAYS IN THE TEACHING OF MARKETING

Irene C L Ng [1], Ph.D.

Dr. Irene C L Ng is with the School of Business and Economics, University of Exeter (U.K.). Contact Information: School of Business and Economics, University of Exeter, Streatham Court, Rennes Drive, Exeter EX4 4PU, United Kingdom Tel: +44 (0) 1392 263250, Fax: +44 (0) 1392 263242, Email: Irene.Ng@exeter.ac.uk

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ABSTRACT

This paper reports on a longitudinal project to develop a new teaching tool that aids students' transfer abilities in marketing – a photoessay. A photoessay is a group of photographs with a common theme, used as instruction through its presentation, accompanied by narration. Through a qualitative study embedded within an action research process, photoessays have been found to aid knowledge construction through a reinforcement of understanding, feedback, cognitive efficiency, reflection, creativity, motivation and emotional resonance. These learning dimensions also serve to aid students' transfer abilities.

The study also shows how photoessays should be constructed and instructed to facilitate such learning. To achieve this, photoessays must reflect theory, capture emotions, provide perspectives, allow for students to abstract theory, and to participate in the discovery of information. While presenting the photoessay may help students learn and apply knowledge, its construction also helps educators integrate their practice, knowledge and teaching, while fostering creativity.

KEYWORDS: Photographs, Photoessay, Pedagogical Innovation, Practitioner Teachers, Knowledge Acquisition

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INTRODUCTION

The growth of business education is unparalleled in the history of our times. More than 100,000 MBAs are awarded in the U.S. annually (Pfeffer and Fong 2004; Walsh et al. 2003). MBA programs are mushrooming across China and Russia, and there seems to be no end to the demand for business degrees as more people begin to perceive business as the key to wealth. Along with this surging demand comes a host of willing suppliers in the form of universities and institutions, whose objectives for launching business programs range from a noble intent of imparting knowledge to pure, unadulterated profit. With growing competition, even those whose motives are less noble have to at the very least, promise quality in the education delivered.

This promise is not to be taken lightly. Graduates of business schools are expected not only to reflect the knowledge of a sound education but also to become independent thinkers and competent problem solvers (Lang and Dittrich 1982). Consequently, a major objective of an educator in a business course is to prepare students for flexible adaptation to new business problems and settings. Yet in many business degree programs, the emphasis on information acquisition has marred this objective. Educators and students at universities are often content with what students "know" and are less interested in whether they can "apply" the knowledge (Lang and Dittrich 1982).

Studies in marketing education also emphasize on the student's need to integrate the theories and principles of marketing with its practice (Harich 1995; Karns 1993), acquire communication and critical thinking skills (Lamb et al. 1995), and resourcefully apply new ideas in the marketing process (McIntyre 1993). Clearly, this is a formidable task for marketing educators and has led to the development of various methods aimed at helping students achieve this goal, often with the aid of technology. Today, technology is pervasive in all aspects of marketing education from simple PowerPoint slides to sophisticated virtual learning environments. Yet, the process of knowledge acquisition by students has not been sufficiently researched (Malhotra 2002). Studies in education usually investigate the *extent* of learning, rather than its processes (e.g. Chandler and Sweller 1994; Mayer and Anderson 1991). Consequently, it is necessary to develop insights into both how students acquire new knowledge (learn) and how that knowledge is assimilated and applied in different situations.

Against this backdrop, this study aims to develop a new teaching tool to aid students' transfer abilities – the photoessay. A photoessay is a group of photos tied together by a common theme, and presented with a narration (see Table 1). Through a qualitative study embedded within an action research process, this study found that a photoessay aids knowledge construction in seven ways: Through a reinforcement of understanding, feedback, cognitive efficiency, reflection, creativity, motivation and emotional resonance. These learning dimensions also serve to aid students' transfer abilities i.e. the ability to extend what has been learned in one context to new contexts (e.g. Byrnes 1996). To achieve the above learning dimensions, the study found that photoessays should reflect theory, capture emotions, provide perspectives, help students abstract theory, and allow for the discovery of information.. The study also found that a photoessay is a useful tool to combine practice and theory, and its construction serves as a method to sensitize educators to why practices are the way they are and also to gain deeper insights into the gaps in practice, teaching and research.

Insert Table 1 about here

This paper is organized as follows: It begins with a literature review, followed by a discussion of the methodology. Results on how students learn through photoessays are then presented together with the attributes of photoessays. The results are then discussed and implications considered.

LITERATURE REVIEW

Improving Students' Transfer Abilities

Current literature acknowledges that a gap exists between learning marketing and the practice of marketing in the workforce (Pharr and Morris 1997). There is now greater pressure on business schools to narrow this gap, especially with regard to the types of training received (Floyd and Gordon 1998). Certainly, it is easier to inform rather than to impart the skill necessary to become a good marketer. Information is objective and consistent across learners, situations and time frames, while marketing skills depend to some extent on the disposition and personal attributes of students (McIntyre 1993). Within business schools, these student contingencies are often ignored. While business schools acknowledge the role of student attributes in the mastering of business, this is usually considered important only at the screening level. Thus, only students who have the necessary talent to excel would have been pre-selected into an MBA program.

Schools have good reasons not to build student contingencies into their program. When numbers are large, it is not economically feasible to customize a program that incorporates students' personal attributes. While pedagogical techniques such as case discussion often require student participation and may activate other dimensions of learning, this technique breaks down when the numbers go up to 100 or 200. With the increase in demand for business education, class sizes in business schools are getting larger, and case methods have put a strain on the workload of instructors (Lang and Dittrich 1982). Furthermore, criticisms of case methods, such as having a lack of specificity in learning objectives and the difficulty of assessing student performance, have resulted in educators seeking alternatives (Wolfe and Guth 1975). Over the past decade, articles in the Journal of Marketing Education, Marketing Education Review and the Proceedings for the Marketing Educators' Association have presented several creative ideas and techniques such as web-based (e.g. Kaynama and Keesling 2000), or reality-based (e.g. Smith and Van Doren, 2004) techniques to help educators impart knowledge.

When assessing various teaching techniques, a fundamental issue arises – how do students learn? Research in learning has advanced rapidly over the last three or four decades, largely due to advances in cognitive science (Bransford et al. 2000). Table 2 provides some insights into the literature on student learning. Clearly, learning has become increasingly complex as the amount of information accessible to the student is growing at a phenomenal rate, not the least being contributed by the Internet. With such

growth, the meaning of “knowing” has shifted from being able to recall and regurgitate information to being able to obtain and apply it (Simon 1996). Nowhere is this more obvious than in the field of marketing. While the quality of the graduate in other non-business fields may be a function of various behavioral and attitudinal factors aside from the education he has received, the assessment of a business graduate is usually – and perhaps unfairly -- more brutal as the graduate is assessed based on how he applies the knowledge instead of merely knowing (Powell 2002). This implies that the marketing graduate is judged not solely on his learning ability but also on his transfer ability – a skill business schools often find challenging to develop (Boyer 1990). Consequently, marketing courses all over the world have focused on the need to help students integrate theory and practice to solve real-world marketing problems (Harich 1995; Karns 1993; Haas and Wortruba 1990).

Insert Table 2 about here

To improve students’ transfer abilities, and as Table 3 reports, initial learning is crucial (Klahr and Carver 1988; Littlefield et al. 1988). For many students, initial learning is often acquired within a lecture setting. However, it is nearly impossible for any educator to impart transfer skills and motivation as well as provide feedback to a few hundred students on their learning while also transmitting information and enthusiasm on the subject in a lecture.

Hence, lecturing has long been criticized as being ineffective in fostering deep learning due to its rigidity and inflexibility. Yet, lectures are still the most common method of imparting knowledge the world over (Roach, Johnston and Hair 1993; Grisoni 2000; Anonymous 2000). Despite the opposition to the idea of a “one size fits all” approach, lectures are still seen to be the most efficient form of instruction when numbers are large. Furthermore, lectures are effective at communicating basic facts and terminology (Gleitman 1990) i.e. the knowledge that can “be told” (Gragg 1954). Lectures are also useful for practitioners to share their expertise, another opportunity to develop students’ transfer abilities. Top business schools today entice speakers who are practitioners to add lustre to the teaching roster while students sign up in droves, wanting to hear “from the horse’s mouth” about “how it’s done”. Real world experience helps an educator develop examples that are relevant to the subject, triggering ideas and stimulating creativity in students when the examples are presented in class. However, it is common knowledge that success in the real world does not always translate to being a great educator. This is because practice or experience-informed teaching has not been sufficiently investigated. The research-teaching link is more straightforward since research is often reported through articles and books and these may be adapted into instructional tools. Practice on the other hand, seldom exists in a written form, is heavily contextual and its knowledge is largely tacit. Polanyi (1966) makes clear this distinction, which he calls explicit and tacit knowledge. Explicit knowledge is that which is transmittable through a systematic language. Tacit knowledge however, is the knowledge that is normally not easily articulated since it is deeply embedded in action and within a specific context. In business schools, practice informs teaching through good examples and case studies. However, there is still a lack of critical attention paid to developing tools that enable an informed marketing practitioner to impart his or her

knowledge through teaching, and still less on how practitioners are able to help students develop their transfer abilities. Yet, as evidenced by the number of marketing lecturers in business schools who have been in practice for some time, practical experience is highly valued.

