

Learning Partnerships

- the art of handling ambiguity -

Volume II (385 - 573)

Submitted by Patrick Meaney to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Education, October 2008

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Signed:

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Above all, my love goes to my family for their love and support throughout.

Abstract

This intrinsic case study is about people who worked in partnerships. Each of the partnerships emerged from relationships formed between the business, education, government and community sectors. A principle aim of the cross-sector partnerships was to enhance learning opportunities, integral to which was the incorporation of ICT. The study explores through interweaving narratives, some of the key interrelationships that emerged from the evolving partnerships as they strived to accomplish their aims.

The partnerships represented a rich and complex context for dynamic and strategic change occurring, not only in the evolving partnerships, but also in the systems they intended to consolidate and optimise. Furthermore, such complexity pervaded ideological notions of instability and discontinuity arising from difference that may be implicit or explicit in open, distributed complex systems.

The metaphor of hypertext serves to both retain textural qualities of organisation and address key problematics associated with visualisation and representation and also as a means to reflect upon the study by encouraging improvisatory processes akin to those experienced by the participants. In this respect, hypertext is not used to simply challenge artificial boundaries, linearities and determinisms but rather, prompt the construction of meanings further to those partially represented. It also serves to maintain a clearer relationship between those contexts within which research has been, or becomes situated.

The thesis largely rests on its representational form in terms of its self-sufficiency to portray, convey, express, evoke, engage and inform. Ambiguity forms a fundamental facet of the thesis. In addition to those that rest within the texts, graphic illustrations are used to provide narratives in different forms whereby, readers are not bound by the same inadequacies or constraints in drawing meaning about the subject from text alone. By taking the view of the artist, the illustrations provide a flexibility that overcomes some of the dimensional limitations of the thesis and further emphasises its connectionist, constructivist and aesthetic undertones. The links between components and nuanced meanings emphasises the interdependencies in terms that transcend the representational form of discursive language. The case is thus, synthesised in the following illustration:



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List of Accompanying Material

MEDIA

The thesis is available in two forms - the printed (.pdf) version offers one arrangement or construct, the .doc version on the enclosed computer disk provide further permutations through the use of active hyperlinks and other navigational devices. The printed (.pdf) version of the study is presented in two volumes to overcome some of the limitations of printed text and to help the reader maintain momentum when exploring the narratives. For example,

- **Volume I** represents the main body of the thesis and serves to provide a way of conceptualising and finding some form for contextualised experience in action.
- **Volume II** provides fundamental and important details that have been embedded in the narratives in Volume I by using ‘comment fields’ [PM586], and which in printed format, constitute ‘end-notes’. Specifically, ‘comments’ should be read alongside Volume I to facilitate cross-referencing and embellishing and thickening the overall description of the case study. Some comments emphasise the hyper-textual and holistic nature of the entire case and/or provide a second reading to, or a retrospective account for the narrative within which they occur. Comments were a device that on one hand provided a means of encapsulating particular details without impacting the pace and flow of the main narrative. Comments allowed the incorporation of data, sometimes in its raw state, as additional or retrospective insights and as another layer of analysis. Not only does the use of comments in this way emphasise the problem of what should be brought to the fore, for what purpose and on whose behalf, it also raises doubt about temporal and ideological dimensions. (refer [reading the small print](#) and [One in the Eye](#)). In electronic (.doc) form, the entire Volume II becomes superfluous because the comments ‘pop up’ when the cursor is rolled over the link or the reference number.

Details for navigating these are provided in the ‘Read Me’ file in [Appendix 1](#).

CD-ROM Media

Animation Files

Some of the figures illustrated in the thesis are animations or interactive models.

These include:

Linked Rings.swf (Sequence - Flash animation format)

CATM animation.mov (QuickTime animation)

Node detail.3dmf (Quickdraw 3D file format)

Multiball Worlds.3dmf (Quickdraw 3D file format)

3 Bees (Projector file format)

The 'Read Me' file supplied on the CD-ROM provides an outline on how to access these file types and how to play and/or interact with those illustrations.

Definitions

Glossary

AAL	Anywhere Anytime Learning
ADSL	Asymmetric Digital Subscriber Line
BCS	British Computer Society
Becta	British Education Communication technology Agency
BESA	British Education Suppliers Association
CAD	Computer Aided Design
CCI	Chamber of Commerce & Industry
CD	Compact Disk
CEO	Chief Executive Officer
CfBT	Careers for British Teachers (an EBLO)
CIP	Community ICT Project
Connexions	Careers Service Organisation (an EBLO)
CoP	Community of Practice
CRS	Computer Recycling Scheme
CSR	Corporate Social Responsibility
CSV	Community Service Volunteers
CTC	City Technology College
DEFRA	Department for Farming and Rural Affairs
DES	Department of Education and Science
DETR	Department of the Environment Transport and the Regions
DfEE	Department for Education and Employment
DfES	Department for Education and Skills
DOS	Disk Operating System
DTI	Department for Trade and Industry
DVD	Digital Versatile Disk or Digital Video Disk
EAL	English as an Additional Language
EBL	Education Business Links
EBLO	Education Business Links Organisation
EBP	Education Business Partnership (an EBLO)
EDP	Education Development Plan
EDSI	Education Superhighways Initiative
ESA	Education Support Assistant
ESG	Education Support Grant

fdisk	Command line utility to provide partitioning functions
FE	Further Education
Gb	gigabyte
GDP	Gross Domestic Product
gHz	giga-Hertz
GOSE	Government Office South East
HDD	Hard Disk Drive
HE	Higher Education
HEI	Higher Education Institutes
HT	Headteacher
HTML	Hyper Text Mark-up Language
ICT	Information Communication Technology
IIP	Investors in People
ILS	Integrated Learning System
ILT	Interactive Learning Technologies
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
IT	Information Technology
IT4All	Information Technology for All
KS	Key Stage
LA	Local Authority
LAG	Local Action Group
LAN	Local Area Network
LCD	Liquid Crystal Display
LDA	Learning Development Agency
LDA	Local Development Agency
LEA	Local Education Authority
LLL	Life Long Learning
LLP	Lifelong Learning Partnership (an EBLO)
LLSC	Local Learning & Skills Council
LSA	Learner Support Assistant
LSC	Learning & Skills Council
Menap	UK Charity for people with a learning disability and their families
mHz	mega-Hertz
MIDI	Musical Instrument Digital Interface
MIS	Management Information System

MUSE	Microtechnology Unit for Secondary Education
NCET	National Council for Educational Technology
NGfL	National Grid for Learning
NIACE	National Institute of Adult Continuing Education
NLCB	National Lottery Charities Board
NOF	New Opportunities Fund
NT	Brand of Operating System by Microsoft
NVQ	National Vocational Qualification
Ofsted	Office for Standards in Education
OS	Operating System
OSE	Open Source in Education
PAR	Participatory Action Research
PC	Personal Computer
PCT	Personal Construct Theory
QCA	Qualifications & Curriculum Authority
RAID	Redundant Array of Inexpensive Disks
RAM	Random Access Memory
RAS	Random Access Server
RCP	Rural Communities Project
RDA	Regional Development Agency
ROM	Read Only Memory
SATRO	Science and Technology Regional Organisation
SBS	Small Business Service
SEEDA	South East Development Agency
SETNET	Science Engineering Technology and Maths Network
SETPoint	Local branch for the Science Technology Engineering & Maths
SME	Small to Medium Enterprise
SNA	Social Network Analysis
Tb	Terabyte
TEC	Training and Enterprise Council
TTA	Teacher Training Agency
TTF	Targets Task Force
TUPE	Transfer of Undertakings (Protection of Employment) Regulations
TVEI	Technology Vocational Educational Initiative
Ufi	University for Industry
VCN	Virtual College Network

VCR	Video Cassette Recorder
VSO	Voluntary Sector Organisation
WAN	Wide Area Network
WBL	Work Based Learning
WIMP	Windows Icons Menu Pointer
WPL	Work Place Learning
WRL	Work Related Learning
WTS	Windows Terminal Server (Microsoft)
WWW	Worldwide Web
Y&C	Youth & Community
Y2K	Year 2000

Referencing for citations

Quotes from literature conform to Harvard system (Author, date; page reference)

The nature of the research study (cross-sector / multi-organisational partnerships) meant that contributors to observed action may have been from organisations from the Business (B), Government (G), Education (E) sectors. Therefore, statements by participants that are quoted in the text are indexed according to the following classification:

B	Business organisation (private sector)
G	Government organisation (public sector)
E	Education organisation (public sector)
C	Charity (private or third sector)
EBLO	Education Business Link Organisation
School	School

Some organisations may have been associated with more than one sector according to their constitution and clients, e.g. BE = Independent (private) business predominantly working in/with education.

Anonymity for each contributing organisation is upheld by numerical coding (e.g. B7 or G2). Exceptions include: the college, the LSC, the LEA or LA, an EBLO.

The organisation code is suffixed by the role of the person being quoted (e.g. School 7/Headteacher; B3/Senior Manager; BE2/CEO)

Further coding may apply in those instances where there might be more than one contributor within an organisation (e.g. Tutor/1, Tutor/2; Teacher/1, Teacher/2). This number does not signify status.

Examples of full coding might include: B3/Senior Manager/2; B2/CEO; School 5/Teacher/3; EBLO/Tutor/4

Comments

PM1

This is a comment. In printed form it appears as an endnote situated in Volume II. In the electronic versions its appearance depends on the program. In the word document (.doc) it appears as a pop-up screen when the pointer is moved above the highlighted text; if the reference number is double-clicked the endnotes appear in a new screen; in the .pdf version the comments fields are presented as 'end-notes' in Volume II.

PM2

Wilkes, 1997; 13

It is assumed that the mind operates by creating internal representations that have both semantic and syntactic properties. Representations can map onto reality in some meaningful way (they have a semantics) and they can combine together in lawful ways (they have a syntax) to produce new representations that also possess semantic and syntactic properties. (Wilkes, 1997; 13)

PM3

Strati, 2000; 70

The metaphor of the hypertext focuses on the design of new organizational structures (Nonkana and Takeuchi, 1995), and evokes the diversity of relations between the individual and the organization (Strati, 1997), given its capacity to convey how organizational situations and structures can be constructed in many different ways 'by means of links and jumps' - as happens when we access the World Wide Web. This metaphor, therefore, is embedded in computer technology. It shows how important and unavoidable are both interaction and the personal differences among individuals. Strati, 2000; 70

PM4

The idea behind FAT patches (Fig 1) relates, in 'scientific terms' to a facet of fuzzy logic. This representation is more fully discussed in the narrative, '[Fat Patches](#)'. A question of distinction between Kosko's 'Fat Patches' (Fig 87) and Fat Patches Applied' (Fig 1) may arise from the question regarding the trajectory or pathway, or rather, its absence. In one sense my path was one that emerged over time such that it became defined as the interrelationships between the specifics, the progress of time, and the scope of the patches themselves – therefore, it encompasses the breadth of the patches rather than the thin line. In another sense, the path may be formed by the reader's process of engaging with the various narratives and the thesis as a whole.

PM5

This diagram provides an introductory outline of the research study period and where the Projects and developments reported within the Activity Section occurred within that time frame.

If Then Why Not Later?

PM6

'Interest' might have included: 'learning', 'partnership action', optimisation of resources, etc. There were other, less explicit interests that were important drivers for participation, such as ensuring one's position 'within' the partnership context in order to (in)directly gain from the partnership, or perhaps, to establish some level of authority, control, or ownership, etc.

Re potential: the key drivers were about the realisation of potential, particularly through early phases of development and which should have been ongoing.

The clause of mutuality did not necessarily imply equality or that the benefits were expected to be the same - more that there was the potential for each partner to gain 'something' through the process of partnership engagement. For some this might have meant adjusting priorities and commitments, even to engaging in those activities that were deemed a 'waste of time' on the basis of other 'benefits' (e.g. "knowing what the others were doing", "a way of getting to know people and what they represented better", or perhaps more a process of "steering the group towards things of which they may be aware or value". Wenger (1999) points out that:

This communal regime of mutual accountability plays a central role in defining the circumstances under which, as a community and as individuals, members feel concerned or unconcerned by what they are doing and what is happening to them and around them, and under which they attempt, neglect, or refuse to make sense of events and to seek new meanings. (81)

PM7

The narratives frequently references 'organisation' and 'partnership' as both an entity and a process. The different forms or representations of the two terms gain some distinction according to the nature of the partnerships themselves, e.g. that a partnership might be an interaction (process) between two or more people/organisations or sectors (entities). Some uncertainty about the terms arises through inconsistencies or differences between those partnerships and their inherent transactional processes (refer: [reading the small print](#)).

PM8

Weighting was an interesting issue here - each sectors' view of which was important and how the three interrelated was quite different ... perhaps it was a matter of whether one considered itself a stakeholder and/or beneficiary.

There were also different types of goal, such as official goals (that is those often wrapped up in policy, charters, annual reports and public statements by executives, and often called 'aims'), and operational goals (sometimes called 'objectives' which focus more on the issues that require action by particular agents and can be used as criteria for evaluating performance). As suggested by Hatch (1997)

... from a rational perspective, goals give organisations the direction they need to perform effectively. From the emergent perspective, they help the organisation to adapt to changing circumstances, and in the symbolic view, goals give organisations the appearance that they know what they are doing. Effective performance, adaptation to changing circumstances, and the appearance of competence each inspire confidence and commitment which can attract potential employees, investors, and public support. (120)

PM9

Again, depending on the nature, scale or purpose of the partnership, this aim was interpreted in very different ways - e.g. strategically and operationally ... ("Where I come from 'collaborators' are shot"; "What do you mean I don't negotiate? I told you what I was going to do!"; "Of course we noticed you were involved despite your absence.")

PM10

Whilst the public and private sector representatives acknowledged the role of community interest in developing legitimacy for their actions, this research and numerous other studies (Geddes, 1997; Fordham, 1995; MacArthur, 1995) show that community involvement and benefit is very minimal and remains a peripheral concern for many partnerships, only being brought into play when community opposition forces the issue ... or when their involvement is used as a tool for controlling unrest and achieving legitimacy for other partner actions. Wenger (1999) makes the point that 'community' provides:

a way of talking about the social configurations in which our enterprises are defined as worth pursuing and our participation is recognizable as competence (5)

Williams (1988) refers to the complexity of defining community:

The complexity of community (thus) relates to the difficult interaction between the tendencies originally distinguished in the historical development: on the one hand the sense of direct common concern; on the other hand the materialization of various forms of common organization, which may or may not adequately express this. Community can be the warmly persuasive word to describe an existing set of relationships, or the warmly persuasive word to describe an alternative set of relationships. What is most important, perhaps, is that unlike all other terms of social organization (state, nation, society, etc.) it seems never to be used unfavourably, and never to be given any positive opposing or distinguishing term. (76)

PM11

A key concern arose from the distinctions of participation as: one involved through work as employee, employer, and as researcher. In each case the role of broker is put forward as a means to act on the border or periphery, being an insider/outsider, translator, coordinator, conductor, and net-worker between any form of community of practice. This is discussed more fully in ['Terms & Conditions'](#) and ['One in the Eye'](#).

PM12

For ethical reasons, the use of the term 'EBLO' is used to refer to more than one organisation that could be classed as an EBLO (for example, the term can include the Lifelong Learning Partnership (LLP) even though it is not normally defined as such by its participants or associated literature). While the LLP made significant contributions to the research as 'an umbrella organisation' that encompassed many of the key players, a particular EBLO was essentially responsible for many of the initiatives, which occurred before the LLP was formally constituted.

PM13

Just to further enrich this definition of an EBLO, the consortium might be a collection of independent organisations that have come together, and who have 'agreed' on points of mutual interest, such that they can operate effectively as both independent and collective; in another case, the 'merger' might have led to a 'loss of identify' and independence as separate organisations came together as one, complex organisational entity.

PM14

Ref: [Prelude](#) (p209); [Terms & Conditions](#) (219, 232); [reading the small print](#) (244-258); [Starters Orders](#) (343) and [Patching the Whole](#) (362)

PM15

During the time of writing, the EBP network of organisations was again being restructured in some parts of the country such that they were becoming part of a consortium of organisations that had different roles relating to education business links or activities relating to the world of work (such as career pathways, placements in industry, etc.).

PM16

Other organisations with similar briefs include for example, 'Connexions' - which gives the above, career orientations, a local 'xxTraining Consortium' - which takes responsibility for training programmes, Young Enterprise - which helps build links between education and business by encouraging young people to engage in creative, work based projects and schemes. 'SETPoint' - which tended to focus more on science, technology, engineering and maths, and broadening young people's knowledge of future prospects in those fields, etc.

PM17

Lifelong Learning Partnerships were formed after 1998 as part of the new central Government's 'Education, Education, Education' policy for reform, to hold to the notion of 'joined up thinking' and ensure that, by bringing together the key stakeholders that the new social reforms would lead to a more 'inclusive society'.

PM18

Carter (1998) highlights a key difference in the structures of local partnerships, those points being key in the formulation of the local LLP and the determination by some organisations that it should not be led by the public sector:

There are differences in cultures however, which greatly affect perceptions and the forms that any partnerships take ... there is a tendency for the lead agency to create partnership in its own image. The private sector tend to go for lean, small agencies managed by leading corporate executives. Whereas local authorities tend to create large bureaucratic organisations. In community-based partnerships there is often little private sector representation and the reverse occurs in private sector-led examples. This often leads to a lack of balance in determining priorities. (69)

He goes on to suggest that private sector involvement tends to be pragmatic in search of additional investment and funding, coupled with a genuine concern for enhancing the image of the locality to the outside world.

PM19

The agenda for partnerships is ostensibly educational in the sense that it is about raising standards and developing our people - both in education and employment. (Kay, 1998, 3)

It is sometimes hard for the idealistic change agents whose vision forged the partnership to recognise that not everyone on this particular crusade is a crusader. (Richie, 1998; 13)

PM20

The issue of strategy, and my perception of it, was informed through reading of organisational theory literature, and the more recent interpretations seemed to fit with my experience and theorising of it. For example, Hatch (1997) suggests:

According to postmodern theory, distinctions such as strategist and strategy, organisation and environment, are narrative constructions. They are the result of actors attempting to make sense of themselves and their experiences by concocting notions like strategy and organisation ... This view implies that strategists and organisations do not exist as objective realities, but rather, are objectivised by our subjective orientations toward them. (119)

The nature of language emphasised the difficulty of claims for objective manifestation of strategic processes, for ongoing action and theorising as outcome, for the actions of 'strategists' being 'real' irrespective of whether those real actions finds form in subsequent policy, practice and/or the 'actions' of 'others', particularly where those actions of 'others' implicitly and/or explicitly encapsulate strategies of their own.

PM21

Wilson & Charlton (1997) comment that 'a review of the literature reveals little common understanding of what precisely is meant by the term partnership', to which I should add that there is not very much literature at all! In their 'Making Partnerships Work' they start with a 'legal definition' of a partnership in terms of a profit-making business which highlights that 'all partners are jointly and severally liable for both the successes and failures of the venture.' and drawing on Huxham's notion of collaborative advantage (1993) 'should seek to achieve an objective that no single organisation could achieve alone'. This report delimits its definition as 'three or more organisations - representing the public, private and voluntary sectors - acting together by contributing their diverse resources in the furtherance of a common vision that has clearly defined goals and objectives'. (Voluntary sector is taken to mean the community and its representatives ...) (Richie (1998) on the other hand points out that 'Partnerships often begin from a relationship between two or more individuals; the trick then is to establish something which is bigger than the leading players.' (13)

Having 'defined' partnership, (Ref: Wilson & Charlton, 1997) claim the objective should be 'to create an initiative where partners work together to achieve a commonly agreed set of goals and objectives and in so doing deliver more than the sum of the individual components'.

PM22

This is aptly conveyed in Wenger's (1999) discussion and diagram about brokering as illustrated on p113 - 114 (Boundary encounters) Refer C1, p469

PM23

Wilson & Charlton's (1997) guide identifies a number of sectoral stereotypes, which have some commonality with findings from my own research study. For example:

- *'representatives of local and district authorities are frequently accused of viewing any move towards working in partnership as a threat - it is suggest that they are not in the habit of having to discuss with anybody what they plan to do in a certain area, other than what is required through statutory consultation procedures';*
- *'while private sector involvement in partnerships tends to be less politically motivated ... a common nervousness about why companies want to become involved - 'what's in it for them?'" (20)*

PM24

It still has value in those circumstances where, for example, another party is brought in, perhaps, to shift work load, to compensate for differences in knowledge and expertise, to present another face, or for political purposes ... Interestingly, an observation of the study was that some organisations felt that the true purpose of partnership was to ensure they 'understood each other', where normalisation 'reduced the risks' and offered some 'assurance of parity'. Some interpretations went

further, for example, when an organisation explicitly expressed the need to be ‘in control’ or even ‘own’ the partnership process and outcome others might suggest this was “missing the point of membership”.

PM25

This is an example of what Polanyi calls the ‘tacit dimension’ (1967) in the sense that I ‘know’ this (fact), the people with whom I worked within the EBLO, and several telecom based business organisations ‘know’ this, but don’t know how they know. Yet, the knowledge is emphatically expressed and affirmed within partnership negotiations where this may arise as ‘an issue to be avoided’ in the formulation of activities for young people. It is also an example of the knowledge that can reside within a distributed complex network as in that described by Nonaka & Takeuchi (1995)

PM26

Wilson & Charlton (1997) also point out that the political agenda evolving during the 1990s stressed the importance of partnership:

- a) for a bid to be successful, it must demonstrate that it includes ‘relevant interests in the private and public sectors and in the local voluntary and community organisations.’ (Guide to Bidding for Resources from the Government’s Single Regeneration Budget, 1995)*
- b) advocates of partnership argue that because they offer greater involvement by all sectors of society in the decision-making process, they are seen to be an inherently more efficient way of allocating public funds*
- c) the notion of partnership fits in with the emerging concepts of communitarianism and a ‘stakeholder society’ - ‘localisation’ increasingly stresses the desire of local decisions about local provision*
- d) recognise multi-dimensionality whereby a multi-agency approach has a greater capacity to recognise and deal with local issues (11)*

PM27

This became relevant to a number of key issues (e.g. to Board representation, facets of external control/ownership, ‘relative’ autonomy, etc.) and still remains problematic for some organisations who have difficulty understanding the notion of distributed accountabilities (e.g. targets/accountabilities that might be set by a particular pay master doesn’t necessarily constrain other activities of the EBL organisation); this can also weaken external control or dominance ...

PM28

These were key credentials towards establishing general organisational profile and status, and when seeking funding streams, within/outside of partnership activity. The assertion of independence was a particularly difficult concept for two reasons: first, that ‘education’ was in ‘the name’ seemed to encourage an assumption that the organisation was ‘part of the education authority; second, the education authority

assumed and regularly tried to assert 'rights' over the EBLO - this was in part, historically and politically situated, and from the perspective of the EBLO, tedious, ignorant and confrontational.

PM29

There were no financial gains for members of the Board – all provided their time freely and willingly – several remaining as members for several years.

PM30

The balance/level of representation is in itself an important statement: a) entitlement goes to a number of representatives from different businesses, a senior executive within the council, college of FE, primary and secondary school representative, etc. When the new unitary authority was established, the new LEA made some assumptions about 'rights' of membership to the Board. However, only on approval by the Board, was a named person co-opted. This anticipated problems that might arise from future change in the LEA/Unitary Authority, and further, denied the 'right' of deputising/delegation by the LEA or its named member.

PM31

To some this might be interpreted as 'lessening the educational/vocational divide', for the EBLO it gave some legitimacy to its role in crossing or blurring boundaries, such that it felt comfortable with notions of 'borderless education', 'boundary spanning' and 'distributed knowledge within complex organisational frameworks. (Ref: Hatch 1997, Wenger 1999, Cilliers 1998, Scott 2000, Senge 2000)

PM32

Strategically: e.g. working with organisations and other associates nationally regionally and locally (e.g. DfEE/DfES, DTI, LLP, LSC, schools) on EBL/WRL and Project planning policy/issues; and operationally (e.g. management and delivery/implementation)

PM33

Children are defined as young people up to 16 years of age, young people up to 18 years of age irrespective of whether or not they attend school (HSE); there is no consistent application by schools/colleges and other organisations of the terms 'pupils'/'students' other than it referring to young people 'in education' (that is, schools and colleges) - therefore the term 'student/s' is used to define all young people in education. However, to make a point of distinction between the projects/beneficiaries, student/s will refer to those engaging in 'formal' education in school/college, and young people will refer to those who are engaging in learning opportunities outside 'normal school practice' - e.g. after-school/evening clubs, youth clubs, other community groups where informal learning is more likely ...

PM34

The Business Plan also included in its stated aims:

- - to provide a forum for discussion of issues relating to education business links (*EBL*) leading to a coordinated approach ...
- - to promote the improvement and coordination of work related (*learning*) activities (*WRL*), vocational learning and transition ... working closely with local partners, resulting in integrated learning experiences ...
- - to support the aims of the Lifelong Learning Partnership (*LLP*) of which it is a member: 'To build a community where learning is for everybody and we learn from each other, throughout and across our lives.' (*LLP LLL Plan 2000-2001*)

PM35

Such links were ongoing and had different histories - hence the references, for example, to DfEE and DfES; and to the Local Action Group, Targets Task Force and LLP. This strategic role was hugely demanding but considered by the EBLO as vital: a particular difficulty was the rate of change in personnel within some organisations - establishing a rapport with someone who then leaves and replaced by another person who has no experience/understanding of EBL/EBLOs, etc. was 'frustrating'.

PM36

To give some scale of the partnership transactions in which it engaged, the number of participants with whom it worked annually has been estimated at c.25,000, of whom c.10,000 were face-to-face negotiations with managers of small/medium sized businesses, educationalists, government officers concerning strategic and operational issues that enabled the students to engage in learning opportunities. This would exclude those negotiations occurring amongst its staff or students though these would obviously be similarly extensive ...

PM37

While the EBLO was not registered as a member of the Co-operative Movement, it nevertheless shared many of its values and principles. These may be summarised as: 'a group of people acting together to meet the common needs and aspirations of its members, sharing ownership and making decisions democratically.' Underpinning those are sets of 'co-operative values', 'ethical values' and 'principles' being representative of the way the values are put into action. <http://www.co-operative.coop/aboutus>

PM38

This facet of organisational formalism can be understood from a modernist perspectives, for example, in Jonassen & Marra, (representation of knowledge); Scott, 2000 (social network analysis); Stone, 1989, Mintzberg, 1983, Clegg, 1999, and Reed, 1992 (politics and power around organisations).

PM39

e.g. WRL and other curricular support across all key stages, including work placements for students and teachers; problem solving activities; 'projects' that might be part of a national, regional and local initiative; conferences; SETPoint activities (regional), and the research and development of curriculum resource materials, etc.

PM40

WRL is used here as an umbrella term that encompasses for example, work place learning and work based learning. In the widest sense, it reinforces the relationship between education and business and the premise that many forms of learning can be beneficially (re)contextualised, and need not be delimited by the idea that work related learning is only about careers or vocational education ...

PM41

Participation is synonymous with action, as is 'event'.

space surrounds us, yet time is experienced bit by bit. The distinction between left and right is trivial compared with that between past and future. We can shuffle around freely in space yet by our actions we can only affect the future, not the past. So it seems that although space has no preferred directional characteristics, time does. It travels like an arrow ... a term first coined by the astrophysicist Arthur Eddington in 1927 (Coveney & Highfield 1990; 24)

Wenger (1999) gives a different perspective on participation:

Participation here refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities. (p4)

... and goes on to suggest that:

... if we are to believe that information stored in explicit ways is only a small part of knowing, and that knowing involves primarily active participation in social communities, then the traditional format does not look so productive. (p10)

PM42

Inevitably, activities occurred about which others may not be aware. It may be that such activities were be coincidental in that they occurred at much the same time and may or not have been planned. Within a specific community of practice, some participants might consider it prudent to have a broad perspective such that they are aware of those activities in order to judge their relative importance and anticipate

potential implications that may arise. However, the nature of any complex system is two-fold: first, each 'element' in the system is ignorant of the behaviour of the system as a whole, it responds only to information that is available to it locally; secondly, the scope of the system is usually determined by the purpose of the description of the system, and is thus often influenced by the position of the observer'. (Cilliers, 1998; 4) Two issues are relevant to this issue: that 'an activity' occurred was in a sense, deemed less important than its implications or potential relationships; it would appear that some people demonstrated a propensity to build particularly complex networks of relationships.

PM43

I consider that Wenger's seminal book 'Communities of Practice: learning meaning and identity' (1999) provided ideations that assisted my processes of theorising participant action and partnership.

PM44

It involved helping people from all walks of life, such as particle physicists, shop keepers, engineers, nurses, astronauts, builders, artists, find ways of talking to and engaging with young people.

PM45

SME is the abbreviation for Small-to-Medium Enterprise. A company may be defined as 'small' if it has less than 50 employees and a turnover of not more than 7 million euros. If a company has 50-249 employees and a turnover of not more than 40 million euros it may also fall within the category of a 'medium' sized company. If the company has more than 250 employees it will be considered to be a 'Large company'. The Small Business Service, the agency within Government championing small businesses, published headline annual statistics with regard to SMEs in the UK. That data would often inform EBLO and partnership action and my own research during the time of my study.

PM46

Research conferences, seminars libraries, and student study centres do of course provide opportunities for collaboration but the courtesies within those settings may not be the same as those in the staff room, the bar, the server room, the community centre, the car park ...

PM47

Lifelong Learning as construed by Government but adapted by the Lifelong Learning Partnership as it became 'informed' (theorised) by its memberships, through its own activities ...

PM48

The majority of Government initiatives like Ufl and Learn Direct were set up to initiate a mass learning market penetration to promote a learning society - as conceived by Government economic agenda ...

PM49

Behind the rhetoric there is the issue of participation: different people inevitably had different terms of engagement, thereby highlighting aspects of social structure (e.g. systems, behaviours, interrelationships, etc.), peripherality, communication, power).

A further context was that which fell outside (immediate) organisational control despite their desire to do so: consumerism, markets, and other various forms of sociological change in which the terms 'incidental', 'inevitable', form an important part. The notion of environmental influence or significance on actions within that environment is complex but highly pertinent ... (e.g. market drivers are often found where they are least expected - it is then a matter of whether or not organisations can recognise and exploit them - Nokia, Internet, consumer led technology for/in education/business, etc.)

PM50

Catching rain in a bucket seems a simple enough process except one tends to be left with something that is barely indicative of rain.

PM51

BECTa illustrated this huge investment on ICT in the rationale for 'Connecting Schools, Connecting People (1998) with the comment that in 1996, £40billion was spent on ICT equipment in the UK alone - such statistics that became a driving force in setting a rationale for learning agendas: e.g. Robinson (2001), and Scase (2000) giving numerous examples of relationships between the new technologies, work and employment, socio-cultural change and the rate at which this change is occurring.

PM52

... which is outstripped in terms of computational power by the brain of an earthworm

PM53

There is no doubt that the 'new technologies' are transforming the nature of work. They determine the numbers of people required, specialisms that didn't exist a few years ago, markets that are not constrained by borders, time, space, and the nature of folk dialogue.

PM54

Fuzzy logic, AI and FAT have now been incorporated into cars' anti-lock brake systems, photocopiers, hair driers, golf trainers and camera auto-focus systems, to name just a few. Perhaps the most significant aspect of this development has been the challenge for science. It has meant science making some concession that some laws were not, that difference, ambiguity, uncertainty and chaos can each redefine processes of explanation and action, and chipped the pedestal on which, science was put, by scientists. (Kosko, 1994)

PM55

DfES Learning and Training at Work Report 2000 (2000)

PM56

... the second largest regional economy in the UK, marginally behind London and accounting for almost 16%3 of the UK's GDP. As an economy, the South East is broadly the same size as Austria, and is larger than Denmark, Norway, Greece and Portugal. (SEEDA, 1999; 4)

On the other side of the coin,

... significant levels of deprivation persist alongside substantial economic success. Of the 20% most deprived wards in England, 119 are in the South East. Over 700,000 people live in these wards, representing 9% of the region's residents. (ibid)

PM57

e.g. especially in the 'new technologies': ref, Marconi, Digital, Microsoft and Vodafone, Barings, Enron, Google, MySpace

PM58

Kuhn (1996) is often cited in discussions on paradigms which he takes to be 'universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners', though, 'among organization scholars, the notion of paradigm has now lost some of the favour imposed on it by Kuhn (Hassard, 1993, 62). Consequently, 'instead of stating the classical laws of a theory, a paradigm is now a 'theoretical space' produced by contrasting philosophical and methodological traditions'.

Guba & Lincoln (2005) posit that 'paradigm' encompasses four terms: ethics (axiology), epistemology, ontology, and methodology and that these are framed by a range of perspectives (e.g. positivism, postpositivism, critical theory, constructivism participatory and postmodernism. Ibid, p198-199). Further, within the last decade (1995-2005) the borders and boundary lines between these paradigms and perspectives have begun to blur, if not 'interbreed'.

PM59

If one accepts the idea that structural and historical aspects of practices must be understood as part of understanding individual practices, then one must acknowledge that moral and political aspects are part of this context, and may contribute in significant ways to the organization and structure of the practice under investigation. (Chaiklin, 1996; 396)

PM60

... which in fuzzy terms might be termed 'creeping breakthroughs' (Sadar, 1999)

PM61

Robinson (2001) suggests that:

All national systems of education are based on two underlying models. There is always an economic model and an intellectual model. In western systems of education, and that now means much of the world, the underlying economic model is industrialism; and the intellectual model that supports it is academicism. The problem we now face is that this economic model is outmoded and the intellectual model is completely inadequate. (23)

PM62

The terms, regional and local are variable - on one hand, 'region' applies to one of the eleven geographic areas as identified by regional development agencies (RDA), and in which case 'local' refers to the sub-divisions - often a county, and normally overseen by a Learning & Skills Council (LSC). In the case of the research study, this local area was split further when the country broke into six unitary authorities - each often being referred to as 'local'.

PM63

e.g. Learning to Succeed (DfEE, 1999), Education & Training 2000 (DfEE, 1999), University for Industry (Ufi) (Ufi, 1999), Further Education Information Learning Technologies (FEILT) (FEDA, 1999), McKinsey Report (1997), Fryer Report (1997), The Learning Age (DfEE, 1998)

PM64

O'Neill (2002) in her broadcast 'Called to Account' questions both the assumed rationale and accountabilities for centralised change:

Professionals have to work to ever more exacting-if changing-standards of good practice and due process, to meet relentless demands to record and report, and they are subject to regular ranking and restructuring. ... Each profession has its proper aim, and this aim is not reducible to meeting set targets following prescribed procedures and requirements.

In seeking to establish to whom the new audit culture makes professionals, institutions and society generally accountable, and for what it makes them accountable, O'Neill questions whether they were in fact, internally coherent:

Some of them set targets that cannot be combined without fudging: for example, universities are soon to be told to admit 50% of the age group, but also to maintain current standards. Others are incoherent because they require that targets be achieved by following processes that do not dovetail with targets and can't be made to dovetail with those targets. Again, universities are to treat each applicant fairly on the basis of ability and promise: but they are supposed also to admit a socially more representative intake. There's no guarantee that the process meets the target. Hospitals are to treat each patient on a basis of need and prioritise emergencies, but they are going to be criticised if they postpone non-urgent operations. That might be legitimate grounds for criticism if they could build in spare capacity and do the non-urgent as well as the urgent operations. But the NHS has been made tightly efficient in its use of resources, so it cannot build in spare capacity on the necessary scale. Schools are to prevent classroom disruption: but they are not to exclude disruptive pupils (here some changes are underway). Incompatible or barely compatible requirements invite compromises and evasions; they undermine both professional judgement and institutional autonomy.

PM65

Ref Learning Organisations, Learning Communities, Communities of Practice ...

PM66

The more formal view suggests that:

... partnership as a concept in public policy has been characterised both as an idea 'containing a very high level of ambiguity with its potential range of meanings subject to conflict and negotiation (Mackintosh, 1992), and a 'meaningless concept' (Lawless, 1988)

There may be two fundamental reasons for the popularity of partnership. The first is that partnership can be marketed as a politically neutral term with its connotations of cooperation and sharing that can appeal to all sectors within the local economy (Eisenschitz & Gough, 1993).

The private sector can promote itself as socially benign and environmentally active; come community groups can gain access to the decision-making hierarchy without compromising their independence or idealism; the public sector can claim to be moving the authority and its democratic apparatus closer to the community (Moore & Richardson, 1986)

PM67

'Context' is formed by activity that holds different conditions, terms of reference, membership - e.g. strategic/operational processes, participation, time.

PM68

It would be wrong to assume that the views and actions of an organisation's representative who has been invited to contribute to partnership activity are in fact representative of the organisation. Additionally, consensus agreement within the partnership does not guarantee integration of those notions back into the contributing organisations.

PM69

Much of my work centred around ICT, and the partnerships associated with such development generally arose from related strategic and operational activity. Many of the leading issues arose from the disparity in experience/expertise of ICT and how peoples' knowledge and understanding of it influenced social interaction, policy and practice, learning opportunities, etc.

PM70

'Effectiveness' was a rational principle that would 'qualify', 'justify' and 'validate' action. However, this term was as 'meaningful' as other terms of reference such as partnership, learning, participation.

PM71

Some people preferred a simple or fixed meaning, overlooking the fact that many meanings are/were historically situated but over time are forgotten or false; (accepting a singular meaning can serve a purpose perhaps, initially ... but then its potential for transformation might become a matter of significance ...

PM72

Further perspectives are proffered by 'academia' wherein the theorising about these issues may draw on and use the notions quite differently. On one hand the 'problem' arises not simply from the basis of hierarchy (sub-sets - or distinct function/structure based on different systems), but rather, how it may become a political issue whereby distinction shifts the locus of power.

A further example is the relationship between strategic and operational - some people assuming responsibility for either might argue that the distinction/responsibility for the two are potentially indistinct (e.g. narrative constructions – Hatch, 1997; 119), though some might be more concerned about the political implications (e.g. power/status) than the procedural (just getting on with making things work) - A matter of values perhaps ... again linked to power, perhaps?

PM73

Some group members used the term lifelong while others doggedly stuck to 'whole-life learning' (to emphasise the Partnership's position went beyond the government view) or simply 'learning' ... In the early stages some could not reconcile the suggestion that bee-keeping, scuba diving, prayer, learning to drive, going to work, or socialising were different forms of 'learning' that should come under the umbrella of 'learning' ... Ref: 'Lifelong Learning What? (in Elliot ,1999) in Lifelong Learning - the politics of the new learning environment

PM74

There were early suggestions that power, control, ownership, politics, complexity, ignorance, (at personal, professional, organisational and sector levels) were each compounded when referencing ICT - it was not clear at this stage why this was the case (e.g. technological, economic, purposefulness, ownership, complexity, etc.)

PM75

Catalyst suggests “something that can bring about change - without itself undergoing any change’ - reasonable given that IT is artefact but disregards: time/change; HCI and adaptability ...to specific requirements/needs/interests.