Notwithstanding the value of practice, students' transfer abilities are cultivated by the need to understand not merely how to solve a problem, but why the problem is solved in the manner described. In any given scenario, a practitioner might be able to articulate how a problem is solved from his experience. However, the student needs to understand how the solution can be used across different contexts and problems. To do so, the solution needs to be abstracted into principles that can be meaningfully applied in a different set of circumstances. Failure to do this may result in the practitioner falsely believing that that his or her experiences are "new" knowledge when in fact they are merely the manifestation of a failure to abstract the contextualized information.

Within marketing education, researchers have also proposed the use of experiential activities to bridge the gap between theory and practice (Frontczak 1998; Ronchetto and Buckles 1994). Experiential education activities allow students to combine direct experience with reflection and analysis, and is a philosophical orientation in teaching and learning that prizes "learning by doing" to maximize learning (Sakofs 1995). However, as Joplin (1995) proposes, true experiential education must contain a reflection process.

This study aims to improve lecturing by developing a teaching tool, a photoessay, for use in lectures that could serve to activate the student's personal attributes such as creativity and experience and allow these attributes to play a role in the learning process as well as in the development of his or her transfer abilities. By using photographs to construct a photoessay for use in lectures, the study investigates how the medium could also combine the educator's academic judgment with practice experience and creativity. When used in lectures, this tool can serve to expand the educator's scholarship in teaching while assisting educators in enhancing students' competency level in solving real world business problems. The photoessay used in this study can be viewed in Table 1.

Photographic Images and Learning

The discovery of how to make a photographic image came in 1839 (Heisley and Levy 1991). Since then, photography has been used to report, illustrate, form part of archival evidence, and serve as research data in the behavioral disciplines. Table 3 provides some literature on the use of photographs in research.

Insert Table 3 about here

The use of photographic images in learning has also been investigated. Visual aids have been shown to be useful in assisting learning (Nies and Tas 1991), a fact that almost everyone takes for granted. Still, there is a need to inquire if the medium changes at all the way students learn within a lecture. As Clark (1983) argues: "Media are mere vehicles that deliver instruction but do not influence student achievement any more than the truck that deliver our groceries causes changes in our nutrition" (p. 445). However, other literature such as those reviewed by Kozma (1991) argues that students could take advantage of a medium's visual characteristic to learn differently and more effectively.

This stems from several experiments in cognitive psychology which support the importance of imagery in cognitive operations (e.g. Mayer and Anderson 1991).

Paivio's (1971) dual-coding theory proposed that there are two cognitive subsystems. The first specializes in the representation and processing of nonverbal objects/events (i.e. imagery), and the second in language. When applying dual-coding theory to educational cognitive psychology, the use of a photoessay could assist learning in two ways. First, studies have shown that when a student is engaging in a cognitive activity, such as listening to a lecture, and is then presented a photoessay, these two modes of representation are thus better than one because students are able to build two mental representations (verbal and visual), and one can serve to enhance the other (Mayer and Anderson 1991)

Moreover, by simultaneous narration and image presentation, words and pictures are stored in the working memory at the same time, and this could facilitate the construction of links and improve accessibility (Chandler and Sweller 1991; Mayer 1989).

Despite such studies by psychologists on learning through multimedia, it is still unclear *how* the learning process is achieved through such aids. Experiments demonstrating that learning is enhanced by multimedia often test for recall, recognition and application i.e. the *extent* of learning (e.g. Chandler and Sweller 1991; Mayer and Anderson 1991). However, merely testing for the extent of learning does not provide any understanding on how that learning has been achieved. In other words, the process of learning and the role of the medium in that process have not yet been investigated.

This study aims to derive insights into how students acquire knowledge, and undertakes to show improved transfer ability in marketing when students are presented with a photoessay. In this respect the study immediately encounters a problem. Whether or not a medium such as a photoessay has the capability to affect learning depends not only on the medium itself, but also the content and the way the medium is structured for instruction. This is a dilemma of the research. How can one show the efficacy of a teaching tool if the specific attributes and structure of the tool have not been developed, and how can the tool be developed if the nature of its effectiveness has not been shown?

To resolve this dilemma, a further research objective was incorporated. This objective was to understand and determine how photoessays should be constructed so that they would contribute to the learning. It was apparent that the answer to one would inform the other i.e. how photoessays should be constructed depends on how students learnt from it and vice versa. Hence, any methodology employed to achieve such objectives had to be flexible enough to ensure that the process to achieve one objective could inform the process of achieving the other. Consequently, the methodology was one that was iterative in nature i.e. the presentation of photoessays led to investigation of students learning which in turn informed a further presentation of photoessays, and so on. In this regard, an action research approach was employed, as illustrated in Figure 1 and 2.

Insert Figure 1 and 2 about here

METHODOLOGY

Making the photoessay – the context

Using photographs in teaching marketing is natural, as marketing can be a very visual subject. As consumers, we are constantly bombarded with visual images such as product packaging, advertisements, and discount price tags, just to name a few.

The context of the photoessay chosen for this research article was a theory in psychology taught in services marketing called script theory. In psychology, a script is described as a predetermined, stereotyped sequence of actions that defines a well-known situation (e.g. depositing a cheque in a bank or driving a car). Within the context of services marketing, the service script contains the expectations of the sequences of actions, the actors and the setting of a service encounter. Customers use scripts as a guide to behavior and as a means of making sense of the behavior of others. Furthermore, studies demonstrate that familiarity with a script imparts to the customer a perception of having some "control", and a departure from the script can result in both positive and negative experiences. For example, a customer may be pleased to realize that the gas station he called into provided full service instead of requiring their customers to fill up on their own. Conversely, a bank customer may feel upset on learning that s/he should have filled in a deposit form before getting in line in a bank. This perception of control has been described as a principal human driving force as people are motivated to demonstrate their competence and superiority over their environment (Averill 1973). Perceived control is also relevant in research on waiting and queuing.

The themes of the photoessays compiled for this study were script theory, perceived control theory and queuing, topics that are considered important when designing a service and that are often taught within a services marketing course. The photoessays were then presented to students at three different times, and one-on-one personal interviews by the author were conducted with five students of each class to understand how the students responded to the photoessay. For each group of students, the data from the individual interviews and focus group (if applicable for that group) were transcribed by an independent transcription service. The notes I took down while observing the students, students' comments and the results from mini-tests and questionnaires asked of students (see eliciting student learning below) were all analyzed together with the transcripts by two graduate research assistants and myself, and categorized based on what was perceived by the researchers to be recurring, and that conformed to some emerging pattern. Each of the researchers analyzed the interview transcripts, notes and results, and independently highlighted the text and made notations in the margins to facilitate the identification of coding categories. This process was repeated for all three presentations. The three researchers did not compare notes between presentations, nor discuss the analysis of the data. The two other researchers were aware that the photoessay was modified after each presentation although they were not told what the modification was so that they would not be sensitized to any changes in the data collected.

Following the conclusion of the three presentations, the researchers held a series of meetings (three to five meetings for each set of data) to develop a list of some tentative agreed-upon categories as well as to identify examples of statements made by respondents to be indicative of these categories. The aim was to identify data that was

salient, recurring and themes that could emerge from the interview data representing the categories that had some meaning to the respondents (Marshall and Rossman 1989). Following these meetings, the researchers re-examined the transcripts to evaluate the plausibility of the categories identified for their informational adequacy, credibility, usefulness and centrality (Marshall and Rossman 1989). The interaction between the categories was discussed extensively and the initial coding categories were refined with another round of interview data being coded based on the categories found. Data from the same categories were then grouped to assist the final evaluation of the categories.

Eliciting Student Learning in the Presentation of the Photoessays

The photoessays were presented three times to three sets of students over a year – the first presentation was to 20 MBA students, with an average of four to five years of working experience. The second presentation was to 60 practitioners during a one-day service design seminar and the third to 35 Masters of Science (MSc) in Marketing and Finance postgraduate students.

For the first group (MBA students), the photoessays were presented during the course of the lectures. Each photoessay lasted approximately 45 minutes and was presented at the end of the lecture. Over three weeks of lectures, three photoessays were presented. Students were asked to read up on the topics beforehand, and a one-hour lecture was conducted on the topic before the presentation of the photoessay. Within the lecture, the theory was defined and explained. Two examples were then given. The lectures were complemented by PowerPoint slides. No photos were presented until after the presentation and discussion. This was followed by individual interviews.

The second group went through a similar process as the first, except that the photoessays were a little longer (approximately one hour each). This time the three photoessays were integrated into the lecture that lasted six hours (over the course of the entire day) with hourly breaks. Discussions after the presentations were also held in addition to the individual interviews. The seminar also included two breaks, and notes were taken from observations and comments made by participants with regard to the photoessay.

The final group was 35 MSc students. This group was presented with only one photoessay. After the first hour of lecture on the topic, the group was asked to fill out a questionnaire to elicit their understanding of the topic. In the questionnaire, students were asked to give examples of where the theory could be useful in the understanding of the real world. They were also asked to write down where, when and how the theory could be applied in real world circumstances. In this manner, students were compelled to expend cognitive effort towards understanding the topic rather than merely memorizing facts. The photoessay was then presented. The students were told that they could write down any further examples of how the theory can be applied if they wish. Upon request, some students also volunteered to be part of a focus group that lasted approximately an hour-and-a-half. The focus group was conducted so that students were able to prompt one another on different aspects of the photoessays, with participants engaged in discussion with each other on their learning experiences rather than directing their comments solely to the researcher. After the session, individual interviews with five students were conducted over the next few hours. All students were told that their participation was voluntary and it would make no difference to their grades, as their participation was confidential. One week later, the same students came back and were

asked to recall the theory and principles taught through the use of photoessays the previous week.

During the interviews and focus groups, students were asked questions on their experience of the lecture as well as how they might apply the theory taught during that lecture. The interviews were open and unstructured, starting with 'grand-tour' questions, with 'floating' and 'planned' prompts and each question led to other questions (McCracken, 1988), although within a framework pre-designed before the interview. Interviews were recorded on a digital recorder and were conducted within the same day of the lecture for MBA and MSc students, but held over the course of one week for practitioners. However, despite the three groups coming from different backgrounds, there was no influence on the data collected as the objective was to discover analytic categories that were structural (vs. episodic) and cultural (vs. idiosyncratic) (McCracken 1988).

Construction of Photoessays

In constructing the photoessays, action research was chosen as a methodology. Action research is the process by which educators or practitioners attempt to study their problems scientifically so that they are able to guide, correct and evaluate their decisions and actions. In short, action research is the method of "learning by doing", similar to experiential education. Educators participating in action research have been shown to be more critical and reflective about their teaching and are more careful with their perception and understanding of the teaching process (Oja and Pine 1989; Street 1986).

Action research was chosen four reasons. First, the methodology would assist in bringing real world experience into the teaching material, although that knowledge is often tacit. By using a medium such as photographs, and through the compilation and construction of a photoessay within an action research format, tacit knowledge could be activated.

Second, as a practitioner turned academic, what Schwab (1964) describes as "syntactical" knowledge has been acquired – the understanding of the principles that guide knowledge formation within the subject area. The photoessay therefore provided a medium to synthesize practice and theory, and illustrate how and under what conditions information from theory can be combined with practice. Furthermore, ideas on what drives effective teaching in marketing have been formed. Since ideas and action are linked dialectically (Waters-Adams and Nias 2003), action research acts as a methodological tool to elicit such ideas, putting them into action and then reflecting on their effectiveness.

Third, each modification of the photoessay would improve on the previous one, after presentation in a lecture. The educator learns from the feedback of the students and upon reflection, analysis and modification of the photoessay, the educator obtains further understanding of the role and effectiveness of the photoessay. In other words, the process is not static and action research provides a means of introducing dynamism into the research. In the words of Zeichner (1993), action research is a "systematic enquiry by practitioners about their own practice". As there is little research in the area of constructing photoessays for teaching, the action research process enables an exploratory research to be conducted within the process that can inform in the construction of the photoessay.

Within the action research process, another method was drawn from Zaltmann (1982) to activate practice knowledge in creating the content of the photoessays.

Through the theory-in-use method, photographs were collected and the content of the photoessay was structured through an exercise in reconstructed logic. This meant sourcing for visual business practices that could be a reflection of the theory, linking the photograph with academic literature and developing a greater understanding of how to better explain the theory. The rationale of this approach, applied in this study, was to understand, formalize and document visual situations as a contribution to the teaching of that topic (for an example of this approach, see Ng, Wirtz and Lee 1999).

The research embarked upon was guided by the framework suggested by Susman and Evered (1978) where the project is viewed as cyclical with diagnosing, action planning, action taken, evaluating (observation) and reflecting on the results (Zuber-Skerritt and Perry 2000; Dick 2000) as illustrated in Figure 1.

The construction of the photoessay is detailed in Figure 2. The construction was also aided by the information obtained from my analysis of each set of student data (see below for how student data was obtained), through the action research process, discussions with academic colleagues on the theory and its applications, as well as from doing mock presentations (usually in the form of placing photographs on a table) with practitioners and academics. Attention was focused on the factors that contributed to the learning of the students.

After the three presentations of the photoessays, I had my own list of photoessay characteristics through the action research process. I then convened another series of meetings with the same two other researchers (who were not party to my photoessay construction discussions) to discuss the characteristics of the photoessay that contributed to the categories of learning found, without informing them of my list. Each researcher took the photoessay and the narration that I had compiled, as well as the transcripts of the presentation, and analyzed it with the students learning report and independently jotted down how the photoessay assisted in the learning categories found. Another round of meetings ensued to discuss the results and my list was then refined by comments from the researchers' lists.

RESULTS

The results illustrating the seven dimensions of student learning are summarized in Table 4. Table 4 shows that through the presentation of photoessays, students learn through reinforcement of understanding, feedback, cognitive efficiency, reflection, creativity, motivation and emotional resonance. Respondents' specific comments illustrating each dimension can also be viewed in Table 4.

Insert Table 4 about here

The characteristics of a photoessay leading to the achievement of student learning reported in Table 4 is illustrated in Table 1. Photoessays constructed should reflect theory, capture emotions, provide perspectives, help students abstract theory, and allow for the discovery of information. A discussion of the results is presented in the following section.

DISCUSSION AND IMPLICATIONS

Over the past three decades, more scientific work has emerged on the processes of learning, thinking and the development of competence. Assisted by research in cognitive science, the science of learning now calls attention to learning with understanding. Yet, understanding is difficult to study from a scientific perspective (Bransford, Brown and Cocking 2000). To obtain insight into "understanding", one would need to focus on the process of learning and how learning is achieved. In the cognitive view of learning, knowing is "a structure of mental representations, which is organized according to general principles of reasoning and to concepts and principles of a domain of knowledge" (Greeno 1997). A student is successfully thinking when first, the student's cognitive structures are consistent with the correct concepts of accepted knowledge in the subject matter, and second, when the student has obtained the relevant procedures and strategies for applying his or her knowledge to solving problems in that domain. I find that information imparted through a well-structured medium such as photographic images and verbal narration work on student cognitive processes, and infer that knowledge is constructed in the seven ways as summarized in Table 4. In the following paragraphs, my findings are synthesized with research in education to propose explanations for the learning experienced by the students in this study.

First, students' understanding of the subject is reinforced. This reinforcement is achieved through comprehension of the educator's meaning. Here, the student's effort is to align his or her cognitive structures according to that of the educator's, in the belief that correct mapping would be "knowing". Understanding is also reinforced through "generative insight" (Greeno 1997), which is when, according to Wertheimer (1985), the student obtains an in-depth understanding without having a procedure for a systematic growth of that understanding or a pattern of information acquisition that serves to contribute to that understanding. This is consistent with the belief that human beings are "cognitive misers" i.e. we get by with minimum amount of thinking (Gigerenzer 1991) and may resort to heuristics in acquiring understanding. These two aspects of understanding (comprehension and speed) arose simply from the medium used, and the role of the photoessay seemed to be merely a medium for instruction delivery, as proposed by Clark (1983). However, specific content and structure of the photoessay do play a role in influencing student achievement in terms of the depth of understanding, which may be derived by the student's ability to think reflectively. When the photoessay was structured in a way that allowed students to discover their understanding of the topic, students' acquisition of the domain knowledge was expanded, because instead of merely understanding the facts, they would understand the reasoning underlying the knowledge construction.

Second, photoessays are able to give feedback, despite the passivity of the surroundings. As the literature on student learning has shown, feedback aids initial learning so that students can assess how much they know (Chi et al. 1989, 1994). The results showed that the feedback mechanism created by the presentation of the photoessay seemed to heighten students' meta-cognition i.e. the "knowledge and awareness of one's own cognitive processes (Flavell 1976) and the ability to monitor, regulate and evaluate one's thinking" (Brown 1978). The feedback sensitized learners into a realization that they did not understand as much as they thought they did. Once aware of this, the findings showed that students employed mental challenges to themselves to transfer what they knew to other contexts. In that respect, the photoessay

acted as a conduit. Through the presentation and the abstraction of theory deliberately structured into the photoessay, students became exposed to new and diverse situations and settings. This resulted in students being more likely to engage in invention and problem solving, and thereby learning about the conditions for applying knowledge, consistent with studies in situated cognition (Collins 1988).