PM76

Perhaps the issue was ‘irreconcilable’ if no consensus could be reached - was it possible for a partnership to be stronger or more than the sum of its parts?

PM77

Mabry (1997) comments that:

Postmodernism has been described as “the moment at which definitions begin to crumble and the sign floats independently of the referent” (Wakefield 1990, 20) Definition and description are complicated by postmodernism’s rejection of representation, its recognition of the poverty of language in conveying complex understandings. (2)

... and which is expressed differently by Eisner (1972)

... for those untrained in (organising forms), there is a tendency to focus on forms in isolation of one another. This type of activity Arnheim has aptly called the ‘local solution’, a tendency ... to focus on one section ... at a time ... when one considers the number of qualities that can be attended to in a set of visual interrelationships one can begin to appreciate how complex such perceptual tasks are for those involved in the(ir) creation (or art) ... (105)

PM78

The discussion in [‘reading the small print’](#) develops a model that finds some reconciliation for this notional duality; [‘One in the Eye’](#) in the research section discusses the implications of visualising and representing context and action forming some kind of continuum or within a virtual space and leads towards the adopted research model of the ‘linked rings’. It considers context in relation to temporal, spatial and ideological shifts according to priorities, balances, proximity and so on.

Project Outlines – Weigh in

PM79

There can be a tendency to think in more limited terms when considering the boundaries of what may be defined as a 'Project'. It is often seen as an objective, practical outcome from, or 'goal' of strategic action, which, from a rational perspective, give organisations the direction they need to perform effectively.

From the emergent perspective, they help the organisation to adapt to changing circumstances, and in the symbolic view, goals give organisations the appearance that they know what they are doing. Effective performance, adaptation to changing circumstances, and the appearance of competence each inspire confidence and commitment which can attract potential employees, investors, and public support. (Hatch (1997; 120)

Of course, there are different forms or types of goals that may imply differences of approach, such as 'official goals' (e.g. those often wrapped up in policy, charters, public statements by executives, and sometimes also called 'aims'), and 'operational goals' (sometimes called 'objectives', that perhaps focus more on the issues that require other forms of action, such as 'tasks' ... A perspective which fits with my view is aptly conveyed in the following:

According to postmodern theory, distinctions such as strategist and strategy, organisation and environment, are narrative constructions. They are the result of actors attempting to make sense of themselves and their experiences by concocting notions like strategy and organisation This view implies that strategists and organisations do not exist as objective realities, but rather, are objectivised by our subjective orientations toward them. (ibid; 119)

PM80

This suggests that 'project' does not define a tidy package or outcome of strategic action, and that the sense of boundary is much more open and uncertain. Another way of considering this issue is from the stance of connectionists and postmodernists where constructs of boundary form and structure (and including processes of theorising and meaning making) derive from the dynamic connections and relationships, and are therefore, notional. This view is supported by reflecting on the emergent qualities that are outlined in the Scenarios and through their complex interrelationships. Furthermore, the interrelationships between context, activity, theorising and meaning making, each contributing to the notion of 'practice' as a holistic process of 'Being'. (Refer: Research Section: [autopoiesis](#), [reading the small print](#) and [In Search of the Lost Chord](#).)

PM81

The notion of legitimacy links closely with ethics. If actions by a participant conform to and are legitimised by a specific community of practice, but conflicts with another, how does that difference become reconcilable? Two perspectives on legitimacy can be explored briefly here: one perspective corresponds in some respects to my position, as participant and researcher or 'broker' wherein the narratives (Scenarios)

need to convey the essence of action without undue bias - this is explored in more detail in the [Research Section](#); another perspective links legitimacy with the notions of rationale and accountability: if as Gergen (1994; 220) suggests: 'Rationality is pre-eminently a product of social collaboration', this then supports Wenger's comment (1999) that 'Negotiating a joint enterprise gives rise to relations of mutual accountability among those involved'. (81)

PM82

Dimensionality here is used in its widest sense, that is, not simply temporal and spatial, or measured qualities, but more matter of consciousness ... As Eisner (1998) puts it: 'Experience has its genesis in our transaction with the qualities of which our environment consists' (17). Another perspective is offered by Arnheim (1974): 'One dimension in which the artist can exercise his freedom is the degree of abstraction he uses to render his subject.' (144) ... an issue that is explored more fully in 'reading the small print' and 'One in the Eye'.

PM83

Poiesis is a Greek term that means production. Autopoiesis means autoproduction. This word appeared for the first time in the international literature in 1974, in an article published by Varela, Maturana, and Uribe, in which living beings are seen as systems that produce themselves in a ceaseless way. Thus, it can be said that an autopoietic system is at the same time the producer and the product. (Mariotti)

PM84

e.g. One of the main community ICT projects outlined pre-dated government 'initiatives' for homework clubs, community ICT projects, etc.; This and other local projects, in some respects, 'pre-dated' 'a more liberal view of 'learning' and 'appropriate' technologies (according to timing of strategic rather than subsequent operational development of the project).

Change *per se* is thought to be a 'natural', ubiquitous process. When human agency intervenes, it becomes directed, managed, structural, strategic, and so on.

PM85

References: government, regional/local policies - precedents that led to negotiated policies but not necessarily then formalised/documentated

PM86

Local Action Group (LAG), Targets Task Force (TTF), Lifelong Learning Partnership (LLP), the newer Strategic Learning Partnership (SLP), etc.; Government Office (GO), Training & Enterprise Council (TEC), etc. (See PM45)

PM87

That of course depends on who negotiated what on whose behalf, what was meant by agreement, and how this was endorsed, verbally or through documents of one form or other. Hence the fury of a Headteacher (School 6) when asked to contribute to a draft, consultation policy document which appeared 6 months after being asked to provide delicate information 'in line with that (alleged) policy'.

On another occasion, when I quizzed a senior manager (GE1) about 'policy' the comment was made

"What policy? Even if we had one it would be highly debatable what it really stood for."

"So you have a 'clean conscience' when alluding to, or holding others to account on the basis of policy that doesn't exist?"

*"Isn't this a basic tenet of organisational process? I know we are held to account to conditions, principles, criteria or whatever, for things that are ideological, arbitrary, not necessarily well thought out, even feasible. Isn't accountability, generally speaking, illusory, or perhaps, more, simply, evasive? In playing with strategy are we not mostly engaged in the processes of toying with dynamic relationships between vision, pragmatics, politics, existing realities and potentialities - **all** of which are aspirational?"*

PM88

While I have evidence of this practice occurring on several occasions in one large bureaucratic organisation (GE1), that I have no evidence of this practice occurring in other organisations means that it is more difficult to make a broad generalisation.

PM89

The basic remit and interpretation of providing/enhancing learning opportunities may be interpreted quite differently, for example, by an local education authority (LEA), a school or college, a training provider, or a business that may (or not) have some form of commitment to ensuring a (baseline) competence for its staff to meet the day-to-day needs of the company and its customer base. Each will 'rationalise' and 'validate' their values of approaches to teaching and learning and the rhetoric and jargon may be similar irrespective of possible differences.

PM90

The two Project developments were at one point, quite separate, but later became interdependent and/or represented important commonalities in a number of ways. Essentially the two Projects offered a means to provide ICT resources to extend learning opportunities. By the time the RCP was coming to a close, the new resources that had been provided were themselves becoming a part of a new round of computer redistribution.

PM91

The nature of these Project developments provide a useful focus for various reasons - they encompassed many facets, technical and social, that occurred in the other development with which they were interrelated. In particular they demonstrate a fit with the concept of a complex system discussed in the [Research Section](#): they evolved naturally, were self-organisational, (rather than simply fitting any single predetermined plan), their relationships were highly distributed, not only as the developments occurred over an extended period of time (the shortest being around 4 years, but also as they encompassed many different partnership links, such that borders are notional,

PM92

Size and colour is in this case, provided to highlight the projects that form the focus of the Scenarios.

PM93

I could link every node in this diagram according to some criteria or other, but this simplified map of interrelationships serves to portray the links between the key ICT Projects that formed the basis of the narratives.

PM94

The 'vision statement' for the local LLP was:

We are building a community, where learning is for everybody and we learn from each other, throughout and across our lives. We are building a community where learning is: for fun, for everyone, for life. (See [Scenario 4](#))

PM95

The phraseology of 'a view' may imply, for example a (possible) agreement within the group. The 'group' essentially represented a body of people operating at senior / executive level and therefore was indicative of that 'collective'. It does not suggest a consensus, nor a shared understanding of the issues. The subtleties of such a difference of interpretation has often led to significant misunderstandings or frustration for people who are perhaps, outsiders to such collectives, as by definition, or assumption, there may be expected accountabilities that accompany those with rights of engagement. It is similar in one sense, to the problem of 'organisational anonymity', wherein, decisions taken 'by the organisation' or stances that are 'representative' of certain organisational values/principles, are implicit, with no real attribution to person/s who may have contributed to such outcomes.

Kushner's comments (2000) shed further light on this form of transaction:

'Cast into unusual settings, and with sufficient commitment to stay there and make sense of them, people will sometimes seek alternative strategies - even in the absence of curiosity, which also serves to propel people into novelty, Typically these

activities allow individuals to recast their relationship to the institutions in which they live - and, talking to them, we hear of alternative visions of what that institution might look like.' (190)

PM96

In a sense, it is nonsense to suggest that time is non-linear, just as random is often mistaken for non-linearity according to how/by whom 'linearity' is defined.

... focusing on linear systems can be compared to the story of the person who looks for the lost car keys under a street lamp because it is too dark to see anything at the place where the keys were lost. (Ulam, in Mayer-Kress: What is Chaos?)

A problem of defining phases and stages of development were not helped by the unknown futures for the projects. What may have been set up as a 'pilot' may have become a defined 'Project' on gaining further funding, and which in turn, became 'Phase 1'. An example of this uncertainty is illustrated in Weigh-in- one minute it seemed to be 'Phase 2', or '3', but eventually, through disassociation, not a phase at all!

PM97

... not simply the organisational and educational change occurring nationally, regionally and locally but also on account of the strategic/political competition/gaming, conflict/synergy, and contextual/notional or diachronic change.

PM98

... aims, objectives, participants, context/conditions, etc

PM99

Ideal outcomes generally cited included raised skills levels, improved standards and more/better qualifications, and fostering a positive attitude to and engagement in lifelong learning.

PM100

Non-statutory in this context meant the provision of learning opportunities outside of school hours, and could thereby, encompass young people who might still be at school, but to whom additional opportunities were being offered in lunch-times and after school; likewise, 'wider audience' could encompass anyone from the wider community (irrespective of age, gender, status, employment, etc.)

PM101

'Sectors' throughout the thesis refers to the four major categories: Business, Education, Government and Community. That is not to say that each of these terms are then, only suggestive of sectors of organisational entities - e.g. each term can also represent a process that is not exclusive to any given sector or organisational entity.

PM102

These concepts are discussed more fully in [Conditions for the Research](#) and in the summative account [Scenario 5](#). A number of other terms could be applied to this model and thereby alter the implicit relationships. For example: the entire model could be framed by the communities of practice (EBG); in the centre of the model, any of the four central issues (learning, organisation, partnership, ICT) would then provide a different kind of emphasis; this entire model implicitly holds further reference to other concept maps discussed in Scenario 5 (e.g. OAR-I, Fig 29; FCA-P, Fig 28) or considered in relation to risk and potential, if/then and more complex relationships between difference, uncertainty, potential and adequacy,

PM103

For some Projects, an additional clause was 'within the local community', thereby making a distinction with other forms of provision that were 'not local'.

The nature of the initiative or Project funding was that, generally, 'capital funding' (i.e. money for hardware and software) was provided, while 'revenue funding' (i.e. money for trainers, administrators, technical support, consumables, accommodation, etc.) was rarely a significant part of the Project funding. This had considerable implications, for example, for an organisation that already had the equipment and venue, but needed the additional funding to open up that resource to a wider audience. It appeared at the time that certain funding streams emphasised 'initiative', particularly those that were clearly identifiable through new ICT suites.

PM104

Some projects made specific reference to 'in order to equip them better for the world of work and beyond' (e.g. RCP), others focusing more on qualifications (e.g. Virtual College Network). Perhaps the most significant difference was whether the provider made reference or drew a relationship with learning as it related to vocational, academic or recreational activities. This was particularly important over time as the interpretation of what was included under the term ICT, and the forms of learning to which it could relate. Only one Project declared interests in: meeting individual's needs and interests, encouraging a more creative approach to the use of ICT, or relating those technologies to recreational, academic and vocational opportunities.

PM105

Over the period of the research study, there was a clear shift in what was encompassed in the term ICT, and how it related to society. As entertainment, 'edutainment', alternative and more fully integrated technologies were recognised as fundamental to modern life, and about which there was an ongoing need to know more, perhaps 'just to keep up', providers began to talk about the inclusion of these technologies in their 'courses'. In this context: the provision of and capacity to handle tools that can empower (such as the internet) can highlight potential institutional conflicts where an organisational context ties down the technological tool, or the

provision of learning opportunities to such an extent that empowerment is 'dissuaded' ... (See [Research Section](#): Heidegger/Being and Time - the 'function embedded in the tool'; Carter's reference to 'eoliths')

PM106

In one sense the energy was positive and encouraged a commensurate approach in that it strived to find effective, meaningful ways to implement the Project aims and objectives. Conversely, there was also a form of negative energy in the form of resistance, perhaps with regards to the perceived need or process of change, or perhaps related to the perceived risks that might arise through partnership activity.

PM106

e.g. The local college became part of a regional college network, with huge capital investment in server and network technologies and a particular range of 'learning software'. This however, highlighted a disparity in that the basic specification available for learning within the colleges was generally poor - to few, and in a very poor state. This kind of development was partly inevitable due to the nature and rate of change in ICT, and also due to a condition of the Project funding was that it was 'matched' by further investment by the College, which was expected to bring the provision/specification of the organisations' computers up to a higher standard. The same issue occurred within the local authority - the introduction of NGfL resulted in LEAs setting policies/recommendations for technologies to which they could but aspire. Y2K solved one problem. The LLP could have helped serve the second - that these organisations were also responsible for establishing appropriate training to fit in with the Projects/initiatives, it was often building on a poor foundation. (See [Research Summary](#))

PM108

The major sponsor (Sponsor1) provided £20,000, to cover basic revenue costs - tutors, hire of facilities) over a three year period.

PM109

... using the funding from the sponsorship award and constituted the first years development of the Project ...

PM110

Within four weeks, attendance levels were between 18 and 22 per night, in a venue that had four computers of low specification and limited software (i.e. 386/486 computers with Microsoft Office)

PM111

Five networked PCs, colour ink-jet and laser network printers, Video Conferencing equipment, scanner, camcorder and hard disk digital video editing facilities, books, CD-ROMs, etc. Other software included a wide range of office, desktop publishing, graphics, multimedia, Internet and games.

PM112

i.e. technical training (basic functionality of the resources - prior to the donation of resources, the school had two Acorn/BBC 'B' computers); offered also included educational/curricular training for staff as it was assumed that teachers had little knowledge of how the ICT resources could be integrated into teaching and learning strategies, or managed.

PM113

Three sources: sponsorship (£15K) from a large business (B9) to enhance resources in the first school (School 1) and set up a further resource centre in another small primary school (School 2); another Charitable trust (C4) provided £10K to set up a third centre in another small primary school (School 3) - each sponsor provided capital funding; The local Training and Enterprise Council (TEC) provided a further £39K of revenue funding via their discretionary fund to provide tutors and infrastructural development.

PM114

Additional sponsorship funding two years later allowed the EBLO to replicate this provision of new ICT resources into a further small primary school (School 6); the Headteacher had been a long staunch supporter of the Project, and was surprised but nevertheless, delighted to be offered the new facilities. Scenario 1 therefore reflects on all of these four schools.

PM115

Due to my associations with colleagues within organisations external to this study I gained insights into a range of technological developments and opportunities were, at this time being discussed within, for example, BECTa, the DfEE and relating to planned changes within education; further acquaintances within the business sector also disclosed to me forthcoming intentions planned for the consumer markets and how these could relate to the education sector. These discussions were also taking account of a host of political and strategic developments occurring nationally, regionally and locally, such that a key investment was the focus on the synergies and opportunities for and between these.

PM116

Future developments led to a further seven major ICT suites in primary and secondary schools including three sponsorship propositions that underpinned successful 'specialist status' (c.15% of schools in the local authority), and four ICT suites based within community centres such as youth club, church or community halls.

PM117

For example, at this time: the county was discussing the proposition of dividing into 6 Unitary Authorities; new legislation was emerging from the newly appointed central Government concerning curricular change, aspirations for new ways of operating within partnerships; Year 2000 (Y2K) or 'the millennium bug' was looming with worldwide technological catastrophe being predicted due to, for example, some computer systems being reliant on two rather than 4 digit clocks; the business sector was leading this by a) defining and proclaiming 'the problem', what might happen, and what might be done; b) changing vast amounts of their ICT resources for new, more up to date systems ...

PM118

When asked by another organisation (C2/Senior Manager) about their successes in raising funding, it elicited the response from the EBLO:

*"To some extent it depends on your approach: on one hand its difficult to get funding, unless you *ask* ... properly; on the other hand, its important not to make the common mistake of thinking you have to simply *spend* the money you are awarded – part of the trick is to indicate how you can use the new funding to *generate* more money or opportunity – something you might call 'sustainability'." (EBLO1/Project Manager/1)*

"I'm sure there's something in what you say, though I'm not sure I really understand."

"Perhaps that's why we're successful and you're not."

Two key points from this are that the EBLO were accustomed to applying for funding for its activities. On account of it being a limited company within the private sector it did not receive 'by right', any 'core funding' from Government – receipt of any public sector funding arose from successful applications from 'open-tendering'.

Furthermore, government agendas at this time stress 'regeneration and growth' – sustainability was not part of the rhetoric and did not necessarily get referenced in grant criteria. However, the EBLO was acutely aware of the issue of setting up 'initiatives', particularly those that aimed to 'raise expectations', only to flounder because sustainability had not been 'built-in-in' to the overall aims and objectives. It also believed that sustainability need not be derived from direct funding but may be achieved through partnership relations/activities.

PM119

For example: TVEI and ESG developments, literature from MESU, NCET, BCS, etc. This is of course, relative - the company or employees were not directly involved, but were informed by colleagues and literature. By comparison, when the new Unitary Authority/LEA emerged and took responsibility for the local development of the NGfL, the LEA staff knew nothing about EDSI, similar developments, or its predecessors ...

PM120

A further, parallel application by the local College of FE for University for Industry funding (Ufi: http://www.ufi.com/home/section1/0_home.asp) towards the development of a 'virtual college network' likewise, highlighted a number of remote ICT centres with a specified number of workstations that belonged to the RCP. The approach of the College was that match funding and collaborative proposals required creative thinking and explicit demonstrations of collaboration, and that this 'ploy' should not then challenge the bases of those collaborations.

When there was confirmation of the success of those developments (RCP, NGfL, VCN) it was not possible for the EBLO and the College to convince the new LEA of the advantages of bringing them all together in the form of a new or cohesive proposition under the umbrella of the LLP for further funding and development. However, the LEAs' subsequent, independent application using such a ploy and referencing the other's Projects became a point of irritation for the EBLO and the College.

PM121

Sponsor 7 awarded £185 for a Project extension over three years - the conditions were largely to build on good practice, increase the number of community ICT centres, extend the learning opportunities for young people to specifically include ethnic minorities, and provide further opportunities for adults. The Sponsor was particularly interested in the technical resource specification that had piloted in the fourth school ([Scenario 3](#)) as it suggested a highly effective, cost efficient solution that satisfied the principle demands of young people ... The conditions of the award also provided a convenient form of explicit legitimacy for the EBLO to shift its support away from schools to other venues - convenient as this decision had already been taken due to the EBLO's evaluations of the schools' (in)capacities to effectively handle the opportunities they were offered, and to avoid further forms of confrontation with associated / 'partner' organisations.

PM122

e.g. the new Unitary Authority, with its own LEA; the new Lifelong Learning Partnership (LLP) was in the process of being formed - and there was by this time, sufficient evidence to suggest that TECs would be superseded by Learning & Skills Councils (LSCs) and would be formed across the UK; other technological developments such as University for Industry (Ufi), the new Virtual College Network,

Learn Direct, etc.); the NGfL and other more local ICT/community initiatives were also becoming more established

PM123

This network indicates the number of venues that were considered for and/or became RCP Centres. Overall, it included seven schools (including one secondary), four local community centre locations, two youth club venues, a Methodist Hall and drew on 15 sponsors predominantly from the private sector.

PM124

An important issue that emerged during the study regarded the processes of defining 'participant' and 'involvement'. For example, the significance of parallel forms of participant action is in part, dependent on the relationships that may be ascribed. Inevitably, 'other people somewhere' were concurrently engaged in some form of action and of which, everyone could not be aware. With regards to the specific EBLO community ICT Project illustrated in the Scenarios, it emerged that people in other organisations took decisive action that had some significance for the Project insomuch that, for example, their 'support' for the Project was perhaps manifest through 'inaction' within their own organisational settings. Conversely, purposeful action was also being taken that conflicted with the Project's intentions. It is not possible to claim if, or to what extent these (unhelpful) events were deliberate.

PM125

Reshaping, redefining and reacting to shifting agendas, needs and interests allowed growth within and between project developments. Emphasising achievements, practices and potential offered the means to endorse, legitimise, and verify the rationale, vision, processes, and accountabilities at strategic and operational levels, and substantiate further growth through, for example, increased funding. Interpretations of 'creativity' in this sense, was conveyed as the "imaginative use and representation of limited resources available". It was impossible at that time to gain funding for initiatives that did not entail partnership, the point of which was to 'add value', and/or share 'overheads', perhaps through core and/or in-kind contributions. This notion of capacity building was interpreted as 'You can't build capacity without capacity'. Hence, various projects reports or bids for further development encompassed 'associated' or partner project outcomes as a means to indicate, or give tangibility to 'potential'.

PM126

Despite the need to be seen to work in partnership, some organisations were having some difficulty with reconciling historical, or territorial differences. One wit suggesting that: "Partnerships are the suppression of mutual loathing in the pursuit of money."

PM127

This then constituted a significant form, or opportunity for 'organisational learning'. While many of the participating organisations were 'educational providers' - that is, they 'provided' learning opportunities for others (e.g. pupils, adults, employees), the ways that they considered themselves as a 'learning organisation' varied considerably over time. This notion was (perhaps) largely implicit, but over time became increasingly explicit, partly on account of the emphasis by government for lifelong learning, that it should become part of the fabric of society - it need not be assumed that by default, an organisation for learning is a learning organisation - and not a message that is necessarily, explicitly shared with its learners, whoever they may be. Over the course of the study, the whole notion of what might be classed as 'learning' shifted from that which perhaps occurs within formal environments, verifiable in some form, and purposeful, to the more obscure processes that are not necessarily a part of formal 'organisational systems' (such as bee-keeping, parenting, leisure sports, etc.)

PM128

e.g. Local Action Groups (LAG), business and community forums, Targets Task Forces (TTF), the EBLO consortia; such partnership groups were dynamic amalgams of several organisations from the education, business, government and community sectors.

Notions of partnership include building sociability and solidarity. They are ephemeral entities in which they grow, change, develop and die once they no longer are useful in serving the group interests for which they are (or were) initially convened. (Carter 1994; 279)

PM129

When first set up, there was considerable debate in the local lifelong learning partnership about the terms of reference - that is, whether it should be called: 'lifelong learning' partnership (LLP), or simply a 'learning' partnership (LP). This view assumes the stance that learning is inevitably lifelong, and that the partnership must itself represent a vehicle for learning ... Just as emphatic, were the concerns (by some) that the LLP should not be dominated by the local council, government agency, or education as it was considered that this would be counter productive to processes of definition, strategic development and embracing organisations that would not normally engage in such partnerships (e.g. small and medium businesses).

PM130

The group comprised senior representatives from: the local college of further education, the local EBP, TEC, LEA, and the IT dept. of the local authority, small, medium and large businesses, a church representative and two headteachers. In

each case, members were responsible for the strategic/operational development of ICT within their own organisations or partnership projects, and/or members of the LLP steering group,

PM131

While schools were technically a beneficiary, this was mainly as intermediary. Essentially, schools were also considered by the EBLO as a stakeholder, and though this was never made explicit, the schools never declared their position as anything other than beneficiary.

PM132

Staff training on ICT was considered very difficult to manage as 95% of staff were part-time, and internal resources were very limited: e.g. one computer networked room with 24 low specification 486s, plus a few 386/486 machines individually placed around the college.

PM133

Before unitarisation, the local schools were dissatisfied with the level of support generally from a 'remote' LEA and had set up an independent self-support group. Furthermore, the newly appointed LEA manager had little knowledge, expertise or interest in ICT despite being given responsibility for the NGfL development.

PM134

The 'millennium bug' (Y2K) was hence a difficult concept for some people to grasp if they had no overt dependency on computer technologies. Adverts were even being placed in local newspapers for IT consultants to assist the local council/s in addressing this (potential) problem ...

PM135

The blue shaded areas symbolise specific Project activity phases for the key partner organisations. It may be coincidental or perhaps, an attribute of organisational structure that the more bureaucratic organisations generally implemented change over a longer period of time than the smaller, less bureaucratic organisations. The diagram also illustrates the regularity in phases for the NGfL, while the phases of development for the EBLO was more sporadic and more rapid. The grey shaded area indicates project developments that occurred prior to my research study (e.g. NGfL was preceded by various developments, of which EDSI was one). FEILT represents developments in information learning technologies (ILT) in the local College of Further Education.

PM136

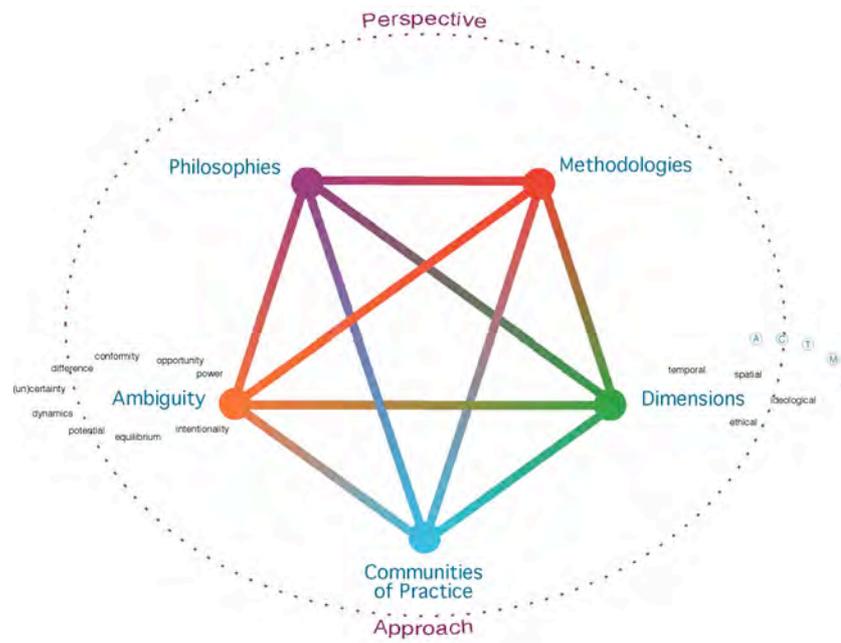
It was difficult to quantify the relative success of the RCP as, for example: it rather depended on which organisation provided the response; the EBLO's judgements for 'success' was based on variable criteria, according to when the question was asked, and by whom.

PM137

The red line signifies an energy that, to a point, was commensurate with the development of the Project rationale and the opening of new centres. The complications arising from various events required the EBLO to reconsider its commitments. Centres within previously defined primary schools had a certain impetus that continued after the EBLO's shift in priorities and thus the blue patterns continue after the red line drops. From c2000, new centres were located in community centres, a Methodist Hall and one further primary school (School 6). The blue dotted line is a direct consequence of events portrayed in [Scenario 3](#).

PM138

In the [research section](#), it is suggested that perspectives and approaches are informed by five fundamental highly interrelated constructs: philosophies, methodologies, dimensions (temporal spatial and ideological interpretations of, for example, context, action, and meaning), ethics and communities of practice (including the research community, those participants/experiences that also informed the research study. and myself as research/participant). The illustration below (C1) represents some of these interrelationships in diagrammatic form:



C1. *Early pentagon model*

PM139

... that is, the relationships between 'perspective' and 'approach' which thus embodies the essential components ([model](#)) that emphasises the conditions and issues

PM140

This document emphasises the relationships between local, regional and national projects and developments and reflects on the influences they had on each other, either through, for example, some form of historical, conceptual or technological relationship.

Scenario 1

PM141

Refer: [Weigh-in](#) and [Scenario 2](#)

PM142

[Scenario 2](#)

PM143

The EBLO actively sought and gained additional funding via a number of sources and in addition to that which enabled the pilot in the first place; active engagement in the Targets Task Force (TTF, which became the LLP) meant an increased awareness of the needs and interests of other organisations and how these might be shared within new partnership frameworks.

PM144

These include opportunities for the primary school, for its staff and pupils; young people, parents/adults from the local community; for organisations that could relate to those opportunities. This scenario predominantly focuses on those developments that occurred within the primary schools for staff and pupils, rather than on the Project's interrelationships with other developments (and which are mentioned other Scenarios).

PM145

The senior managers and governors of the various schools were individually approached by the EBLO to discuss the Project proposition, its conditions, benefits, and potential. As each organisation negotiated and acknowledged the relevance of the Project's aims to their own specific contexts, providing there were no radical conflicts, intrusions, or unnecessary challenges, and the basic Project targets could

be properly addressed, then each was free to draw on the opportunities in whatever ways they chose, especially if it was ultimately for the advantage of the beneficiaries - young people. The ICT equipment was provided as a part of the Project opportunity ... how this was implemented was, in part, down to both organisations.

PM146

Initially, this amounted to c.£10,000 worth of equipment, covering a number of computers, a very wide range of software, reprographic equipment, ISDN2 and video conferencing, and multimedia resources such as digital camera, video recorder and hard disk recording facilities ... (technical support and training was provided free and at this stage this cost met by the EBLO).

PM147

Two forms of opportunity were provided and supported by the EBLO: after-school (extra-curricular) sessions for the students from the primary school, and different sessions, generally in the early evening for teenagers.

PM148

The EBLO did not expect to provide these sessions - the college, other training providers and community groups were offered the use of the facilities free of charge, on the basis that they made their own arrangements with the school for access and provided a tutor. At that time, several organisations were commenting about the need to extend support, the difficulties of providing that 'locally' and resourcing those new learning opportunities - it was assumed this proposition would off-set some of those difficulties.

PM149

In the early stages, the 'success' was largely down to the nature and rate at which the 'opportunity' grew, based on a community/partnership proposition that captivated the interests of several businesses, charities, the Training and Enterprise Council (TEC), and other organisations within the TTF. It seemed to offer a simple, though effective means for many organisations to draw on shared resources to address their own needs and interests ... the schools had access to, and could use the resources for what they wanted, as could the college, training providers, community groups, etc. That success 'grew' success - the more funding attracted, the more it seemed to emphasise the success, and in one sense, became a simple, easy to understand, self-sufficient proposition that appeared to 'fit' the current partnership agendas and encourage further investment. 'Success' was also determined by the EBLO as 'sponsorship generated for the concept (capital, revenue, in-kind), levels of interest in the Project by other organisations and participating students/young people, and how it interpreted 'ongoing development of further, sustainable opportunities'.

PM150

The 'vagueness' about the number of schools that were engaged in the Project, and to whom this 'specific opportunity' was offered reflected the development of the Project - the Project was defined at one point as those schools receiving 'new' equipment (i.e. six schools), but was later extended to include those that had been provided with an extensive range of equipment (some of which was not new) and wished to be recognised with that Project (i.e. a further four schools). The fluid 'definitions' are representative of the nature of the Project's development and dynamics.

PM151

While a pilot research study (described in [Weigh-in](#)) had determined the needs and interests of potential attendees prior to the set up of the sessions, the aims and objectives for the Project and those sessions were very much driven by organisational agendas. This raised the issue of compatibility between those agendas and the needs and interests of young people, particularly in terms of how these were determined and catered for - explored in more depth in [Scenario 2](#) and [Scenario 5](#); the funding was acquired on the basis of supporting community and young people rather than resourcing schools, many sponsors stating that the 'statutory obligation' should cover this ...

PM152

For example, a new trusting relationship had to be established between the school and an 'outside organisation' (in this case via the EBLO), to enable access to the new resources out of school hours - location of resources was therefore taken some deliberation, each school negotiating different solutions that offered the best compromises to ensure community access. Two schools located the resources in classrooms, one in a corridor, one in the library/resource area.

PM153

While the schools were largely responsible for grasping the opportunity, that is recognising how the new resources fitted their requirements, and implementing this in practice, the EBLO had identified important issues, discussed later in this scenario that highlighted concerns about this issue.

PM154

This point is taken up in more detail in the [Scenario 5](#), which serves as a synopsis of the Activities Section.

PM155

A logistical problem of locating resources in a small rural location hinges on the number, availability and appropriateness of the venue - options may or not include: the public house, church, village or church hall), school, bus shelter or barn, each attracting its own sub-culture/s or 'community of practice'. That the Project was primarily for young people, the 'choice' was relatively easy ... The schools' willingness to take advantage of the offer to participate in the Project would not mean that they were aware of or fully understood the wider remit of the Project or the rationale external to the Project aims. These are explained in greater detail in Appendix 2 as the diagram is broken down into various layers.

PM156

The headteachers from these schools were all members of the Steering Group. There were opportunities for each/any of them to develop an awareness of the key drivers to the project, to comment and influence the Project's development in various ways. Nevertheless, a distinction can be made between those strategic developments occurring within the schools and those issues raised through the Steering Group meetings - while the Steering Group provided an opportunity for cross-fertilisation, sharing concerns and benefits, it was evident that an implicit etiquette prohibited it being a true 'melting-pot' - top-down/bottom-up issues did not meet in this forum.

PM157

There were four key 'lines' of responsibility and accountability: the EBLO had contractual and overall strategic and operational responsibilities - three senior managers in the EBLO were mainly involved in those, one of whom also sat on the Steering Group. As mentioned previously, the Steering Group served to share issues that influenced the Project's overall development. Another line of responsibility was more specific to the school and occurred between the headteacher and the Project manager; a fourth line of responsibility existed between the ICT coordinator and the school/project managers. One project manager and tutor interacted with each of these groups thereby gaining important insights into the Project's development, enriched by further direct links to the beneficiaries themselves. Part of the organisational process involved making a distinction between what the different representatives considered relevant, important, or influential - decisions were taken within all areas that were (not) shared openly.

PM158

What appeared to be a simple concept for a project had, for individual organisations at a 'local level' seemingly, relatively simple operational qualities. However, it also had nuances, or an openness that elevated its complexity to a state where the Project was becoming difficult to control, own, understand as a collective, self-contained entity - it was "gaining a life of its own". That allowed for interpretation,

misinterpretation, reinterpretation. Some organisations started to take ownership of what they understood, needed, but seemed confused by a lack of consensus with other organisations about what it represented for them - that is, if they became aware of those differences at all. The weaknesses, strengths, fallibilities were therefore inevitable and inherent within the system ... its success was already perhaps, contributing to its 'failure'.

PM159

... that is to say, they (the governors, headteachers, teachers) were happy (though puzzled) to take the offer of resources as it essentially fitted 'quite logically' with their basic remit of providing / enhancing pupils' learning opportunities ... it was good 'for the school' to be well resourced. However, it later transpired that a distinction could be made between 'wanting what was needed' and 'needing what was wanted' even though this was not expressed explicitly or well ... From comments they made at the time, it would appear that **they** had "already identified or generated the need" - "this resource provision helped tremendously to offset the costs while only moderately affecting timescales for that development."

In many other examples throughout the thesis, the organisation (such as 'the school', 'the company', the 'partnership', the 'Steering Group') is represented as the 'authority' that provided the response. This is in part: a recognition of the 'authority of the organisation' - for example, my contractual terms and conditions of employment state that I am a representative of 'the organisation' and as such, I do not making personal statements, but those on behalf of the organisation; that point may be challenged in cases such as redundancy, organisational restructuring, or professional misdemeanour, in which case the declared, legal conditions of employment, and/or changes that reflect the dynamics of the conditions the company faces, that may result in decisions being taken (anonymously) and which are based on positions of responsibility rather than personalities ...; hence, as stated elsewhere, respondents may have cited 'the Board', or 'the organisation has made the decision that ... ' and thereby absolve personal commitment, responsibility, authority, accountability, and associated ethical issues to which those decisions might have been linked. (This point is taken up in the Research Section - [reading the small print](#)).

PM160

This view was expressed in negotiations between the Project manager and 'the schools', not only in terms of "enhancing the curriculum and learning opportunities for pupils", but also "contributing to staff professional development", "helping community relations", and in several schools, "offset other economic and political pressures ...".

PM161

The schools were quite emphatic that the provision of the ICT resources would fit well with the needs and interests of the school as they would: “help with the professional development of staff”, including the headteachers; that it would “assist with curriculum development”, “particularly as the National Grid for Learning was just round the corner”; and that “the resources would make an invaluable contribution to the pupils’ learning opportunities”; “it will provide an enhancement to our community relationships”. These points were emphasised by the governing bodies and headteachers in every school being offered the opportunity to participate in the Project, at the time the initial negotiations were taking place ... Over time, one may assume, the interpretation of these expressions generally remained ‘implicit’ ...

PM162

The point has been made at the beginning of the scenario that it was not a schools Project, even though it was based in several schools. The Project, in some respects, extended beyond the day-to-day responsibilities and interests of the schools and became ‘complex’ such that: a) it was not possible for anyone to fully understand all facets of the Project; b) ‘coming to terms with the wider initiative’ is discussed more fully in [Scenario 5](#).

PM163

Schools 1, 2, 3 and 6

PM164

The diagram Project timelines (Fig 15) and its discussion, highlights the issue of ‘start/end’ times and that this is uncertain for various reasons.

PM165

The detail of such agreements between the EBLO and the school varied from school to school. Besides a basic, shared understanding of the potential/opportunities, compromises over location of resources, some costs being met by the schools (e.g. power supplies, all schools took the initiative to install new furniture, covered the insurance, waived lettings costs, covered the costs of heating, lighting, access in the evenings, etc.), a formal ‘contract’ was also agreed and signed. Later, this was a source of extreme interest to the newly formed LEA ...

PM166

The risks were deemed “worth taking” so far as the schools were concerned. The proposition was an unknown for all the organisations - previously, the schools had little experience of an external benefactor working in this way, had very limited resources (e.g. two schools had two computers that were 10 years old); were opening their doors to strangers; setting up completely new sets of expectations and

responsibilities; the EBLO were looking to build their relationships with the schools as a basis for further support activities across the authority; the notions of unification and collaboration offered by the Project were difficult concepts/practices for some potential stakeholders to grasp - while they could see the sense in and engaged in some forms of outreach, it hadn't been done like this before. The main condition that was different was "the sense of control or ownership was peculiar, more distributed - all rather strange and unnerving".