Third, the findings indicated that viewing photoessays could result in cognitive efficiency. Possibly, the effort to generate mental imagery would be higher than merely "seeing" an image. Consequently, when a student listens to a lecture and attempts to create a mental representation of a situation and a photographic image is flashed, the mind could switch to using the visual representation as an alternative representation. This implies that cognitive resources may be freed up, thus allowing them to be utilized for greater reflection and thought.

Fourth, photoessays are able to encourage reflection, the ability of a person to make explicit what he has achieved in learning or practice. It is concerned with the construction of meaning, and a reflective judgment implies that the knowledge acquired is understood within the context it was acquired, the process of that construction and the connections with other similar knowledge (Raelin 1997; King and Kitchener 1994; Mezirow 1981). When students perform a mental role-play, they take on the role of the practitioner. Yet, this is not actual practice, where real time actions and sequence of events rarely allow for proper reflection (Joplin 1995). In this case, the students have the benefit of mentally being a practitioner, but with the opportunity to reflect on why some events play out in certain ways and the forces that shape the event and its outcome. This process compels students to think like experts, and although this study does not assess the extent of learning, the photoessay seems to encourage students to become more critical in their thinking. By showing photographs that reflect theory and also compelling students to abstract the theory from the photographs, students are also able to develop their transfer abilities.

Fifth, using a photoessay seems to increase mental flexibility (students were able to cite other interesting and tangential examples where the theories could be applied) and the willingness of students to employ creativity in seeking solutions (cf. Lubart 2000). This suggests that the process of creativity is stimulated by the photoessay as it challenges the students to reformulate and redefine the problem.

Sixth, the study showed that photoessays enhance the realization by learners that their understanding may not be complete. This seems to be a strong motivational factor to increase learning and in turn, promote creativity, i.e. as McIntyre (1993) put it, "seeing the connections between things normally unrelated or wandering from an elementary idea to a more refined one" (pg. 33). This motivation is also enhanced by the credibility of the instructor whom they see as the creator of the photoessay. As reported in the literature review, motivation also promotes initial learning.

Finally, the results also found that emotions have a role in learning. By using a photoessay to capture emotions, students seemed to be able to identify with the topic and become more motivated. This appeared to be consistent with Mayer and Salovey's (1997) proposal on the connection between emotion and learning: "Positive emotion may alter memory organization so that cognitive material is better integrated and diverse ideas are seen as more related." Consequently, even though the emotional state of a student is often unknown to the instructor, photoessays could be constructed as "contextual-laden ambassadors" for learning (Greenleaf, 2003).

My findings showed that photoessays went beyond being a visual aid. They served to refine knowledge through articulation and reflection, and provided students with an opportunity to see connecting structures underlying the knowledge in their area. Similar to lectures, the effectiveness of photoessays does not suffer greatly when class sizes increase. Yet where lectures are passive, photoessays could stimulate mental activity within the student. More importantly, photoessays allow the incorporation of students' creativity, prior experience and other attributes into the learning process and offer them a channel to integrate old knowledge with new. Often, teaching tools serve to impart information and skills and test students for the outcome of the learning. What this study found was that students should also be trained in the process of knowledge construction and such processes may then result in better outcomes.

Teacher Learning

This study also found that the construction of photoessays could result in teacher learning. The photoessay is a tool that could be useful for marketing practitioners to contribute to academia. As the literature review has pointed out, learning through theoretical understanding is often inadequate. Similarly, it is insufficient to participate in tacit practices without articulating the practitioner's mental models. Through the construction of photoessays, the educator-practitioner has to provide a theoretical account of practice and at the same time, as educator-academic, has to demonstrate a theory's applicability to practice. This process, embedded within a theory-in-use method which in turn is within an action research process, trains the educator to be reflective, sensitizing the educator to why practices are the way they are and also to gain deeper insights into the gaps in practice, teaching and research. Reflection has been thought to be a strong contribution to learning. The photoessay construction could be an opportunity for practitioners who aspire to be educators or researchers (such as practitioners retiring into academia) to achieve higher level reflection where the educator questions fundamental beliefs that shape knowledge in that area. Such transformative learning in the practitioner-academic would greatly benefit both the world of practice and the research community in that domain.

CONCLUSION

This study aimed at providing insights into the process of learning when presented with a photoessay. It was found that photoessays went beyond visual aids. Instead of merely functioning as a medium to transport information, they were able to provide greater understanding, feedback and cognitive efficiency, and they also increased reflection, activated creativity and increased students' motivation to learn. While the photographs taken do not need to be of professional standard, instructors unfamiliar with digital photography could consult their college audio-visual/mediaography services to better understand photography techniques.

Clearly, there are limitations to this study. Learning depends on individual students' dispositions, and naturally, some students learn from the medium better than others. The purpose of this study is not to uncover a theory of how students generally construct knowledge when viewing a photoessay, but how learning could be constructed. It is hoped that this study does provide sufficient insight to using photographic material in teaching and how practice and theory could be integrated. Perhaps the most significant

limitation is that the analytic categories discovered here do not function in isolation. They interact and overlap frequently with one another, and it would not be surprising if some categories moderated or mediated the effect of others. Hence, it is unclear how the categories combine for effective learning.

Finally, it is not the aim of this paper to demonstrate what is effective learning. Since the study did not assess the students, it is not known if what the participants claim to be learning is actually effective. My purpose is merely to discover the categories present within an admittedly self-reported process of learning in students. While it is acknowledged that quantitative measures would be valuable within this study, they are beyond the scope of the paper. Further research could run quantitative tests to examine the efficiency of learning through the use of photographs. The process inferred from the results serve as a first step towards understanding how students learn through photographs and indeed, if photographs do have an effect on learning beyond merely as a medium for transporting knowledge.

Innovative pedagogical tools are necessary to develop competent marketing graduates, particularly in an age where technological innovations will see this education being delivered and tested in the work environment in multiple ways. Through the development of such tools, students can engage in more active learning that enhances critical thinking and creativity skills as well as build on existing knowledge. This study looks not only at how to teach marketing through a photoessay, but also how a student learns from it and discovers that knowledge can be constructed in multiple ways. Further research could examine how students can be trained in knowledge construction rather than merely imparting knowledge or assessing the extent of the knowledge acquired.

This paper also aims to provide insights to how to construct photoessays to aid learning. This could be relevant in the creation of a web-based or distance learning marketing curriculum where images and narration are combined and delivered through electronic media.

For traditional academics, the construction of photoessays can serve as an experiential learning activity. By constructing a photoessay, the instructor is participating in experiential learning. While presenting the photoessay may help students learn and apply their knowledge, the construction of one helps the educator learn to integrate her practice, knowledge and teaching, as well as fosters creativity. While experiential learning is usually facilitated by an educator, the instructor here guides himself or herself, assisted by students through the action research method.

For practitioners-turned-academics, this paper illustrates how photoessays could be used to integrate practice experience and academic theories. In addition, professional marketing experience does not only contribute to teaching, as this paper has shown. It is also able to bring about greater theoretical sensitivity (Strauss and Corbin 1990) and innovative cutting edge research could be a consequence. Having sound applied skills does not have to be at the expense of good research or teaching. It is hoped that this paper is able to encourage more practitioners to contribute to teaching and research and in so doing, enrich the marketing discipline.

REFERENCES

Akeret, Robert U. 1973. *Photoanalysis: How to interpret the hidden psychological meaning of personal and public photographs*. New York : Wyden.

Anonymous. 2000. Teaching Methods. In *Handbook for teaching and learning, University of Chicago Center for Teaching and Learning.*. Available from http://teaching.uchicago.edu/handbook/tac05.html, accessed 22 Oct 2005.

Aron, Bill. 1979. A disappearing community. In *Images of information*, edited by Jon Wagner, 59-68. Beverly Hills, CA: Sage.

Averill, J. R. 1973. Personal control over aversive stimuli and its relationship to stress. *Psychological Bulletin* 80: 286-303.

Birdwhistell, Ray L. 1969. Still photographs: Interviewing and filming. *Kinesics and Context*. New York: Ballantine.

Boyer, E. L. 1990. *Scholarship reconsidered: Priorities of the professorate*. Princeton, New Jersey: Princeton University Press.

Bransford, J. D., Brown, Ann L. and Cocking, Rodney R., eds. 2000. *How people learn: Brain, mind, experience*. National Academy Press.

Brown, A. L. 1978. Knowing when and how to remember: A problem of metacognition. In *Advances in instructional psychology (Vol. 1)*, edited by R. Glaser, 77-165. Hillsdale, NJ: Erlbaum.

Byrnes, J. P. 1996. *Cognitive development and learning in instructional contexts*. Boston: Allyn and Bacon.

Chandler, P. and Sweller, J. 1994. Why some materials are difficult to learn. *Cognition and Instruction* 12: 185-233.

Chi, M. T. H., Bassok, M., Lewis, M. W., Reimann, P. and Glaser, R. 1989. Self-explanations: How students study and use examples in learning to solve problems. *Cognitive Science* 13: 145-182.

Chi M. T. H., deLeeuw, N., Chiu, M. and LaVancher, C. 1994. Eliciting self-explanations improves understanding. *Cognitive Science* 18: 439-477.

Clark, R. 1983. Reconsidering research on learning from media. *Review of Educational Research* 53: 445-459.

Cobb, P. 1994. Theories of mathematical learning and constructivism: A personal view. Paper presented at the Symposium on Trends and Perspectives in Mathematics Education, Institute for Mathematics, University of Klagenfurt, Austria.

Collier, J. 1979. Visual anthropology. In *Images of information*, edited by J. Wagner. Beverly Hills, CA: Sage.

Collins, A. 1988. *Cognitive Apprenticeship and Instructional technology (Technical Report No. 6899).* Cambridge, MA: BBN Labs Inc.

Dacko, Scott G. 2001. Narrowing Skill Development Gaps in Marketing and MBA Programs: The Role of Innovative Technologies for Distance Learning. *Journal of Marketing Education* 23 (3): 228.

Dick, R. 2000. *Postgraduate programs using action research*. Action Learning, Action Research and Process Management: Theory, Practice, Praxis, Action Research Unit, Faculty of Education, Griffith University, Brisbane.

Ewen, Phyllis. 1979. The beauty ritual. In *Images of information,* edited by J. Wagner. Beverly Hills, CA: Sage.

Entin, Alan D. 1979. Reflection of families. *Photo Therapy Quarterly* 2 (2): 19-21.

Flavell, J. H. 1976. Metacognitive aspects of problem solving. In *The nature of intelligence*, edited by L. B. Resnick: 231-236. Hillsdale, NJ: Erlbaum.

Floyd, Callum J. and Gordon, Mary Ellen. 1998. What skills are important? A comparison of employed, student and staff perceptions. *Journal of Marketing Education* August, 20: 103-109.

Frontczak, Nancy T. 1998. A paradigm for the selection, use and development of experiential learning activities in marketing education. *Marketing Education Review* 8 (3): 25-33.

Gates, Marilyn. 1976. Measuring peasant attitudes to modernization: A projective method. *Current Anthropology* 17(4): 641-665.

Gigerenzer, G. 1991. How to make cognitive illusions disappear: Beyond 'heuristics and biases'. *European Review of Social Psychology* 2: 83-115.

Gleitman, Henry. 1990. Lecturing: Using a much-maligned method of teaching. In Enerson, *Teaching at Chicago: A collection of readings and practical advice for beginning teachers,* edited by Diane M. Online version http://teaching.uchicago.edu/handbook/ Accessed 19 Jul 2004.

Gragg, C. I. 1940. Because wisdom can't be told. *Harvard Alumni Bulletin* October: 78-84.

Greenfield, P. M. and Suzuki, L. K. 1998. Culture and human development: Implications for parenting, education, pediatrics and mental health. In Sigel, I. E. and Renninger, K. A. (Eds.). *Handbook of Child Psychology (Vol. 4)*: 1059-1109. New York: Wiley and Sons.

Greenleaf, Robert K. 2003. Motion and emotion. *Principal Leadership* May, 3.

Greeno, James G. 1997. Theories and practices of thinking and learning to think. Reforming the Third R: Changing the School Mathematics Curriculum. *American Journal of Education* 106 (1): 85-126.

Grisoni, Louise. 2000. An inquiry into the use of experiential learning at Bristol Business School. *Bristol Business School Teaching and Research Review* 3, Summer.

Haas, Robert W. and Wotruba, Thomas. 1990. The project approach to teaching the Capstone Marketing Course. *Journal of Marketing Education* Summer: 37-48.

Hall, Edward T. 1974. *Handbook for proxemic research*. Washington DC: Society for the Anthropology of Visual Communication.

Hallinger, P., Leithwood, K. and Murphy, J. (Eds). 1993. *Cognitive perspectives on educational leadership*. New York: Teachers College Press, Columbia University.

Harich, Katrin. 1995. Experiential learning in business classes: Outcomes and challenges. *College Student Journal* December, 29: 409-413.

Harper, Douglas. 1984. Meaning and work: A study in photoelicitation. *International Journal of Visual Sociology* 2(1): 20-43.

Heisley, Deborah D. and Levy, Sidney J. 1991. Autodriving: A photoelicitation technique. *Journal of Consumer Research* December, 18: 257-272.

Joplin, Laura. 1995. On defining experiential education. In *The Theory of Experiential Education*, edited by K. Warren, M. Sakofs and J. Hunt, 15-22. Dubuque, Iowa: Kendall-Hunt Publishing Company.

Karns, Gary L. 1993. Marketing students' perceptions of learning activities: Structure, preferences and effectiveness. *Journal of Marketing Education* Spring: 3-10.

Kaynama, Shohreh A. and Garland Keesling. 2000. Development of a Web-Based Internet Marketing Course. *Journal of Marketing Education* 22 (2): 84-89

King, P. M. and Kitchener, K. S. 1994. *Developing reflective judgment*. San Francisco, CA: Jossey-Bass.

Klahr, D. and Carver, S. M. 1988. Cognitive objectives in a LOGO debugging curriculum: Instruction, learning and transfer. *Cognitive Psychology* 20: 362-404.

Kozma, Robert B. 1991. Learning with media. *Review of Educational Research* Summer, 61(2): 179-211.

Lamb, Jr., Charles W,. Shannon H. Shipp and Willliam C. Moncrief III. 1995. Integrating skills and content knowledge in the marketing curriculum. *Journal of Marketing Education* Summer: 10-19.

Lang, James and Dittrich, J. E. 1982. Information, skill building and the development of competence: An educational framework for teaching business policy. *Academy of Management Review* 7 (2): 269-279.

Littlefield, J., Delclos, V., Lever, S., Clayton, K., Bransford, J. and Franks, J. 1988. Learning LOGO: Method of teaching, transfer of general skills and attitudes toward school and computers. In *Teaching and learning computer programming*, edited by R. E. Mayer, 111-135. Hillsdale, NJ: Erlbaum.

Lubart, T. I. 2000. Models of the creative process: past, present and future. *Creativity Research Journal* 13 (3/4): 295-303.

Malhotra, Naresh K. 2002. Integrating technology in marketing education: Perspective for the new millennium. *Marketing Education Review* 12 (3): 1-5.

Marshall, C. and Rossman, G.B. 1989. *Designing qualitative research.* Newbury Park, California: Sage.

Marton, F. and Saljo, R. 1976. On qualitative differences in learning: Outcome and process. *British Journal of Educational Psychology* 46: 4 - 11.

Mayer, R. E. 1989. Systematic thinking fostered by illustrations in scientific text. *Journal of Education Psycholog*y 81: 240-246.

Mayer R. E. and Anderson, R. B. 1991. Animations need narrations: An experimental test of a dual-coding hypothesis. *Journal of Educational Psychology* 83: 484-490.

Mayer, J. D. and Salovey, P. 1997. What is emotional intelligence? In *Emotional development and emotional intelligence,* edited by P. Salovey and D. J.Sluyter. New York: Basic Books.

McCombs, B. L. 1996. Alternative perspectives for motivation. In *Developing engaged readers in school and home communities*, edited by L. Baker, P. Afflerback and D. Reinking, 67-87. Mahwah, NJ: Erlbaum.

McCracken, G. 1988. *The long interview*. London: Sage.

McIntyre, Roger P. 1993. An approach to fostering creativity in marketing. *Marketing Education Review* 3, Spring: 33-36.

Mezirow, J. 1981. A critical theory of adult learning and education. *Adult Education* 32(1): 3-24.

Nies, Joyce I. and Tas, Richard F. 1991. How to add visual impact to your presentations. *Cornell Hotel and Restaurant Administration Quarterly* May, 32 (1): 46-51.

Ng, Irene C. L, Wirtz, Jochen and Lee, Khai S. 1999. The strategic role of unused service capacity. *International Journal of Service Industry Management* 10 (2): 211-238.

Oja, S. N., and Pine, G. J. 1989. Collaborative action research: Teachers' stages of development and school contexts. *Peabody Journal of Education* 64 (2): 96-115.

Paivio, A. 1971. *Imagery and verbal processes*. New York: Holt, Rinehart & Winston.