PM167

e.g. four networked, very high specification computers, network laser and colour ink-jet printers, scanner, video capture and editing hard/software, an extensive range of office and media software, Video conferencing facilities (less the provision of ISDN), network cabling and hubs, Wacom drawing tablet, and in two cases, an ISDN router.

PM168

'Support' was 'offered' and included: training for staff, pupils, headteacher, ICT coordinator, in any combination on technical matters (basic functions and capabilities of the resources, management issues) and more educationally focused (e.g. ideas for curriculum integration and development; teaching/learning with about and through ICT) with the teachers and/or via the students. Additionally, basic technical support (e.g. keeping the equipment 'up and running') was handled by the project manager and tutors ... An important aspect of the support was the 'customisation' of the facilities and functions to suit the specific needs of the schools (e.g. location and 'set-up' of the resources, customising privileges such as determining access to software and functions for different user groups, simplifying software interfaces, setting up 'short-cuts', etc.) particularly as a great deal of the software available was deemed "inappropriate for children of primary school age" (by the teachers, EBLO, other organisations - but based on different criteria) ...

PM169

To support the teenagers in the evening sessions, an ICT tutor was appointed for each venue. This expertise/support was later extended to the schools to provide extra-curricular support for the primary schools children in after-school cyber-clubs. Three of the tutors were particularly technically adept, lived locally, had flexible working hours and generally responded quickly to evident technical problem-solving issues. Two of the tutors also had a dual responsibility - as a school's educational support assistant and technician, and as tutor for the Communities ICT Project (RCP) One of the tutors was also the Project's overall Manager. Two of the tutors had family ties with two of the schools, one of whom also ran the local youth club which used the school as its venue. Two of the tutors were also qualified teachers but were not currently employed by schools. Two of the tutors provided training for businesses. One of the tutors had his own IT company, and two of the tutors had extensive experience of training teachers.

PM170

The schools were all aware of my joint engagement in research and as a member of the Project team. While the questions I asked relating to the Project were often incidental or informal, reminders that those conversations would contribute in some way to my research was not problematic for the teachers or other team members. Similarly, within the individual schools, and within the Projects team, conversation was generally open and frank about issues and concerns, and how this might contribute to the Projects development. This attitude to the research ethics was common - when conducting the pilot research for the LLP ([Scenario 4](#)), all but one interviewee was openly dismissive of the ethical issues ... (see Research Section/[Conditions for the Study](#); [reading the small print](#)).

PM171

Much time was spent considering and negotiating the best alternatives for locating the resources such that they were accessible, appropriate to the various needs and interests of the beneficiaries, easy to use but with significant technologically functionality, and capacity to potentially meet many demands within diverse teaching/learning contexts; how many, what type, where, including what software/peripherals, what support, for and from whom, when, for what purpose, etc. Many of those initial negotiations did not occur between the provider and the schools ... this was partly due to the nature/speed of development, but also recognition of the extent that the overall outcomes would be 'informed'.

PM172

In this sense, it was perhaps inevitable that the schools never really considered themselves as 'stakeholders' - they were 'teachers'; however, the schools did consider themselves as 'beneficiaries' - which begs the question/s: in what sense were *they* the 'learner', with what associated targets/expected outcomes? That the teachers did not consider their role as 'stakeholder' meant that their contribution or 'investment' in strategic processes needed reinterpreting.

PM173

The conversations between the Project manager and the schools suggested a common understanding of the terms and aspirations as these related to basic teaching and learning processes. However, problems did arise when 'other organisations did not see things their way'. In many cases this established an 'uncertainty' or 'discomfort', highlighted a risk, a flaw and begged the question: "How could it be 'right' if it was 'different'?" Comments that were expressed during LLP meetings included:

"Surely there needs to be clear criteria that establishes the effectiveness of outcomes" (LEA manager/5)

"Quite! There are. However, these can differ according to the specific nature of the circumstances, and what the purpose of the assessment is. Largely speaking the

'criteria' have emerged as the opportunities have developed rather than the criteria determining the opportunity - it has allowed the Project to evolve and become what it is - different for each stakeholder."(EBLO1/Project Manager/2)

"With that approach you can't fail can you! We would never conduct our business that way" (LEA manager/5)

PM174

The nature of the negotiations and differences of interpretation between the schools and EBLO, and that there was 'no precise formula' was explicitly appreciated by many of the schools (quotes later in this document) and generally assumed by the EBLOs management team that a 'one fits all' policy was not a good starting principle.

PM175

Eventual closure of the 'Project' did not mean all associated activity stopped as important facets had overtime permeated many different communities of practice and was in many senses, indistinct, incidental, circumstantial, and complied with all the criteria for a complex system (Refer [Finding the light switch](#))

PM176

The 'visitor' was a local headteacher, an important member of the Project's Steering Group, and later became one of the participating schools. S/he passed on the comments during a crucial meeting in the full knowledge that the implications and concerns from those discussions were leading towards the possibility of discontinuing the future placement of resources in schools. Those comments were not considered to be 'unethical', undiplomatic, naïve, but forthright and crucial to a highly critical debate that sought to make sense of the overall Project outcomes to date.

PM177

Each of the schools had been provided with a drawing tablet which was set up to work with the drawing programs. The teachers had been shown how these worked and had commented that they were more effective than a mouse, but never used them.

PM178

This decision was complicated by the fact that it had just become public knowledge that the EBLO had just gained a further £185,000 from a sponsor to extend the Project. While the Project had picked up a few critics, mostly from the 'education sector', it was those same critics that were nevertheless most disappointed, even critical that the Project would no longer be developed in primary schools. It was pointed out by the EBLO that

"this decision is based on a condition of the award - as schools can access statutory funding, we are not able to extend this opportunity to schools and will in the future be looking to find alternative venues. However, in the mean time alternative funding

streams should mean that schools should not be disadvantaged and we hope they will seek to build links with the other agencies that will be involved in the Project. In some cases, the venue to be used in the future is only next door to the school so hopefully, some arrangement can be made between those organisations to extend the use of the resources.” (EBLO1/ CEO)

The comment is a further example of rhetoric that allows a statement of truth; it also served as a reminder to schools that a purpose of the Project was to develop links between partners - that schools had been reluctant to encourage other outside agencies use the resources for out of school hours training had contributed to the decision to no longer use schools as the venue.

PM179

The issue of ‘control’ and ‘ownership’ became a significant issue that related to three main facets of the Project:

1) The EBLO ‘owned and controlled’ the Project in the sense that it was obliged by contracts and relationships to stakeholders and beneficiaries alike to ensure the ‘best possible outcomes’. This was a complex matter that includes matters highlighted and inferred within this document. It also related to issues that for ethical reasons, cannot be discussed, but related to ‘legitimate business practice’ bound to legal issues ...

2) All partners in the Project were regularly encouraged to take some form of control and ownership by relating their particular needs and interests to those that could be supported by the Project. e.g. a Careers agency had to meet certain ‘targets’ (i.e. engage in career related discussions with a number of young people of the same ‘type’ being attracted to the venues) but despite not meeting those targets, never attended the sessions ... the problems of control and ownership were far more complex and discussed in the Activities Section synopsis in Scenario 5.

3) The recent appointment of a new local, government based, educational agency challenged a wide range of expectations, traditions and practices as it built relationships with schools and other strategic partners. Relationships between this organisation and the EBLO were highly political in the sense that each considered it had ‘rights’ to operate within the schools. However, there were considerable differences in the way that each conducted its business with schools that led to significant conflicts between the two organisations. For ethical reasons, some of these cannot be made explicit but others are nevertheless embedded within the thesis.

PM180

As an ICT manager I was involved with the EBLO RCP and was also a member of the NGfL development group and thus had direct access to the processes of decision making and implementation for both developments. I also had close links with teachers and headteachers in many schools outside the Communities Project. Part of my research interest and role was to hear from the teachers and

headteachers perspective what their understanding was of the information or opportunities that emerged from those outside agencies. It was they who reported to me about the nature and quality of information. It confirmed and added to the evidence that in the first two years of the NGfL, the information advice and guidance from the LEA was “not informative or helpful, particularly if you don’t know much about ICT, about the NGfL, or detail that relates to policy and practice” (These comments by a Headteacher in School 9 were representative of several other schools. However, it should also be said that what was happening at this time was a division in the way that schools were reacting to the new LEA. Some were particularly explicit in their rejection of the power and authority they felt was being assumed by the LEA, and therefore, I had to take account of this bias in the remarks made by some headteachers).

PM181

Even though the Project had been running in their schools for nearly two years by the time the NGfL funding was available, there was a large amount of data and literature (e.g. annual BESA and NCET reports, ACOT Reports; Kennewell et al, SuperHiways Report (1999), Ofsted, etc.) that indicated that many of the teachers did not understand technical specifications about computers and were as limited in their use of terms as they were in the use of the computers. That they were not conversant with the terminology was for me, less of an issue than the fact that many of the ICT coordinators simply bought from a catalogue without consultation about the terms:

“I see you have 3 new computers with your NGfL funding. How did you choose those particular machines?” (PM)

“I ordered them from xxxx as they were a mid priced option” (School9/HT)

“Did you get any advice on the alternatives?”

“The LEA basically said it had to be able to connect to the internet because of the NGfL requirements so I got them with modems, and CD-ROMs of course. I did ask at home but it all sounded like techno-babble to me. They seem to work ok though ...”

That the school had invested in three PCs, each with a modem but only had one phone line into the school had not been considered – it had not been perceived as an ‘issue’.

My conversation with the ICT coordinator in School 1 was similar in other schools - though none of them needed modems due to the facilities they already had in place, most commented that “it’s great having the CD-ROM but it would be even better if we could afford to buy the CDs to go in them.”

PM182

This resulted in each primary school receiving £3,500 for ICT equipment.

PM183

Second and third year payments were largely provided to cover the costs of links to the Internet (ISDN/ISP tariffs) but could be used on other ICT related items if the schools so decided.

PM184

This narrative was shared and discussed with: the Headteacher from School 6; Tutor 2; the EBLO CEO; and a member of the EBLO Board of Directors, who was also a member of the LSC Board and Principal of the local college of further education. By the time of writing of this thesis, of the nine Headteachers that were at some time in the life of the Project and directly involved in it, these were the only two Headteachers that were still in post – others had retired or relocated. Of the twelve school ICT-coordinators and three EBLO tutors involved in the Project, all had moved on to different jobs or retired by the time of writing.

Scenario 2

PM185

This was rather a lot of ‘fuzzy people’ that, by definition, was likely to have included most participants. I was one of them, as ‘an insider’. Throughout the research study, I found it impossible to resolve the issue as to who was who, into which box a person fitted, precisely who was the ‘non-learner’, the ‘non-participant’, the excluded, the recipient, the organisation, the participant, the included, the de-motivated, the individual (though I did meet one, once, I think) ... I did meet a great number of people who gave an impression that they might be any or all of these in one way or another.

“We are what we become” (Zen proverb)

“Everything is vague to a degree you do not realise till you have tried to make it precise (Russell, B. 1918, The philosophy of logical atomism)

“It is not surprising that our language should be incapable of describing the processes occurring within atoms, for it was invented to describe the experiences of daily life, and these consist only of processes involving exceedingly large numbers of atoms.” (Heisenberg, 1942, The physical principles of the quantum theory)

PM186

... from a rational perspective, goals give organisations the direction they need to perform effectively. From the emergent perspective, they help the organisation to adapt to changing circumstances, and in the symbolic view, goals give organisations the appearance that they know what they are doing. Effective performance, adaptation to changing circumstances, and the appearance of competence each inspire confidence and commitment which can attract potential employees, investors, and public support. (Hatch, 1997; 120)

PM187

And therein lay a dichotomy of determinism - the principle of decision-making was only partly in the hands of those for whom the associated objectives/capacities were intended. Those independents that were creative enough to capture the imagination and support of 'a privileged audience' of bureaucrats, were then (potentially) constrained by the institutional rationality of and accountability to those 'who set the agenda and whose values dominate the process' (Kushner 2002) and, possibly, irrespective of emergent or negotiated processes and outcomes. An alternative might be the canny manipulation of relationships between the expected processes of implementation with those (measured) forms of accountability, such that one does not fully determine the other. (i.e. setting targets that are inevitably achievable in the first year; making sure the targets are only part of the solution in which you are most interested or of most value for the beneficiaries) This strategy may occur pre and/or post authorisation, and may be construed by some as 'allowing room for creativity', and allows 'value-added', by others as 'beating the system'. It also conveys the message that

"While its important to ensure sufficient flexibility is embedded into the organisational process, only a fool would 'overstep the mark' - one wouldn't want to be seen to be unethical". (EBLO2/business manager/1).

PM188

A question that lies behind this diagram concerns the processes by which one group informs the other, such as beneficiaries having opportunities to inform the stakeholders, that is, if or when they are not one of the same. It might also be a matter of 'brokering' in the sense that someone is hopefully acting as ambassador, arbitrator, enabler, go-between. According to postmodern theory, distinctions such as strategist and strategy, organisation and environment, are narrative constructions.

They are the result of actors attempting to make sense of themselves and their experiences by concocting notions like strategy and organisation ... This view implies that strategists and organisations do not exist as objective realities, but rather, are objectivised by our subjective orientations toward them. (Hatch, 1997; 119)

PM189

There is an implication from the diagram that the driver for the idea, may not start with the provider but be inspired by similar opportunities/activities. One feedback loop may be derived from 'outcomes' determined directly from the recipients or transformations that may have occurred to the opportunity itself. That feed back to the providers may or not contribute to further change in the opportunity.

PM190

Students affirmed: the problems of rural isolation - staying after school led to huge difficulties in getting home; going home denied the opportunity to engage in out of school hours activities; each highlighted problems of access to computers on account of divisions of privilege and access to ICT at home. These views were

summarised by the EBLO in terms that then conformed to and supported the current agendas and thus helped the EBLO secure funding for: 'enhancing access to ICT for young people who would otherwise be disadvantaged through rural isolation, inequality ...' and of course, there were other concerns of young people disengaging, becoming 'dis-applied', de-motivated, disaffected ... though evidence was scant, such rhetoric 'rang the right bells' ... Funding for the pilot Project paid for the hire of a computer room based in a small community based 'call-in centre' and also, for a tutor to support young people during evening sessions.

PM191

e.g. various representatives from local organisations not otherwise available in the village (e.g. councillors of various types such as a banker, legal advice from the community policemen or solicitor, church ministers, community and social care, local authority) were now available at various times; a meeting room, photocopier, fax, internet access, secretarial support, etc. was provided for the small businesses and village community. A room with four old computers, printer, scanner, modem was also available and hired by the EBLO for the purposes of the pilot Project.

PM192

In the early phase of the Project's development, when the Project Team acquired funding from a government agency, the aims were more focused on: 'overcoming problems of rural isolation', 'raising skill levels to improve employability' and 'achieving successful learning outcomes supported by appropriate accreditation'. Linked with those aims were 'targets', mostly based on participant numbers. The revised aims and objectives took greater account of participant responses and allowed greater flexibility in the organisational structures of the Project. The greatest difficulties in bringing about this form of change were largely due to the rigidity or (political) stance of some educational (bureaucratic) organisations who were emphatic that providing 'appropriate' learning opportunities demanded careful scrutiny, structure, control, and appropriate forms of accountability. Of course, this might have been their expression of concern about the *provider* rather than the *provision*. For them, the relationships between vocational, academic and recreational learning were quite distinct - hence:

"Organisations and courses are specifically set up in recognition of those differences. But you are telling me that they have got it wrong - that playing with cameras and games is 'preparing people for the world of work', giving them 'employability skills' or really 'extending a person's range of skills and competencies!'" (GE1/Education senior manager/3)

Even when the young people 'voted with their feet' in response to those imposed ideologies, these organisations attributed declining attendance to interpretations generally founded on assumptions and practice within their own organisations rather than those relating more specifically to the Project.

PM193

Fullan's caution (1993) was a crucial consideration on an operational level, and appeared to be a fundamental aspect of the practice of the tutors.

When adults do think of students, they think of them as the potential beneficiaries of change. They think of achievement results, skills, attitudes, and jobs. They rarely think of students as participants in a process of change and organizational life. (151)

This is reiterated in the comments by Higham & Sharp (2002):

Thus, the overriding concern was for means: how best to achieve predetermined educational goals, rather than to question the fundamental legitimacy of those goals in terms of specific student needs and interests. This is an instrumental or technical rationality - an assumption that young people make rational choices when appropriately supported and guided. There is a presupposition therefore that 'young people should reach decisions in a systematic way, moving logically from a consideration of their own strengths and achievements through to a decision about what they want to do and then to explore how to achieve that aim'. A failure to comply with this expectation is regarded as dysfunctional - a manifestation of a lack or organisational skills or an inappropriate attitude. (45)

PM194

Within the first 18 months, three school-based centres had been opened (Refer: [Weigh-in](#); [Scenario 1](#)). 'Suitable' generally meant the local village school or a village hall of some kind. Of the eventual ten Project centres, 60% were based in schools, two of which were also the venue for the youth club.

PM195

'Formalisation' principally occurred in two ways. One form occurred as organisational structures, procedures and practices were established and consolidated into recognisable forms legitimated by convention. As Douglas (1986) points out in his discussion about how institutions think:

... that human reason is organized and expressed through processes of 'institutional thinking' ... and that socially organized circumstances provide models of social order through which experience is assimilated and organised - e.g. an answer is only seen to be the right one if it sustains the institutional thinking that is already in the minds of individuals as they try to decide (4)

When thought of in terms of 'rational model' of development, the associated strategy implementation focused on the mobilisation of resources to achieved desired outcomes (e.g. creating structures and human resource policies). This was in one sense expected of the lead organisation (and 'partner' organisations, though their reasons might differ) if only to secure (external) sanction, validity and legitimacy for its actions, and to ensure growth. Strati's comments (2000) about the need to express seignery or ownership over

the imaginary terrain of the texture of organising, both in the sense that they are its owners and in the sense that they possess skills distinctive of specific courses of organizational action (80)

in a sense, holds equally well for the young people as they competed for, and took some form of ownership over opportunities, though these actions were not fully appreciated by some organisations.

PM196

A number of very open ended challenges we set to indicate a range of applications for which the resources could be used, e.g. using any graphics software - design a t-shirt; using any of the video/animation software, create a movie/animation, etc. with a range of 'prizes' ... While very few young people responded to those challenges by 'doing one', some incidentally, produced outcomes that could have been 'misunderstood' as one ... (EBLO1/Tutor/2)

PM197

The Steering Group pointed out that really the point of the sessions was 'study support'. Their 'solution' to the poor retention was to

"Find more young people - the sort that needed support, or hadn't got access to computers at home." (BE1/Senior Manager/3)

PM198

"One night, 18 turned up en mass - so I pointed out the problems and rather than impose a solution I asked the participants to find a solution. 12 of them just walked out! I must admit I was a bit worried as only half a dozen turned up at the beginning of the next session. 45 minutes later some more turned up and the previous lot just got up and left. That went on for several weeks until we changed venue - each time they were in different peer groups ... clearly they had grasped the situation, wanted to come, and came up with solution that suited them. (EBLO1/Tutor/1)

PM199

The readiness with which the young people responded to the ICT was much the same in all of the venues and irrespective of the equipment. The main difference that was noted by all of the tutors concerned the way that adults and young people seemed to apply that technical competence: as one said,

"Adults seem to prefer the more structured learning approach, especially the older ones, but generally had a specific reason for finding out - they generally had an application for the new knowledge - probably the reason they were there in the first place. Young people on the other hand much preferred the 'discovery approach', but once they had a grasp of the functions and what the program could do, they then struggled to find a reason to use it. Quite dismissive in a way - but at least they were doing something creative and enjoying it." (EBLO1/Tutor3)

PM200

(From the point of view of several managers in the Steering Group) the point of the student' sessions was study support, or 'helping them develop skills that they can use in future employment'. One of the tutors (Tutor2) showed the Steering Group a few printouts of the young peoples' work, and pointed out the ICT skills and learning processes required to achieve those outcomes, to which the response was "I'm sure that's all well and good, but those skills don't seem to relate to we thought the project was really all about". This was a comment made by a representative from the LEA.

The unasked question this raised for me was whether all projects to their mind should be constrained by organisational intentionality irrespective of its product outcomes. For me their response at the time implied a more bureaucratic approach than one that was more intuitively receptive to and/or harnessed students' motivations and achievements. With hindsight, this sort of comment became more typical of the ways that the LEA were finding a notional boundary for the communities project or questioning its accountabilities.

PM201

In one, male dominated location (based in School 1), the participants demonstrated more challenging behaviour traits that did not seem to fit well with the aspirations of their school/s or local communities. Comments from the youths were typically along the lines of:

"They don't like me at school cos my brother threw a chair at a teacher."(Centre1/Student9)

"I do go to school ... on Fridays." (Centre1/Student12)

"School? Why?" (Centre1/Student15)

Interests were very much more centred on skateboards, rollerblades, 'having a laugh' - in the high-street, market place, pathways, walls ... and motor-biking in the woods.

"If you were upset by swearing or 'attitude' there is no way you would let them in. But they were great fun, to have around, even if they could be frustrating at times. (EBLO1/Tutor/3)

PM202

This is but one of many examples where business sponsors had an idea of what they thought 'learning' might mean, and of the relative value and benefits of playing on the interests and motivations of young people. One sponsor invited the project manager to his/her shop and accompanied him choose a range of products for the new centre, saying:

"This one is fun, they might like this; this one is interesting; this one has some useful features; this one is different; this one might give them a few ideas; I'm not too keen on this one myself but they might like it; this one ... (Sponsor2)

... and so on, each time giving different comment or reasons for offering the product to the young people. Another anonymous sponsor mostly gave cameras and camcorders so that these could be used separately to the computers saying

"What they produce in academic terms is almost incidental to the fun and sense of achievement I hope they get out of the stuff - if the kids find an interesting and imaginative use for them then its been worth it." (Sponsor7)

PM203

Regular meetings of the tutors helped share ideas and concerns. Initially, most almost 'expected' the young people to share their interests in the technology, and

how it might be applied to different things. This highlighted the issue of coming to terms with the technology itself, the potential that might emerge from harnessing this capacity, and what purpose this might serve. Rather than starting with the technology and hoping interests would fit, they tended to move more towards finding out the interests of the young people and incidentally, giving some illustration of what the technology could offer to support those interests.

PM204

While the youths did hardware and software maintenance, this was nevertheless under supervision and when the units were taken away, were carefully rechecked by technicians in the company supplying the computers, and who applauded the activity commenting that

*“... none have needed any further modification/repair ... excellent idea to give them practical hands on experience like that ... you ought to speak to the college!”
(B1/Senior Technician/1)*

(The reference to the college was by the father of someone doing a basic IT course, all being covered theoretically due to lack of suitable computers for practical work. “Ironic when apparently they’ve picked up nearly a £1million for IT.” (parent/technician). Around 15 computers were also redistributed through these youths to their friends that were ‘desperate’ for a computer; the problem being that providing them with computers (theoretically) reduced the likelihood that they would attend the ICT sessions.

PM205

“I’d added a few basic web pages to my own site, but behind this was a pretty nifty bit of database programming - I mucked about with various languages to make it a be slicker. I don’t think he (the teacher) ever fully understood because he could only see the result, not how or why it was achieved that way - he wasn’t into xml, SQL, java, or html. Any way I think he was more interested in the other parts of my site, though he didn’t understand quite a bit of that either.” (Centre6/Student/20)

Other parts of the website included: chat/discussion; some new games he had written, some of which were written with different codes to compared the different overheads; services (computer sales and remote technical support services).

PM206

Each Scenario highlights similar issues of judgement: the ‘competence’ of the ICT Coordinator judged according to the (limited) technological understanding of the headteacher; the ‘strategists’ who enforced principles, procedures and accountabilities that theoretically linked policy and practice irrespective of their relationships and how these were ‘informed’; the organisation that aspired to standards that seemed unachievable such that judgements taken potentially exacerbated the problems So was the ‘key resource’ the nuts and bolts, the ‘tools’, the techniques or of the handler, the task, or the principle? Hatch (1997) comments that:

In modernist organisation theory, technology involves the means of achieving something - a desired outcome, goal, or output, usually conceptualised as a product or service. From this perspective technology is typically defined in terms of its:

- 1) *physical objects or artifacts including products and the tools and equipment used in their production*
- 2) *activities or processes that comprise the methods of production*
- 3) *the knowledge needed to develop and apply equipment, tools and methods to produce a particular output ... (128)*

Eisner (1991) expressed this with a different emphasis:

Meanings are construed, and the shape they take is due, in part, to the tools people know how to use. Different disciplines employ different tools. Thus, which meanings become salient is a function not only of the qualities 'out there', but of which tools people bring to them. (36)

PM207

These 'opposite' approaches in relating to the clear technical capabilities of young people were common place: e.g. one approach was for the teacher to allow the pupils to do what the teacher could do themselves, in another, a headteacher was quite explicit in encouraging the pupils to find out and demonstrate what they knew through more open-ended activities. On hearing about the project manager's use of the teenager for 'technical support' during the installation of resources for a new centre (otherwise presented as: "providing one of the young people with insights into vocational pathways and preparing for a higher level Microsoft accreditation"), several members expressed support and commented that "He is just the sort of person we will want to employ in a couple of years time in our business". One of the educational organisations on the other hand, chose to interpret this as: a) "dodgy" ... "did you look into the health and safety issues ... and what about insurance?"; b) it seems to be one way of 'overcoming other technical shortfalls' - implying that the Manager would otherwise, have had some 'difficulty'; c) at least its good to see that 'new equipment' is being installed - a erroneous relationship between the community ICT project and other EBLO work and which included the redistribution of computers.

PM208

In the three youth club based centres, the teenagers always 'expected' to take the camera with them on any other excursions (e.g. if the centre organised ice skating, sailing trips, or 'just messing around outside', etc.), even if ...

"all they ever did was look at them on screen and print a few - its not like they edited them or put them into something more meaningful ... like a newsletter, poster or website.: (LEA observer)

... and despite only two of the seven schools that could use those resources ever used the cameras during class work, or on trips, sports days, concerts, etc.

PM209

e.g. using any graphics software - design a t-shirt; using any of the video/animation software, create a movie/animation, etc. with a range of 'prizes'.

PM210

Several individuals did write a curriculum vitae and a letter of application; in one location, the teenagers wanted to set up their own youth club, prepared fliers, a letter outlining the idea to the village council, another to local shops asking for sponsorship in the way of coffee/kettles/games/etc. and managed all of this successfully; a few did some homework or coursework and used the reprographics to achieve this.

PM211

Project targets were dependent on numbers of participants, and engagement in learning opportunities. Without the participants, the nature, quality, purpose and potential outcomes from learning opportunities were irrelevant. To adapt the interpretation of 'learning opportunities' and 'processes of engagement' through careful forms of expression, meant that the Project accountabilities could be met. This strategy was not exclusive to the tutors, but occurred in proposals for funding, reports, and Steering Group meetings.

PM212

e.g. games that involved negotiating a number of options as in puzzles such as 'Lara Croft', 'Risk', and SIM City - a simulation 'game' that allows the construction of anything from a single household up to a city, where careful planning of resources enables the survival of the inhabitants.

PM213

games

PM214

This outline was provided as a particular member of the Steering Group was insistent that the Project should be providing young people with skills in readiness for the world of work, and was critical of 'kids running around in a wood with a camera -

"we can easily fool ourselves into thinking that this is 'learning' ... the whole point of setting targets is to ensure young people understand the value of these opportunities to their futures and will end up with a respectable job, and capable of demonstrating relevant skills" (GE1/Senior Manager/2)

The problem seemed to be establishing a balance between 'demonstrable', and 'relevant skills' within a social, educational, technological conceptual framework, and how this was 'appropriately determined'.

PM215

“This reflects suggestions (including Becta recommendations) for the national on-line learning centres initiative to encompass a wider range of technologies considered to be relevant to the needs and interests of the local communities. Thus the provision in all centres includes: generic office software (e.g. word processors, spreadsheets, art and design), reprographic facilities (scanner, digital camera, printers, CD-R) games machines, on-line/internet access for all PCs within each Centre ... (Extract from the approved sponsorship proposal)

PM216

Equipment and Internet Access:

8. *Offers one or more of a range of Internet access routes such as games consoles; mobile phones; Personal Digital Assistants (PDAs) and pagers; Digital TVs and cameras. (LearnDirect - UK Online Brand Criteria)*

... further steps could be taken to enable greater accessibility, the scope and nature of the projects should be extended to relate more closely on one hand to the general needs and interests of the public within a less formal setting, while on the other being able to support the urgent needs of small medium enterprises in the area, and that further steps should be taken to recognise the converging technologies and offer non-traditional learning opportunities to the public, particularly in the areas of edutainment and consumer led ICT. (Community Modernisation Fund)

PM217

The ‘problems’ were that: this perspective endorsed a view of a minority of members of the Steering Group; the EBLO had already purchased the games machines as the proposal had been accepted - the views expressed by the sponsor were viewed by the EBLO as “a change against the stated aims, objectives and procedures, not much helped by having to deal with a jobsworth’ incapable of lateral thinking”; and overcome by some business members of the Steering Group funding the machines ... the business sector had the more liberal view that “you work towards ideals, not from them”.

PM218

A few other comments were made about the incapacity of some members of the group to ‘think outside of a box’ (unfortunately making a link between boxes and coffins); the key ongoing constraints within the group were from a) an LEA representative, b) two headteachers from schools that made hardly any use of the available resources, their concerns principally revolving around.

PM219

It has been said that the key determinants of a game occur before and after - the rest is a formality. Perhaps it was said by the competitor who understood the implications of preparation and analysis, and that a key value of evaluation is how it contributes to the process rather than its possible value as an add-on. Perhaps it was said by a strategist - who, like all good commentators, can suffer the pressure and stress in

anaesthetic disjuncture. Perhaps it was an incidental remark in the changing room, or mid game, and may or not have been intended for the ears of the participants. Rather like the innate ability to judge the violinist, figure skater, runner, rider, or judge, someone 'has to be right', sometimes, irrespective of the difference.

Bannard's comment that "the greatest composers have made the greatest blunders in estimating the relative value of each other's work" apply to many fields.

PM220

'Shared' practice may or not have included a detailed or negotiated process or outcome - some of the above anecdotes indicate that 'informed decisions' could be determined as much by the filters and tolerances as the quality and flow of information itself. It was surely 'effective' for young people be 'non-participants', just as it was 'effective' for facets of ambiguity to pervade strategy, policy, and various practices.

PM221

This member was also the Policy Officer for the local district council and was regularly involved in a range of strategies and project developments that sought to address matters pertaining to social and economic regeneration.

Scenario 3

PM222

... not just those associated with social/personal improvement and authority, but also power and accountability - funding education is still deemed socially acceptable but as Elmore (2000) points out:

Most policies (e.g. vouchers, charters, and site-based management) are quintessential structural changes in that they imply absolutely nothing about either the content or quality of instruction. (10)

PM223

... such as strategies and processes of management and integration, issues concerning the capacity and other logistics associated with the venue, responsibilities, sustainability, expectations, effort, effect, etc.

PM224

This was perceived to be important strategic issue, more so by key members of the LLP, businesses, EBLO, etc. than schools ...

PM225

While this appeared to be contrary to the notion of fostering EBL, there were several reasons that the EBLO served as an intermediary (single point of contact) between business and schools: to minimise disruption to the business (not always understood or appreciated by schools!); to maintain a clearer understanding of needs and interests (e.g. a way of developing better understanding in business of education and business in education by acting as broker); to ensure a fairer system of redistribution (one school might for example approach and gain resources from several businesses and thereby deny other schools). Some schools that did not fully understand the role of the EBLO did not necessarily appreciate being told by the companies that EBL is through the EBLO.

PM226

Schools were being increasingly pressurised to improve access to/use of ICT: despite national initiatives to provide computers in schools, the level of provision and time scales had not yet fully resolved this issue. Schools commented that they needed more basic computers for basic keyboard skills or word processing - none of which required a high performance/specification PC. Of course there were hidden costs ...

PM227

e.g. Complete PCs were provided free with the original OS, delivered to the schools/other organisations at no cost; how this would then be used 'educationally' was then determined by the individual institution;

PM228

A negative term generally cited by those that challenged the principle of 'redistribution'

PM229

... and resolving an escalating 'green' issue - which also provided a means of balancing costs to the company. This issue was often one which raised political and emotive comments from various sectors

PM230

Views expressed by different organisations from each of the sectors illustrate the range of views about redistributing computers for education

PM231

e.g. staff training/learning, including ICT; education business link representatives

PM232

This enthusiasm for learning were based on professional, personal and social expectation, needs and interest and included: studying for an MBA, engaging in scuba diving courses and being active as a scout leader.

PM233

NB Key shifts were the premise for the redistribution of PCs (for schools, for education, for learning) that took into account: the shifting agendas for learning, in the community; new Project developments (including RCP, other community ICT Projects; the introduction of statutory funding through NGfL for schools; the views by the EBLO and business providers about the logistics, benefits and issues that emerged from the provision of PCs.

PM234

This spatial representation does not indicate timescales (not because these were unimportant!).

It is indicative of the nature and level of penetration into wider organisational networks and systems.

PM235

Education is the Government's number one priority. It is key to helping our businesses to compete and giving opportunities to all. That is why we intend to lift educational standards in Britain to the level of the best in the world. This will mean making the most of technological change. Technology has revolutionised the way we work and is now set to transform education. Children cannot be effective in tomorrow's world if they are trained in yesterday's skills. Nor should teachers be denied the tools that other professionals take for granted. (Blair, 1997) (DfEE, 1997; 1)

PM236

Robinson (2001) points out that:

Education doesn't just follow the natural grain of young people's abilities; it sorts them through two different filters. The first is economic: education categorising people on implicit assumptions about the labour market. The second filter is intellectual: education sorts people according to a particular view of intelligence. The problem we face now is that the economic assumptions are no longer true and the intellectual filter screens out some of the most important intellectual abilities that children possess. (p3)

... and that: 'schools are under pressure to prioritise those subjects that seem most relevant to the economy' (9)

PM237

Gardner (ibid) provides one perspective:

Both (business and education) are fundamentally concerned with learning: to remain viable within a business, one must continue to learn on the job. Both institutions suffer if they do not create a community in which people can be comfortable. Both institutions require leaderships that is fixed determinedly on its goals and yet sensitive to the often conflicting motivations and desires of its 'workers'. (190)

Gardner goes on to highlight three key distinctions between business and education (business makes products; business must make profits; schools serve a vital civic function) though his audience will be predominantly education ...

PM238

'Stock' included a wide range of office furniture as well as ICT resources including LCD projectors, computers, laser printers, network equipment, etc.

PM239

Conditions that were established for redistributing computers included: collection to a centralised location, 'reformatting' the hard disk to obliterate all previous data, reinstallation of an operating system, basic cleaning of the computer and screen, 'PAT' test of the cabling, packing into boxes for transportation, free delivery to the beneficiary. There was also the legal issue of 'writing off the cost' for financial auditing purposes.

PM240

This issue was not limited to redistribution of computers but included, for example: participation of business in schools (activities, events, funding, etc.), continuity across and between the sectors, and developing a process through which the two sectors were better informed about each other and how they could develop a stronger, more valuable relationship ... When some schools who continued to make requests to companies direct were informed that the EBLO were managing the process of redistribution, those schools were explicit in their criticism to the EBLO: e.g. "*our independent negotiations with local business should not be mediated by you*" and "*why should our school suffer the consequences - you have 'taken the initiative on behalf of other schools ...*" (Headteachers - School 8 and 14 respectively).

PM241

These were mostly 386s/low spec 486s with Microsoft Windows: at that time schools were still mostly users of Acorn systems; as schools were gradually being 'allowed' to consider 'other platforms', a 486/95 was the specification currently available through retailers ... so no real anomaly existed between the two specifications; at that time the majority of teachers were incapable of discussing technical detail about

specification ... This raises a point about 'responsibility' discussed later in this Scenario.

PM242

95% of schools responded to a general letter informing them of the opportunity to have a free computer. Basic computer specification was outlined. Some secondary schools received up to five computers.

PM243

Lists between EBLO and this particular company (plus other contributors) were coordinated to ensure fair distribution. Cleaning, checking and distribution direct to the schools was also handled by the companies. All correspondence to schools was via the EBLO.

PM244

'Effective': EBLO involvement was to coordinate/administer the redistribution, while the companies handled the wiping of HDD/distribution - so from the EBLO's point of view, 'effective', at that time referred to 'logistics'. A year later it transpired that some schools had not done anything with the PC - largely it seems, due to lack of technical familiarity with PC systems (hence, the offer of support in setting up the PC by the EBLO in later redistributions).

PM245

It was Company policy for the EBLO to make enquiries to ensure that the recipients were satisfied with the redistribution and if additional support was required.

PM246

... with a 500Mb hard disk, and network card; Specification of computers being bought by schools at that time were either Acorn computers or possibly a Pentium 120-200mhz, no network card - but with a CD-ROM drive! There were various difficult technical concepts that schools could not contend with (even two years later):

- 1) that the specification and functional capacity of the 486 was barely different to the more recent Pentium 100s being bought by schools. This was largely due to the differences in specification of the components on the respective machines
- 2) that the network card had a value ...
- 3) the 'need for' and 'access to' a CD-ROM drive
 - a) they wanted the drive but could not afford the CDs
 - b) they felt there was 'need' for a CD-ROM drive built into each PC rather than using the cheaper, sufficient, though unintelligible option of shared network drives

c) many complained about the lack of a CD drive with these free computers, and were not appeased by the suggestion that the school could purchase one for c£35 - which the EBLO could fit if required. Most schools did not buy one ...

PM247

Relative (to curriculum expectations, funding, expertise, and the ratio of pupil-to-computer differed widely across the local schools; at that time many primary schools were limited to perhaps 2 computers in the school and very limited budgets ... this provision often doubled or tripled the available computers in the school.

PM248

This was being expressed in policy documentation (e.g. McKinsey (1997), Stevenson (1997), Fryer (1997), BECTa (1998, 1999, 2000, 2001)), and by local schools, businesses and other organisations that came together in partnership meetings.

PM249

Those with poorer provision than in other local secondary schools; interestingly, these schools were also the only secondary schools to express a keen interest in extending the quality of provision to both formal and informal situations ... that is to say, they were interested in providing computers for 'disadvantaged' students to take home, or made available in IT clubs out of school hours.

PM250

There were other motives too - it reinforced the impression of impartiality and fairness, it provided information that could contribute to the expected NGfL bid/development, it provided other data that could enhance the range of support being offered by the EBLO.

PM251

Generally schools are provided for on the basis of policy and conditions - this approach was intended to encourage schools to take a less constrained view according to the perceived wider needs of their school, staff and pupils.

PM252

... perhaps due to no response or recent investments.

PM253

Most schools simply incorporated them into the school as stand alone curriculum resources, partly due to space, or lack of expertise, vision, etc. e.g. the project occurring in School 4 was an initiative that saw the development of a pilot which was the first of its kind in the country.