Pfeffer, J. and Fong, T. F. 2004. The business school 'business': Some lessons from the US experience. *Journal of Management Studies* December, 41 (8): 1501-1520.

Pharr, Steven and Morris, Linda J. 1997. The fourth-generation marketing curriculum: Meeting AACSB guidelines. *Journal of Marketing Education* 18, Fall: 31-43.

Pintrich, P. R. and Schunk, D. 1996. *Motivation in education: Theory, research and application*. Columbus, OH: Merrill Prentice-Hall.

Polanyi, M. 1966. *The tacit dimension.* London :Routledge & Kegan Paul.

Powell, Steve. 2002. Defining success. *OR/MS Today* August.

Raelin, Joseph A. 1997. A model of work-based learning. *Organization Science* Nov-Dec, 8 (6): 563-578.

Reynolds, J. I. 1976. Cases which meet the student's needs. Proceedings of National Meeting*. Academy of Management Review* 155-159.

Roach, Scott S., Johnston, Mark W. and Hair, Joseph F. Jr. 1993. An exploratory examination of teaching styles currently employed in marketing education: Developing a typology and its implications for marketing students. *Journal of Marketing Education* Fall: 32-38.

Ronchetto, John R. and Buckles, Tom A. 1994. Developing critical thinking and interpersonal skills in a services marketing course employing Total Quality Management concepts and techniques. *Journal of Marketing Education* Fall: 20-31.

Sakofs, Mitchell. 1995. Piaget – a psychological rationale for experiential education. In *The Theory of Experiential Education*, edited by K. Warren, M. Sakofs andJ. Hunt, 149-151. Dubuque, Iowa: Kendall-Hunt Publishing Company.

Schwab, J. J. 1964. The Structure of the disciplines: Meaning and significance. In *The structure of knowledge and the curriculum*, edited by G. Ford and L. Purgo. Chicago: Rand Mcnally.

Simon, H. A. 1996. Observations on the sciences of science learning. Paper prepared for the Committee on Developments in the Science of Learning for the Sciences of Science Learning: An Interdisciplinary Discussion.

Smith, Louise W. and Doris C. Van Doren. 2004. The Reality-Based Learning Method: A Simple Method for Keeping Teaching Activities Relevant and Effective. *Journal of Marketing Education* 26 (1): 66-74

Strauss, A. L. and Corbin, J. 1990. *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.

Street, L. 1986. Mathematics, teachers, and an action research course. In *Action research in classroom and schools*, edited by D. Hustler, T. Cassidy and T. Cuff, T. London: Allen and Unwin.

Susman, Gerard I. and Evered, Roger D. 1978. An assessment of the scientific merits of action research. *Administrative Science Quarterly* December, 23: 582-603.

Walsh, J. P., Weber, K. and Margolis, J. D. 2003. Social issues and management: our lost cause found. *Journal of Management* 29: 859–81.

Waters-Adams, Stephen and Nias, Jennifer. 2003. Using action research as a methodological tool: Understanding teachers' understanding of science. *Educational Action Research* 11 (2): 283-300.

Wertheimer, Michael 1985. A gestalt perspective on computer simulations of cognitive processes. *Computers in Human Behavior* 1: 19-33.

Williams, S. M. 1992. Putting case-based instruction into context: Examples from legal and medical education. *The Journal of the Learning Sciences* 2(4): 367-427.

Wolfe, J. and Guth, G. 1975. The case approach versus gaming in the teaching of business policy: An experimental evaluation. *Journal of Business* 48(3): 349-364.

Zaltmann, Gerald, LeMasters, Karen and Heffring, Michael 1982. Constructing theories-in-use. *Theory Construction in Marketing: Some Thoughts on Thinking.* John Wiley & Sons, Inc.

Zeichner, K. M. 1993. Action research: Personal renewal and social reconstruction. *Educational Action Research* 1: 199-219.

Zuber-Skerritt, O. and Perry, C. 2000. *Action research in graduate management theses*. *Action Learning, Action Research and Process Management: Theory, Practice, Praxis*, Action Research Unit, Faculty of Education, Griffith University, Brisbane.