PM254

This was School 6 ([Scenario 1](#)). On being provided the opportunity to apply for PCs for wider educational use, the Headteacher of that school sought the advice of the EBLO commenting that s/he knew of a number of pupils/families that would benefit from such provision. The impact of that provision was reported back to the EBLO: a) the headteacher maintained that the attitude and achievement of the pupils improved over the following months; b) the parents of several families attended the free training sessions provided in the school's new community ICT centre. Such feedback was important to the EBLO, not only in its accountabilities and reporting to sponsors, but also in its decision making about the location and support of its Project Centres.

PM255

Windows Terminal Server (WTS) represented a new development arising from Microsoft's purchase of network/server software previously developed by ICL. Networked 'dumb' terminals with very limited on-board capacity (e.g. a 386 processor with 4Mb RAM, 250Mb hard disk drive (HDD)) could draw its raw processing capability and key functionality from a server. The server is 'loaded' with the RAM on behalf of the terminals. Thus, such a terminal could run hefty office type programs on a Windows NT4 OS environment (a stand alone workstation running this software would normally need to be at least a 200mHz Pentium with a minimum of 32Mb RAM and 2Gb HDD).

Three schools in the area each developed a WTS network due to availability of free, low specification computers. One school drew on technical support from a local computer company that specialised in ICL systems; the teacher at one primary was an enthusiast or 'nerd'; the example explored in more depth in School 4 was developed by a computer company that had worked on similar systems in industry, installed a large network in a college of FE in another part of the country, and became heavily involved in setting up WTS networks in schools as a result of this pilot and other links. That same company were also key to the subsequent strategy to encourage a change over to NT4 server networks in those same schools as it became evident that Microsoft were not developing the system as anticipated.

PM256

Neither the school, EBLO or sponsoring companies ever consider that this pilot was the 'best' solution to meeting curriculum needs. However, it was certainly a cost effective solution that enabled the school to meet specific objectives that would have otherwise, not been met. Like many primary schools, there was insufficient money for resources, staff training, technical expertise to ensure that the school would have been technically self-sufficient while at the same time, enabling such a wealth of learning opportunities.

PM257

By this time, there was evidence of the growing interest in exploring alternative, cost effective solutions to ICT provision. (e.g. from strategic developments that informed the NGfL, the proposition of community learning hubs, IT4All, and projects such as the RCP). Open Source Education was also gaining a higher profile in certain quarters).

PM258

for example: once schools had been informed of the numbers of computers they had been allocated by the EBLO, any delays in the redistribution of those items presented some schools with an opportunity to be openly 'critical' of the EBLO ("*we need these as soon as possible ...*" School 9; "*but you said ...*" - School 5; "*it was quicker and less hassle when we got the computers direct from the companies ourselves ...*" School 14) irrespective of whether or not the extenuating circumstances were outside the control of the EBLO.

PM259

The DfEE document 'Computers within Reach' was released 1 year later; BECTa were expressing a range of interests in the EBLO's scheme. This led to requests for information about the principles that underpinned the scheme, and further discussion about Linux and 'Open Source Education' (OSE). It also coincided with other notions/schemes: e.g. 'providing all teachers with a PC' ... Other companies were also becoming interested in the proposition of redistributing computers as a commercial proposition. Their interests were quite different to that of the EBLO and led to an element of territorialisation ... Other educational, political, technical considerations are discussed later in this Scenario.

PM260

The social inclusion agenda was gaining a higher profile as were concepts of/schemes to address disadvantage, IT4All, etc.: the EBLO had been running its RCP for 2 years by this time ([see Scenarios 1, 2, and 3](#)); imminent commencement of Ufl/ICT community schemes were just entering the public arena for discussion ...

PM261

e.g. Mencap, nursery/childcare groups, and several other organisations with an interest in promoting learning opportunities - including: a driving school, various charities and youth groups, a hospice, therapy clinic, the ambulance service, etc.

PM262

Since this formal reallocation ceased, over the following year the EBLO unofficially redistributed a further 300 computers including c.80 laptops and associated peripherals to local charities, to organisations that do not receive statutory funding

and to individuals. Only under certain conditions (e.g. non-disclosure of source) were a few been made available to any schools.

PM263

For example, with the intention of enhancing older computers and/or setting up new community ICT centres: discussions with BECTa were exploring interests in Linux as a possible enhancement to the PC redistribution - new pilots were part of these negotiations, particularly as the EBLO had ascertained particular interest and expertise in two primary and two secondary schools locally.

PM264

These discussions were at the initial stages between two senior managers in the EBLO and college. The excitement about this potential development was such that the benefits of reallocating the best computers for this project development would offset any possible financial hardship arising from that decision. Two years later, at the time of writing the thesis, this project had become manifest as a million pound investment as a community ICT centre located within a large shopping centre.

PM265

The specification of PCs ranged from top-end 486s to Pentium II; allocation was determined by a variety of factors and the decision of the EBLO; This high profile project development offered the opportunity to address the aspirations for 'community networks' and 'cohesive infra-structures' (an aim of the LP/ICT group).

PM266

For ethical reasons, this large scale project cannot be discussed, suffice to point out that it was linked with a number of high-street walk-in centres that offered free computer training to the general public. Total capacity of these centres was approximately 240 workstations, many of which had been sourced by the computer redistribution scheme.

PM267

I was aware of this following negotiations with principal companies providing computers, policy documentation (e.g. Computers within reach 1999; eLF), day-to-day negotiations with companies not involved in the EBLO CRS, negotiations with BECTa, etc.

PM268

In the first year, c2000 computers were supplied, on demand (first come first served, up to a maximum of five computers), to over 250 schools throughout England following requests via the LDA.

PM269

Of those schools with which the EBLO worked in the locality, the EBLO was aware of sixty percent that also provided this kind of practical opportunity - most of which was enabled through the CRS.

PM270

The nursery schools aspired to developing the children's very basic computer and keyboard skills - something that could be achieved just by having access to the computer. However, which software specifically suited to nursery aged children was scarce, most of the nurseries were pleased to use a modified office template that was developed by the EBLO - this reduced the number of menus and menu items, provided a few large buttons or defaults for basic formatting and diagram functions, When schools were shown this scope and offered training to customise the program to suit their specific needs, none took up the suggestion.

PM271

Of the complaints made, approximately 35% commented that the computers did not have a CD-ROM or modem despite this fact being made in all literature to the schools, and that for c£35 a CD-ROM could be added if required, and which could be installed by the EBLO if that technical support was needed. Around 25% of school recipients commented that the computers were 486s not Pentiums (even though all EBLO correspondence referred to the computers having a '*minimum* specification of 486/100mhz) - the teachers were 'telling the EBLO' what they themselves, had been told by the EBLO prior to the allocations being made ... The EBLO, as part of their 'routine procedure', responded to most of the individual schools making the criticisms about the technical shortcomings of the computers. With few exceptions, the schools were not prepared to pay for the installation of the CD-ROM; did not understand that installing a modem into each computer could create more problems than it would solve, and that a modem was not needed in all computers for them all to access the internet; that in response to the plea by those schools for a Pentium rather than a 486, the schools did not understand that 'computer speed' is not simply determined by the processor alone.

PM272

It was difficult for the ICT Managers from the donor companies and EBLO to comprehend the basic argument being cited by teachers, which focused on what the computers *could not do* (due to lack of hardware such as CD-ROM drives), yet would not engage in any discussion about what the computers *could do*. The thrust behind the debate revolved around technical specification not curriculum applications ...

PM273

Lifelong Learning Partnership ICT sub-group (ref [Activities Section](#))

PM274

Re the chief criticism that the computers “aren’t multimedia” - it appeared this meant that “they don’t have a sound card - or a CD-ROM ... and they haven’t got a modem”. No one ever suggested that they did. However, it was made quite clear on the original notification to schools that:

- a the specification was sufficient for basic work ...
- b the computers were upgradeable
- c technical support was available should it be required

The main difficulty seemed to be that criticism was directed at ‘what computers were not’, rather than ‘what they were’ and could enable. Many teachers, and the LEA, were not making the link between educational potential, capacity and adequacy. The argument was technical rather than ‘technological’ in the widest sense that they were not considering the ‘application’ of the devices or the systems to which they could be applied.

PM275

These comments were made by a senior manager of the LEA in a partnership meeting

PM276

By comparison, schools had tended to hoard the old computers and complain ...

PM277

This comment was in part a reference to schools being mainly concerned with:

“coping with day-to-day practice’, ‘watching their backs’ and being rather ‘introverted’. The current educational system prohibits schools from being creative, adaptable, imaginative, and thinking outside the box - and while this criticism can be levelled at ‘the system’, a lot of teachers do seem to ‘fit’ that system rather too well.”
(School8/HT)

It also referred to speed in which education engages in new ideas - for example, in the first year of NGfL, many of the local schools, especially primary, had vague insights into its rationale, had not heard of McKinsey, Stevenson, BECTa or EDSI, saw it as “a way of giving schools ICT equipment” (Selwyn 1999).

“Of course, what they are suggesting is rational and backed up by all sorts of ideological techno-twaddle written by enthusiasts and visionaries. The trouble is, how many teachers do you think have the time or enthusiasm to read and reflect on this. They just have to get on with it in what ever way they think fits, and then field the flak when it doesn’t fit with somebody else’s idea of what is might have been.”
(School11/HT)

PM278

Is a computer bought on the basis of having the capacity to fulfil specific tasks/objectives - and if so, to what extent have those tasks/objectives changed over the last 5-10 years; how long does it take for a computer to no longer be 'modern' or 'current' - particularly when the means of judging it is by branding rather than application?

PM279

This proved to be highly problematic for the key sponsor who considered that the principle behind WTS network offered significant, if not 'better' value for money, to such a point that Project negotiations became extremely uncomfortable at one stage with the fear that the investments made by the EBLO would not be reimbursed by the sponsor.

PM280

The build specification of the computers was so high that 4 years later, they still had larger RAM and hard disks, more software (which was also more up to date) than the newer computers. There was no noticeable difference in the speed that the new/old machines operated. The Apple Macs had also been kept up to date with the most current operating system, software upgrades, and performance was (inevitably) still beyond the capacity of most users. However, "They were old"!

PM281

An annual replacement policy that led to a P200 being replaced by a P2/233 a year later, to be replaced in each following year by a P3/500, and then a P3/1000, all running the same operating system and software to address the same basic tasks.

PM282

This meeting with BECTa during 2001 included myself and two senior IT managers from local businesses who were considering the wider implications of developing an ICT pilot Project in three local schools that utilised redistributed computers running open source software. The software, hardware and technical support was considered by those present, to offer the technological functionality to support most curriculum requirements at that time. However, two key issues that dissuaded the Project team to progress the initiative further were: a) the political issues of using open source in schools when this was not recognised in any formal policy documentation - therefore represented a non-conformity which could prove to be highly problematic; b) the perception at that time that "people use Microsoft" was a further powerful inducement for schools to 'conform' ...

PM283

That BECTa was a non-departmental government agency does not mean that its representatives could freely operate outside the policy boundaries set by government however these might be informed. The 'closed meeting' meant that the BECTa representative could express personal views in addition to the 'official' view. For reasons of ethics, the following statements are not attributed to any one of the attendees. While these represent highly subjective views of those present, they were generally founded on many years of working with ICT and schools.

PM284

All local schools were informed about the scheme each year by the EBLO. The diagram 'Computer allocations' Fig 24

PM285

This is misleading inasmuch that while schools were not 'told' to engage in the scheme, they were being 'told' other things that stressed the situation in which they found themselves, and which could in part, be satisfied by receiving the redistributed computers. To what extent this response was 'informed' (technically, educationally, politically) was very difficult to establish or qualify. Other prior and ongoing judgements taken by other organisations such as the providers and the EBLO, the authority, and the government set a range of precedents - the nature or quality of clarity or knowledge, contradictions of interpretation, emphases and principle, whether technologically, educationally, socially or politically determined, was diverse, dynamic and complex, and largely irresolvable.

PM286

By the third redistribution, higher specification computers included Pentium 3 or Apple PowerPC 604e equivalents.

PM287

Other devices were also made available but disclosure would have escalated the difficulties - these included 3 x LCD projectors, LCD display tablet, CD-I player, Ethernet hubs and switches, furniture at a time when schools were becoming increasingly aware/pressured into considering projection/interactive technologies; the additional 280 monitors were almost a liability. Due to the need to quickly relocate the equipment in another warehouse, the detail or full extent of what was available did not become apparent until it was stacked and counted at the new location. Shifting them in a 7 ¹/₂ ton truck rather than a transit van was perhaps a bad move after all!

PM288

It later transpired that 'the source' of these comments was the same person casting doubts about the EBLO, about the RCP, and about its projects with schools. Neither that person, nor the his/her senior management understood the concept of 'fdisk' ...

PM289

The LEA were explicit in their concern about the redistributed computers as "they are not multimedia and do not have modems", Yet schools wanted basic machines for basic work.

PM290

There was a touch of irony that several local authorities employing short-term consultants were paying a contract fee of c£18K pro-rata - commensurate with the problem perhaps.

PM291

Reference: Local newspaper ...

PM292

- a workstation used in a server network could use the server clock;
- at the beginning of the new century, the clock would be reset to the correct date if necessary;
- one problem was the 'corruption' to the date filing system. On one hand all redistributed computers had all data wiped from the disks; on another it was considered that most people use file names rather than file dates to retrieve documents. The EBLO also considered that the concerns about date corruption in spreadsheets was not an issue in view of the intended use and level of achievement in most schools.

PM293

At the time of writing, the cost of the Microsoft operating system (XPPro) and Microsoft Office was equivalent to the cost of a new Pentium 4/3Ghz/1gb RAM, etc.

PM294

This is evidenced partly by the on-going enquiries from schools to local businesses and the EBLO, the significant lack of computers being donated by companies to local schools, the press releases in the local media, comments by company employees who have close working relationships with schools (e.g. school governors, parents, 'Partnership' members).

PM295

Officially. Some schools do still receive computers but on the condition of non-disclosure.

PM296

The source of this evidence is partly through the audit conducted by the LEA as part of the NGfL bidding process, and on-going negotiations between the schools and the EBLO.

PM297

e.g. McKinsey (1997), Stevenson (1997), Fryer (1997), BESA (1999, 2000, 2001, 2002), BECTa (1998, 1999, 2000, 2001), Meadows & Leask (2000), Zakopolous (2002)

PM298

In this country, some charitable organisations are known to provide funding for such a purpose, and the e-Learning Foundation (eLF) declared in its annual report (2002) that

The Foundation remains fully committed to addressing the disadvantages that the digital divide creates. Equity of access to ICT resources within the school, and the ability to take them home, are at the heart of the work of the national e-Learning Foundation, and we continue to champion the cause of the 'digitally deprived'. In October 2001 we offered grants to the value of £250,000 to five projects that were based on plans to acquire 4,000 computers for local schools, the balance of the cost coming from parental contributions, school budgets, local business donations and other sources of public funding.

In the USA, for example, there are various technologies that are made freely available to schools provided by 'Big Mac', 'Nike', et al ...

PM299

An important question about this issue is how far does one look? Immediate involvement included, at a strategic and operational level: Company/companies donating equipment, the EBLO - that is terms of the processes of redistribution. However, the involvement of the schools and LEA, while they were essentially 'peripheral' to those processes, were much more central in other ways: it would seem the LEA had a strategic involvement as clearly a few personnel were intent on challenging or putting seeds of doubt into the minds of some schools.

PM300

EBLO manager/1: “Did you consider passing the computers on to a few students that you know don’t have such facilities at home?”

School7/ICT co-ordinator: “No, In any case, I should have thought if they were inadequate for their needs in school, then they would be inadequate for their needs at home.”

EBLO manager/1 “In that case, how do you feel about the fact that many students have machines at home that have a technical specification that far exceeds the computers in schools? Does that mean all your computers are inadequate?”

School7/ICT co-ordinator: “Ah. But lets face it, they mainly use them for games and the Internet – it’s not the same thing at all really.”

Scenario 4

PM301

http://en.wikipedia.org/wiki/Executive_director

including for example: the Principal of the College for Further Education; Managing Directors and Corporate Directors from local businesses and local government.

PM302

Although I heard this stated by the CEO of a nationwide partnership organisation, I was not able to establish from where or whom this originated.

PM303

Interestingly, some meetings/venues provided opportunities for people to chat informally about ‘learning’. To some that might mean sharing with colleagues that: they were learning to scuba dive or attending evening classes; this learning may (or not) be regarded by their employer as important as ‘other’, ‘formal’, professional training and thus, duly recognised by them; these diverse interests and forms of learning could, or should underpin other negotiations occurring in formal meetings that were laying foundations for learning within or for the community. This matter became more contentious when certain people questioned the traditional, formal, more limited approaches to and attitudes about learning – e.g. when discussions focused on ‘learners’, it raised concern about who was a ‘non-learner’, whether the art of ‘bee-keeping’ or what might be construed as ‘tacit knowledge’ could be part of the overall configurations of and for learning.

PM304

In some cases, there may have been reasons for keeping facets of those incidental conversations ‘in mind’, in which I may have later recorded these in my field notes. Other comments might be incidental to the point that I made no conscious effort to retain them – though there are incidents that occur now that trigger a recollection of

experiences that may have happened when I was a teenager. The number of such interactions over the long time period of the research study meant that recording, prioritising, analysing all comments would have been impossible; furthermore, on reflection, it is uncertain if access to that level of data would have made a significant difference to the final synthesis. These everyday experiences, issues, doubts, are what helps us negotiate new circumstances, lay the foundations for or somehow relate to general beliefs and values; they allow us to be able to drive along an unfamiliar road relatively safely, or find appropriate forms of communication when meeting a stranger, or influence the way I might teach a lesson in the future, perhaps. While this might be construed as an 'ethical' issue does not mean that all decisions or forms of participation are, or should be solely determined by rules, codes or guidelines but rather by far more fundamental though dynamic principles that inform our personalities, social relations, and how we subsequently engage in future relationships – that is, according to the circumstances at the time. I did not repeatedly bring to the fore that I was engaged in a research study and ask permission to take note of what had been said, or implied. Partly because not all of my work was relevant to my study and partly because I do not believe that such an approach would have qualified or endorsed my integrity or behaviour, or advanced my ethical position.

LLP/ICT Report

PM305

The rationale or ideal that underpinned notions of cohesion, unity, optimisation, partnership, called for enhanced processes of negotiation, reflection and understanding. However, this reference to a 'shared view' was not intended to affirm notions or processes of normalisation in the sense of collective 'conformity' - that would in itself question the whole principle behind partnership. Rather, it referred to the fact that the group at this point in time, considered themselves a strategic forum, and which, through discussion, provided opportunities for others to understand the differences of role, purpose, function, of its members and membership. When I pointed this out to the group, with the comment that perhaps there was still some uncertainty about the proposition of partnership in the sense that some members had yet to decide whether 'differences' might be a strength or a weakness, and that would perhaps indicate what might then frame the partnership process, it was received in different ways: the public sector organisations such as the local authority suggested cohesion, unity and partnership demanded agreement, conformity and a sense of common purpose - "how can difference be a strength?"; others, tending to be from the private sector or small organisations, considered difference both a strength and inevitable. However, facets of 'private knowledge' political rhetoric, or ambiguous practice were also, it seemed, an inevitable part of the 'partnership' practice.

'Shared' at this stage was to suggest 'an openness', a disclosure of essential properties that could contribute to processes of mutuality. For example, the first three pages of the report were an up front way of illustrating to the members the range of activities in which the organisations were engaged, though not as a collective. Insights into those differences might then contribute to each of those developments or inform future partnership developments.

PM306

At the time I included this, I did not consider this suggestion cryptic, but an indicator of the inevitable change occurring which was in part contributing to the formation of the new partnership and that which it could promote as organisations cooperated and worked more closely. It was pointed out by one of the partners that first, it was "too obscure", and second,

"if learning within an organisation is inevitable and implicit, on balance it isn't worth worrying about - our organisation is under such pressure in what, how, why, when and where it provides learning opportunities for its beneficiaries, we simply don't have the time to navel gaze, we're ok so long as we keep up with legislation and other changes we have imposed upon us". (B5/CEO)

PM307

At least one, if not more organisations were actively engaged in one or more of these developments. Several organisations however, inevitably did not know what some of the terms, or activities were, or agree on their interpretation, which was of course, the point of the list (e.g. 'access and entitlement' meant to one organisation, 'for its employees', to another 'for its beneficiaries'; while some organisations understood 'telephony systems' counted as a part of ICT, it held quite different levels of priority or interest, perhaps due to levels of investment, technical understanding or prior reflection, or organisational structures and responsibilities - at that time, several organisation had IT departments that were solely responsible for 'computers and networks - not including phones networks and systems). It is not possible to establish from the list which sector was most interested in which development.

PM308

While many of these are 'obvious', it was felt that "the statement still has to be made as some organisations like to forget". Perhaps it says something that this comment was made by a small organisation.

PM309

This comment was a deliberately ambiguous reference to those 'wider interests and efforts that may optimise and enhance opportunities' irrespective of how these fit with those of the organisation/s or partnership. Clearly, there were histories/baggage that would not easily disappear; Also, crucially, the ways in which organisations were 'empowered' to interpret and respond to 'opportunity' was very different, hence radically influencing their interpretation of the term and associated processes.

PM310

This raised a comment that “learning is not about control, but equally you can’t have a system in place that is responsible for learning which is anarchic”. Just why the LEA felt the need to make this comment was unclear, as the clause was endorsed by other organisations at the meeting.

PM311

This comment took rather a lot of explaining and had to be handled with some care. It was a reference to the influences of technology on social change and the new opportunities for learning, empowerment and the (new) relationships that were being constructed for example, between ‘education’ and ‘entertainment’, between ‘leisure and learning’, etc.

PM312

At this time this was simply acknowledged as an inevitable facet of partnership - that is, any social interaction between people or organisations. However, it was in part, also framed by the evolving view about the relative importance of certain partnerships - for example, between strategic and operational partnership ...

PM313

It was felt that these comments needed to be made as the nature of evolving partnerships would lead to new contexts being formed and reformed - the evolving position of the group was known to the group at that time - within a space of 12 months, many of the representatives had changed, thus shifting the knowledge and meaning represented by that community of practice.

PM314

While the composition for a LLP was largely set out by central Government, the emphases within the group was determined locally. e.g. some organisations took a very active role in ensuring that the groups were driven by business, rather than local authority or schools, a key argument being that business not engage otherwise. Another, less explicit reason being the attempt to avoid associated bureaucracies ...

PM315

This was intended as a polite reference to the huge differences between organisations’ understanding of ICT (ranging from *very* basic through to large scale infrastructural development) and/or experience in strategic practice at multi-organisational or multi-sector level by the members.

PM316

This point adds a further perspective to its predecessor. Ideology/aspiration starts somewhere - it seemed to some, that government policy rhetoric and documentation is not necessarily the best place. It was apparent that some members were skilled in the rhetoric but had limited technical understanding of ICT systems or its consequences.

PM317

the purpose behind this Report

PM318

It emerged that there were several facets to this development: first, understanding, or coming to terms with the issues presented within the Report; second, agreeing; third, having sufficient insights, vision and wherewithal to do something ...

PM319

This mission statement was considered to be feasible. It 'made sense' to bring together, evolving developments to 'optimise resources' in order to 'add value' and become 'more than the sum of the parts'. The college was developing technological systems that were different to those being developed by the schools, the council, and other organisations. Technically, it was possible for those technical systems to fit - they were largely speaking, sufficiently 'compatible'. They never did - not because of the technical capacity or compatibilities but because of the (in)capabilities and (in)compatibilities of the technological systems on which they were supposedly dependent - that is, human organisational systems

PM320

Further explanation about the research processes are outlined in the [Research Section](#).

PM321

These 'assumptions' were defined as it helped determine who would contribute to the audit - the Report would be better informed if the people informing it: had a strategic understanding of their organisation, and how ICT related to its organisational aims; would understand the terms of the Report; were in a position to handle that information proactively.

A finding that emerged was that, with only a few exceptions, the people who were influencing ICT policy at senior management level, and were members of the LLP/ICT group had a 'limited technical understanding' of the issues concerning ICT. This point is discussed more fully in [Scenario 5](#).

PM322

There is an element of truth in the statement, though it was not that simple. The analysis led to a categorisation of terms and issues and from these, a plan of how a proposal might be formulated. However, due to the general outcomes of the research, it was felt that the positive outcomes and potential needed to be highlighted, rather than those issues that were perhaps more controversial and not issues that would be addressed by the LLP/ICT group. Hence, the points, negative and positive are 'wrapped up' in terms that would not be too controversial.

PM323

Conversely, many views and interpretations of learning within or at organisational level are implicit, or collaborative, or competitive. The point however, was that some organisations did not appear to be concerned with 'embedding the learning culture in every community as a commendable goal'. This led to two research questions: 'for whom does a provider provide', and 'what evidence is there for 'interest in learning' - not so much in that of the beneficiaries, but of the stakeholders themselves. Another point intended to lift the notion of 'organisational level' from the insular, inward looking organisation to one that is more outward looking and collaborative. The intention was to use the Fryer quote to convey this message - 'Fryer made the comment', not something I could say under the circumstances.

PM324

This comment was discussed at some length. On one hand it simply referred to the policy statements for inclusion and access to learning. On the other hand, a purpose of the group is to consider ways and means of widening access through ICT. As pointed out later in the Report, at that time there was insufficient development, or insight to enable this to occur. For example, the LEA were emphatic that schools should all become part of an intranet 'for security', while schools commented that they would therefore have both systems so as not to be excluded from wider area networks - a view endorsed on account of the council not having an internal email system that was reliable ...

PM325

This was a difficult issue to address as the audit covered many different teaching and learning styles - face2face, virtual, distance or remote, chalk and talk, open-ended / constructivist, etc. Certain observations that could not contribute to the debate were to varying degrees, informed/stereo-types, but nevertheless, embedded within and across the different community of practice:

"Part of the problem with education is that it has been taken out of the hands of educationalists and into the hands of politicians. The business community are not helping this much" (B2/Senior business manager/2)

"The trouble with teachers is that while they might know quite a bit about teaching strategies, they often confuse this with learning strategies". (School 6/HT)

Surely the art of good teaching, whoever, whatever the age, needs and interests of the learner, is a matter of ensuring that there is some 'fit' or purpose to which the learner can relate" (EBLO2 manager/2)

PM326

Most organisations within the partnership had by this time largely realised that many proposals seeking funding relied on joint bids in which there needed to be explicit indications and targets re collaborative working and project implementation between the organisations. An declared aim of the partnership was to facilitate such proposals and generally, new proposals were successful as the organisations complied with the new protocols. One major issue that was very difficult to overcome concerned which organisation was to be the 'lead organisation' or 'contract holder' - the perceived power (e.g. in the form of control, ownership and authority) associate with this, was on occasions highly problematic. This matter extended across new partnership proposals (for example a bid to the Community Modernisation Fund did not reach completion due to a particular organisation withholding information that was crucial to the bid) and also to established projects (e.g. the LEA openly declared their ownership of the RCP, even to the point of recruiting staff without discussing this with the EBLO).

PM327

This statement is a 'mixed bag' of ambiguity - 'addressing' the issue can mean many things. For example, there was great activity in declaring widening participation as this was all part of the learning agenda and associated rhetoric. It was particularly relevant to the college's interest of recruiting a larger client base. However, the college was also acutely aware of the difficulties of recruiting from rural areas, 'non-traditional learners (that is in the academic/vocational sense), and the further difficulty of attracting businesses to invest in learning opportunities for its workforce. Furthermore, the college had huge problems of encouraging its own staff to engage in training courses. While the aspiration was to considerably extend the number of participants in learning, it became clear during the audit that not one organisation within the partnership had audited its own staff in any ways - they did not know what its real needs, interests or current/aspired interests in learning were and therefore, its knowledge in addressing the issue was weakened.

PM328

This comment was also a pointer to those senior managers who assumed responsibility for strategic change and development of ICT within their organisations that: a) it was clear from the audit that in the majority of cases at this time, many organisations had no formal ICT policy, (or were unaware of one). Within many organisations it would appear that ICT development (other than sanctioning investment in systems or training) had largely been left in the hands of 'others'.

PM329

It was pointed out during the presentation that while there was an assumption that the term 'compatible' was often as a generic catch-all (rather like the term 'learning' - 'everyone' seems to know what it means irrespective of whether or not that interpretation is common), there were many political or technical issues behind the term that largely rendered it 'unhelpful', even meaningless. Behind this view, and not discussed in the meeting were a number of activities that were challenging the practice and interpretation of partnership. At that time, for example, the LEA were pressing for the local schools to conform to one manufacturer, with a proprietary set-up, one ISP by using the argument of 'compatibility' - something that some schools understood within the terms expressed by that argument, by other schools as technical and political nonsense. Likewise the Unitary Authority and the college were competing in setting up a wider area learning / community network - one arguing that their two systems were technologically incompatible, the other arguing that the incompatibility was little to do with the technology. Again, 'shared' did not mean 'agreed'.

PM330

This was and to some extent, still is a major issue. At the time, some of the more open-minded and technically aware educationalists were aware of the fuzzy borders between entertainment and education - a newly coined phrase, that was worrying for some, was 'edutainment'. The technological advances by some companies who recognised the potential interrelationships (e.g. Apple Computers, Sony, and media giants such as the BBC, Carlton, and Time Warner (who later merged with AOL). Another key aspect to this point is the question of what was 'really' influencing the emphasis on ICT in education or, to put it another way, the key instigator of change. Education tends to respond to change quite slowly in comparison to other sectors, or society - and comments were being publicly expressed that education was simply 'not keeping up'

PM331

This point was to highlight the divide between what employers considered sufficient or adequate to meet current need, problems of investment, the issue of who had access to what, and when or why. In some organisations, staff were unhappy with the quality of available resources or training, not equating to what they might have at home, or to the fact that despite the significant investments being made in education on ICT, access by pupils, adults and the wider community were still very limited.

PM332

This was a reference to the difficulties being faced by for example, (though not exclusively to) schools, insomuch that they were being informed at that time, that a condition of purchase of ICT resources via NGfL funding was the inclusion of facilities enabling internet access. However, schools were also being bombarded

with ambiguous information about security, LANs, WANs, webs, nets, white and black lists, protocols, policy, ISPs, etc. some of which were motivated by the aspirations of the LEA towards systems they did not have in place, the college who were in the process of making available an open integrated learning system (OILS), and both proclaiming significant web site developments that would address the needs and interests of each other's beneficiaries - depending on 'privileges'.

PM333

Following on from the above comment, the emphasis was not so much on the rate and extent of technical development, but rather on the nature and level of collaboration, compromise, ownership, etc.

PM334

These points had two reference points: first, the implications of providing schools with hardware/software prior to any significant training; the huge investment by the college in ILT despite the dearth of experience/expertise in providing training internally or externally; the attitudes of employers to workforce training - working to current capacity/need, employment trends that suggested a preference to recruit appropriate skills, the principle of pushing the inadequacies of the workforce/ICT skill base onto the education sector ...; second, the subsequent need for consolidation/optimisation of the newly developing infrastructures that could enhance the economies of scale, off-set the clear difficulties being faced by those sectors, and the issue of insularity ...

PM335

But some members wanted answers / solutions - irrespective of how well they understood the question ... or the issues, or whether the answer was wrapped up in these questions ... Of note is the relationship between those politically motivated, though technically illiterate members, and the technically minded, though less politically motivated members - each enjoyed their own games of ambiguity that their respective practices/discourse afforded, but were less appreciative, even suspicious of not being sufficiently conversant to fully engage in the other's ...

PM336

During the presentation, references from these and other documents were interlaced through the following points.

PM337

This is not what some members wanted to hear. It took control away from those that assumed that strategic infrastructural change offered. Without making that point, instead, I provided a reference to the worldwide web and the internet, pointing out the difficulties of 'turning it off', 'regulating it' 'owning it' or determining on others behalf, precisely what purpose it served. Such points were also indicators to

institutional mind-sets, to facets of ownership, control, power, and to complexities of teaching learning strategies that could be empowered and liberated, to varying degrees, by various technologies, thinking and practice ...

PM338

I made two incidental points at this stage of the presentation:

1) Some years earlier, when teaching in a middle school, the pupils conducted a survey concerning the extent of ownership of entertainment technologies (VCR, TV, CD/Hi-Fi systems, etc.). Three years later, when revisiting the school as a supply teacher we conducted the same survey. Not only had the level and expectation increased considerably over the short time period (e.g. the numbers of TV/VCR sets per household had increased threefold), but students attitudes to compromise had also shifted - they were no longer obliged to watch what anyone else in the family wanted)

2) The notion of anywhere, anytime learning, particularly as it becomes not only a tangible reality for more people as they gain greater access, has important implications for the ways that organisations might consider 'community based learning' or adapt their interpretation of what knowledge and understanding people 'as a community of learners' bring with them to traditional learning environments, and therefore, what they provide, and how they might draw on / relate to those knowledge and skills. (see points 26/27)

The question for them was to consider the 'fit' between what the technologies enabled within current/traditional or future/potential systems and environments.

PM339

An unfortunate interpretation of this was that some members thought this was a ploy for me to take on that role of project manager. This then stood in the way of its true intention - the partnership comprised volunteers who, through goodwill or strategic/institutional rationale demanded participation. Most people were really too busy, or had vested interests in specific facets of this Report. It was already apparent that this was not a suitable proposition for taking the vision forward. Three years later an overall Partnership manager was appointed.

PM340

This point was rather like that of John Major returning from an important meeting. When asked to sum up in one word how the meeting went he replied, "Good!" When asked to expand on this he replied, "Not good!" There were by this time, examples of different organisations having projects with common (not shared) funding streams, aims and beneficiaries. Evidence suggested that 'loss' of funding to a local competitor represented to some organisations, the same predicament as that same organisation gaining funding to which the competitor was not entitled. (e.g. the LEA could not at that time apply for funding from the NLCB for funding ICT projects in

schools, the EBLO could. This was seen by the LEA as not beneficial to schools! ([Scenario 3](#)). The college was *investing* in a large scale community based web site, that incorporated new learning opportunities, links to library and other resources, The Local Authority were also *planning* a similar development - neither was considered 'helpful to the cause' of the other. A local company was setting up a large ICT business/staff training facility - this was not considered helpful to the college's current investment in ICT Learning Centres being established in various high-street locations). Each 'knew' about the other - proposals for each side to become more informed and contribute to such developments were being met with different forms of political rhetoric rather than positive action. (see points 22-25)

PM341

This proposal was made separately by some of the business and education members - within the presentation/discussion it was disputed: a) reservations about the 'relevance' or incompatibility in training people from two different community of practice, b) each sector considered they had means available of addressing the specific problems of their practitioners. The reality was that few organisations had conducted a staff audit (skills or needs), had the time/resources to meet those needs (see [Scenario 1](#), [Scenario 4](#))

PM342

This 'mixed bag' of 'unclear points' were references for those organisations that could clearly relate to those references - there was no mileage to be gained from publicising inadequacies in current organisational systems and how these did or nor relate to aspirations, vision (or lack of), means (or lack of) ... Rather, it was another attempt to stress that there were similarities in the difficulties being faced by the organisations (e.g. lack of funding, resources, time, coherence, vision or whatever) and that considering the optimisation of ICT systems need not begin when they were in place

PM343

A huge understatement disguised as marketing.

PM344

This was declared "a jolly good idea" and never happened in the way being proposed. For example, developments occurring in Sunderland were pointed out to the college, they went and reported nothing to other organisations; ICT developments of various kinds that informed NGfL were pointed out to the LEA who then went to Cumbria, Birmingham, Bristol, and Highdown, but reported nothing, even to its own NGfL Development Group; a member of the LLP/ICT group went to several developing community learning centres (Crickhowell, Rutland) and only reported to their own organisation; a meeting was arranged with a large telecoms/internet service provider under the partnership banner - the meeting date was shifted several times by one of the partners, while in the mean time privately

negotiating 'a deal' that could give them significant advantage ...; one project development in development that had particular business sensitivities associated with it was 'shared in absolute confidence' with a few members of the LLP was, within minutes of that meeting emailed across one organisation's intranet, seriously jeopardising a million pound community project ...

PM345

This was partly based on the notion that: "the expert never lives on your doorstep", and that some participants responsible for strategic ICT development had limited experience of other project developments that largely underpinned their own project developments ...

PM346

A real difficulty that some organisations had with this proposition was: a) understanding the actual/potential relationships between 'alternative' technologies and how these were being absorbed by society, with the (more traditional forms of learning in which their organisation was engaged; b) wary of business domination of facets of learning that were traditionally the responsibility of others ... Several years later, the systems put in place by those organisations were closed networks whereby pupils and staff continued to experience difficulty of access from home into school/organisation networks and systems. This was a point of frustration for staff and largely dismissed by pupils ...

PM347

In the presentation, I clarified this by making a distinction between a purely subjective, personal view and that outlined in the report, which was informed by contributors with different roles and responsibilities within the participant and other organisations. For example, when I was commissioned by the LLP/ICT group, the expectation was that I should predominantly interview the members of that group - most of whom were senior managers for those organisations or their ICT Projects. They did not expect that the report would incorporate references to other developments (e.g. Fryer 1997, NGfL, EDSI, QUILT, Eu-schoolnet, Stevenson 1997, McKinsey 1997, recent TTA/NOF developments, etc.), largely as there were unaware of them or their implication. Similarly, I had professional links with various businesses that were involved with similar ICT project developments in other parts of the country who provided additional insights.

PM348

Within the presentation, I revisited the principle of ethics from the perspective of research as someone engaged in PhD research and as a co-participant within the group, and the issue of juggling potential biases. I reminded the group that I had covered this point at the beginning of each of the interviews. (see [Research Section](#)) Nevertheless, it could be argued that a 'balanced view' is technically, unachievable within such a pluralist, potentially, heterogeneous context.

PM349

Unfortunately, documents identified in points 1, 2, 6, 7 and 8 cannot be included in this Thesis as by the time the identifiers to organisations, people and projects are removed, they become worthless to the debate. Appendices 4 and 5 are discussed more fully in the [Research Section](#) as this research contributed to the formulation of the perspective and approach for the overall research study.

Swot's it all about then

PM350

Not so much a question in the sense that this particular practitioner group would be accustomed to SWOT as a compatible analytical/planning device; 'then' signifies both justification and future ...

'SWOT's it all about then' reflects on participant action outlined in 'Shifting sands' and 'Interim Reports', particularly how it relates to 'strategy' as framed within the context of this Scenario / community of practice. In particular it draws upon a model (OAR/I, Fig 29) presented in Scenario 5 in order to provide a foundation upon which relevant issues are explored. These principles were enacted throughout the various scenarios.

Also, it should be noted that this cluster of concepts representing a form of action in context falls within a large model (K-OS or-Knot, Fig 31), which represents a wider range of issues and action encapsulated within this case study.

The schema (for this scenario) embodies participant action across a number of interweaving strands (strategy, SWOT, analysis, as situated by modernism, symbolic-interpretivism, postmodernism), as a form of praxis ...

Although analysis occurs as an integral part of the overall document, two further forms of analysis are provided:

1 a review of strategic participant action as defined by them (pre/post Report) and including reference to subsequent 'action' (given the difficulty of defining or relating to prior 'action' when it is termed 'strategic' (ideological or even aspirational might be a more apt description!).