Figure 1: The Action Research Process

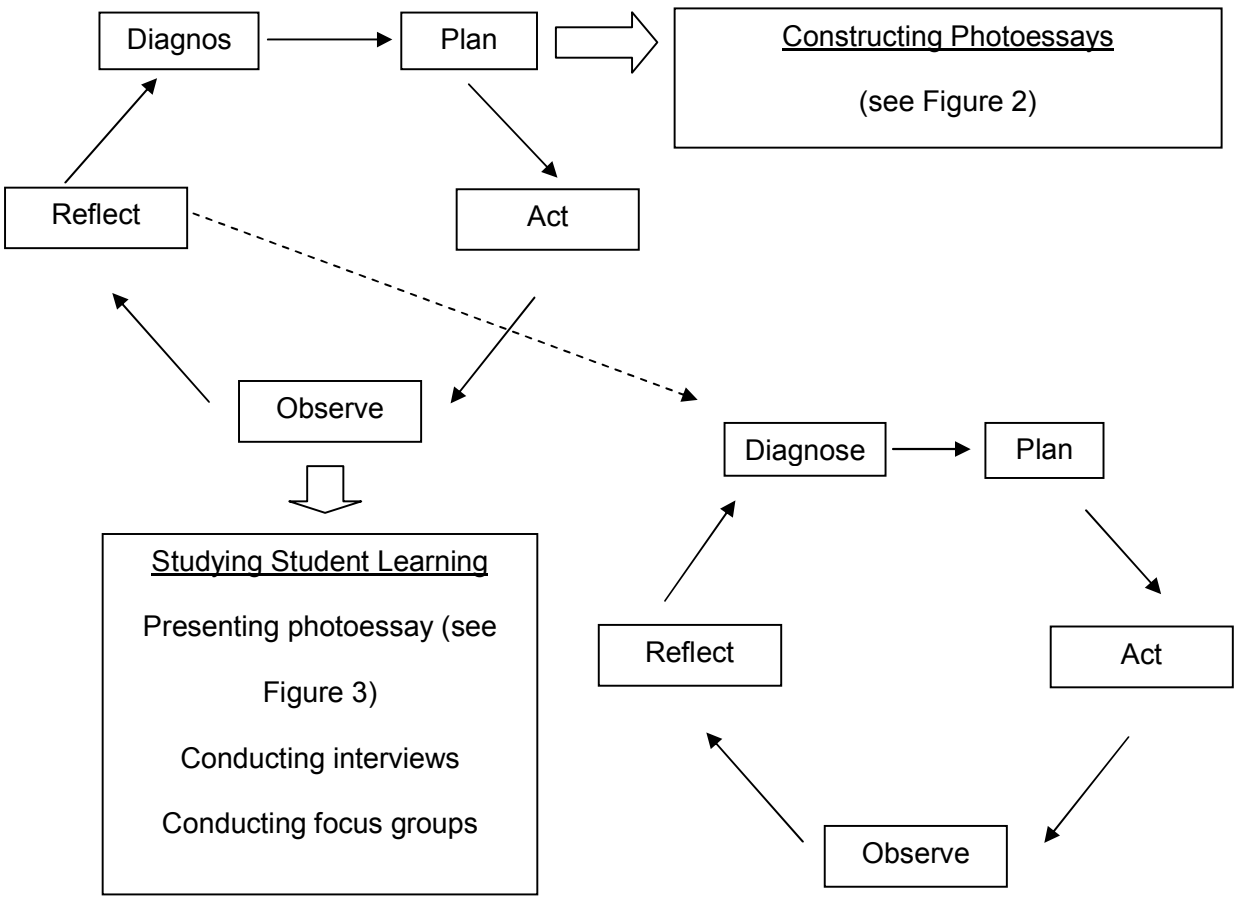

Figure 2: Constructing the Photoessays

Note that steps 1 – 7 are repeated as they are informed by student learning data

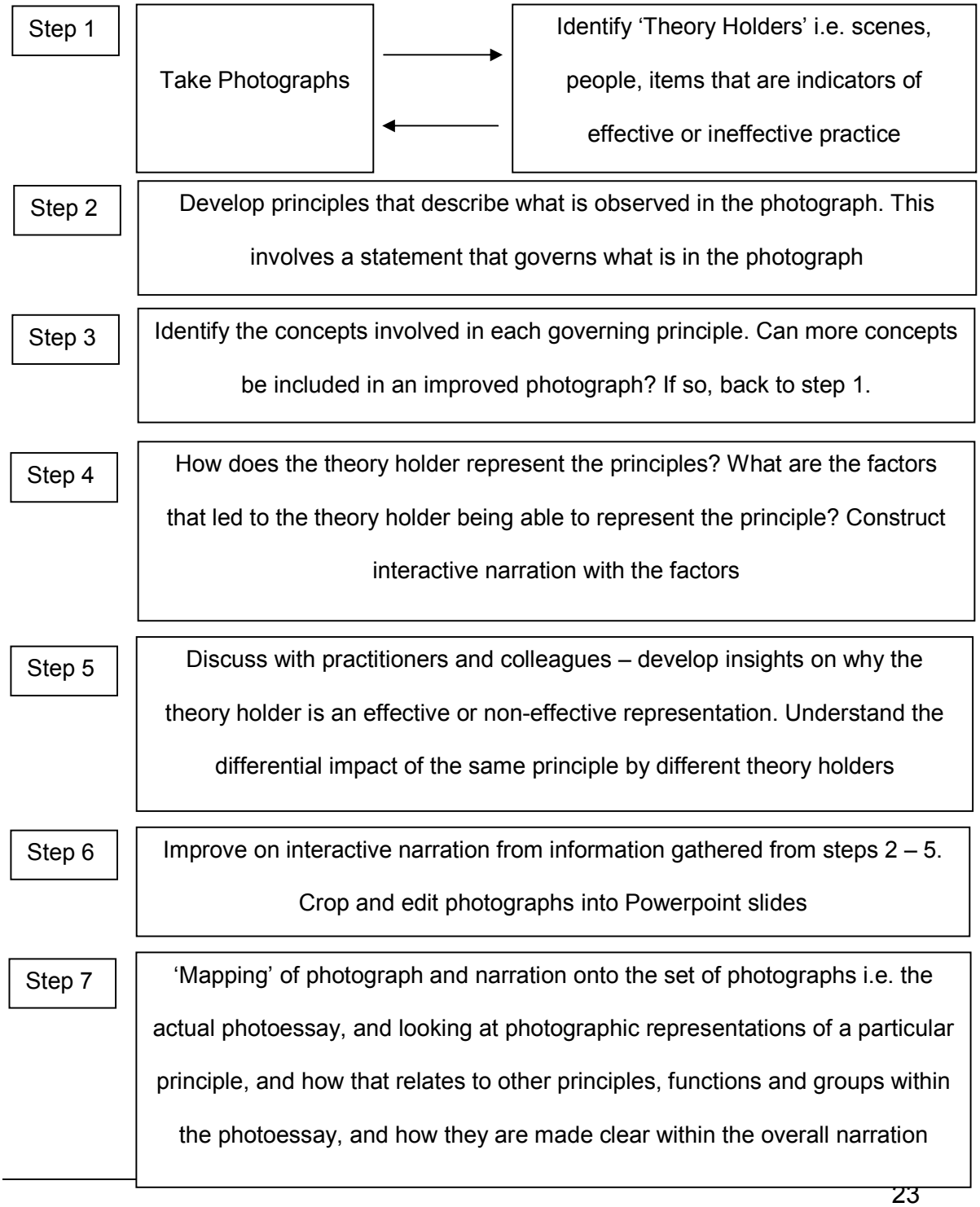

Figure 3: Presentation of Photoessay

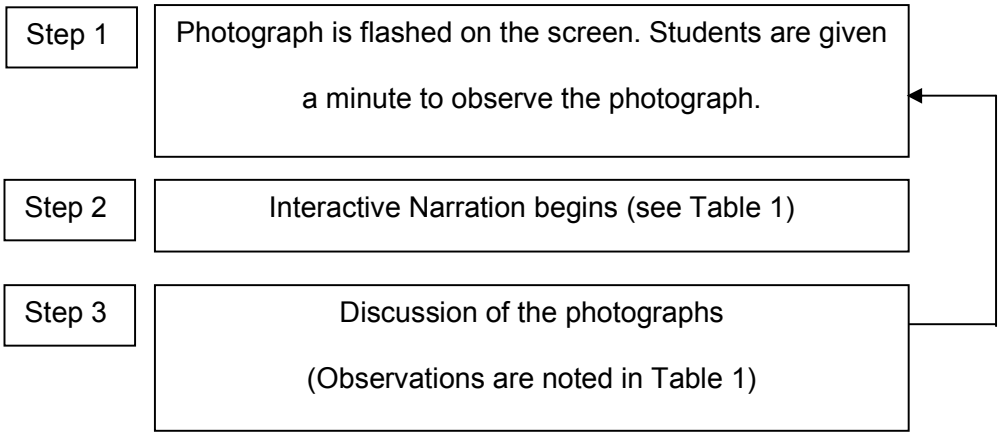

Table 1: Characteristics of the Photoessay

<table>
<tr><td>Fig No.</td><td>Title</td><td>Narrative</td></tr>
<tr><td>1a</td><td>Reflection of Theory and Discovery of Information
  </td><td>(For discovery of Information)
T: Do you know where to sign in if you are a guest?
S: Yes.
T: Where?
S: On the right.
T: How do you know that?
S: The carpet.
T: So a carpet can change your script?
S: Yeah. (laughter)
T: Anything else that can change your script?</td></tr>
<tr><td></td><td colspan="2"><u>Observations that informed the development of this photoessay characteristic</u>
- Students remarked that they had to think about the setting (familiar) and the theory (new) and cognitively negotiate how that photo would be a reflection of the theory.
- Provide illustrations with sufficient breadth of application.
- Having more photographs illustrating a single concept also ensured greater relevance to a broader set of students.
- Photographs were chosen that were different from the normal examples to contest common and traditional answers to problems and provide unusual solutions.
- The use of a simple object such as a carpet (above) to adjust a customer's script (i.e. where to go to sign in) illustrated the use of divergent thinking in script theory
- Because the photo was so normal in our daily lives, that made the conclusion powerful.
- Educators are able to exercise their creativity while fostering students' creativity.
- Demonstrating connections between theory and practice also helped students reinforce their understanding of the topic.</td></tr>
<tr><td>1b</td><td>Capturing Emotions (through the photograph and narration)
  </td><td>T: Do you remember your first experience at a salad bar?
S: [laugh] Yes.
T: Why?
S: They ask you what bread you want and you don't know what they are called. [Class laughs]
S: I mean, if you're at the salad bar for the first time, how would you know what a baguette, croissant or a pita</td></tr>
</table>

		bread is? T: How do you think he feels?
	Observations that informed the development of this photoessay characteristic - Students were asked to mentally take on the role of a person in the photograph - Students became more immersed in the context, involving both emotion and cognition and allowing for the interplay between them to enhance learning and transfer. - Inquiries into emotional levels of students when viewing photos that were designed to elicit emotions showed that although students could feel that emotion, it was a detached empathetic emotion resulting from the role play. By having twin roles – as the role player and as an observer – student learning became richer. - Creating photographs that captured emotions also allowed the educator to be sensitive to the emotions of various consumption activities in marketing. Emotions can also be captured through other learning tools e.g. narratives, memory-work (Ingleton 1995).	
1c	Providing Perspectives 	T: Do you know this place? S: Yes. T: What do you do here? S: Buy coffee. T: Where would you buy it? S: At the cashier. T: Where would you collect it? S: On the other side. T: Who taught you that? …(Pause for student reflection) T: Imagine you are thinking of getting a cup of coffee here and you have no idea how to do it. What would you do? S: Ask someone S: Forget the coffee. T: Now you're the firm. What would you do?
	Observations that informed the development of this photoessay characteristic - Photoessays could be shown in different perspectives - Students would need to mentally switch between these perspectives and that would allow them to form strategies, conclusions and in-depth thinking. - In the narration above, the students caught on quickly that script ignorance could be translated to a loss of revenue for the firm. - Reports also indicated that by providing opposing perspectives, students felt that the photoessays placed them in the role of "experts" and they felt compelled to critically assess and analyze the photos and narration, and engaged in activities that are similar to expert practice.	

1d	Abstracting Theory 	T: A familiar photo. What is it? S: Menu outside a restaurant. T: Don't they have menus inside? S: Yes. T: So why is this one outside? S: To tell you what the restaurant offers even before you go in. T: Why?
	<u>Observations that informed the development of this photoessay characteristic</u> – Photoessays assisted learning when the narration and photographic images combined to present an applied context and having the students abstract the theory from that context. – A familiar photo was displayed i.e. a menu outside a restaurant (above). Students were then asked to abstract the theory (i.e. perceived control theory). – This was a very common item we see all the time. By asking students to abstract the psychological theory from it (perceived control theory) students became more sensitive to theory in everyday items (theory-in-use). – When combined with the theory reflection reported earlier, the iterative role of abstracting a theory from a context and then seeing it contextualized into different forms by looking for other photos was reported to be mentally stimulating and extremely rewarding.	
1e	Allowing for Discovery of Information 	T: Do you know what this is? S: No. T: You get onto this little black escalator thingy and it takes you up the slope with your big rubber tire and then you sit on it and slide all [points to photograph] the way down here. S: [some laughter] T: Anyone tried this before? S: [murmurings of yes and no] T: Would you know how to get on this escalator? S: [murmurings of yes and no] T: Can you read this sign? S: Yes. T: How do you think the sign helps? Does it help?[pause and murmurings]

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		S: Well, if I don't know how it works, the sign tells me I'm not stupid to ask because if there is a sign there, it means many people don't know right? So it's ok to ask. T: Do you feel better about it? S: Oh definitely. T: How does this help in the design of your own service?
	<u>Observations that informed the development of this photoessay characteristic</u> - The above example showed an "escalator" of sorts that transports people up the hill with their rubber tyres and from the top of the hill, they would slide down sitting on the rubber tube. The photograph had a little sign that said "If you are not familiar with this lift, ask operator for assistance." As the narration showed, the discovery of knowledge helps students in their applied skills, as the inquiry nature of the discovery gives them confidence. Through this exercise, students understood which part of the acquired knowledge contained gaps and how the gaps could be addressed. - Photoessays could be constructed to *put forward* a problem, rather than providing or illustrating a solution. - Interview data showed that the learning experience was different when students discovered and explained a solution for themselves. - A photoessay that is structured around the presentation of problems may help students discover information and assist them in framing solutions. - Through this manner, students can come to understand the arguments, ideas and reasoning strategies that underpin their construction of knowledge instead of merely knowing factual information.	

Table 2: Literature on Photography

How photographs have been used in research	Some sample works
In creating a fuller understanding of the content in such a way that the written word may not be able to capture. This is because visual items can be scrutinized in an open-inquiry manner to obtain a narrative in:	
– Ethnographic presentations	Aron 1979; Ewen 1979
– Proxemics (measurement of spatial relationships)	Hall 1974
– Kinesics (study of body language)	Birdwhistell 1969
– Choreometrics (study of movement through time)	Collier 1979
In presenting to research participants with the aim of eliciting the participants' interpretation of reality, either in the form of stories or behavioral cues:	
– by sociologists	Harper 1984
– by psychologists	Akeret 1973; Entin 1979
– by anthropologists	Gates 1976
In learning:	
– the importance of imagery in cognitive operations	Mayer and Anderson,1991
– facilitate the construction of links and improve accessibility to information	Chandler and Sweller 1991; Mayer 1989

Table 3: Literature on Learning

Insights into student learning	
Learning approach based on an intention to understand (termed as a deep approach) tend to achieve higher quality learning outcomes (as compared to a surface learning approach based on an intention to complete the task or learning requirements)	Marton and Saljo 1976
New knowledge is usually constructed based on existing knowledge and beliefs	Cobb 1994
A mismatch between what students have learned in their home culture and what is required of them within the course may result in failure of the school to produce exemplary practitioners	Dacko 2001
Cultural knowledge may support or conflict with learning	Greenfield and Suzuki 1998
The meaning of "knowing" has shifted from being able to recall and regurgitate information to being able to obtain and apply it	Simon 1996
Students are judged not solely on their learning abilities but on their transfer abilities i.e. the ability to extend what has been learned in one context to new contexts	Byrnes 1996; Harich, 1995; Karns 1993; Haas and Wortruba 1990
Initial learning is crucial towards promoting transfer. To promote initial learning:	Klahr and Carver 1988; Littlefield et al. 1988
Students need to adopt a deep approach to learning, while students who merely memorize the information do not transfer well	Bransford and Stein 1993
Students must be given feedback (i.e. comments and suggestions) regarding their performance	Chi et al. 1989, 1994
Students must be motivated to learn, and they are motivated when they can see the usefulness of the knowledge they are acquiring especially if the knowledge benefits others	McCombs 1996; Pintrich and Schunk 1996
To know how to apply, facts learned may need to be omitted and refined, so as to take the knowledge attained into the application level i.e. students have to progress up this "ladder of abstraction" (i.e. move from a concrete understanding (e.g. specific example) into a more abstract understanding (removing the specifics from the example).	Reynolds 1976
Pedagogical techniques such as case methods, games or computer simulations have been integrated into the	Hallinger et al. 1993; Williams 1992

curriculum to increase students' abilities to synthesize, analyze and solve problems over a variety of circumstances	

Table 4: Anecdotal Data indicating the Seven Dimensions of Student Learning

Seven Dimensions of Student Learning in a photoessay	*Description of Learning*	*Selected Student Reports of Learning*
(1) Reinforcement of Understanding		
(1a) Comprehension	Better understanding of what educator wishes to convey	"I can see how difficult it is to teach this to us. I mean, if I didn't see those photos, I would be trying to see what you could see, you know what I mean? Trying to get what you're getting at." "I know you explained waiting psychology and everything. But that was just it. Explanations. Words. I mean, I understood it, but when the photos came out, it was like seeing something in your head that is black and white and then seeing it in color. You understand it a whole lot better; it's like from 1-D to 3-D. How do I explain this… You know the single queue photo? I remembered thinking, 'Look at the ropes. People need ropes to put them into a single queue.' It's not just the psychology of waiting in a single queue. It's getting people to line up in a single queue. That's what I mean. You see more in a photo than when it's being explained. And you think about it more. That's why I feel I understand it better."
(1b) Depth	Better understanding of nuances and connections in the knowledge of the	"When you were talking, I would make sense of it logically and thinking about it a bit like step-by-step, following the logic with your words. But when the photos were

	subject	flashed, I immediately 'got it'. It sort of clicked. Does that make any sense?"
(1c) Speed	Quicker understanding of subject	"Don't they say a picture is worth a thousand words? Well, that's a thousand words that don't need to be spoken. [Laughs]. I think if the photo hadn't been there, I would think about it a whole lot harder. Separately, I mean…. With the photo, it's as if I didn't need to think at all. I understood the theory immediately."
(2) Feedback	Through the congruity of image presented and mental images held by students	"When you were talking, my mind sort of made up a kind of mental image of what it is, and how it can be used. Then when one of the pictures came up, the image of what I was thinking of and the image flashed were similar and I realized I was right." "It's like a bridge between the image in my mind and the actual image. It makes me think – 'Yes!' – exactly like that. That made me real excited. Like, I got it right. It felt good."
(3) Cognitive Efficiency	Freeing up of cognitive resources since mental imagery is not required	"When the image was flashed, it is as if the mind didn't need to imagine what you meant. I mean, the image was just there. So it made me feel that I could think deeper about the concept. It's like there is more space to think because I didn't need to visualize what you meant."
(4) Reflection	Willingness to increase mental activity, to build links between new and old knowledge and to apply knowledge	"It occurred to me that there was another way of looking at it. I then started thinking about what other ways I could have looked at in applying that theory." "You know, you go through your work day to day and you're not very sensitive to theory and concepts –you just do your job without really thinking much. After seeing the photos, I started looking differently at my day-to-day work – the decisions I make and the strategies we come up with. The theory was there all the while – in what we did. We just never knew it. Now that I know

		how the theory can be used, I understand how to improve it because you made us think – you know – the part where you asked questions about the photos and we had to think about the answers. For the first time, I realize that what was taught could be useful not just in developing a plan or strategy, but even in day-to-day decisions." Another student added that the photoessays made him reflect on how his thinking previously was "kind of narrow" and that he "should think broader, and the way to do that is to think about where the theory is relevant in real life". This reflection seemed to take students thoughts to a different level where it was reported that "there was more ambiguity in my understanding of the concept", but the picture gave him the feeling that he "could cope with that ambiguity". One student reported that while he was having dinner a few nights ago, he realized that he was actually going through a script because he "was doing what the guy you showed on the photo was doing", and he ended up "looking at everything as a script and control behavior" the previous week.
(5) Creativity	Willingness to employ divergent thinking	"It was inspiring. I mean, there is no other word except that. It showed me how the concept or theory is applied instead of spieling off theory, which I can read at home. It makes it not only okay to think in a different way but you want to think in a different way." "Someone did that – I could have done that." "Gave me license to think about the theory in different ways."
(6) Motivation	Willingness to acquire more knowledge	"I have more confidence in what I'm learning. I know that you know what you're talking about because you can give me concrete examples. There are just so many

		courses that simply give you the theory, and I sometimes wonder if these professors have their heads up in the clouds somewhere."
(7) Emotional Resonance	Able to identify with topic, with a higher perception of relevance	"It's different. I could feel like if I was in that picture, but I could also see how if I was the firm, what I would do about it. It's like there are a few of me. One in the picture going through it all and feeling angry, one who is in charge of that service and one who is listening to you. But the photo reminded me how it's like and it also made me understand what I should do about it as the one in charge." "Excited", "happy", "upset" and "frustrated" emerged from the interviews. They could "latch on to the feelings" portrayed. Having the emotions made the situation seemed "real" because they could "connect". One student reported getting "worked up" and feeling the way the person in the photo felt. She could feel the emotion that everyone in the photos was feeling and that "feeling it made it more real". The photos had made them "become involved".