2 there is the matter of situating the research for the ICT Report, within the context of the wider research study (entitled Micro/macro/meta). On one hand, I collected/analysed data that was interpreted to form a Report, which I have analysed/interpreted within the contexts of:

- a) itself (both as part of the original text and also in the later annotations),
- b) the circumstances at that time,

- c) the report (which then became a form of data/reification[0])
- d) the scenario,
- e) the study, and
- f) the thesis.

Conversely, it would be antithetical to have done this as a kind of SWOT analysis in the conventional, modernist sense – instead I have identified ‘issues’ or ‘findings’... mostly ... or let it stand on its own statements ... However, much of this analysis/interpretation is not explicit in the sense that it is not conveyed within the suggested structure, mainly because the layers of analysis / interpretation are integral to the various narratives, strands, and layers of meaning – to extrapolate and restructure these misses the point ... it is a holistic representation of research action as experience, data, analysis and interpretation in a truly reiterative sense.

PM351

Historically, this was a means of recording sound to vinyl. Advantages arose from the benefits of being able to record and play back sound; disadvantages arose from the plethora of different standards for playing back sound such that there was no guarantee of compatibility between the record and the player. (Millard, A. (2005) *America on Record: A History of Recorded Sound*, Cambridge University Press, Cambridge; p125). This metaphor points to the matter of ambiguity, semantics, and pragmatics, whether associated with my own research methodology, interpretivist or narrative styles (which are discussed in the Research Section) and/or the inevitable mixed and multiple readings, interpretations and perspectives within the co-participant group.

PM352

This finding was consistent across numerous organisations, projects and developments throughout the duration of the study. (Refer Scenarios 1, 2, and 3; also Wilson & Charlton, 1997; Mehan, 1996; Stern & Sommerland, 1999; Engestrom, 1999; Senge, 2000.

PM353

Organisational Theory that focuses on power may reflect for example, the ability, skill or capacity to control and influence; perhaps exercised through political, physical or financial power; to be able to influence other people and determine their actions, judgements or emotions; to have or assume authority.

According to strategic contingencies theory, power derives from the ability to provide something that the organisation highly values and that can only be obtained through a particular social actor, for example an unusually high level of performance, an irreplaceable skill, or a scarce and critical resource. The ability that is arguably the

most valued at the interdepartmental level of analysis is the ability to protect other organisational actors from uncertainty (Hatch, 1997; 305)

Also ref: Mintzberg 1983, Punch 1994, Clegg 1989 and 1990, Handy 1986

PM354

'two different types of ethical theorists:

- 1 *Ethical teleologists maintain that actions are to be judged good or bad by reference to the end to which they aim, while*
- 2 *Ethical deontologists maintain that an action is good or bad, right or wrong, by something within the action itself.*

Vardy & Grosch (1999; 77)

PM355

One modern approach that attempts to overcome the seemingly impossible divide between deontology and utilitarianism is case-based reasoning, also known as casuistry. Casuistry, as a modified form of applied ethics, does not begin with theory, rather it starts with the immediate facts of a particular case. While casuistry makes use of ethical theory, it does not view ethical theory as the most important feature of moral reasoning. Casuists, like Albert Jonsen and Stephen Toulmin (*The Abuse of Casuistry* 1988), challenge the traditional paradigm of applied ethics. Instead of starting from theory and applying theory to a particular case, casuists start with the particular case itself and then ask what morally significant features (including both theory and practical considerations) ought to be considered for that particular case. (www.wikipedia.org/wiki/Applied_ethics)

PM356

We tend to think of ethical disagreements as disagreements over principles. Often, though, moral disagreements are not so much disagreements over fundamental principles, but disagreements about their application to a particular problem

LaFollette, 2002; 338)

LaFollette stresses that

'we should not assume all deontologists or all consequentialists will reach the same moral conclusions about a particular moral problem. Ethical theories do not determine exactly how an advocate will evaluate any particular moral issue. Instead they accent what that person takes to be morally relevant, morally significant.' (ibid)

Scenario 5

PM357

The diversity and changing permutations of the roles and settings defied the proposition of ascribing those for each participant within the research study group. Nonetheless, there were different forms of emphasis with regards to whether participants were largely situated within one particular sector (e.g. education, business, or government) or multi-sector partnership groups. In this respect, there was a distinction between the strategic partnership groups that sought to bring those different sectors together, those partnership groups that predominantly operated within one specific sector, and finally, a few members who regularly negotiated with organisations from each of those sectors on strategic and operational matters.

PM358

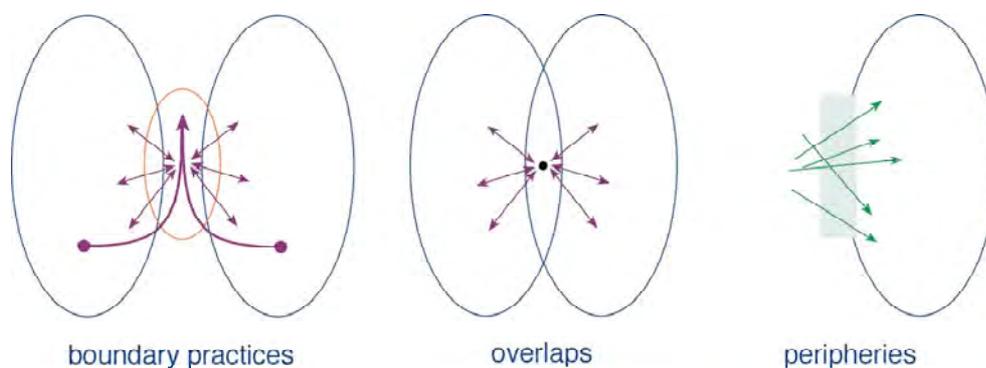
For example, a manager in education, or business, or a voluntary sector organisation who participated in teacher groups, business sector groups, and local community groups respectively.

PM359

... such as the Steering Groups for the Lifelong Learning Partnership and the Rural Communities ICT Project.

PM360

re the multifarious relationships as individuals 'wore different hats' and operated within and across different settings relates to various terms such as broker, bricoleur, agent, and so on. Essential qualities of handling distributed information (ref Cilliers 1998; 68, Hatch 1997; 91, Wilkes 1997; 29, Weick 2001) through partnership transactions are aptly represented by Wenger's illustration (Types of boundary encounter):



Wenger (1998; 113) Fig 4.2 Types of boundary encounter

C2. Wenger's 'Types of boundary encounter'

These illustrations are informed by facets of Social Network Analysis (SNA)- see Scott 2000, Wellman & Berkowicz 1988, Waltz & Feldman, 1988). Also refer Wenger (1999; 113); Further supported by key findings in Mehan's research (1996) re partnership interaction occurring between three different practice bases.

This principle of 'brokering' may also be conceptualised in terms outlined by Hatch (1997; 63) and Strati (2000), Nonaka & Takeuchi (1995) in terms of distributed nets or virtual, self-organisational configurations.

PM361

Without compromising ethical practice, one example of this is that I had insights into the proposed development of the National Grid for Learning (NGfL) prior to this becoming public. Through my contacts, I was informed, by them, about strategic issues where they were able to divulge information without compromise.

PM362

Within a partnership meeting intending to 'share good practice', many organisations would play a very careful line between disclosure and non-disclosure of facts, processes, intentions and so on. For example, it was not uncommon for the LSC to contract with an organisation to provide events that intended to increase participation in learning. In the case of organisations such as the EBLO and the College of Further Education, that funding represented a small percentage not only of its overall funding that would be derived from many other sources, but also, represented a small percentage of similar forms of activity provided by those organisations. A point of contention was whether the EBLO and College 'should' (as claimed by the LSC) report all outcomes from that form of learning activity or only those arising from the contracted funding/activity. On one hand the data hungry LSC 'wanted the data', while on the other hand, the other organisations were highly protective of other essential funding streams and associated data - sensitivity about (non)disclosure might be construed as 'technical', 'ethical' and/or commercial issues.

PM363

This matter of organisational ethics was complex. In one sense, employment law set precedents for conditions of practice. The 'organisational system' also provided indicated 'a position' about, for example: organisational anonymity (whereby the 'individual' was a 'representative' of 'the organisation' and (theoretically) not him or herself); and bureaucratic or 'institutional rationality' (Reed 1992, Wilson 1997, Mintzberg 1983, Clegg 1990, Handy 1986, March 1965, WTO). 'In bureaucracy, anonymity is intrinsically defined and morally legitimated as a principle of social relations' Berger, Berger & Kellner (1974, 53-61). Thus, a 'participant' might be construed as 'a person' (alluding to some freedom and independence from organisational systems and principles), and/or as 'a representative' of an organisation (a 'spokesperson' for that organisation). It was not uncommon for a

public reminder that ‘comments were not to be taken personally’, pointing to the distinction between ‘personal’ and ‘professional’ forms of engagement.

Nonetheless, a key observation from the research was that some organisations were hugely frustrated by the complexities of ‘(non)disclosure’ within a ‘partnership’ setting such that it influenced behaviour and conduct of participants: claims by one organisation that the practices of another were ‘unfair’, ‘illogical’, ‘contentious’ or ‘dodgy’ were largely put down to being part of the political gambit and/or reference to its lack of control over the decision making of others – a problem that was, for some, irreconcilable.

PM364

There were generally stated organisational aims that: affirmed the principle roles and responsibilities of participating organisations and their representatives; that there was a common sense of purpose in achieving the stated organisational aims.

PM365

Of this sum, the capital expenditure in each school was approximately 50% of the total funding, the remainder contributing to revenue costs such as tutors, a Project Manager, consumables, etc.

There were 60 primary schools within the local education authority, of which 6 primary schools were recipients of new ICT resources provided under the auspices of the RCP. In addition, four other ICT community learning centres were established, one of which was located in a secondary school, the others in community centres.

PM366

	Pre-school	Prim	Sec	Charities	Other	Suppliers	Other supplier	Total
Year 1						3	1	
No of PCs		80	20				24	100
No of Orgs		80	11					91
Year 2						3	1	
No of PCs		101	75	26			36	238
No of Orgs		28	7	9				44
Year 3						4	1	
No of PCs	38	133	60	75	26		56	387
No of Orgs	18	20	6	12	2			58
TOTAL	56	442	179	122	27		118	918

Other Resources
 4 x LCD Projectors, CD-I, 5 x Laser printers, 120 x additional monitors, 3x OHP

C3. Computer allocations

While this chart suggest that, on average, the secondary schools appear to have received ten computers each, 30% of the schools did not engage in the scheme and the number of computers allocate to the remaining 70% was unequal. Similarly, in

the primary schools the average number provided per school varied between two to 15 computers.

PM367

Here, and in the following points three and four, the figure of percentage given does not only refer to the four schools reported in the Scenarios but to the total number of schools participating in the one particular community ICT Project (RCP).

PM368

Criticism was largely levelled at 'things that didn't work, such as printers not working (due to pupils switching the settings to 'off-line'), 'broken' digital camera (uncharged batteries), unable to log-on ('caps lock' or typing errors), loss of work (through poor file management), etc., most of which would have been rectified with some basic training. None of these problems occurred in evening sessions with the young people or ICT tutors.

Other criticism emanated from more technical issues pertaining to ISDN and ISP, such as: phone line failures, or a school not keeping up with the payments to the ISP and then accruing very large phone bills due to the router attempting to connect to a barred service. In every case, the school suggested that those problems should have been anticipated and resolved by the EBLO.

The 'demonstrable' nature and extent of the participants' ICT knowledge and capability was accrued through different forms of observation, monitoring and negotiation over a period of up to four years. Over this entire period, not only did the participants demonstrate their knowledge and use of the ICT resources in terms outlined in Scenarios 1, 2 and 4, but also through the nature of the work in which the pupils were 'permitted' to engage. Perhaps more significant was the lack of change over this period, that is to say, the pupils' activities and teachers' comments were much the same from Year one onwards.

PM369

While the Headteachers generally admitted that they were not particularly competent with ICT, they presumed that their ICT coordinators had the capacity to provide adequate training for school staff. The ICT coordinators generally did not receive external training and yet they admitted that they did not consider themselves to be conversant with the computer technology.

PM370

Attempts by the EBLO to dispel such 'doubt' by inviting the Senior ICT Manager responsible for NGfL to join the Project Steering Group was greeted with 'thanks', though his/her subsequent non-attendance at any meetings was attributed by that person to "a very heavy work-load" ...

Doubts about the overall EBLO contributions in schools were not confined to ICT projects but covered all facets of its work and increasingly found new forms and outlets. (e.g. LEA complaints regarding the conditions of responsibility that the EBLO claimed to be a statutory obligation of the LEA in ensuring the welfare, insurance, health and safety of its pupils during work experience placements.) Coincidentally, there was a significant and rapid decrease in those explicit, severe 'reservations' when one specific member of staff was seconded to a different LEA.

PM371

Refer: [Terms & Conditions](#), [Reading the small print](#), [Scenario 3](#).

PM372

Research into or highlighting the issue of teacher confidence and competence in relation to ICT has been reported in research studies such as: Zakopolous, (2001); Drenoyianni & Shelwood (1998), an investigation into primary teachers' perceptions and use of computers in the classroom.

Ridgeway & Passey (1995) who reported that surveys of teacher attitudes and structured interviews show that 'a large number of teachers make little use of computers in their teaching, and that a significant number actually express a fear of the new technology' (p60).

According to the Newcastle University (1999) research report,

When development takes place a teacher starts to act outside this central area of perceived competence. This could be as a result of new knowledge, or attempting to try out new strategies and behaviours in the classroom. The change easily leads to feelings of discomfort. The resulting tension can mean that the aims of development are not achieved as a teacher struggles to act in the area of perceived 'competence'. If assimilating new knowledge or new teaching behaviours is too challenging then the easiest way to achieve a feeling of competence is to return to the previous comfortable state and reject the change. (Newcastle University, 1999a, p. xiii)

Other research studies proffer similar comments regarding teacher competence and confidence (e.g. Offir & Katz, 1990; Cox & Rhodes, 1990). Some reports were not judgemental in the sense of being critical, but rather presenting of a teacher survey that presented from their perspective how they felt about ICT (e.g. BESA 1998-2002). Reference to teacher motivation or beliefs is also incorporated in other literature (Loveless 1996. Selwyn 1997, Davis 1997, BECTa 1998-2002, NIAACE 2000) though authors generally handled this in a more aspirational sense of expressing the virtues of ICT within educational contexts, perhaps in the hope that teachers might then begin to appreciate and perhaps then invest positively in exploring that potential.

PM373

Dwyer (1996), Lortie (1975), O'Donnell (1996), Dexter *et al* (1999)) each report findings that build relationships between the notions of freedom, risk taking, teacher confidence, instructionism and constructivism, whereby the teachers enthusiasms, commitment and 'envisioning' (Dwyer, 1998) have some influence on the nature of integration of ICT and what this then empowers:

Teachers who are enthusiastic about ICT are likely to favour pupil empowerment as learners and probably like children to work collaboratively. However, it is the teachers with the best-developed ICT skills who are the greatest enthusiasts. Those with negative attitudes about ICT are likely to be more directive in style or may prefer children to work individually without ICT. These differences in thinking, skill and attitude clearly have implications for development and training for teachers in using ICT across the curriculum. (Newcastle University, 1999a, p. 93)

Other consistencies from my research occurs with the findings in the Newcastle 1999 ICT Report, Offir & Katz, Guile, 1998,. Underwood (1997) in his research regarding student teachers further highlights the issue by commenting that 'student teachers characteristically claim that their reluctance to use IT to support their teaching is due to a failure in their formal training which they describe as 'at best inadequate and at worst non-existent' (p155). Underwood considers that the majority of student teachers are receiving inadequate training because tutors are not confident in the use of technology and they therefore provide poor role models.

Education literature that aspires to the effective integration of ICT (e.g. Somekh (1997), Stager (1995) Guile (1998) endorse the point expressed below that:

Enriching or changing teachers' practice is a long process, especially in the field of ICT, for which many years are often required before teachers gain the confidence necessary to use ICT imaginatively in their classrooms ... teachers must be committed to envisioning how they would like students to learn and work with ICT in their classroom, and to provide opportunities for them to experiment with ICT that are located in classroom contexts. Taken in combination, these approaches will assist teachers to model the same process of learning in their own professional development, which they will expect their students to develop in their studies. Thus, they will gain a more profound understanding about learning with ICT. (Guile, 1998; 49-50)

PM374

Reference other case studies, literature, etc.

PM375

An overhead of technological innovation is its inevitable short-lived 'shelf-life' when the criteria for judging the relative value of the technology is simply based on specification, particularly as this is not only rapidly changing, but also at an accelerating rate. If a school's ICT capital budget of c.£2000 per year currently enables the purchase of, for example, three computers per annum, and the life expectancy is three years, then they are faced with an irresolvable problem whereby that school can never own more than nine computers that are deemed sufficiently up-to-date.

PM376

These sets of diagrams or models are abstractions that do not follow the implied linear narrative path as suggested by the numbering sequence. While these Building Blocks can be seen as abstractions from a hierarchical frame, they are more dynamic in the non-hierarchical sense that model one can be subsumed by model two and *vice versa*. Hence, greater value can be gained from these models by considering them as components of a complex system where the meaning of the entire model (and/or its components), shift according to its relationship/s to other models. The narrative naturally flows *toward* the model 'Technological perspectives' (Fig 30) and 'K-OSorKnot' (Fig 31) though the outer terms (learning systems and organisational needs/interests) sit equally well *within* the centre of the model, just as the entire model can sit within the model 'LOP/ICT' (Fig 38) or in the centre of the 'Partnership Concept Map' (Fig 79)

PM377

While these terms represent conceptualisations that held meaning for the participants, it was not possible for me to establish how these terms were made meaningful by participants, other than by observing their use of the ICT resources and discussing aspects of ICT with them. As presented in the other Scenarios, the participants expressed their understanding of the terms and how these might be applied through action in very different ways. Further, as the meaning of any term within the model acquires meaning from the other terms and new categories and schemas potentially evolve, the texts referring to the models, uses the word 'term' or 'component' rather than 'concept' or 'category'.

PM378

This model serves to illustrate the proposition in terms of balancing the nature of the issues that emerge solely from the inner relationships and/or as framed by the outer questions. For example, the inner terms take on different meanings when the associated considerations are taken by an individual making decisions pertaining the purchase or use of a computer in his/her own home. The output from the model will again differ when details being considered are being taken by, for example a strategy group such as the NGfL Steering Group, a school, a technician or a teacher.

PM379

One example, working from the centre suggests that a solution may be reached by: defining the nature of the ICT equipment (computer), which, if of a sufficient specification (Pentium xx), and in conjunction with training, can meet curriculum needs. Conversely, the 'curriculum' dictates that a computer should be incorporated and thereby possibly require the training of staff to meet the technical demands of the new equipment. Such linear processes may be determined perhaps by either the depth of knowledge or time spent considering the details for each and how these contribute to an overall, informed picture. My research findings indicate that: a) implicit forms of encouragement to think in this linear fashion may be derived from curriculum and ICT policy documentation (e.g. BECTa/NCET 'Toolkits' or curriculum 'tick-lists', policy proformas (where the school or department 'fills in the gaps' to give some superficial form of identity or ownership to that policy); b) constraints through lack of time, funding, or knowledge of a single facet potentially weakened the formulation of outcome informed by the collective. Similarly the components may not have been considered fully due to other participants taking some of the decisions without informing other participants about the rationale leading to that decision. (e.g. the EBLO provided the equipment without discussing with the teachers what the technological principles were that underpinned the decision; the Headteacher took the decision regarding who would provide the training, often without discussing this issue with the EBLO or the ICT Coordinator; some of the teachers increasingly felt the decisions regarding the curriculum (content, management, pedagogies, methods, etc.) were 'being taken out of their hands'. This fragmentation in decision making process was a common feature of many partnership transactions within the study.

PM380

i.e. each single term/concept, or group of concepts, or the relationship, or the system.

PM381

A central problem for cognitive science is to understand how agents represent the information that enables them to behave in sophisticated ways. One long-standing concern is whether representation is localized or distributed (roughly, "spread out"). Two centuries ago Franz Josef Gall claimed that particular kinds of knowledge are stored in specific, discrete brain regions, whereas Pierre Flourens argued that all knowledge is spread across the entire cortex (Flourens 1824; Gall and Spurzheim 1809/1967). This debate has continued in various guises through to the present day (e.g., Farah 1994). Meanwhile, the concept of distribution has found mathematical elaboration in fields such as optics and psychology, and the rise of connectionist models has generated interest in a range of related technical and philosophical issues.

(From http://cognet.met.edu/MITECS/Entry/van_gelder1)

PM382

Cilliers (1998) posits that, with regards to complexity theory:

Each element in the system is ignorant of the behaviour of the system as a whole, it responds only to information that is available to it locally. This point is vitally important. If each element 'knew' what was happening to the system as a whole, all of the complexity would have to be present in that element. This would either entail a physical impossibility in the sense that a single element does not have the necessary capacity, or constitute a metaphysical move in the sense that 'consciousness' of the whole is contained in one particular unit. Complexity is the result of a rich interaction of simple elements that only respond to the limited information each of them are presented with. When we look at the behaviour of a complex system as a whole, our focus shifts from the individual element in the system to the complex structure of the system. The complexity emerges as a result of the patterns of interaction between the elements. (p4)

An important issue here is that in the early research model LOP (refer C18) each term represents a complex system. The model is also a complex system despite having few elements as it complies with most of the criteria for being a complex system. Furthermore, though each term can be an integral component of each of those systems, none of these terms can represent the other elements. They retain an interdependence irrespective of their place within each and any system. A further point is that, as each term takes on a dual form of representation, i.e. each term is itself a complex system, yet in the model, a component within another complex system, the meanings also constitutes or demands that conceptual shift that enables that terms to fully contribute to the new set of dynamic relationships arising from that model. I suggest that this form of abstract, multi-linear and multi-dimensional processing is akin both to the principles that Brane argues in science for understanding p-branes, and to those principles within the arts where processes of visualisation and representation generally occurs in the abstract, and where say, three of the four dimensions may not be an issue at all.

PM383

(Ref Webster, Encarta)

Not to be confused with functionalism - a philosophy or system that gives practical and utilitarian concerns (e.g. the intended function determines the design, construction and choice of materials) over aesthetic concerns.

PM384

For example, how frequently, why and how that tool is likely to be used; the match between the demands on that tool (over time and use) with the aspirations of the user; appropriateness of the tool to the task in hand; other design and aesthetic qualities (ref eolith in Eisner, 1998).

PM385

I am not using the term improvisatory in the limited sense as implied by a definition (Webster/Encarta) being 'the skill or creative process of creating and performing something without, or lacking in preparation'. I posit that preparation is fundamental to some forms of improvisation, as is latitude. Thus, I use the term to signify a process that creatively utilises freedom to prepare for and understand things within a broader context.

PM386

That is to say, when evaluating a single computer, a network of computers, ICT infrastructures and systems, for use by a single user or group of users. FCA-P and OAR-I each played a role, e.g. as those terms or combination of terms pertained to contexts, actions, purposes, etc.

PM387

There are set/prescribed formulae as evidenced by the BECTa 'Toolkit' for schools'. While this resource was available to schools, I found that none of the Project schools used this toolkit in ICT training, or development processes.

PM388

viz. the sponsors and EBLO understood and were explicit about the minimum technical specification of the computers to be made available, and indicated a potential educational application for that known technical functional capacity. It was assumed by them that the schools would also have sufficient understanding of that technical specification and likewise map the potential educational application to curriculum objectives suited to the needs of pupils.

PM389

... such as the explicit comments that refuted the adequacy of the specification to meet educational needs by some participant teachers and the LEA, In contrast, other schools and the local College built effective networks using those computers which they deemed adequate for educational use.

PM390

In the first place by making a judgement regarding the educational potential, by creatively arranging a way of extending that potential by outlining that potential to schools and other beneficiaries, and eventually in the further judgement that swiftly ended that opportunity by no longer providing ICT equipment to schools.

PM391

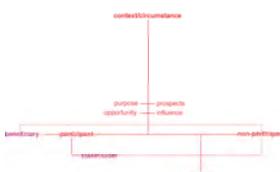
I have incorporated the term holistic at this point as the discussion has progressed sufficiently (I hope) to convey something of how these non-hierarchical models contribute to a dynamic, on-going processes of theorising and meaning-making. Growth occurs by looking in to each non-hierarchical model. Each model is not conceived by me as a stable set or layer but rather, as interweaving strands, each having the potential to illuminate another. Moreover, components may become sufficiently 'disturbed' as they shift weight and proximity and accrue sufficient energy to form new strands with new combinations of components. (for example, PRO-A where P=Partnership, R=Rationale, O=Opportunity, A=Action).

PM392

Handling the interrelationships between, and the supposed meanings arising from, the terms represented in the model FCA-P and its various permutations, are complex when associated with ICT. These complexities become more problematic when ethical issues and differences are in question. In Building blocks 3 I have described the differences in values as ascribe to ICT by a person, people and/or organisational entities. As a researcher, I have tried to avoid making a judgement about these differences by describing rather than 'explaining' those differences. It is therefore, more contentious, perhaps, to consider the terms function, capacity, potential and adequacy with regards to a participant or participant organisation. These terms are however, implicit within other terms and processes when an employer is seeking to appoint or appraise another person (e.g. terms might take the form of 'role', 'responsibilities', and essential or desirable 'qualities' and 'experience'). These nevertheless establish 'what' and 'how' a person operates within an organisation, expected 'capabilities' to achieve those (functional) roles 'appropriately and effectively' (adequately). In the same way that I reflected on action to exemplify the relationships to the FCP-A terms, which had emerged through interpretative inquiry, I (cautiously) now apply the same ethical protocols to linking FCA-P with participant and partnership.

PM393

For example, in 'reading the small print', various components of the 'Participation concept' map were extracted or applied to different contexts such as:

**C4.** *'Participation concept Map 2'*

and also to:



C5. Stakeholder and Beneficiaries

PM394

This composite model comprises the other models:

- **OAR-I** (Fig 29) which symbolises Opportunity, Action, Rationale, Impetus
- **FCA-P** (Fig 28) which symbolises Function, Capacity, Adequacy, Potential
- **PPP-PPP** (Generic Project rationale, Fig 7) which symbolises Prospect, Purpose, Process; Provide, Perform, Participate

The outer terms (Technological, Contextual and Ideological) refer to other systems that give meaning to the inner terms - these terms are interchangeable with the inner terms and thereby shift the weight and meaning of the model

This entire model can be situated within LOP/ICT (Fig 38) and also within EBG (Fig 36)

The ambiguous title is derived from: 'K' (knowledge), 'OS' (operating system), 'or' (implying a duality such as and/or, either/or), 'Knot' (which is in turn derived from the complex interweaving relationships), while the whole title 'KOSorKnot' refers to the additional duality of whether this does, or not, represent an indeterminate.

Prelude

PM395

In a sense, each has the potential to subsume the practices of the other, as in the case of this research, their distinctiveness perhaps, being determined by 'authorisation' and mediation. In this research, I acted as an intermediary or broker in the sense that, through observing a specific community, I had defined those practices as a 'research opportunity' and was thus engaged as researcher.

PM396

Scientific knowledge has traditionally been legitimated internally, i.e. the criteria by which something qualified as scientific were determined by science itself. (Lyotard, 1984; 25)

'Positivism works out well for scientists and mathematicians, since it allows only them to speak. Everyone else utters "meaningless" statements about the world and life and morals and beauty. Problems of God and metaphysics and goodness and value reduce to mere "pseudo-problems", questions asked by those whom language has misled, those who do not know what counts as answers.' (Kosko 1994; 7)

Our culture is a scientific one, in which our icons of progress are drawn from science, technology or medicine. In such a culture the rational is sharply demarcated from the emotional, and the influence of science is best illustrated in the power it exhibits to make natural specific social, political or cultural differences. The power of science in our culture is also demonstrated by the persistent faith in expertise as superior to common sense in shaping our visions of what is both desirable and possible. (Brown, 1994; 69)

PM397

Culture is one of the two or three most complicated words in the English language. This is so partly because of its intricate historical development, in several European languages, but mainly because it has now come to be used for important concepts in several distinct intellectual disciplines and in several distinct and incompatible systems of thought. (Williams 1988; 87)

Williams refers to Kroeber and Kluckhohn (Culture: a critical review of concepts and definitions) to illustrate the range and overlap of meanings is significant.

The complex of senses indicates a complex argument about the relations between general human development and a particular way of life, and between both and the works and practices of art and intelligence. (87)

(e.g. anthropology/material; historical studies/signifying or symbolic systems) (ibid)

Terms & Conditions

PM398

In the sense that 'a general perspective' holds a relationship with 'philosophy' in the sense that it a fabric of ideas:

It is not, like science, a body of general propositions expressing discovered facts, nor is it a collection of "moral truths" learned by some other means of factual discovery. Philosophy is a stocktaking of the ideas in terms of which one expresses facts and laws, beliefs and maxims and hypotheses - in short, it is the study of the conceptual framework in which all our propositions, true or false are made. It deals primarily with meanings - with the sense of what we say. (Langer 1953; 3)

... and which also gives some support to the view that in our everyday life we approach our transactions with the world armed with a naïve or 'folk psychology' which holds that 'perspective' is deeply rooted in our social traditions and underpins

our understanding of what it means to be a 'human agent' acting in a physical and social world (Wilkes 1997):

As an explanation of human behaviour, folk psychology has the signal virtues of being both succinct and relatively comprehensible and it has been employed in making sense of human behaviour ... for a very long time. (8)

PM399

A central concept in science and the scientific method is that evidence must be empirical, or empirically based, that is, dependent on evidence or consequences that are observable by the senses. Empirical data are data that are produced by experiment or observation. (Yet there is no firm agreement as to the number of senses because of the differing definitions of what constitutes a sense – though all human senses fit within the classifications of: chemoreception, photoreception, mechanoreception and thermoception.) However, 'senses' are not the sole determinants of perception, that is to say, the means of attaining awareness or understanding of information. What one 'perceives' is a result of interplays between past experiences, one's culture and the interpretation of the perceived. I am mindful here of Williams' comments (1988):

... the word [empirical] has become complicated by two factors: the English sense of untrained and ignorant, indicate not only a reliance on observation and experiment but a positive opposition or indifference to theory. Second, a complicated philosophical argument, about the relative contributions of experience and reason to the formation of ideas, produced as a description of one side of the argument the terms empiricism and empiricist to indicate theories of knowledge as derived wholly from the senses - that is from experience (not experiment) in a now special sense. (116)

PM400

This important issue is discussed more fully in the development section ([reading the small print](#)) and also in the part that discusses the interrelationships between the research, the researcher and the study. ([Me, Them & It](#)) and in the discussion about visualisation, representation and realisation in '[One in the Eye](#)' and differently in '[In Search of the Lost Chord](#)'.

PM401

It was not possible to delineate that community of practice, which is also described as the 'Research Study Group' as distinct from 'Research Community of Practice' simply by any singularity (such as: time or space - these were highly unreliable qualifiers if only due to the fragmented/complex interactions, overlaps, dynamics and terms of reference); membership frequently changed, not only within each group or organisation but also as individual participants held different positions within various partnership groups; organisational membership - this was more stable inasmuch that the named entity changed less than the conditions in which it operated and how it functioned; the status or role of many participants was considered as strategic, though most were also operationalists within other contexts. Such diversity and dynamics was considered 'normal'. Nevertheless, the 'community of practice'

generally consisted of representatives from the four main sectors, education, business, government and the local community, who expressed in their own ways, recognition of a need and/or interest in engaging in partnership practice on the basis of supporting learning opportunities, and where appropriate, linking this to ICT ...

Though ably explained by Wenger, the term to represent a conceptual frame on which the thesis builds can be considered in other terms (e.g. Gardner refers to 'domains', while Strati discusses the 'virtual' organisation) and which are discussed more fully later in this section.

PM402

e.g. participants might be defined at various times as stakeholders and/or beneficiaries, strategists and/or operationalists, insider/outsider, (non)participant - depending on their role or contributions

PM403

Inevitable differences occurred in the nature or 'level' of a participant's knowledge, understanding or, or experience in key activities. For example, some showed greater understanding than others in matters concerning ICT, partnership, learning strategies, etc. For some, this was a contentious issue: e.g.

"I'm dealing with idiots who can't even spell partnership let alone tell you what it means" (LA/Policy Manager/1)

"You employed him - he's your problem!" (B3/Manager/1)

"S/he is obviously a 'strategist' - s/he has no practical idea of how things work." (B4/Business manager/1)

"I see no future in the Internet as a means of enabling learning ..." (FEILT manager)

There is incongruity in each of these statements

PM404

By so framing complex interrelated participant activity occurring within a natural setting as 'the Research Study Group' it draws attention to its distinction to another complex community of practice that I define as 'the Research Community'. These two groups are distinct in terms of their separation to each other – each representing to the other 'an outsider' to their respective practices and ideologies. Clearly there are individuals within each (macro) group that may share common interests and practices, as in my own case, thereby highlighting possible technical and ethical issues (e.g. to which group and under what conditions does a person represent 'an outsider', 'intermediary' or 'broker'; in what ways might the practices of said 'outsider', 'intermediary' or 'broker' influence the perceptions or representations of either community of practice). This same matter clearly occurs within each group on a macro level, as for example, in the case of 'practitioners' from the business and education sectors come together at different times ...

PM405

Many of the senior managers were involved in several strategic and operational partnerships where some interests or responsibilities overlapped - e.g. one manager was: a senior manager in an educational organisation, a board member of three different EBLOs, a chair of 4 different strategic ICT subgroups, etc.; this overlap was typical and in part, inevitable due to the extent of activity within such a small local authority. It could be interpreted as 'important contributions of a highly proactive and valued member' or the 'incestuous nature of an old boys network' ... that one is recognised to be working within a particular group context seems to authorise access to a similar group. Invitations to 'outsiders' may take into account a number of variables pertaining to consequence (e.g. risk/threat, value/benefit, Politics, and potential for change).

PM406

As stated by Mason (1996)

'... the term "observation", and in particular "participant observation", is usually used to refer to methods of generating data which involve the researcher immersing herself or himself in a research setting, and systematically observing dimensions of that setting, interactions, relationships, actions, events and so on, within it.'

This highlights a number of contentious issues, such as: whether (and how) the nature and level of immersion 'is' an issue for 'objectivity'; whether I was 'generating' 'data' or whether data was a consequence of action through abstraction / transfer / transcription; whether the advantages of insider knowledge, gained through long-term immersion, as participant observer, can bring new or additional insights to the research community of practice; and moreover, if and how that 'outsider' knowledge can somehow be authorised by the research community.

PM407

Adler & Adler (1994) highlights the 'problem' of bias as if there is some way in which it may be overcome:

Without the benefit of members' analyses, observers are forced to rely more exclusively on their own perceptions. They are therefore more susceptible to bias from their subjective interpretations of situations ... Without subjects' quotes to enrich and confirm researchers' analyses, or inter-observer cross-checking to lend greater credence to their representations, some observers have had difficulty legitimating their work to a scholarly audience. (381)

... yet, it could be argued that the notion of 'validity' from a positivistic stance, in itself, instils a bias - just as 'emergence' has the potential to avoid 'deterministic' approaches that could otherwise fall foul of such a claim.

In 'Reading the small print', this issue of bias is expanded upon within the narrative regarding determinism and emergence. That text reflects on the principles of bias at a foundational level as it relates to the process of handling associated dualities such as question/answer, problem/solution, emergence/determinism. The issue of bias is

also conveyed through the texts that reflect on ethical issues, particularly those in which my multifarious roles as, for example, participant, researcher, auditor, evaluator, manager, stakeholder, and pluralist, whereby each shifts the notions of bias according to the complex conditions within which the term is framed.

PM408

Refer: Weigh in, Scenario 5, Reading the small print,

PM409

Further to the view that 'Another of the strengths associated with observational research lies in its emergence', Adler & Adler (1994) mention that there are 'strengths and weaknesses from its potential for creativity' (without stating these), but do point out that:

'Instead of working with predetermined categories, observers construct theories that generate categories and posit the linkages among them. At any point in the process, observers are free to alter the problems and questions they are pursuing as they gain greater knowledge of their subjects.' (382)

PM410

This part therefore includes various processes of engagement such as observation and negotiation to gain insights into facets of participation that were less apparent. (This may be construed as testing hypotheses, analysing, interpreting, theorising, spying, and generally being (un)ethical ...):

Is it ethical to talk to people when they do not know you will be recording their words? Is it ethical to encourage an informant to divulge what a friend has conveyed in private places? Is it ethical to develop a calculated stance toward other humans and be strategic in your relations? Is it ethical to 'use' people as allies or informants in order to gain entree to other people, or elusive understandings?' (Lofland and Lofland, 1995, 63)

PM411

Some people were clearly engaged in the activities that formed the basis of the Scenarios, and other texts in this thesis. I might therefore seem ludicrous to suggest that some accounts can therefore 'include', or point to non-activities, with non-participants, not engaging, even if the majority of 'contextual' information (such as that found in policy documentation) often does not 'personalise' its genesis. And this is despite the fact that opportunities were being specifically targeted at the 'non-learner', the 'non-participant', the 'excluded', just as 'the no-mind not-thinks no-thoughts about no-things' (The Buddha)

Other 'legitimate' means of de-personalising involvement are enabled by referring to the event, the activity, the opportunity, the organisation/s, as if they would occur with or without people in any case. This is a device that was also used by the participants themselves, perhaps to shift responsibility and accountability (e.g. "The board has decided that ..."; "The policy for ..."; "They ..." ...

PM412

e.g. It has been stated that new agendas and change towards the end of the 1990s, in part arising from the changes in central and local government, from technological change, and from significant reorganisation, was accompanied by many uncertainties. Likewise the research maps below indicate a number of other uncertainties - some of which were perceived as '(un)problematic' and therefore represented different forms of uncertainty ...

PM413

a process to which Eisner (1998) refers as 'connoisseurship' and 'the role of the critic'. A facet of this experience is captured in Williams' comment:

praxis is practice informed by theory and also though less emphatically, theory informed by practice, as distinct from practice uninformed by or unconcerned with theory and from theory which remains theory and is not put to the test of practice. In effect it is a word intended to unite theory with the strongest sense of practical activity: practice in action. (p318)

PM414

The relevance of the research approach as an emergent practice, and the nature of my engagement as a researcher is discussed more fully in Fat Patches.

PM415

That is to say, 'research' or 'disciplined inquiry' may have constituted a fundamental aspect of an individual's personal and/or professional responsibilities, and which were then, further nurtured within and accountable to the systems or communities of practice within which they reported and were legitimised.

PM416

To make a distinction between 'researcher' or 'theorist' as somehow, distinct, potentially, perpetuates a (mis)conception of division. Many of the senior managers within the Study Group had at some stage, or were engaging in 'higher study' or research work towards some form of accreditation / qualification. That their day-to-day, 'more pragmatic approach' to research, or the 'process of theorising' held a relationship to 'a more traditional, theoretical, abstract approach', and perhaps, with (slightly) different forms of accountability, is difficult to say - this question lay beyond the scope of the research. Nevertheless, it was self-evident that differences in the processes of research activity and practice were no less extreme within one more community of practice than another ...

PM417

Much research literature talks about learning as a subject of research though some more recent literature points to learning as outcome of some form of active engagement and thereby implicitly including the research process:

traditionally, learning researchers have studied learning as if it were a process contained in the mind of the learner and have ignored the lived-in world'; that 'cognitive theory is 'distanced from experience' and divides the learning mind from the world; and, 'theories of situated activity do not separate action, thought, feeling, and value and their collective, cultural-historical forms of locate, interested, conflictual, meaningful activity. favours more complex relations between person and the world. (Lave, 1997)

Learning ... is not a separate activity. It is not something we do when we do nothing else or stop doing when we do something else. There are times in our lives when learning is intensified: when situations shake our sense of familiarity, when we are challenged beyond our ability to respond, when we wish to engage in new practices and seek to join new communities. (Wenger, 1999)

Derrida claims that deconstruction is education, a necessary unsettlement of what it is that we can (n)ever claim to understand about the nature of the individual and the social (Derrida, cited in Shon, 1994) and so a virtuous irresolution. For an educational researcher or evaluator, how can that be a bad thing? Does not the impetus implicit in not-knowing, in not-ever-knowing, in knowing something of the not-ever of knowing not represent the greatest and most fruitful challenge that students of education could ever wish? (Stronach, 2000)

PM418

For example, the participating organisations were being encouraged through the Government's new social policies to enhance learning opportunity for 'non-participants'. Through my research inquiries, the notion of participant and non-participant took on quite different meanings. Scenario 2 provides an example of a Project that matched key facets of the Government's learning agenda by serving to attract young people that were 'disadvantaged', 'dis-engaged' from formal learning contexts, motivated by ICT, and who also enacted their own form of authority and control over the Projects which were 'devised' on their behalf by organisations who were in turn were controlled by other accountabilities. Scenario 2 provides a different picture wherein a participant only became known as a participant to another group of participants when their actions converged in some way. This then challenged the associated notions of for example, determinism, c/overt practice, and partnership.

PM419

to suggest that there is a difference between the 'entity' and the 'process' is perhaps misleading as that entity may be nothing more than a representation of that process, and counters the discussion presented later in this Section about categories/concepts, local/distributed representation, and notions of autopoiesis or synthesis ...

PM420

Scenario 5 described progressively how each model leads to the next and how all are eventually connected.

PM421

Components of this model reappear in different parts of this thesis. For example, the components Learning Organisation and Partnership are explicit in 'Action Focus' (Fig 9) and implicit in K-OSorKnot (Fig. 31). It finds alternative configurations as the differences in interpretation through action emphasised an issue regarding the 'difference' of meanings attributed to these terms. This issue is explored through the models 'Research Action in Action' (Fig 49) and also 'Disturbance in action' (Fig. 50)

PM422

... that is to say, considering the implications or effect, a simulated and potentially abstract sense that then finds form, even if not in 'reality' or conforming to convention, According to one's 'structuralist inclinations', handling such abstracts can lead us to questioning for example: there is an interplay between organization as 'entity' and 'virtual', where there is an interdependence between the entity and its function, of those within and without the organization, of how it can (never) be contained beyond a distributed, borderless, dynamic system of ideas and actions. Strati questions whether an organization "really exists or whether it is only an infinite series of organizations constructed and reconstructed *ad infinitum* by subjects in the specific dynamics of their relationship with the organization.' (See [Strati 2000](#)); Strati suggests that within the special environment of cyberspace,

'the real, the virtual and the hyper-real have often ambiguous and indistinct boundaries' and that within 'simulated space ... there is no reason ... why the point of view of the person who makes the image and the person who looks at it should coincide.'

While he suggests that simulation 'excludes' the existence of a 'truth' because 'it is based on the *emancipation of the sign* from the real' on the basis that only analogic representation (rather than digital simulation) 'maintains a distinction between image and reality, false and true, virtual organization and real organization. The issue is of course not limited to theorising organisation as expressed above, but also to many other fields such as language (e.g. more recently by Heidegger, Derrida, Saussure, Fodor); 'science' (e.g. Heisenberg's uncertainty principle which suggests that science and logic are 'constructs' - merely interpretations of experience ... Other might also refer to 'creative process' ...

PM423

'Thinking differently' pertains in one sense to the evolving processes of thinking about 'different thinking'. The issue of 'different thinking' shifted over the duration of my research study as participants established manifestations and relative importance to 'difference'. This matter is expressed through action in all of the Scenarios. In another sense, 'thinking differently' also refers to the emerging need for me to modify and adapt known research conventions so that I could develop an effective means to theorise and make meaning from diverse and dynamic forms of action.

PM424

Vardy & Grosch state that 'ethics is central to modern life' both in terms of what it means and how we deal with it.' They also point out that ethics and morality have come to be treated as almost identical in meaning.

Ethics coming from the Greek word (*ethikos*), which relates to 'ethos' or character, though sometimes includes 'custom' so it refers to the customary way to behave in society. Ethical behaviour is therefore, 'behaviour that is in accordance with the virtuous character. Morality comes from the Latin word (*moralis*) and more concerned with which actions are right or wrong rather than with the character of the person who performs these actions.

PM425

Morality

- 1) standards of conduct that are accepted as right or proper
- 2) the rightness or wrongness of something as judged by accepted moral standards - i.e. based on what somebody's conscience suggests is right or wrong, rather than on what the law says should be done

PM426

Ethical codes and guidelines incorporate moral standards into which the actor is socialized as a member of a community, and 'remind people about values they already share' (Saks and Melton, 1996, 231)

That is not to say that the 'values already shared' are necessarily compatible with the conditions, values, or expectations of all other circumstances and communities of practice in which any research might occur. Especially in research where emergence is central to the approach, the interpretive inquirer cannot adequately foresee the ethical and moral consequences that may arise from the study and the necessary negotiations between self and others in professional and power relationships.

Beliefs and principles about what might be construed as: good/bad, right/wrong, (un)truthful and (dis)honest, (un)just, (un)fair and (un)reasonable ... None of these can be considered, or judged in isolation, either in the sense of their 'opposite', from each other, or from the context within which they may occur ... To declare something as 'right' holds to a greater or lesser extent an implication of 'better than', a sense of 'goodness' or 'virtue' which the added notion that, on balance, it holds a quality of 'justness' and 'reasonableness'. Such terms are not quantifiable, constant, reliable or necessarily valid outside the context or circumstance within which the judgement arises. (Vardy & Grosch; 1999; 77)

PM427

That is to say, actions that are 'legitimate', truthful, avoid/prevent harm to all those that may be vulnerable and associated with the research, including participants, the researcher, and the various organisations and their respective communities ...

PM428

Most concerns with ethics revolve around questions of consent, privacy, confidentiality and harm. In the past, formal codes addressed the questions of consent, privacy, confidentiality and harm and the right of the individual to withdraw data about the self. The stated priorities of ethics committees 'can give the false impression that ethics is about "what we do to others" rather than the wider moral and social responsibilities of simply being a researcher' (Kellehear, 1993; 14)

Vardy & Grosch (1999) puts another perspective on this:

- 1 *Ethical teleologists maintain that actions are to be judged good or bad by reference to the end to which they aim, while*
- 2 *Ethical deontologists maintain that an action is good or bad, right or wrong, by something within the action itself. (77)*

PM429

Ethics within organisational practice, often referred to as applied ethics, concerns principles and issues within a business environment. This may be determined by laws, rules, or codes of practice, that (should) permeate the workforce, and through 'corporate social responsibility', extend outside the immediacy of that specific organisational practice. However, there are also rules and practices that protect individuals when they encounter another person (client, employee) from another organisation who may not agree with those principles and practices (e.g. organisational anonymity, free trade, economic/business transactions that maximises productivity/profitability through 'fair competition').

Business ethics encompasses: economic systems, accounting and accountability, human resources, protection of intellectual property, business law, sales and marketing, arbitration, corporate social responsibility, and so on. While these fall outside the scope of this thesis, events occurred within and between (partner) organisations that highlighted the differences in ethical behaviour of individuals. That those people/actions could be considered as 'individuals' and/or 'representatives' of organisational practice introduced a further complication that could also not be fully resolved.

PM430

From one perspective the principle relationships are between intentions, actions and accountabilities as these comprise key attributes or processes of practice, that may be shaped not only by organisations, groups and individuals, but also in the ways they align to beliefs, behaviours and assumptions. Further interactions can occur both within/across those practices that are driven by beliefs, behaviours and

assumptions with the other processes of intention, action and accountability, both individually and/or collectively.

PM431

Perhaps there is an inevitability that behind the notion of ethics are a great many factors that are taken for granted, about which we make many assumptions, and that should lead to a few surprises. Though occasional irregularities occur, largely on account of socio-cultural differences, that these occur at all should not be the main challenge, but rather, establishing which of the two, the behaviour or the expectation, is perhaps 'out of line'. The above diagram also highlights the notion that 'truth' can be underpinned by a host of subjective and objective qualities and endorses the maxim: 'There are two elements in what is right - the factual situation and how this situation is viewed.' (Vardy & Grosch, 1999, 79)

In assuming an interpretative stance, there is a fundamental aspiration to form an explanation or ascribe meaning. This search for a sense of what something might mean, or meant, holds to the various processes in the search for truth (and in relation to current and past realities). Throughout the thesis, it is clear that the experiences outlined are only indicative or partial representations of truths, some of which become more apparent and changed over the general drift over time, others through the specific detail, and partially, irrespective of the assumed representations, compatibilities, intentions, accountabilities and associated rationales - there are no guarantees. The research stance sought to represent the notions of truth by disclosure, that presupposes people as thinkers who engage in experience to become better informed, rather than the principle of truth as a disjunctive, in this sense the aim being to determine what is, or what is not the case. (Prévost, 2000; Cazeaux, 1998)

PM432

Van Maanen's 'tales of the field' outline the pitfalls of (un)ethical practice in research, that is research on potentially (un)ethical practice and potentially (un)ethical research practice on topics that might not actually be deemed 'unethical'. 'Conformity', to some extent, to a standard or code of practice does not necessarily alleviate the problems, and in some cases exacerbates the predicament, of the inevitable 'failure to comply'. (One man's meat ...)

PM433

Punch, (1986; 36) remarks that 'informed consent - divulging one's identity and research purpose to all and sundry' - is a central issue of professional ethical codes and guidelines. He also goes on to suggest that 'deliberately to embark upon a research project using covert methods is likened to skating on thin ice'. Yet, that is not to suggest that there is a clear cut off point for the covert and unethical within those codes of practice. Some researchers argue strongly against covert research, maybe because the practice runs against the principle of 'informed consent' (that is,

people agreeing to take part in the research on the basis of knowledge of what it is really about), it invades privacy, and involves deception. Woods (1992, 379) suggests that

'consent is not a straightforward business ... there is a 'hierarchy of consent', senior personnel acting as 'gatekeepers' and subordinates possibly being forced to participate. Also one encounters so many people during a typical study, often casually, that it is impossible to secure the consent of all.'

The academic establishment might counter this by suggesting that the code or guidelines set a precedent, to inform and sensitize the researcher to the wider implications of 'unethical research and their associated responsibilities or 'duty of care'. However, this is rarely explicit ... All social negotiations have the potential for reflecting or highlighting political, ethical and moral nuances that may be to some greater or lesser extent 'problematic'. The extent that these are intrinsic or extrinsic can on one hand be explored by the research, yet on the other hand implicit within the research process - developing an awareness and clarifying this issue would appear to be rational part of the research process. However, this then in itself, becomes a political and ethical matter even to the point that such clarification can be deemed politically motivated and unethical.

PM434

Asking science to explain issues of belief, morality, spirituality should be treated with some scepticism: if one is to recognise its prior claims of objectivity, knowledge based on 'reality', truth ...

Codes and guidelines remind researchers of values they already share by virtue of being members of the wider community. Taken alone, codes are not adequate to deal with ethical dilemmas of fieldwork, because decision making in such matters involves more than cognitive or rational reasoning; decision making draws on intuition, emotions and feelings. Codes and guidelines are rationalized, impersonal bureaucratic constructions that are not conducive to handling context-specific, value and emotion-laden decisions of individuals and groups at a particular time and place. (de Laine, 2000; 144)

PM435

Refer: Truth as disjunctive and truth as disclosure (below); also, the idea that 'ignorance is bliss', 'the need to know', or 'providing and essence of the truth' might be insignificant when it refers perhaps to a parent talking to a 5 year old about 'where they came from', yet hold different implications when referring to disclosing the criteria that led to the appointment of a bishop, or quantifying the pension of a board member to a multi-national corporation.

PM436

There is clearly an art to being able to state the truth, partially or otherwise, in order to achieve the ends that satisfy 'most people most of the time' - i.e. creating the most happiness, in Mills terms. On returning from a summit John Major was asked to summarise in one word how it went. "Good." he replied. When asked to summarise in more than one word, he replied, "Not good".

PM437

Situation ethics reflects upon morality/judgement within larger social and cultural contexts, and the relationships between ideological principles and technical systems. This he frames as 'a problem of ways and means, not of ideology, where problems are technical or administrative. Fletcher stresses that the 'situational' way of looking at value problems provides a means of contextualising decision-making, rather than one based on 'rules' leads to the view that ethical judgments should be made within the context of the entirety of the situation and that normative features of a situation must be viewed as a whole, that is, that there are no fixed moral recipes applicable to every dilemma.

PM438

Le Différend (1983), which develops a postmodern theory of justice. Lyotard (1984) argues that notions of justice and injustice do remain in postmodernism. The new definition of injustice is indeed to use the language rules from one 'phrase regimen' and apply them to another. Ethical behaviour is about 'remaining alert precisely to the threat of this injustice, of paying attention to things in their particularity and not enclosing them within abstract conceptuality'.

PM439

This book brings together a number of new essays that explore the intersection or overlap of aesthetics and ethics. It reflects on Wittgenstein's notion that 'ethics and aesthetics are one'.

PM440

e.g. descriptivism, non-descriptivism ... as a linguistic property; cognitive – and by association, concerned with understanding/action; or ontological or aesthetic

PM441

Within a wider context, through my professional positions and personal life I have been required, responsible for and developed my personal capacity to handle a wide range of ethical issues that were far more contentious than, or to at least contextualise the significance of a signature on a form- that technical statement of compliance with 'guidelines' as determined by 'choice'. At one time or another, even while working in a school or small partnership organisation, I have had to deal with

lying, suicide, rape, theft, war, victimisation, bullying, and successes; making judgements about people's personal, intellectual, emotional, social capacities and (under)achievements; hiring and firing personnel; determining who has what roles, responsibilities, authorities, privileges and addressed whether those were 'properly' followed; deciding upon, imposing or limiting privileges in ICT systems irrespective of my own; and essentially, dealing with the dynamics, differences, peculiarities and dilemmas, irrespective of whether or not I shared, agreed with or practiced the practices about which judgements were being made, contradicted, explored, rationalised, broken and strengthened. As a result I may or not, at some time in my life, chosen to be vegetarian, only occasionally take prescribed drugs, ride a bicycle rather than a motorbike, practise religion, listen to Mozart rather than rock music, and Stravinsky, never break the speed limit, practice lace making and embroidery, love my family irrespective of what they do, and only ever take 'informed' decisions rather than 'risks' in the hope that I don't encounter an ethical dilemma or break the rules. In pragmatic terms this has something to do with the 'mutability of truth' ... or day-to-day realities of life.

PM442

Perhaps a synthesis is like a 'vision' - it is something which one may move both towards and from ...

Reading the small print

PM443

'Finding a line of sight' is defined as: an imaginary line or path from an observer to a distant object ...

PM444

One perspective on emergence within the context of case study is provided by Stake in his comments:

A distinction between what knowledge to shoot for fundamentally separates quantitative and qualitative inquiry. Perhaps surprisingly, the distinction is not directly related to the difference between quantitative and qualitative data, but a difference in searching for causes versus searching for happenings. (Stake 1995; 37)

This contrasts to Osberg's view (2007), which relates emergence to complexity:

One way of approaching this 'emergentist' shift in logic is to appreciate the nature of "complex systems" these being systems that show an increasing level of order over time ... it should be mentioned that the name "system" is misleading as it implies the existence of a discrete entity when in fact none exists. Complex "systems" have no distinct boundaries, they exist only because of the fluxes that feed them and disappear in the absence of such fluxes.

... and, that the context of space of emergence is, 'a space of radical contingency and response. In it we do not know, for sure, who we are or who we are dealing with because it is only through our responses in this space that we become who we are'. (Osberg, 2005, p83)

Within the research study group, the collaborations and partnership configurations were new, as were the motives behind them; the projects were new; the directions those new developments would go and the nature of change were uncertain, but driven by potential. Expectations and actions changed as contexts continued to change. Thus, my research was based on a broad line of inquiry - 'how would participants engage in and make sense of these newly forming partnership configurations and project developments?' My approach was similarly 'emergent' insomuch that it was difficult to predict the nature of the opportunities that might emerge from participant action, or how that participant action might be framed. Furthermore, an overly rigid or focused inquiry could become problematic, even superfluous, within a short space of time if the direction of the actions of the research study group changed direction/s.

PM445

Holstein & Gubrium for example, examine that family of qualitative research approaches concerned with 'reality-constituting interpretive practices' (Phenomenology and Ethnography). These approaches examine how human beings construct and give meaning to their actions in concrete social situations. Denzin & Lincoln (1998) suggest that emphasis on 'interpretive resources, local cultures and the artful production of meaning connects Ethnomethodology to deconstructionism and the postmodern context, calling attention to situated practices.' (Denzin & Lincoln, 1998; xvii). Adler & Adler (1994) go further in their description, stating that through interpretative inquiry:

... (observations) guide us in forging paths of action and interpreting the actions and reactions of others. They also generate the kind of 'commonsense' or cultural knowledge that Johnson, (1975, 21) has argued lies at the base of all knowledge and theory, from that amassed by the lay-person to that conducted by the survey, experimental, participant, or simple observational methodologist. What differentiates the observations of social scientists from those of everyday-life actors is the formers' systematic and purposive nature. Social science researchers study their surroundings regularly and repeatedly, with a curiosity spurred by theoretical questions about the nature of human action, interaction, and society (377)

Atkinson & Hammersley (1998) posit that:

... ethnography usually refers to forms of social research having a substantial number of the following features:

- *a strong emphasis on exploring the nature of particular social phenomena rather than setting out to test hypotheses about them*
- *a tendency to work primarily with 'unstructured' data, that is data that have not been coded at the point of data collection in terms of a closed set of analytic categories*
- *investigation of a small number of cases, perhaps just one case, in detail*

- *analysis of data that involves explicit interpretation of the meanings and functions of human actions, the project of which mainly takes the form of verbal descriptions and explanations, with quantification and statistical analysis playing a subordinate role*

Building on Meyerson & Martin (1987) different views of organisations and cultural change, their overview provides an excellent portrait of the interpretive perspective's themes. They labelled the three views: *integration*, *differentiation*, and *ambiguity*. Particularly relevant to my approach is the Ambiguity View: viz. Meanings are always in Flux = emphasises the intrinsic and inescapable ambiguities in all organisational cultures. Consensus is seen as ephemeral and fluctuating. Fine calls this 'the negotiated order view', in which:

... 'participants perceive the structure in which they are embedded and assume that change is inevitable and continuous (though often slow). The latter is also fundamental to the evolutionary or ecology perspectives where 'individuals and groups continually make adjustments to the situations in which they find themselves and relations in organisations ultimately depend on agreement between the participants.' Hannan & Freeman, 1987)

PM446

(The 'two' communities of practice referred to here are outlined in '[Terms and Conditions](#)' as being two entities symbolising both the research community, and the study group on which the research was based.)

On one hand, the traditions assumptions and expectations of the 'study group' are integral to the Scenarios. Within these scenarios is information that implicitly and/or explicitly symbolises the detail that related those participants to one or more communities of practice, at that time. On another hand, these traditions, assumptions and expectations may, according to particular research interests, also be related to various research approaches and theories, (e.g. organisational theory, and its subsets; psychology, ethnography, technology, structuralisms of various kinds, and so on). Various determinisms and/or biases inevitably accompany any approach, though in some respects, the controlling factors could be said to shift if the approach is commensurate with the emergent conditions of the study's action contexts.

PM447

The concept of 'frame' is a basic principle of various organisational/structural theories, and draws together for example, notions of local, formal and distributed systems and representations: Wilkes (1997), from a psychological perspective that follows relationships of concepts, categories ...

... schema theory aims to explain .. fluency in retrieval by postulating the presence of multiple schematic frameworks in memory which serve to summarise the details shared in common by past experiences as they extend over space and time. (41)

... while from a more postmodern perspective the notion of frame has taken on a new dynamic where an interplay between notions of physical, virtual, entity, process that allows re-framing to co-exist in a symbiotic, interactive sense, and as such, new metaphors have enabled new frames to be de-constructed:

Texture conveys the idea of endless movement which can be shown and illustrated but never analysed and defined. One of the principal features of texture, moreover, is that it is always implicit and therefore resistant to theorization. (Strati, 2000; 77)

Cilliers (1998) takes this further into the realms of complexity, whereby

Complex systems are usually open systems, i.e. they interact with their environment. As a matter of fact, it is often difficult to define the border of a complex system. Instead of being a characteristic of the system itself, the scope of the system is usually determined by the purpose of the description of the system, and is thus often influenced by the position of the observer. This process is called framing. Closed systems are usually merely complicated. (4)

The 'framing' for these terms therefore, may derived from (intrinsic) relationships between the terms within the illustration, and some extrinsic potential ...

PM448

In a similar vein to Russell's comment at the beginning of this narrative, Gleick's point (1998) that 'Now that science is looking, chaos seems to be everywhere.' (5) is not limited to Chaos. (e.g. Reference Kuhn (1996); Denzin & Lincoln (1994) - 'research moments'; Reed (1992). I did not go looking for chaos or complexity, and previously may have interpreted those as 'interesting qualities that are somehow representative of the meaning of life' ...

PM449

Chaiklin's (1996) discussion on the relationships between theory and practice comments that 'The historical review points to a development in the 19th century where rational or theoretical knowledge becomes embedded as part of practices, rather than preceding it. (393). Chaiklin (1996) expands on this and represents views generally accepted by other action researchers (e.g. participatory, situated, activity; Kemmis 1996, Lave 1996, Engestrom 1996, respectively) and uses the term 'theory/practice' to denote the idea of 'a social science that aims to develop a theoretical account of societally significant practices' and goes on to suggest that theory and practice (sometimes called basic and applied science) are often 'opposed to each other in the history of philosophic and scientific thought'. This point is reiterated in one sense by Williams (1988) who defines theory as 'a scheme of ideas which explain practice'. That is not to say that this is an 'add-on' or may be exclusively negotiated by external, independent, objective, impartial observers, and I share the view that 'there is no reason why both aspects cannot be developed in the context of the same research program, but this has not usually been expressed.' (p394) This, as a form of praxis, that is to say, 'practice informed by theory and also though less emphatically, theory informed by practice' is succinctly summarised by Turner (1994) as 'thoughtful action in the world'.

PM450

Part of my difficulty with recounting personal/participant experiences are expressed in Reason's discussion (1994) regarding participative inquiry in which he comments that, from the postmodern and post-structural perspectives:

'we cannot sensibly speak of raw, lived experience because experience can be accessed only through the discourse or text through which it is expressed, and that there are multiple shifting discourses, all determined through the social context. Thus any attempt at an experiential knowing is impossible ... because we can do no more than interpret our experience through existing categories of thought, all of which lie open to radical deconstruction. (333)

PM451

A 'metaphor' is a figure of speech in which two thoughts about different things are simultaneously active and embodied in a single word or phrase, the meaning of which results from their interaction (Richards, 1936, 93). This 'interaction view' emphasizes that the 'principle subject is "seen through" the metaphorical expression - or, if we prefer, that the principal subject is "projected upon" the field of the subsidiary subject' (Black, 1962, 41).

Another perspective regarding metaphor is provided by Eisner (1991)

What is ironic is that in professional socialization of educational researchers, the use of metaphor is regarded as a sign of imprecision; yet, for making public the ineffable, nothing is more precise than the artistic use of language. Metaphoric precision is the central vehicle for revealing the qualitative aspects of life (227)

Starting from the premise that organizational thought is partial and limited with respect to the complexity and sophistication of organizational phenomena, Morgan (1996) proposes eight differing conceptualisations of organizations: Machine metaphor: Organic metaphor: Brain metaphor: Culture metaphor: Political metaphor: Psychic prison metaphor: Flux and transformation metaphor: Domination metaphor: Morgan points out that metaphors encourage us to see the world of organization and management from a variety of perspectives, to think and act in new ways, extend horizons of insight, highlight the coexistence of diverse, paradoxical and even conflicting features of organizational life - each metaphor emphasizing some of them while simultaneously blurring and concealing others.

Hatch (1997, 55) suggests postmodernists prefer '**collage metaphor**' for it 'reintroduces interest in contradiction, ambiguity and paradox, and redefines issues of power and change - that is, a 'new' artefact which exists 'in its own right', as happens with collage in the arts. Defining metaphors as 'viable alternatives for rethinking organizational theories', Putnam, Phillips and Chapman (1996, 397) employ three further metaphors of 'conduit' (organizations as containers or channels for information flow), 'lens' (which assigns perceptive faculties to organizations - 'eyes', 'to see', 'gate-keep'), and 'linkage' (where organizations are treated as 'networks' or 'organizational webs with permeable boundaries and relationships that interconnect individuals'). (53) Other organizational communication as 'voicing' and discursive practices' stressed by critical and post-modern views of organizational life include: the metaphor of voice (communication is both the expression and

suppression of the voices of organizational participants), and the metaphor of discourse (which considers communication as ‘conversation and text’)

PM452

Texture is a concept that was introduced by Emery and Trist (1965) while exploring the relationship between an organization and its environment, developing it in order to highlight the dynamic interaction of the two ambits and to challenge the structural-functionalist assumption that organization and environment are relatively independent sub-systems. It emphasized the connectedness of the various parts of the environment rather than their independence ...

Texture conveys the idea of endless movement which can be shown and illustrated but never analysed and defined. One of the principal features of texture, moreover, is that it is always implicit and therefore resistant to theorization. (Strati, 2000; 77;

Such notions illustrate a convergence of ideas and approaches that can be traced through, for example, ethnography and social network analysis, recent approaches in organisation theory, connectionism and constructivism, cybernetics and virtual reality, and other approaches that represent different forms and processes of visualisation such that these can also make an important contribution to the representation of knowledge. My approach was informed by postmodernists’ and poststructuralists’ references other abstract metaphors that also convey something about that ephemeral, distributed, intangible nature of organisation or representational form including: organisation as hypertext, as virtual, as ambiguous, an so on. This view is explored later in this narrative regarding duality, determinism, and also in ‘One in the eye’ in considering such issues from the view of the artist.

PM453

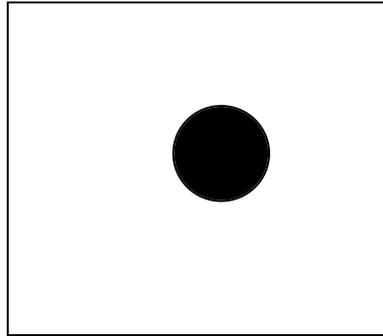
Textural and textual descriptions provide a means to embellish both emergent actions and processes of visualisation and representation with contextual detail as a form of ‘thick description’.

PM454

This not only reflects on Hirst (1974), but also the view of the artist as conveyed by Arnheim (1974):

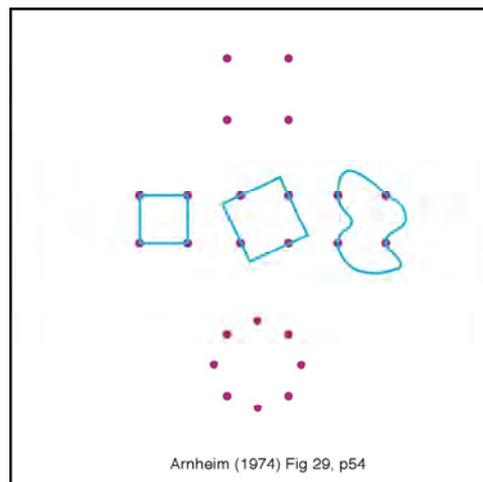
Just as a living organism cannot be described by account of its anatomy, so the nature of a visual experience cannot be described in terms of inches of size and distance, degrees of angle, or wave-lengths of hue. These static measurements define only the “stimulus”, that is, the message sent to the eye by the physical world. But, the life of a percept - its expression and meaning - derives entirely from the activity of the perceptual forces. Any line drawn on a sheet of paper, the simplest form modelled from a piece of clay, is like a rock thrown into a pond. It upsets repose, it mobilizes space. Seeing is the perception of action. (16)

Something of the dynamics of meaning can be conveyed through just very simple illustrations: the first holds many questions regarding its relationships with environment, space, movement, objective measurement and symbolic form



C6. *Arnheim 1974, Fig 1, p10*

The second, also from Arnheim is similar to many other visual challenges that questions what the eye 'sees' - by implication a square, or in the latter case, potentially a circle (or two off-set squares, or ...)



C7. *Arnheim 1974, Fig 29*

PM455

'In Search of the Lost Chord', and 'One in the Eye' each provide a different perspective on processes of visualisation, both from the view of an artist. Each tries to convey something of the difficulties I had in the writing of this document, wherein the textual representations are only approximations of my ways and means of theorising action in and through action. This establishes inherent ambiguities, which, though it can make certain processes difficult (such as communication, design, representation), and unpredictable, it is that dynamic, that opportunity for uncertainty that allows the development of meaning. In particular, I believe it is as Wenger suggests, 'an inherent condition to be put to work'. This also emphasises the 'importance', (rather than the 'problem') of ambiguity, without which the situation may arise for example, where (fixed) meaning, or the lack of need or capacity to generate new and alternative meaning/s, results in inertia. It also highlights an acute

relationship with 'power' (e.g. in the forms of legitimacy, control, accountability, etc.). Wenger (1999, 84) suggests that 'agreement in the sense of literally shared meaning is not a precondition for mutual engagement in practice, nor is it its outcome.' He goes on to suggest that 'mismatched interpretations or misunderstandings need to be addressed and resolved directly only when they interfere with mutual engagement.

Key to this whole issue is not only the ways means and reasons for developing the capacity to handle ambiguity, but that 'recognition of its inherent dynamic to give life and enliven being and meaning perpetuates that very cycle of life, being and meaning'.

From the view of the artist, having found an expressive medium, to suppose that it is somehow insufficient in itself as a representational form, and needs other forms of explanation, challenges the very principle of the art form, the artist and so on. Such deconstructive and destructive inclinations are not limited to the 'arts' (ref Saussure, Derrida, Fodor in Cilliers 1998) and similarly not limited to postmodern thought as supposed by modernists (see Hatch (1997), Kosko (1994), Capra (2003), Kuhn (1996)

PM456

Ref Fig 48 'Uncertainty - the issue located?' Also refer to '[One in the eye](#)' within which the complexities of 'participant' as (un)known, (un)involved, (c)overt may or not emerge or become evident and significant within a complex network of human interactions. This notion of indeterminism is also conveyed within the same text regarding the meaning or ambiguities that potentially reside within action and other representational forms (such as text, discourse, events and so on)

PM457

An example of the contradictory nature of potential is the instance where a particular organisation (GE1) took the decision to employ a participant from another organisation (C1/1) to contribute at a strategic level to the EBLO's Community ICT Project without negotiating with the EBLO. (This is analogous to a parent advertising for and employing a teacher to work in a local school without first, asking the school, and second, remaining unaware of the circumstances into which the newly appointed teacher would fit.) When the EBLO discovered this fact, it admitted that the additional manpower could have enhanced the Project. However, they also expressed significant concern that this extreme form of professional misconduct constituted a politically motivated manoeuvre, legally contentious, confrontational and would not be tolerated under any circumstances.

PM458

For example, 'groups' or group theory has been explored part of sociological research (e.g. Giddens 1994, 1984; Silverman 1970), ethnography and its various derivatives, and as part of organisational theory (e.g. Schein 1992, Kraus, 1980, Clegg 1990). One in the Eye explores this literature more extensively than appropriate at this point.

PM459

There were interesting relationships between 'belief', 'potential' and 'benefits'. Benefit is indicative of a goal and an objectification of belief and potential (Wilkes, 1997, 4; Hatch, 1997; 120). Vardy & Grosch (1999) posit that beliefs are held and intentions and intelligible actions all take place within specific practices. These, in turn, develop traditions and become established in social institutions. (105).

PM460

In philosophy, systems theory and science, emergence is the way complex systems and patterns arise out of a multiplicity of relatively simple interactions, and where 'the arising of novel and coherent structures, patterns and properties during the process of self-organization in complex systems'. (Goldstein, 1999)

'Weak emergence' describes new properties arising in systems as a result of the interactions at an elemental level – as such it is part of the language, model or description of the system and/or its behaviour. Conversely, systems can have qualities not directly traceable to the system's components, but rather, to how these interact. If these new qualities are irreducible to the systems constituent parts, such that 'the whole is greater than the sum of its parts, then this may be described as 'strong emergence'. This notion is problematic for some if emergence entails 'getting something from nothing' (Bedau, 1997) unless one is open to the suggestion that it is not possible to properly describe a complex system (Cilliers, 1998), and that 'it is the synergistic effects produced by wholes that are the very cause of the evolution of complexity in nature'. Koestler (1969) used the metaphor of Janus to illustrate how the two perspectives (strong or holistic vs. weak or reductionistic) should be treated as perspectives, not exclusives, and should work together to address the issues of emergence. To that I would add that one's understanding of complexity and emergence may also be transformed if one considers this beyond the material/physical world, perhaps by reflecting on the spiritual, cultural, historical and/or artistic worldviews.

PM461

See ['Weigh in'](#)

PM462

This point has since been more fully explored by Guba & Lincoln (2005) in their discussion on paradigmatic controversies, contradictions and emerging confluences. Their development of previous axioms and issues pertaining to paradigms (as portrayed in their table 'Representation of historical moments', Fig 44) led them to refine and extend their tables to include 'Participatory' approaches, (in addition to the four cited in previous tables: Positivism, Post-Positivism, Critical Theories, Constructivism) and their issues were redefined to read: 1) axiology; 2) accommodation and commensurability; 3) action: 4) control; 5) foundations of truth and knowledge; 6) validity; and 7) voice, reflexivity and postmodern textual representation. (Refer Guba & Lincoln, 2005, Table 8.5, p198-199) and [In Search of the Lost Chord](#).

PM463

'our experience, our prejudices and our values are what provides the context of understanding for those who read our interpretation. Through focusing on our perspectives and those of our participants, we may broaden our 'horizon' of vision, and reach new insight and understanding with 'matched horizons'.' (Gadamer, 1979; 132)

PM464

My prior insight into the complex conditions and uncertainties did not determine what these were, only that these were an integral facet of the practices - otherwise they would have been neither complex nor uncertain.

PM465

Heidegger maintains that humans preoccupation in the minutiae of social living that they exist in 'an inauthentic' mode. Authenticity, for Heidegger, 'requires living in the world through knowledge or through poetic modes of expression, in order to understand and make contact with a purer kind of Being'. (Heidegger, 2000)

Gadamer (1985) suggests that

'... our experience, our prejudices and our values are what provides the context of understanding for those who read our interpretation. Through focusing on our perspectives and those of our participants, we may broaden our 'horizon' of vision, and reach new insight and understanding with 'matched horizons'.'

From such a perspective the ontological and epistemological argument is redundant and ceases to be a concern. Being and knowing become inextricably linked. Wenger (1999) adopts this notion of 'thingness' in his discussion about reification:

I will use the concept of reification very generally to refer to the process of giving form to our experience by producing objects that congeal this experience into "thingness". In so doing we create points of focus around which the negotiation of meaning becomes organized. (58)

I am using the term ‘thingness’ here to indicate the potential, dynamics and uncertainties of the circumstances, and how terms of reference were generally understood at the time, particularly during the early stages of the research study. That is to say, in the context of the moment in which the terms/themes were used, often without embellishment ... I also assumed at that time that some form of clarity to, or definition for them, might emerge.

PM466

This diagram can be considered in relation to others including: Research Action (Fig 32), Context for and in Action (Fig 49) and others located in this narrative.

PM467

Hatch (1997) provides some useful indicators about how the ‘issue’ of uncertainty may be considered within organisational contexts by organisation theorists:

In early modernist thinking, uncertainty was considered to be a property of the environment resulting from two powerful forces: complexity and rate of change. Today, organization theorists recognize that uncertainty lies not in the environment, but in the individuals who consider the environment when they make organizational decisions. This viewpoint has come to associated with the ‘information perspective’ in organization theory. (88)

... and goes on to state that: ‘Modernist theories assume that uncertainty is undesirable and avoidable, and that it drives organizational action by motivating decision makers to reduce their uncertainty.’ (94), though this could be deconstructed by opposing its central assumptions - instead of being undesirable, uncertainty can ‘give a thrill’, or seen as a state to be sought as ‘invigorating’ - the ‘discomfort’ otherwise emerging from stability - which in postmodern terms is expressed as: Complex systems operate under conditions far from equilibrium. There has to be a constant flow of energy to maintain the organisation of the system and to ensure its survival. Equilibrium is another word for death. (Cilliers, 1998); while Aldrich (1992;) frames this differently: ‘the extent to which social life is seen as indeterminate versus well structured’ ...

PM468

Accepting that uncertainty will underpin a ‘question’ and/or ‘problem’, convention dictates that as inquiry unfolds (emerges/progresses) some form of resolution will be found. Feedback loops exists allowing the validation of the both the initial (blue) and later (orange) phase – according to the level of determinism implicit within the approach, the path serves to ensure that resolution. The middle path allows a description of outcome irrespective of the level of determinism.

PM469

To adopt a quantitative stance for example, may unsettle some qualitative researchers just as positivism seems to have become 'the ogre of scientific research' in some fields of study. However, this thesis does not seek to refute the place and value of any one approach *per se* but rather, seeks to affirm my personal view that there are many factors that contribute to a research approach and depends on the relationship between the researcher, the study and the message that is conveyed. This depended on a close understanding of the idiosyncrasies in bringing those facets together, and ensuring that the product of that endeavour adds to the body of knowledge to which it relates. Indeed, my research adopted a multiple perspective approach in keeping with the conditions of the study, my relationship with it, and that (largely for ethical and democratic reasons) was compelled to recognise the principles of difference that was fundamental to the proposition. These comments further endorse other facets of generic qualitative, naturalistic inquiry and which were further refined by drawing on those virtues expressed by Eisner 1998, 1972, 1994, and Wenger, 1999) They also bring into question the place or emphasis of 'bias' within and between methods and approaches.

PM470

To help convey this, the model Fig 3 can be embedded within the diagram 'Research Action in Action Fig 8:

Ref Capra (2003), van Geert (1994), Wenger (1999), Maturana, Arnheim (1970, 1971) Dewey (1934).

NB The underlying principles behind my concept maps are discussed in '[One in the Eye](#)'. (To briefly convey an important facet regarding my maps: by not including prepositions or in some cases, even links, any implied hierarchy can be minimised and can encourage an evocative, meaningful relationship to evolve, particularly when the terms or concepts are viewed as complex systems (or semantic networks) within their own right, and additional relationships to other concepts (or nodes) encourages further modification of the meanings of those nodes.

While 'visualisation and representation', as a collective, is discussed more fully in '[One in the Eye](#)', and serves to provide a rich illustration of how I conceptualised and modelled the various terms of reference and/or actions as a synthesis of, and in action, this synthesis was itself pervasive and ongoing.

PM471

LOP/ICT model Fig 88

PM472

(ethno-illuminative, etc.)

PM473

Enculturation: the process whereby one learn the accepted norms and values emphases of an established culture through engagement so that s/he can become an accepted member of that social group and/or context. It has great resonance with 'socialisation' and 'community' (Williams, 1988).

PM474

The accompanying disk provides a QuickTime movie in which the two lines symbolising CA (context and action) and TM (theorising and meaning) change their relationships to each other. In this way at various times, for example, T overlays onto A, while at other times, C overlays with M and so on.

PM475

'Double-clicking' the image starts the animation which re-emphasises the dynamics of the relationships between each of the components.

PM476

'Double-clicking' the image starts the animation, which re-emphasises the dynamics of the relationships between each of the components. In this case, the 'wobble' is representative of the disturbances and uncertainties not only within, but also outside the system.

PM477

'Double-clicking' the image starts the animation, which re-emphasises the dynamics of the relationships between each of the components. In this case, the 'wobble' is representative of the disturbances and uncertainties not only within, but also outside the system.

One in the Eye

PM478

(however defined or objectified as process/product, information, understanding, etc.).

PM479

Associated 'determinisms' may find form in the principles, ways and means of finding representational form and/or according to the purpose of that representation. To represent 'participant' as formula, symbol, graphic, animation, video conveys quite different things, not solely about 'participant' but also the rationale and purpose behind the choice or process of representation.

PM480

... particularly that within the fields of social network analysis (Refer Scott 2000; Freeman 1994; Waltz & Feldman 1988; Wellman & Berkowitz 1988; other facets of connectionism are also described in this text in the further descriptions relating to maps and networks of various kinds. Some of these were informed by 'concept maps' of such as those expounded by Novak 1998, Buzan 2006, Kemprell 1995, Fielding 2001, Freeman *et al.* 1994

PM481

The theory of constructivism rests on the notion that there is an innate human drive to make sense of the world. Instead of absorbing or passively receiving objective knowledge that is "out there," learners actively construct knowledge by integrating new information and experiences into what they have previously come to understand, revising and reinterpreting old knowledge in order to reconcile it with the new (Billett 1996). The cognitive structures that learners build include "procedural" knowledge ("how"--techniques, skills, and abilities) and "propositional" knowledge ("that"--facts, concepts, propositions). Often neglected are dispositions--attitudes, values, and interests that help learners decide: Is it worth doing? Knowing "how" and "that" is not sufficient without the disposition to "do." Kerka, 1997)

Constructivists believe that learning is an active process of constructing, rather than acquiring, knowledge and that the goal of instruction is to support that construction rather than trying to transmit knowledge. Constructivism focuses on:

- * the construction of new knowledge that is unique to each person
- * the importance of the environment in determining the meaning of reality

We cannot talk about what is learned separately from how it is learned, as if a variety of experiences all lead to the same understanding. Rather, what we understand is a function of the content, the context, the activity of the learner, and, perhaps most importantly, the goals of the learner. (Savery J.R. & Duffy, T.M. 1996; 136)

Duffy and Cunningham make a distinction between cognitive constructivist and socio-cultural constructivist.

Cognitive constructivism emphasizes the constructive activity of the individual as he or she tries to make sense of the world. In this context, learning occurs when the learner's expectations aren't met and he or she moves to resolve the discrepancy between what was expected and what was actually encountered; so learning is always driven by the learner. The instructor and peers serve as a source of perturbation in order to stimulate the learner to seek more knowledge. Socio-cultural constructivism emphasizes the socially and culturally situated context of cognition so

that collective actions become the focus. Reality is viewed as a constructive process embedded in socio-cultural practices with the possibility of acting on and transforming reality within the context of those practices. Learning is a process of acculturation into an established community of practice and the focus of analysis is the individual's participation in culturally organized practices and face-to-face interactions.

Lebow summarizes the constructivist framework as involving 7 values:

1. *collaboration*
2. *personal autonomy*
3. *generativity*
4. *reflectivity*
5. *active engagement*
6. *personal relevance*
7. *pluralism*

Major tenets of constructivism:

- * case-base reasoning
- * cognitive apprenticeship
- * cognitive flexibility theory
- * constructivist learning environments
- * goal-based scenarios
- * problem based learning
- * scaffolding
- * situated learning
- * zone of proximal development

Major learning theorists associated with constructivism are:

- * Piaget
- * von Glasersfeld
- * Vygotsky
- * Dewey
- * Bruner

The various discourses and approaches pertaining constructivism and its various derivatives are pervasive within fields as diverse as ethnography, cybernetics, psychology, the arts and network analysis.

Challenges to constructivism have mainly concentrated on its lack of empirical favour - criticisms particularly directed at the Piagetian tradition (Bryant, 1976; Donaldson, 1978; Flavell, 1977).).

PM482

<http://online.sfsu.edu/~kbach/ambguity.html> (viewed June 2005)

PM483

Within a context wherein speculation was a key driver for the various forms of engagement, situations then developed where organisations and participants needed to deal with various uncertainties that arose through assumptions that were as dependent on their own dispositions and which were then manifest as 'tangible evidence'.

PM484

In navigational terms, getting a fix means 'where are we?' This was a question being continually asked throughout the research inquiry and symbolised the uncertainty, not so much of what was evidently framing current practice but that which was not evident and framing current and potential practice. Some participants referred to 'going with the flow' and 'inevitable forces of change', particularly when there was some unease about the current or potential situation.

PM485

Facets of Observation explores the interplay between knowing what to look for in order to see – being a participant gave me insights into action that could mean that I was aware of nuances that might otherwise have gone un-noticed; hence this narrative has stated by reflecting on how or why we may see rather than what we may see. Processes of visualisation will be in part framed by prior experience. Therefore, observation was informed by different forms of participation (e.g. incidental, formal; documented, verbal; emotional states of observer and observed), by context (time of day, month, year; location). Thus, 'observed evidence' could arise in circumstances where the formality was no guarantee for significant data, *in-situ*, retrospective, from (in)formal policy, documentation, events, celebrations; and 'captured' by: being there, asking, (not) engaging, raising questions, listening, and absorbing detail as typical, routine, new, different, interesting, mundane, strange, and so on.

PM486

These interviews are defined here as 'formal' in that: a) the format for these 'unstructured interviews' was improvisatory (Refer 'In Search of the Lost Chord' and 'Reading the small print') b) they were arranged and formalised by the LLP/ICT sub-group for the specific intention of producing a formal Report.

During that specific inquiry it was becoming evident to me that the perceived boundaries alluded to within formal research practice literature were illusory, not helpful or representative of the conditions in which I found myself - much of the evidence for the report was not simply drawn from those pre-arranged interviews. Similarly, the boundaries of ethical practice, bias, and determinism were in constant flux as participants' explicit comments appeared to me to become increasingly ambiguous, indeterministic.

PM487

Refer: '[Terms & Conditions](#)' and '[Weigh in](#)' provide further descriptions about my (co)participant role. These narratives also indicate that natural 'sampling' occurred due to those circumstances in which I was participant, the evolution of new partnership configurations and developments.

PM488

This is therefore, a clear example where I held a dual role: as participant interested in developing solutions re everyday activities; as researcher - seeking other insights that informed the research study ... in this case through 'interviews'.

Emerging from these interviews, findings:

- a) contributed to the development of the approach,
- b) confirmed the uncertainties and insecurities that many organisations were facing,
- c) illustrated that solutions and answers were speculative, aspirational and likely to be sufficiently stable to gain further insights and move forward - akin to 'treading on quicksand';
- d) suggested that, detail was illuminating and had the power to distract or inform, the problem being 'when does a red herring **not** lead up a blind alley?'

PM489

That activity helped form the context for further activity and is reported in the various sections of the Report, the Scenarios and the thesis. Contributions and responses to this report also highlighted important issues that informed the development of the research study, e.g.: the strategic relationships between organisations as they dealt with these essential changes within a partnership context; that 'difference' might be seen as both a strength and weakness; notions of power, control and ownership, etc. The associated integral dynamics (e.g. complexities, uncertainties) each informed the research approach such that key notions (e.g. those pertaining: pluralism, holism, topology, multi-linearity, dimensionality, etc.) started to take on new meanings and reshape the processes of the inquiry and its representation.

PM490

1 The nature of the dialogue within and across the different interviews varied considerably between organisations/participants. Even though the LLP/ICT sub-group agreed the nature and purpose of the interviews, on meeting the individuals, their subsequent responses shed a different light on the view that had been previously negotiated within the formal partnership meeting. Various factors could have contributed to my perception, such as:

- the multifarious group was comprised of for example, the Principal of a college of further education, a Corporate Director of a multi-national business, an Advisory Teacher for ICT, a primary school Headteacher, a Manager of a small local charity, two Corporate Directors of the local council, and so on. Each expressed their ideas regarding ICT, learning and the value of the LLP in different ways, such as:

- the interview with one Corporate Director (G1/ICT Director/1) was conducted with another participant from that same organisation present (G1/ICT Senior Manager/3). The majority of the interview was conducted, at the request of the interviewees, with the tape recorder turned off; my questions of them represented approximately 20% of the questions being asked - much of the time, they were enquiring about basic information about the LLP (they had rarely attended LLP meetings up to that point in time), and about other ICT Projects, including those occurring within their own organisation.

- another ICT Manager (GE/4) was very late for the interview, gave me less than 10 minutes, mostly responded with gestures (e.g. head shaking/nodding, shrugging shoulders), and left in a hurry. I perceived that part of the issue within this interview related to the difficulty for the interviewee providing 'the right answers' to basic questions, such as those pertaining to the publicly declared existence of ICT policy and associated aims of that organisation, and which, it transpired, did not exist at that time.

- despite my declared position as researcher and the ethical considerations pertaining to the interviews and Final Report, I was nevertheless, a co-participant in current action. To another interviewee, I was from a 'competing' organisation and answers were thus, evasive.

- it is possible that participants were influenced by their perceived role and understanding of the purpose behind the interviews, their position within an organisation, how they perceived ICT/learning within and outside certain contexts, and how the ensuing report might hold other implications for further engagement/practice.

- I had considered asking the same questions to all interviewees and suggested this to the LLP/ICT sub-group. They were emphatic that this was not a good idea! (They did not declare why, but rather expressed the view that semi-structure, informal interviews would allow the answers to emerge more naturally.)

With hindsight, the responses to technical issues demonstrated very different meanings and understandings and if subjected to particular forms of quantitative of analysis, could have construed a map of the relative capacities or knowledge within the group.

2 the nature of the transcriptions meant increasingly relying on 'reading between the lines' - and thus subject to various forms of bias, misinterpretation and so on.

PM491

That is not to say that this process is in itself particular/exclusive to 'scientific' enquiry, though the tools/means or rationale may hold to certain paradigmatic duties/traits and practices ...

PM492

... such as those forms of filtering that occur when observing, removing, abstracting, refining, synthesising, recovering and presenting. Each stage of the process entailed those forms of filtering as assumptions were made, confirmed or rejected, regarding the significance of the comment or action, however articulated. Each stage represented a potential flaw, (and asset) as subjectivity, logistics, bias, focus, determinism, uncertainty, difference each pervaded and influenced associated perceptual and cognitive factors, not only of the observer but also those being observed. However, there were fundamental qualities or protocols of engagement that helped to maintain an overall balance and legitimacy to those on-going complex transactions.

First and foremost was the ethical precedent, set by myself, which was informed by the community of practice in which I was immersed as co-participant, by the ethical guidelines inherent within that community and also by the research community. Although there were inevitable differences within those ethical considerations as applied to or by different circumstances, I believe they fell within the bounds of 'acceptable practice'.

Second, the longitudinal study in itself provided various means to 'validate' emergent issues and ideas that seemed peculiar to a specific event by situating those within much broader contexts. That is to say, for example, a seemingly negative comment by a respondent could be re-contextualised within other settings in which that participant (or the action to which they referred) was 'involved' and thereby help establish (other) foundations for that comment. In this way, it was possible to establish whether that seemingly negative comment was attributable to such things as irony, deliberate linguistic ambiguities such as cynicism, or just for fun; or reflective of the wider contexts in which they were immersed and which were not known to me, and so on. This was an important facet of the approach and which I believe sets my research apart from other approaches (perhaps, necessarily) adopted by other researchers.

Third, a fundamental issue that pervaded the research was the matter of handling 'detail' *per se*. Claiming that my approach was 'holistic' nevertheless required finding means to make sense of what was occurring by being able to immerse *and* stand back from the detail. This 'yo-yo' effect represented a further form of filtering as detail, abstraction, re-interpretation and re-presentation occurred.

PM493

As a form of natural sampling and reduction, the interviewees were mostly members of the LLP/ICT sub-group. Further filtering occurred as circumstances determined whether, or how they would engage in those interviews (such as refusing to participate, being 'unavailable', being late, only being prepared to discuss certain issues and, perhaps, in a way that could be defined as 'evasive' or 'politically motivated', with/out a tape recorder, and so on).

PM494

A key issue that was evident from most of the formal interviews conducted on behalf of the LLP/ICT sub-group was the pervasive uncertainty of the general conditions influencing organisational change at that time. Hence, interviewees responses could be interpreted as: aspirational, idealistic, highly subjective, biased, politically motivated, sincere, ephemeral, potentially.

PM495

Refer: Strauss & Corbin (1990), Walford (1991), Coffrey & Atkinson (1996) who discuss and make distinct various filtering processes, through sampling, categorical typological analyses; while more recent approaches that adopt connectionist and constructivist models and which have empathy with complex (postmodern) stances give a different stance (refer Gill (2003); Gergen (1994), Marriotti and suggest a move towards those notions long held within the arts, as exemplified for example, through reference to aesthetics, connoisseurship, form as in: Arnheim (1974, Albarn (1977), Langer, (1953), Oakeshott (1985), Kushner (2002).

Specific examples of coding includes:

'Open Coding' (a part of the analytical process concerned with identifying, naming, categorising and describing phenomena such as that represented in the 'data' or 'found in the text');

'Axial Coding' refers to the process of relating codes (categories and properties) to each other, via a combination if inductive and deductive thinking. Grounded theorists for example, tend to emphasise causal relationships and fit things into a basic frame of generic relationships.

PM496

Refer 'Generic Research Practice (Fig 52). Also to the texts 'Trends and trajectories (p) that describe the research process as a synthesis, and leading to the interconnected, interdependent linked rings animation (Fig 61).

PM497

The 'frame' consists of the following elements:

Phenomenon (this is what in schema theory might be called the name of the schema or frame. It is the concept that holds the bits together;

Causal conditions (e.g. the events or variables that lead to the occurrence of development of the phenomenon);

Context (such as the specific locations, values, of 'background' variables);
intervening conditions (such as moderating or mediating variables);

Action strategies (such as the goal-orientations that participants perform);

Consequences (however determined or 'intended')

Selective coding is the process of choosing one category to be the core category and relating all other categories to that one. Grounded theorists hold the belief that such a core concept always exists.

PM498

viz. the processes of inquiry illustrated within the research literature, and those processes in which I was immersed as researcher ...

PM499

This might have occurred through various forms of filtering, reduction, abstraction, generalisation or other forms of coding.

PM500

Alpha-numeric data is generally, though not exclusive to quantitative research practice, as it rather depends on what the function of that data rather than its form.

PM501

Hierarchies occur as some form of linearity or bias is established within a network of relationships. These may be explicit (such as those which occur through grounded theory or the use of Nudist software, and concept maps such as those advocated by Novak. Others are rather more implicit such as those occurring within diagrams that do not make use of arrows or prepositions, or those occurring in narrative form. Even

though I maintain that my resultant diagram and maps are non-hierarchical in the sense that the relationships are more dynamic and elusive, they can be conceptualised and theorised in sets according to the emphases brought to bear on those representations. AtlasTi and Nudist both provide graphical networks drawn from the hierarchies or sets and categories. Nudist is purely hierarchical in the sense that only one root and one direction to the hierarchy is 'allowed'. AtlasTi on the other hand, allows relationships to be non-hierarchical insomuch that multiple links between nodes may be established.

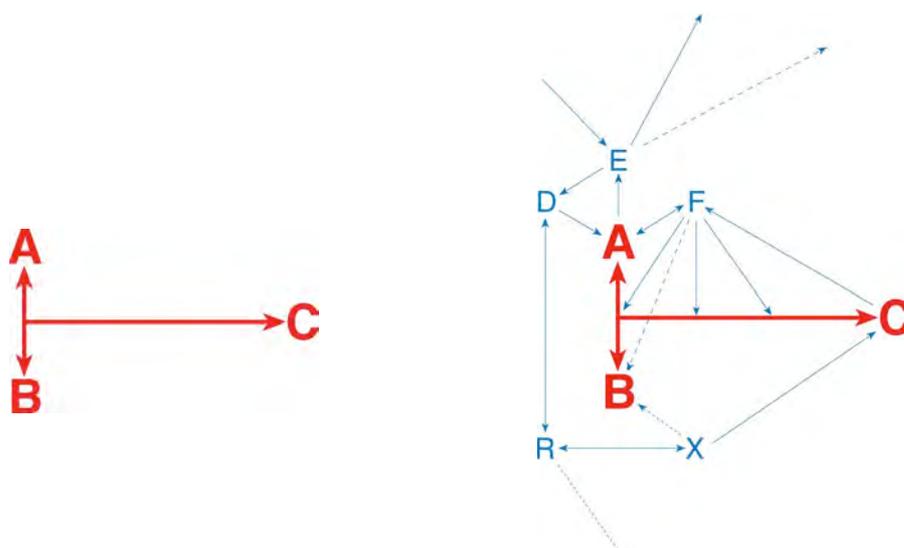
PM502

Examples of concept mapping are abundant and have an extensive history in ethnography, connectionism, social network analysis, psychology, cybernetics, and so on. Essentially, any objectification within a network or map can signify a concept. That signifier may be represented in various ways (e.g. a node, number, symbol, word) and can thus reference for example, an object, person, action, idea, or behaviour. Links between those concepts signify a 'relationship between the concepts, and may suggest a direction or emphasis, (such as A 'caused' B, A 'equates to' B), and may be indicated with an arrow or preposition e.g.



C8. Net example 1

This form of network can grow in complexity as additional concepts are added and relationships, e.g.



C9. Net example 2

Some networks take on further representational form through the use of other dimensions (e.g. 3D, 4D, animations and interactive). Examples are included in the main text below. Thus, 'concept maps' may represent initial coding of experience, events, ideas, and so on. They may also be used to theorise and make meaning from those relationships. My maps grew, in part from: a need to handle the scale, rate and complexity of information that I felt might have some potential significance to my research inquiry; as a form of abstraction, filtering; as an important means to theorise; as a significant form of representation. This development was further informed by reflecting on relevant literature pertaining to connectionism, network analysis, constructivism, design and art.

PM503

WebGrid III is an implementation for the World Wide Web of George Kelly's repertory grid technique for building conceptual models based on his Personal Construct Psychology (PCP). WebGrid asks you to define a domain of interest, a context or purpose, and some elements or entities that are part of the domain and relevant to your purpose. It then elicits constructs from you which establish how you distinguish the elements in your domain in ways that are relevant to your purpose. WebGrid provides a variety of methods for modelling and visualizing the relations between your constructs. It also enables you to compare your constructs with those of other people. Facilities are also included for using your conceptual model as an expert system. (Web Grid III Manual)

PM504

Other research methods that I considered include for example, concept analysis, content analysis, concept mapping, critical theory, hermeneutics, and deconstruction. Many of these are founded on textual analysis such as finding patterns within or alluded to within the texts. According to how experience was perceived, annotated or coded, other approaches I considered based more on network analysis have their roots in Set, Graph and Field theory. (Refer Scott 2000; Wellman & Berkowicz 1988):

There are many "structuralism's" in the social sciences. All are concerned with interpreting processes in terms of patterned interrelationships rather than on the basis of individual essences. Consequently, they look at their subject matter in similar ways, pose similar questions, and construct similar analytic procedures to answer these questions. (5)

PM505

When I first began my research methodology course in 1998, a significant part of that was based on science method. Key to that method was the question of causality (as implied by Fig 66a. Arising from the discussion, and subsequent reading was the issue of direction (indicated by the downward arrow) but also, the simplicity of the binary equation if/then, is/ought; that, by implication 'A' represents a 'catalyst' – something that brings about change without itself undergoing any change; and the interest in 'A' and 'B' as to objective 'states', rather than the interest in the arrow, the

process. Hence my other diagrams in Figs 66/67 challenge the notion of that simplicity, touches on complexity/chaos and associated notions that change/interaction is of key interest rather than the 'state' of being.

PM506

This development was further informed by reflecting on relevant literature pertaining to connectionism, network analysis, constructivism, design and art. (Discussed later in this narrative)

PM507

E.g. CATM/R model (Fig 55); CATM animation ((Fig 56); CATMR network (Fig 57) and Animated Linked rings 2 (Fig 60)

PM508

'Literature' refers not only to books and journals but also the policy documentation upon which much of the activity was based or contributed; not included in the term is correspondence (e.g. letters, emails, memos) meeting agendas and minutes, though these were also a key source of research evidence. These fall under the more collective term of 'documentation'.

PM509

While scrutiny of the literature and documentation associated with the research study contributed to my general knowledge and understanding of the concepts and processes pertaining to the study and influenced my overall practice, I found that generally, many other participants did not necessarily share my enthusiasm for reading. In some instances my wish to share insights from reading literatures were dismissed as "too philosophical - we haven't got time to talk about that - we have to get on with the work ..." (Senior ICT Manager - LEA), even though in this particular case, my reference was to BECTa material highlighting information about research findings from EDSI (DfEE, 1997), Stevenson Report (1997), McKinsey Report (1997) and reference information about ICT / NGfL (Becta 1998) – I thought that this background information might help the NGfL Development Group in their decision making - these documents were not known to the Group at that time. Three weeks later, the initiative was taken by the Senior ICT Manager to circulate to the NGfL Development Group a BECTa document (1999) to support decisions that s/he had taken since the previous meeting. However, in between meetings, other members of the Group had also since, acquired the same document, from which they then also drew in order to question the interpretations and decisions taken by the Senior ICT Manager.

Another particular example arose in the course of my research that I carried out in order to produce the LLP/ICT Report. The ICT Sub-group claimed that they wanted to have a document that could inform policy and practice. In my ICT Report I therefore, referenced a range of important and relevant documentation (in Section 1 of that Report) that had been written at that time to inform policy and decision

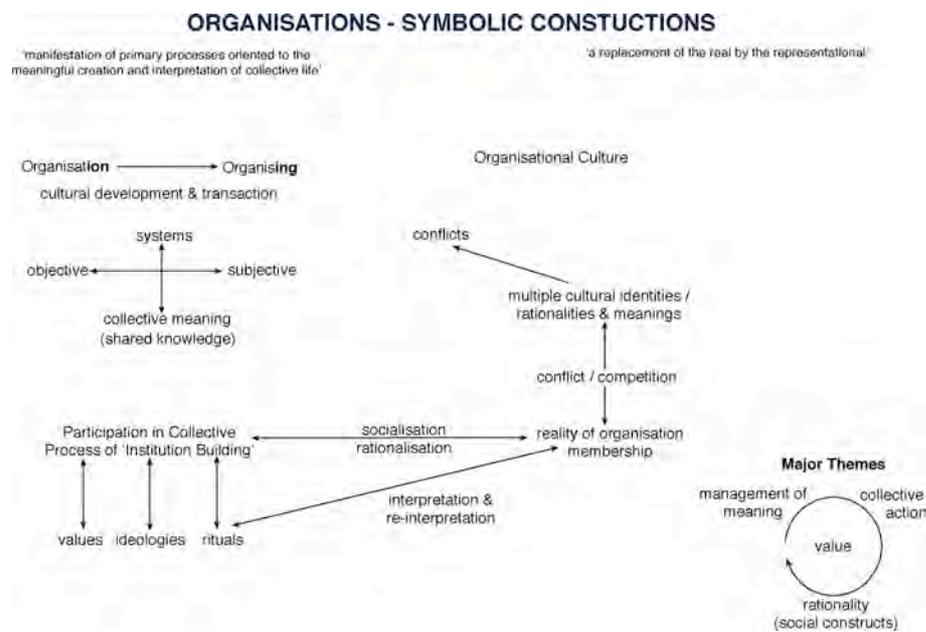
making. Yet, when I presented that Final Report I was challenged as to why I had included material that emanated from outside the immediacy of the Groups interests.

PM510

I designed the following concept maps to capture facets of organisational theory from different social perspectives as outlined in Reed 1992, Handy 1986, March, 1965.



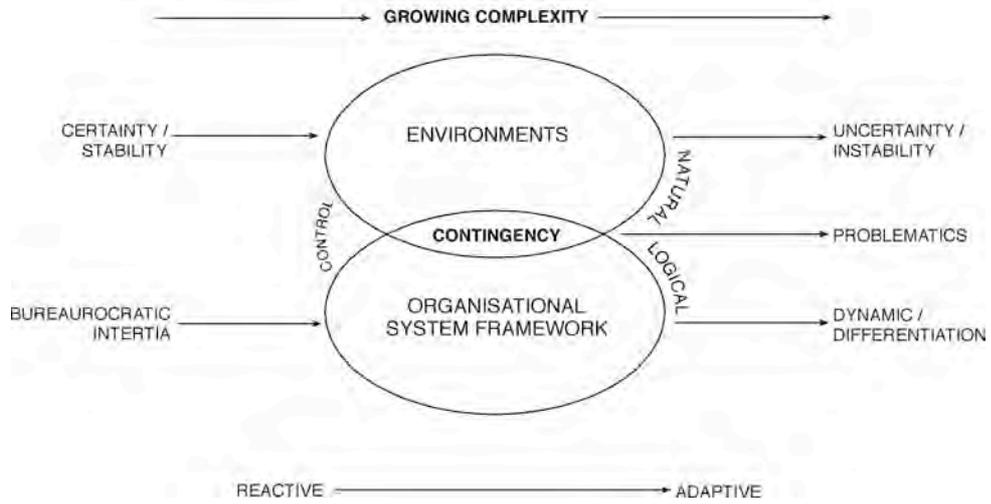
C10. Organisations as Social Practice (OT Model)



C11. Organisations as Symbolic Constructions (OT Model)

ORGANISATIONS - SOCIAL SYSTEMS

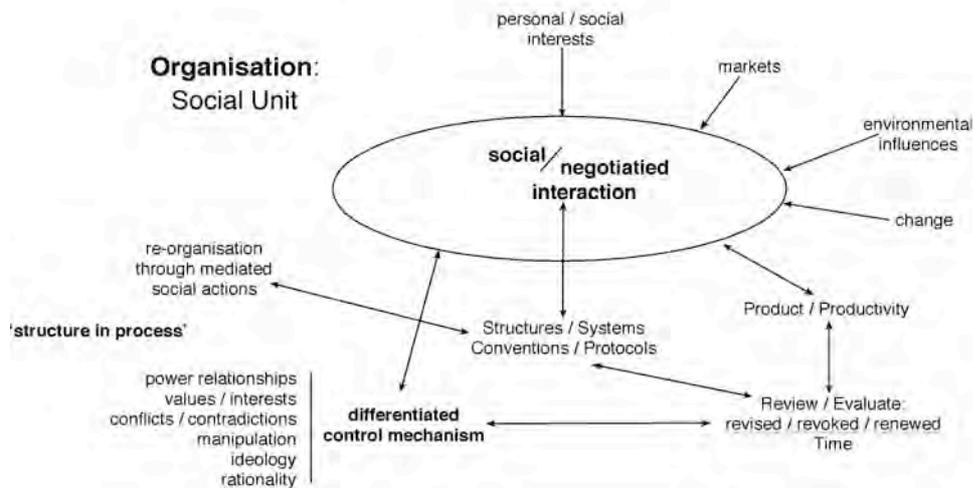
an 'entity that determines the actions people follow'



C12. *Organisations as Social Systems (OT Model)*

ORGANISATIONS - NEGOTIATED ORDER FRAMEWORK

'a temporary product or outcome of interactional processes between individuals and groups that is always open to revision and reformulation by them'



C13. *Negotiated Order (OT Model)*

PM511

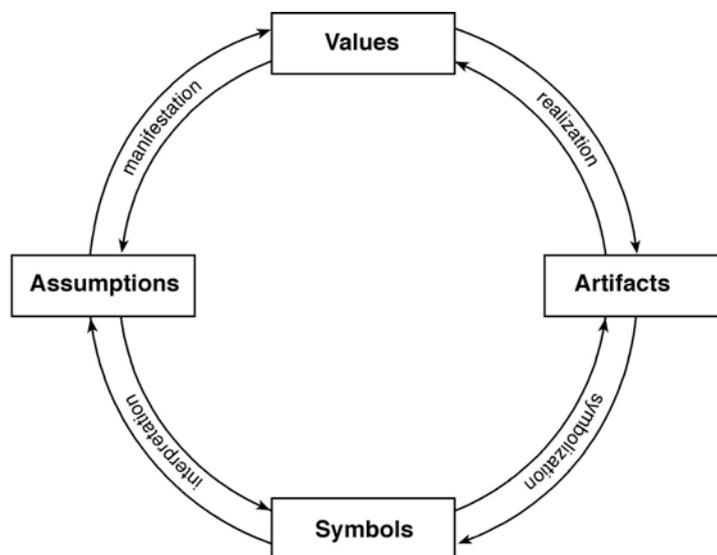
Recent literature has referenced postmodernism in fields of study that is applied outside that of organisation studies, (such as science, art, literature, philosophy). It has acquired so many different meanings that it has become impossible to define it. Literature on postmodernism has proliferated to such an extent that it has become difficult to know exactly what position it is that one has to engage with. Lyotard (1984) defines postmodernism as ‘an incredulity towards meta-narratives’

I do not use the term as a reference point for my approach. (See Harvey, 1989) though the following diagram represents certain qualities that suggest that my approach is postmodern:

PM512

These ‘perspectives’ have roots in anthropology, ethnography, ecology, and emergent social theories that been variously represented through theoretical paradigms, models and metaphors (culture, ambiguity, texture) and the outcomes from various organisational theorists of different ‘schools’ (e.g. Ashton, Chicago).

Schematics of various types have long been used in organisational theory to represent the structures and models underpinning organisation. I have reference ‘organisations as hypertext’ elsewhere (Refer C14) as being pertinent to my own approach. The following model in Hatch is also indicative of the underlying approach outlined in the above narrative and within other texts in the Research Section:



Hatch (1997; 363) Fig 12.4 The Cultural Dynamics Model Showing Culture as Process

C14. Hatch - Culture Dynamics Model (1997; 363)

PM513

Interpretative trends can be represented through the following two models which can serve as overlays:



Reed (1992, 189) Fig 4.2 Trends and trajectories in contemporary organization theory (RID156; QID1069)

C15. Reed (Fig 4.2) Trends & trajectories

... and serve to illustrate the shifts in the ways of looking at the world, and expressed in by Strati (2000) view:

'It is questionable whether an organisation really exists or whether it is only an infinite series of organisations constructed and reconstructed as infinitum by subjects in the specific dynamics of their relationship with the organisation.' (Strati, p71)

These two illustrations are indicative of trends that are encapsulated in my diagram, 'Evolving assumptions' (Fig 45) in [reading the small print](#).

PM514

(A means of determining position from a previously known position)

PM515

In Subjectification without semantic change, Nicolle posits that subjectification occurs when perspective of the 'viewer' or conceptualiser of an event (typically the speaker) is incorporated into the description of that event. It represents a means of bringing forward a subjects perspective, feelings, beliefs and desires. I would suggest that Nicolle's focus is on the explicit, while 'art' has its very foundations on that principle, both through the creation (by the artist) and/or 're-creation' by the observer. (Refer: Arnheim, 1970; Adler 1994; Albarn, 1977; Wilkes, 1997; Witkin, 1976). This epistemological and ontological notion fundamentally underpins facets of complexity theory (Cilliers, 1998).

PM516

The concept of non-participant varied according to how this was framed by for example, government documentation, or perceived within a set of participant relations (e.g. the extent to which a person or organisation was 'perceived' or appeared to be 'involved'. The term was used by stakeholders when referencing

young people who were not involved in the projects devised for them. However, as described in Scenario 2, the young people may have been participant but not in the ways that the stakeholders 'wished'.

PM517

Refer Scenario 1, 2, and 4 - I believe that one of the main issues that contributed to the demise of the community ICT Project occurring within the schools referenced in those Scenarios was due to the mis-match in expectations. That is to say, the sponsors and organisations providing the ICT resources (stakeholders) offered the schools (beneficiaries) the opportunity to use those resources to suit their own organisational needs and interests. Inasmuch that the pupils were then the beneficiaries, the schools were in turn a stakeholder. However, the Project Mangers did not feel that the schools fully took on board those responsibilities as stakeholders and thereby, denied the pupils the intended potential learning opportunities

PM518

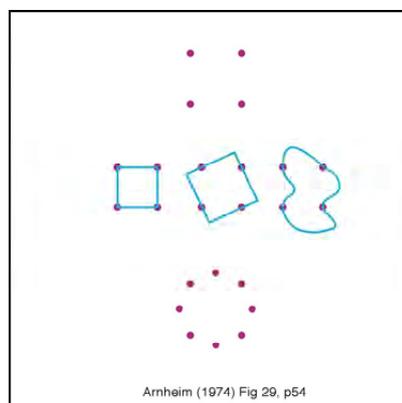
As mentioned in other narratives, 'community' was used as an apolitical term that elevated the status and authority of the LLP group.

PM519

This map symbolises lines of influence as perceived by the participants within the research study group. The general perception was that education was a focal point and conduit for many political determinisms ...

PM520

Some examples are described in Scenario 5. Such notions of ambiguity, uncertainty, flexibility is variously interpreted by different communities of practice as for example, (de)constructivism (Derrida; Duffy & Jonassen); illustrative of complexity, Cilliers and complex systems (1998); postmodern (Clegg, 1990); or essentially embodied within the following illustration:



C16. *Arnheim - diagrammatic potential*

PM521

Some nodes refer to a person, others to a group of people, or specific, explicit terms of reference relating to those lines of influence. This map can be superimposed onto the S2 movie file.

PM522

When it became known to the EBLO that a large, though unknown number of PCs of unknown specification were likely to become available to the EBLO for reuse and redistribution to a range of beneficiaries, a number of 'partner' organisations then endeavoured to become 'involved' in various ways. The partners adopted a range of strategies or ploys in order to influence the decision making and outcomes of that redistribution process. (Refer [Scenario 3](#))

PM523

The relationship between concepts ('a perceived regularity or pattern in events or objects') is articulated in linking phrases (e.g. 'gives rise to', 'required by'), such that these propositions 'form a meaningful statement' – Novak (1998) suggests that these are called 'semantic units' that are essentially built within a 'domain of knowledge'.

PM524

A key debate within the LLP was how or where learning might be located: educationalists within the Partnership typically claimed that learning was largely a sub-set of education; business representatives were emphatic that education was a sub-set of learning as learning need not necessarily occur within an 'educational' setting – each stance not only had ideological, political and technical implications but also challenged the regulatory forms or systems within which either might occur. From the perspective of designing a network, the issue for me was not in the *preference* but in the *option* that was never (collectively) 'resolved'. Thus, in my research model LOP/ICT there remains the question as to whether the concept in the 'centre' provides the foundation or the carrier for learning, partnership and organisation, or conversely, how distinctions may be made between Learning Organisation and/or Partnership (in the case of the LLP/ICT Report), as a 'consequence' of ICT.

PM525

'Knowledge representation schemes (semantic, conceptual dependency, frames, procedural representations, etc.) basic goal is to embody knowledge into the conductivities or weights assigned to connections among a network of nodes - the most common form of such a node consists of a linear part that 'adds up evidence' and a nonlinear part that 'makes a decision'. (p ix-xi) - Linear additive aspects of typical connectionist nodes can lead to problems because addition itself is so fundamentally opaque - once several numbers are added up, one cannot recover, from their sum, the inputs that were thus combined. (Waltz & Feldman, 1988)

PM526

An essential facet of this network is lost in this 2-dimensional medium as the purpose of and benefits from exploring this representational form is through personally interacting with the medium. By manipulating the model one becomes more aware of the implications of weight, centrality/peripherality, and potential arising from the spatial relationships within the network, even though in this case the nodes are 'fixed' in relation to each other.

Fat Patches*PM527*

This model is explained in more detail in Kosko, 1994

PM528

For example, Research Action, Fig 32; Research Action-in-Action, Fig 49; Participation Concept Map 1, Fig 72; and Linked Rings, Fig 89 - each suggests different forms of 'fat patch' within the notional detail or within the context within which those terms/issues arose.

PM529

'Pluralism' largely depends on differences (that arise) between two or more people or groups, and this difference may become manifest through various expressions of, say, belief, attitude, behaviour, truth, and other personal worldviews. In the sense that we can live with many versions of rightness, truth being on, Eisner (1998) also relates this to the process of inquiry:

Each of these (different) explanations is, in some ways, plausible. No one of them is necessarily truer than another; it depends upon the perspective one takes. As one's ability to take different perspectives grows, what is considered relevant shifts. The data one seeks change. The interpretation that is appropriate alters. Taking various perspectives is a way of examining situations from different angles. It is not so much a matter of ultimately achieving a coherent integration among the many perspectives, as one of being intellectually versatile or theoretically eclectic. It is a matter of being able to handle several ways of seeing as a series of differing views rather than reducing all views to a single correct one. (49)

PM530

As with my other research models, the terms are dynamic in the sense that they do not only refer to 'entity' but also, due to their interrelationships, to process, and are interchangeable - by switching inner terms (learning, organisation, partnership) with the outer terms (business, education and government) those terms take on different meanings according to how the mind reframes these within alternative schemas. Furthermore, while each term in itself represents a 'meaningful', almost tangible

expression of practice, each also represents an open, complex system (Cilliers, 1998; also refer '[One in the Eye](#)').

PM531

By way of example, in the early stages of the inquiry there was a possibility for engaging in either 'action research' or participatory action research. For example, [Scenarios 2](#) and [Scenario 4](#) suggest there were possibilities for either in the sense that the initial project and thereby, research opportunity, indicated mutual interest in exploring potential, collaborative development, and shared outcomes. However, as described in those Scenarios and other narratives (such as [reading the small print, Terms & Conditions](#)), there was significant evidence of ongoing covert forms of participation that did not fit with the ideals of collaboration, partnership, trust, or mutuality. Various forms of action occurred that could not be corroborated through approaches to particular participants who potentially had some contributor hand in influencing outcomes. Essentially, the nature of participant action challenged the very notion of participation such that I no longer felt that the collaborations no longer fit the neat description for participatory action research.

PM532

Illustrators have throughout history sought ways to represent or objectify abstract ideas such as God, unicorns, magnetism, electrons and madness – while the scientist Sagan explores possibilities for geometric constructs such as tesseracts and 4D hyperprisms, Hawkins' (2001) 'Universe in a Nutshell' offers the suggestion in diagrammatic form for 'multiple', that is, fourteen or more, 'dimensions'. Such constructs are visualised or theorised differently by artists such as Dali and Escher. Likewise, various notations, symbols and codes, or critique each offer ways of objectifying 'abstract' ideas and 'forms'. These may provide a means by which the essence of, for example, mathematics, music, dance, expression, experience, or aesthetics may be theorised, find form, be represented and communicated. The problem of symbols and codes intensifies if/when these remain intangible (cognitive function), yet 'evident' in the sense that they may be 'manifest' through actions and/or media that allows or encourages certain freedoms of interpretation and meaning making.

PM533

That is to say the entire thesis, as a complex case with its distinct but interweaving narratives, did not comfortably fit in with some conventional forms of representation – that is to say, it does not correspond well to positivistic science methods, though that is both 'a convention' and 'appropriate' for some researchers. Action and people were messy, complicated, different, dynamic, challenging, and as such, also didn't fit comfortably in boxes to which neat formulae may be applied. (Stake, 2005)

PM534

This process of coding (as outlined in [‘One in the Eye’](#)) took various representational forms and represents a vitally important process integrating visualisation and representation as a mode of synthesising complex action. A technique that I developed in order to handle and come to terms with the complexities of the case was to be able to move freely between differently forms and processes of theorising and meaning-making in order to be able to (re)consider the emergent relationships. This is analogous to the process of appreciating a picture or piece of music. The rich, dynamic interplay of detail that contributes to the whole may then be regarded by the observer on the basis of specific detail and/or what it potentially represents as a whole - that is to say, hearing the music ‘in spite of’ the notes. I began my studies expecting to look for particular observable characteristics based on the key terms of reference that provided the impetus for the various partnership groups, viz. learning, organisation, partnership, and ICT. (My diagrams and networks therefore, not only provided a means of recording and coding raw data, they also symbolized and enabled further theorizing as the models/nets represented open (rather than closed) systems. However, other key variables emerged throughout the research process of accumulation, theorising and synthesis.

PM535

Defining included: perceiving and/or recognising actual and possible meanings, considering alternatives, prioritising, establishing significance, and describing (refer [One in the Eye](#))

PM536

For example, through: observation, interviews, conversations, reading documentation (reports, associated literature, policy documents) and correspondence (letters, emails, phone calls), attending ‘events’ (meetings, conferences, celebrations, activity days). Captured by: being there, asking, engaging, raising questions; not engaging explicitly, recording in hand written field notes, onto audio tape, remembering and absorbing detail as typical, routine, new, different, interesting, mundane, strange, and so on. (Most of these forms of observation are evident within and across the various Scenarios, [‘If Then’](#), [‘Weigh in’](#) and [One in the Eye](#))

PM537

E.g. words, terms, phrases, ideas, issues that were readily accepted on one level, questioned or rejected on another; terms that might be partially resolved through subsequent participant action (such as how ideas became manifest, or through further discussion), through formal research procedures such as triangulation (revisiting interviewees, re-contextualising propositions, ideas and beliefs in other forms of action as evidence); and by presenting my findings to participants (as described in Scenario 4 and Scenario 5).

PM538

For example, social network analysis alone references set theory, field theory, points to various forms of discourse analysis (conceptual, symbolic interactionism, construct theory, grounded theory), each of which provide means to look in, look out and around concepts, themes, ideas, issues ... Further connectionist and constructivist approaches led towards network theory and complexity theories, each of which then extended the challenge about representation (as implicit/explicit, semantic/ambiguous, local/distributed) where the notion of the system within which the terms of reference require different ways of visualising form.

PM539

In one respect it is important to point out that my research did not intend to make an assessment of the 'beneficiaries' learning outcomes' arising from partnership practice as 'better' or 'worse', 'good' or 'bad'. Likewise, I may not have had sufficiently refined criteria to be able to judge outcomes, *per se*. However, as represented in Fig 19 (Stakeholders and beneficiaries) further dimensions to this diagram depend on the purpose behind the central line of 'working together' ... 'for the benefit of' ... 'beneficiaries'. For example, when 'learning' underpins the model, it begs the question 'who is the learner' insomuch that learning should be a fundamental requirement of partnership practice irrespective of how far that partnership extends - the notion of 'working together' tended to be 'for' rather than 'with' beneficiaries. The feedback loops to enabled this to occur were largely constructed by strategies and policy of either the stakeholders themselves or some 'higher' authority to whom the stakeholders were, in some respects, accountable. Likewise, while some 'stakeholders' did occasionally refer to learning as if it was something in which they and the partnership were engaged, for most of the time, their own learning was not discussed as a strategy, a process, an outcome or in other definable, qualitative terms. This finding was consistent with other participants - for example, when I was talking with teachers they did not tend to refer to learning as if it was something in which they engaged, either in respect of their own personal development or day-to-day practice. Rather, they either dismissed 'learning' as 'everything', or focused on learning in terms of where they felt their accountabilities lay - with 'others'. An elaboration for this finding is discussed in [Scenario 4](#).

PM540

That is to say the entire thesis, as a complex case with its distinct but interweaving narratives, did not comfortably fit in with some conventional forms of representation – that is to say, it does not correspond well to positivistic science methods, though that is both 'a convention' and 'appropriate' for some researchers. Action and people were messy, complicated, different, dynamic, challenging, and as such, also didn't fit comfortably in boxes to which neat formulae may be applied. (Stake, 1995)

PM541

Custom has it that not everything is a case. A child may be a case. A teacher may be a case. But her teaching lacks the specificity, the boundedness, to be called a case. An innovative program may be a case. All the schools in Sweden can be a case. But a relationship among schools, the reasons for innovative teaching, or the policies of school reform are less commonly considered a case. These topics are generalities rather than specifics. The case is a specific, a complex, functioning thing.' (Stake 2005; 2)

PM542

- 1 general, theoretical (context-independent) knowledge is more valuable than concrete, practical (context dependent) knowledge*
- 2 one cannot generalise on the basis of a single case; therefore the case study cannot contribute to scientific development*
- 3 the case study is most useful for generating hypotheses, that is, in the first stage of a total research process, while other methods are more suitable for hypotheses testing and theory building*
- 4 the case study contains a bias towards verification, that is, a tendency to confirm the researcher's preconceived notions*
- 5 it is often difficult to summarise and develop general propositions and theories on the basis of specific case studies (Flyvbjerg, 2007)*

Flyvbjerg's responses are largely encapsulate within the narratives of this thesis, though briefly and to give a different slant to those in his paper: one may ask, who, and by what means 'value' is established, on whose behalf, and for what purpose? Generalisation is not solely a consequence but may often be a determinant of subsequent action and theorising; within the context of this thesis there is little to be gained from exploring or defending propositions that have positivistic traits ...

PM543

... intrinsic case study - if the study is undertaken because, first and last, one wants better understanding of this particular case. It is not undertaken primarily because the case represents other cases or because it illustrates a particular trait or problem, but instead, because, in all its particularity and ordinariness, the case itself is of interest. ... The purpose is not to come to understand some abstract construct or generic phenomenon ... the purpose is not theory building - though at other times the researcher may do just that. Study is undertaken because of an intrinsic interest ... (Stake, 2005; 445)

PM544

... a particular case is examined mainly to provide insight into an issue or to redraw a generalisation. The case is of secondary interest, it plays a supportive role, and it facilitates our understanding of something else. (Stake, 2005; 445)

Stake continues by suggesting that methods of instrumental case study draw the researcher toward illustrating how the concerns of researchers and theorists are manifest *in* the case. Because the critical issues are more likely to be known in advance and to follow disciplinary expectations, such a design can take greater advantage of already-developed instruments and preconceived coding schemes.

PM545

Refer for example: Denzin & Lincoln (2005): Paradigmatic controversies, contradictions and emerging confluences (Guba & Lincoln, 2005); Narrative Inquiry: Multiple lenses, approaches, voices (Chase; 2005); Cultural Poiesis: the generativity of emergent things (Stewart, 2005; 1027-1043). Also: Aesthetics and ethics (Levinson 2001); Ambiguity, Cognition, Learning, Teaching and Design (Shotter, 2003)

PM546

As a semiotic concept, "culture is not a power, something to which social events, behaviors, institutions, or processes can causally be attributed; it is a context, something within which [interworked systems of construable signs] can be intelligibly—that is, thickly—described." We must ever be attempting to uncover "the degree to which [an action's] meaning varies according to the pattern of life by which it is informed. Understanding a people's culture exposes their normalness without reducing their particularity." (Geertz, 1973; 14)

PM547

An important issue here is that in the research model (LOP/EBG, Fig 88) each term represents a complex system. The model is also a complex system despite having few elements as it complies with most of the criteria for being a complex system. Furthermore, though each term can be an integral component of each of those systems, none of these terms can represent the other elements. They retain an interdependence irrespective of their place within each and any system. A further point is that, as each term takes on a dual form of representation, i.e. each term is itself a complex system, yet in the model, a component within another complex system, the meanings also constitutes or demands that conceptual shift that enables that terms to fully contribute to the new set of dynamic relationships arising from that model. It could be argued that this form of abstract, multi-linear and multi-dimensional processing is akin both to the principles that Brane argues in science for understanding p-branes, and to those principles within the arts where processes of visualisation and representation generally occurs in the abstract, and where say, three of the four dimensions may not be an issue at all.

PM548

With reference to complexity theory, the singularity is a point at which a complex function is undefined because it is neither differentiable nor single-valued while the function is defined in every neighbourhood of the point

PM549

From that perspective, this highlights a number of questions (or doubts) such as: Will the researcher's relationships with subjects have a negative impact on the subject's behaviour such that they behave in a way that they would not normally? Will the researcher's tacit knowledge lead them to misinterpret data or make false assumptions? Will the researcher's insider knowledge lead them to make assumptions and miss potentially important information? Will the researcher's politics, loyalties, or hidden agendas lead to misrepresentations? Will the researcher's moral/political/cultural standpoints lead them to subconsciously distort data?

Perhaps another way of considering these points is not so much within the context of methodological validity but rather, as ethical considerations. Many of the above questions (doubts) pertain to the integrity and rigor of the researcher. Ref Furlong & Oancea (2005)

In Search of the Lost Chord

PM550

Here I am using the term 'informed practitioner' in the fullest sense of bringing together and synthesising: the multi and inter-disciplinary professional participant (viz. observer and observed), processes of critically engaging in complex action, where the cycle of process/product is indistinct in its iterative cycle that is variously framed by dynamic ideological frameworks, and my 'being'.

PM551

Eisner suggests in *The Educational Imagination* that the world can be represented in as many ways as we-as-humans are capable of so doing. In a sense, this represents an inevitable ambiguity, as an alternative, different way of seeing and knowing.

Events in the world are ambiguous. We struggle to understand these events, to imbue them with meaning. The choice of a particular way of representing events gives them a particular meaning. There is often a competition over the correct appropriate, or preferred way of representing objects, events, or people. In fact, although there are many possible modes of representing the world and communicating them to people, the course of history can be envisioned as successive attempts to impose one mode of representation upon another. (Mehan 1996; 241)

PM552

Swanwick 1998, 1990, Paynter, 1983, Ross, 1980, Engeström et al, 1996 amongst many others each reflect upon the refinement of experience and forms of expertise through social transactions and the process of making sense of the complexities of

and our engagement in the world. Savery & Duffy (1996) conveys this differently by suggesting that:

Constructivists believe that learning is an active process of constructing, rather than acquiring, knowledge and that the goal of instruction is to support that construction rather than trying to transmit knowledge. We cannot talk about what is learned separately from how it is learned, as if a variety of experiences all lead to the same understanding. Rather, what we understand is a function of the content, the context, the activity of the learner, and, perhaps most importantly, the goals of the learner. (p. 136)

PM553

Dewey (1934); Reimer (1970); Robinson (2001),

PM554

Wenger (1999) uses a model (63, Fig 1.1) to bring together participation and reification as a duality, and through a process of negotiation, meaning emerges. (See Fig 68)

PM555

Eisner uses the analogy of wine tasting (my bracketed text replaces 'wine') and his discussion regarding connoisseurship is in this respect focusing on antecedent knowledge - that is to say, that which happened or existed beforehand.

PM556

In some respects this abstract process also occurs within the mind, perhaps in the form of anticipation, but without the additional responsibilities of physical performance.

PM557

Action is not construed by me simply as different people performing different objective, physical 'tasks' but also encapsulates other more obscure, subjective, potential actions of thinking, theorising, meaning making, feeling, and so on. It also emphasises the ideological dimensional properties that somehow differentiates the dynamics and multi-linearities of time and space.

PM558

These dualities can be objectified as left/right, good/bad, Research Study/Research Group, certainty/uncertainty, and so on. Many dualities occur through the ambiguities that may derived from different, or multiple meanings, such as that which occurs through interpretation, and re-interpretation of terms and actions to different settings and enacted in different ways by different people. For example, 'organisation' is in itself a duality as it can be interpreted as process/product, and holds multiple meanings as the term is used by different cultural groups. Similarly, the uncertainties

of meanings for some relatively simple concepts (e.g. 'bond' or 'red') or more complex concepts (e.g. 'learning' or 'partnership') suggests an irreconcilable, indeterminate, complex issue emerges. Thus, dualities are manifest in different ways, and can be further differentiated by notions of, for example, synergy, yin-yang, autopoiesis and complexity, and which set further dualities as such notions are refuted or supported by dualist traditions of science, art, determinism/voluntarism and so on. That is to say, a duality can be seen as an opposite, part of a continuum, or a difference that can occur at any point on that continuum, a point made clearly by Kosko (1994) in his narrative about fuzzy thinking, which explores the grey, the in-between, the permissiveness of the 'matter of degree'. Further notions of duality are presented in [reading the small print](#).

PM559

Atkinson & Hammersley (1998) express the view that ethnography usually refers to forms of social research having a substantial number of the following features:

- *a strong emphasis on exploring the nature of particular social phenomena rather than setting out to test hypotheses about them*
- *a tendency to work primarily with 'unstructured' data, that is data that have not been coded at the point of data collection in terms of a closed set of analytic categories*
- *investigation of a small number of cases, perhaps just one case, in detail*
- *analysis of data that involves explicit interpretation of the meanings and functions of human actions, the project of which mainly takes the form of verbal descriptions and explanations, with quantification and statistical analysis playing a subordinate role (110)*

PM560

My construct has been informed by Stake's view of 'Case Study' (1995) in the sense that 'it looks for the detail of interaction with its contexts'. It is also the exploration of 'particularity and complexity' and a means of 'coming to understand its activity within important circumstances'. Stake (1995) explains:

Custom has it that not everything is a case. A child may be a case. A teacher may be a case. But her teaching lacks the specificity, the boundedness, to be called a case. An innovative program may be a case. All the schools in Sweden can be a case. But a relationship among schools, the reasons for innovative teaching, or the policies of school reform are less commonly considered a case. These topics are generalities rather than specifics. The case is a specific, a complex, functioning thing. (2)

Here Stake seems to be seeking complexity, while looking for specificity. He is reflecting on the idea of what customarily defines a case and how it may be 'bound' within different dimensions, environments, for different purposes, and for these 'complexities' (for example, all the schools in Sweden) to be 'specific' rather than 'general'. Therefore, as it is unclear by this definition, and that of Smith^[0] whether my 'entity' (or case) 'conforms' to the convention of 'case study', though my study shares some of those ideas, is a single, complex 'case'.

Also refer Kushner 2000

Case study as a sampling procedure allows the evaluator to measure and to balance idiosyncratic, unique characteristics of a case with characteristics that are shared across the population of cases. But the principle operates at different levels and can be applied to the internal properties of a case study so that single instances within the case can illuminate something of the holism or the culture of the case ... (135)

PM561

For example, a melodic pattern is not solely determined by the pattern of pitches rising and falling, but also by the patterns of time (e.g. speed, duration) and dynamics (e.g. volume, density), by some additional applied form (e.g. repetition or other structure), and these patterns interweave to form their contrasts and new patterns called 'melody'. Combining melodies as 'polyphonies' or 'harmonies' offsets the balances between these large patterns and forms yet larger patterns within a structure that shapes the piece into say a rondo or ragtime and which then sits within a larger frame of conformities that set its style and so on.

PM562

in 'The Educational Imagination (1994)

PM563

That is not to suggest for one moment that each specific expression (musical, scientific or otherwise) thus affects the same emotion in the same way, otherwise there would no reason to debate the possible thoughts behind the expression of the Mona Lisa ...

PM564

Nothing: a concept that describes the lack or absence of anything at all. Grammatically, the word 'nothing' is an indefinite pronoun, which means that it refers to something – an extension is this argument being that 'nothing' is actually the lack or absence of something, rather than of anything. In mathematics, 'nothing' does not have a technical meaning. The number zero is often used interchangeably with the term – zero being something that can be redefined in many ways for different purposes. In science, it is practically impossible to construct a region of space that contains no matter or fields, since gravity cannot be blocked and all objects at a non-zero temperature radiate electromagnetically. However, even if such a region existed, it would still not be referred to as 'nothing', since it has properties and a measurable existence.

PM565

References that acknowledge the dilemma of representation: Cilliers (1998), Osberg & Biesta (2007); Derrida's 'metaphysics of presence' (1992); Gergen (1994); Albarn (1977); Arnheim, (1974)

PM566

Although historically string theory is an outgrowth of physics, some contend that string theory's current un-testable status means that (strictly speaking), it should be classified as more of a mathematical framework than 'science'. For a scientific theory to be 'valid' it must be corroborated empirically (according to one view), i.e. through experiment or observation. Moreover, as string theory is currently understood to have a huge number of equally possible solutions and as yet has made an experimentally verified prediction that differs from those made by other theories, it leads some scientists to make the claim that string theory may not be falsifiable (in the sense of Popper) and may have no predictive power - it remains to be 'confirmed' as a scientific theory. Yet,

Dozens of string-theory conferences have been held, hundreds of new Ph.D.s have been minted, and thousands of papers have been written. For all this activity, not a single new testable prediction has been made, not a single theoretical puzzle has been solved. In fact, there is no theory so far - just a set of hunches and calculations suggesting that a theory might exist.

Woit, P. (2002). 'Is string theory even wrong?' American Scientist. December 16, 2005.

The Question?

PM567

There are four main issues that lie behind 'The Question?'

- 1) There is challenge to the notion that the thesis serves to answer a question, or solve a problem; that this is (ideally) a personal, subjective, impartial, objective and verifiable point of view; and that there is, or needs to be a clear distinction between fact, knowledge, truth and belief. The dialogue in 'The Question?' has a direct relationship to the further narratives / subject of the thesis. It serves to highlight the pertinent issues of: having/asking a question; about belief, and its tenuous relationships with science, and 'knowledge'; the contentious / potential interrelationships between them, and particularly; the potential meanings that lie beyond the superficialities of the question/dialogue; the seemingly explicit.
- 2) An issue of **identity** arises from the discourse as it is unclear who is asking 'the question' - 'I' could be either person ... or both ... and this is exacerbated by the layer of theorising presented in the Comments narrative; attribution is not the issue here (in either narratives)
- 3) '**Asking**', which implies: some knowledge of, or potential for an answer, or presumes that some form of (further) clarification is possible; that a question might be asked in (genuine / partial) ignorance, or as a ploy, yet in either case, carries some form of intention; that there are different ways of answering (e.g. explicitly,

ambiguously, rhetorically, or with further questions); that dialogue may not be a reliable indication of the thinking behind the question/s, or answer/s - there are multiple layers within this narrative, such as: that which is explicitly expressed in dialogue by the two people ('I' and the 'stranger'): that which occurs within the comments text; the implicit meanings that may be assumed by a reader from the given texts or further interpretations; that the possible integrity of the question (or answer), as a representation of 'truth', may not be as important as the overall exchange.

4) What, precisely is the question – one about God, the four asked by the interviewer, the 120 raised by the interviewee, the four raised in this question ...

In a sense, a tension is created between 'The Question' and the adopted stance that the thesis holds towards the notion of emergence.

'Originally a synonym of propose, the word 'purpose' has caused a great deal of trouble. Like other words suggesting probable action, it seems to point to the future. The future cannot be acting now, however, and elsewhere in science purpose has given way to words referring to past consequences.' (Wilkes 1997; 13)

PM568

I didn't know who he was or anything (much) about him ... other than how he seemed; I had a sense that he was intent on speaking to me ...

PM569

He had questions. It seemed he didn't want to 'chat', or 'discuss'. I assume he knew what questions he wanted to ask even though we had just met. Perhaps he had a list; perhaps, my answers would confirm his own answers or expectations; perhaps he was testing a theory, or hypothesising some ontological or epistemological issue about, for example, which soap I use, about saving whales, or socio-political unrest in a 'third' world country; perhaps, they would serve to highlight a difference in our thinking, in our culture, in the richness and diversity of life being a challenge, or a reward in itself ... come to that, was there (to be) a 'right' answer, or a 'prize'? Would he let me know if I got the answers wrong? Any way, why me?

I already had an image of what sort of question he might ask from prior experience of 'that sort of approach' and 'that sort of person' - I wonder ... should I entertain him? Could I be bothered? Perhaps he would surprise me ...

PM570

Would he hear this as my 'willingness' to 'answer his questions' or as a confrontation? Was there any (explicit) ambiguity in my answer? Perhaps my positive engagement would assist with *his* (possible) doubt or uncertainty rather than merely a clarification of *my* knowledge on a certain matter, or affirm some form of 'intelligence' ... but that would perhaps depend on *his* interpretation of what he thought I said or meant ...

PM571

I think I had already answered my first question correctly, though he probably didn't know this either. Difficult question, perhaps. Had he already got further with me than previous interviewees? Was this 'too deep' for a sunny day when my mind was on the delights of Spring. Was there a simple 'yes/no' and did that determine the next question? Was he asking me about the actual existence of *God*, or whether I *believed* in the possibility of, or could I in any way refute (the rationality of) such an existence? I suppose he had 'one' in mind? Wasn't this the same as asking whether I believed in social responsibility, ethics, the aesthetics of art, saving whales, or liked meat? What was motivating him to ask such a question - finding the means to proclaim his 'own' (or someone else's) beliefs, as someone wrestling with, or researching the intricate balances between the physical, spiritual, the affective, etc.? What might be the least, or most contentious answer and how would he react? What question would my answer lead to? Was it my challenge or his?

PM572

A new expression appeared on his face. Was it relief, was he relaxing for one reason or another, was he being comforted by an assumption of some form of 'shared understanding'?

PM573

Did I have to ask? Was the answer to this 'obvious' - isn't that why I asked – Hadn't I already formed a view? Isn't the 'trick' of asking a question a matter of being able to anticipate the answer any way, or is it ignorance? Hang on a minute - I thought he was asking me the questions!

PM574

Other expressions come and go - an 'inner warmth', peace, something divine, or aesthetic, or spiritual, or puzzlement ... perhaps.

PM575

Was this question more contentious than the first - was it verging on the 'unethical', was it 'politically (in)correct'. Did I have the 'right' to ask such a question - it might allude to a hypothesis of my own, or reflective of a disposition that could shape the remainder of the 'interview' ... was I also seeking a better understanding of truth, confirm a standard, was I interested, really, or merely playing him at his own game? (Where are the ethics in that!)

PM576

Was it that he had trouble answering the same kind of question he had asked me? Was he avoiding making a distinction between 'a belief in God' and that there might

be 'more than one'? Were we becoming lost in the question rather than the (potential) simplicity of 'the answer'?

PM577

Could he understand the ambiguity of something not in print, intentional or otherwise? Did such a relationship resolve the question? Would this lead us to further discussion on the relationships between those faiths, or indeed between faith, religion, and their associated artefacts?

PM578

One day I learned that science was not true. I do not recall the day but I recall the moment. The God of the twentieth century was no longer God (Kosko, 1994, xv)

PM579

Other expressions ... a realisation ... perhaps?

PM580

A proclamation, a conviction, a challenge, a way of declaring or establishing a form of belonging to a socio-cultural group and thereby setting numerous precedents ... (assuming one knows what these are)?

PM581

What was he thinking? Perhaps the intended questions were not going to plan - depending on who 'should' have been asking. That the focus was now on the proposition that there might be more than one, that he 'knew' from a previous statement that I 'believed' in a God, did he have to now seek further clarification, as I had done? Was he really confident in his own belief, that there was 'one' God, that other Gods did not 'really' represent 'the true God' - possibly arising from an 'error of judgement' of some kind ... Should he, then, go back to follow his first question, framed by certain assumptions and beliefs, to further endorse that belief - rather than engaging in debate about other, 'non-existent' Gods - what would be the point in that? Was it possible or reasonable to think that one could only believe in one God ... surely to believe in one, it follows that one has to believe in all known Gods. The decision as to which one follows as part of their faith or religion is a different matter ... or should that be the other way round? Had the precedent been set - would he now ask the inevitable question to which the answer was by now, 'obvious'?

PM582

Ah, so either there is either doubt in the fact that there is only 'one', or a recognition of another's belief in other Gods. Was the questionnaire going to plan or was this a deviation, a contingency, a way of coping with difference or uncertainty?

PM583

Had we changed the subject - was it about what we 'know' or believe? It seemed that we both knew we knew we believed and believed we knew, though 'in what' was not now very clear. Perhaps that doubt, or the circumstances, were emphasising the position we were now being obliged to take and this would influence (new) forms of expression, or other doubts, that might occur.

PM584

The 'stranger' (or agent) was now more, or less so ... Perhaps we now knew much more about each other, or ourselves, than we had originally anticipated, or wanted.

PM585

Was that it? Had I 'succeeded' - had I answered his questions; was he 'satisfied' with my answers? Or had I upset him - had I crossed some ethical boundary that was undeclared, uncertain or simply, not shared but that should have been obvious? Was that the purpose of the questions - to encourage *me* to 'engage', in a form of convergence, to encourage me to share an interest in thinking about something in ways I might not have done otherwise, to leave me with 'the question', to leave me with 'an interest'? Was he an artist? He had never suggested he was interested in my answers, only in asking a few questions. I think there were only five - or was it just one? Did my answers make a difference *to him* as his questions had *to me*, or were they now more problematic? Perhaps, over that brief period of conversation an adequate view had been formed about beliefs, on existentialism, on social behaviour, about difference, such that further dialogue was unnecessary ... Perhaps, it was the experience, the interest, the uncertainty that mattered most.

I wonder whether he was doubtful, inquisitive, unstable, a missionary, a spy, a scientist, fieldworker, statistician, bricoleur, an artist ... or perhaps even, though unlikely, just a 'learner' ... I have yet to establish the real answer ... and perhaps he took that with him. At least we had both seemingly found a solution to what emerged as a problem. Now what?

References

- 2003, 21st Century Skills - Realising Our Potential (Individuals, Employers, Nation, London, HM Government
- 2001, Student Research Handbook, Ethical Research and Teaching, Exeter, Exeter University
- The Co-operative Movement, <http://www.co-operative.coop/aboutus> (viewed June 2007)
- 1999, Ways forward with ICT: Effective pedagogy using information and communications technology in literacy and numeracy in primary schools, Summary findings and illustrations of teacher development, University of Newcastle
- Abma, T, 1997, Advances in Program Evaluation: Evaluation and the Postmodern Dilemma, Sharing power, facing ambiguity, Stake, R (Series Ed); Mabry, L (Vol Ed), London, JAI Press Ltd, 1-55938-770-X
- Adler, P, & Adler, P, 1994, Handbook of Qualitative Research, Observational Techniques, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage, First, 0 8039 4679 1
- Ahuja, M, & Carley, K, (1998) Network Structure in Virtual Organizations, JCMC3 (4) June, <http://www.jcmc.indiana.edu/vol3/issue4/ahuja.html> (viewed 1999)
- Albarn, K, & Maill-Smith, J, 1977, Diagram: the instrument of thought, London, Thames and Hudson, 0 500 01186 9
- Alderson, G, 1989, Education, 2010, Looking back at the future (a cautionary contribution to IT in Education, 2010'), Keeling, R.; Whiteman, S, Newman Software
- Aldrich, H, 1994, Rethinking Organization: New Directions in Organization Theory and Analysis, Incommensurable Paradigms: Vital signs from three perspectives, Reed, M.; Hughes, M, London, Sage Publications, 0 8039 82878 7
- Anderla, G, Dunning, A, & Forge, S, 1997, Chaotics, Twickenham, Adamantine Press
- Arnheim, R, 1970, Visual Thinking, London, Faber
- Arnheim, R, 1974, Art and Visual Perception: a psychology of the creative eye, USA, University of California Press, Second, 0-520-02613-6

- Ateweh, B.; Kemmis, S.; & Weeks, P., 1998, Action Research in Practice: Partnership for Social Justice in Education, London, Routledge, First, 0-415-17151-2
- Atkinson, P, & Hammersley, M, 1998, Strategies of Qualitative Inquiry, Ethnography and Participant Observation, Denzin, N.; Lincoln, Y, London, Sage Publications, 0-7619-1435-8
- Atkinson, P, & Delamont, S, 2005, The Sage Handbook of Qualitative Research, Analytical Perspectives, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage Publications, Third, 761927573
- Bach, K, Ambiguity, <http://online.sfsu.edu/~kbach/ambguity.html> (viewed Feb 2005)
- Balasubramanian, V, 1993, State of the Art Review on Hypermedia Issues And Application, <http://wwwis.win.tue.nl/2L670/static/chapter4.html> (viewed April 1998)
- BCS, 1998, 2000 and Beyond: a school odyssey, BCS Schools Committee Working Party, Swindon, BCS, 0-901865-80-X
- Beck, R, 1990, Motivation: Theories and principles, Englewood Cliffs, Prentice Hall
- Becker, H, & Geer, B, 1982, Field Research: A Sourcebook and Field Manual, Participant Observation: The analysis of qualitative field data, Burgess, R, London, Allen & Unwin
- BECTa, 1998, Connecting Schools, Networking People. ICT Planning Purchasing and Good Practice for the National Grid for Learning, Coventry, BECTa
- BECTa, 1999, Connecting Schools, Networking People 2000. ICT Planning, Purchasing and Good Practice for the National Grid for Learning, Coventry, BECTa
- BECTa, 2001, Primary Schools of the Future - Achieving Today: A report to the DfEE by BECTa, <http://www.becta.org.uk/news/reports/primaryfuture> (viewed 2001)
- BECTa, 1998, Planning for ILT in Further Education, Coventry, BECTa, <http://www.becta.org/feilt> (viewed 1998)
- BECTa, 1997, The Year 2000 Issue in Education, Coventry, BECTa
- BESA, 1999, Information and Communication Technology in UK State Schools, London, BESA, Nov
- BESA, 2001, Information and Communication Technology in UK State Schools: Summary Report, London, BESA, Nov

- BESA, 1998, Information and Communication Technology in UK Schools 1998, London, BESA, Nov
- BESA, 2000, UK Schools Survey on Budget and Resource Provision, London, British Education Suppliers Association
- BESA, 1999, UK Schools Survey on Budget and Resource Provision, London, British Education Suppliers Association
- BESA, 1998, UK Schools Survey on Budget and Resource Provision, London, British Education Suppliers Association
- Blackler, F, 1994, Rethinking Organization: New directions in organization theory and analysis, Formative Contexts and Activity Systems: Postmodern approaches to the management of change, Reed, M. & Hughes, M, London, Sage Publications, 0 8039 8288 7
- Blease, D, & Cohen, L, 1990, Coping with Computers, An Ethnographic Study in Primary Classrooms, London, Paul Chapman Publishing Ltd, 1-85396-065-9
- Blumer, H, 1969, Symbolic Interactionism: Perspective and Method, New Jersey, Prentice Hall
- Bruner, J, 1986, Actual Minds, Possible Worlds, London, Harvard University Press
- Bunnell, K, 1999, The Integration of New Technologies into Ceramic Designer-Maker Practice, Robert Gordon University, PhD Thesis,
- Capra, F, 2003, The Hidden Connections, St Ives, Flamingo, 0 00 655158 0,
- Card, S.; Mackinlay, J.; & Shneiderman, B, 1999, Readings in Information Visualization: using vision to think, San Francisco, Morgan Kaufmann Publishers, Inc., 1-55860-533-9
- Carter, A, 1998, The Politics of Partnership: an evaluation of local regeneration initiatives, M.Phil. Thesis, London, University College, 49-5697
- Castells, M, 1996, The Information Age: Volume 1 - The Rise of the Networked Society, Oxford, Blackwell
- Chaiklin, S, 1996, Understanding Practice: Perspectives on Activity and Context, Understanding social scientific practice of Understanding Practice, Chaiklin, S; Lave, J, USA, Cambridge University Press, 0-521-55851-4,

- Chalkley, T, & Nicholas, D, 1997, *Aslib Proceedings, Teachers use of information technology: observations of primary school classroom practice*, 4
- Chase, S, 2005, *The Sage Handbook of Qualitative Research, Narrative Inquiry. Multiple Lenses, Approaches, Voices*, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage Publications, Third, 761927573
- Christians, C, 2005, *The Sage Handbook of Qualitative Research, Ethics and Politics in Qualitative Research*, Denzin, N.; Lincoln, Y., Thousand Oaks, Sage Publications, Third, 761927573
- Cilliers, P, 1998, *Complexity & Postmodernism: understanding complex systems*, London, Routledge, First, 0 415 15287 9
- Claxton, G, 1984, *An Introduction to the Psychology of Growth and Change in Everyday Life*, London, Harper & Row Publishers, First, 0-06 318277 7
- Clegg, S, 1990, *Modern Organizations: Organization studies in the postmodern world*, London, Sage
- Coffrey, A, Atkinson, P, 1996, *Making Sense of Qualitative Data*, Sage
- Cohen, 2001, *Aesthetics and Ethics: Essays at the intersection, About consistency in one's personal aesthetics*, Levinson, J, Cambridge, Cambridge University Press
- Cole, M, 1997, *Mind Culture and Activity: Seminal papers from the laboratory of comparative human condition*, Cole, M; Engestrom, Y; Vasquez, O, Cambridge, Cambridge University Press, 0-521-55823-9
- Cornu, D, 1997, *Information Technology. Supporting change through teacher education, Teachers and teacher education facing information and communication technologies*, Passey. D.; Samways, B, London, Chapman & Hall
- Coveney, P, & Highfield, R, 1990, *The Arrow of Time: a voyage through science to solve time's greatest mystery*, London, W H Allen, 1-85227-197-3,
- Creswell, J, 1994, *Research Design: Qualitative and Quantitative Approaches*, London, Sage Publications, 0 8039 5254 6
- Csikszentmihalyi, M, 1994, *Changing the World: a framework for the study of creativity*, Feldman, D; Csikszentmihalyi, M; Gardner, H, Westport, Praeger, 0-2759-4775-0

Dearden, R; Hirst, P; & Peters, R, 1972, Education and the Development of Reason, London, Routledge & Kegan Paul

de Laine, M, 2000, Fieldwork, Participation and Practice: Ethics and dilemmas in qualitative research, Torquay, Sage Publications Ltd, 0 7619 5486 4

Denzin, N.; & Lincoln, Y., 1994, Handbook of Qualitative Research, Denzin, N.; Lincoln, Y., London, Sage, First, 0-8039-4679-1

Deutsch, D, 1998, The Fabric of Reality, London, Penguin Books, 0-14-014690-3

Dewey, 1934, Art as Experience, New York, Pedigree Books, 0-399-50025-1

DfEE, 1995, Superhighways for Education, The Way Forward: Executive Summary

DfEE, 1996, Survey of IT in Schools - Statistical Bulletin, London, DfEE

DfEE, 1997, Excellence in Schools, London, HMSO

DfEE, 1997, Connecting the Learning Society: National Grid for Learning, London, HMSO, 0-85522-6455

DfEE, 1997, Education Superhighways Initiative - Final Report, London, DfEE Publications

DfEE, 1997, Connecting the Learning Society: National Grid for Learning. The Government's Consultation paper, London, DfEE

DfEE, 1998, Extending Opportunity: a national framework for study support, Sudbury, DfEE

DfEE, 1998, The Learning Age: a renaissance for a new Britain, London, DfEE,

DfEE, 1999, Computers Within Reach: an initiative for low-income learners and families, London, DfEE

DfEE, 1999, Statistical Bulletin, Survey of Information Technology in Schools 1996, London, The Stationery Office, 13, Nov, 0-11-271076-X

DfEE, 1999, Education & Training Development Agenda: towards 2000, Sudbury, DfEE

DfEE, 2000, Statistics of Education: Survey of Information and Communications Technology in Schools 2000, London, The Stationery Office

- DfEE, 2000, Learning and Training at Work Report 2000, DfES, Nottingham, DfEE Publications,
- DfEE & QCA, 2000, Information and Communication Technology. The National Curriculum for England. Key Stages 1-4, London, The Stationery Office
- DfEE, 2001, National Statistics Bulletin, Statistics of Education: Survey of Information and Communications Technology in Schools 2001, London, The Stationery Office, 9-Jan, Oct, 0-11-271076-X
- DfES, 2001, Skills for Social Inclusion and Knowledge Economy: Towards a Shared Vision, London, Department for Education & Skills
- DfES, 2001, Schools Achieving Success - Consultation on Education White Paper - final report, London, DfES
- DfES, 2002, Education and Skills: investment for reform, DfES
- Dicks, B, Mason, B, 1998, Sociological Research Online, Hypermedia and Ethnography: Reflections on the Construction of a Research Approach, 3, <http://www.socresonline.org.uk/socresonline/3/3/3.html>
- Dooley, K, 1999, Educational Technology & Society, Towards a Holistic Model for the Diffusion of Educational Technologies: an integrative review of educational innovation studies, 4, 1436 4522
- Douglas, D, 1986, How Institutions think, New York, Syracuse University Press
- DTI, 1999, Moving into the Information Age, London, DTI
- DTI, 1998, Is IT for All? IT for All's latest research - NTO attitudes towards IT and take-up of technology, DTI,
- Eisner, E, 1998, The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice, London, Prentice Hall, Second, 0-13-531419-4
- Eisner, E, 1972, Educating Artistic Vision, London, Collier Macmillan Publishers
- Eisner, E, 1994, The Educational Imagination
- eLF, e-Learning Foundation - Report and Accounts - for the twelve months ended 31 March 2002, e-Learning Foundation
- Elliot, G, 1999, Lifelong Learning: the politics of the new learning environment, Tyne and Wear, Athenaeum Press, 1 85302 580

- Emery, F, & Trist, E, 1965, Human Relations, The causal texture of organizational environments
- Empson, W, 1965, Seven Types of Ambiguity, Edinburgh, Penguin Books
- Engestrom, Y, 1999, Perspectives on Activity Theory, Engestrom, Y; Miettinen, R; Punamaki, R, USA, Cambridge University Press, 0-521-43730-X
- Engeström, Y, 1996, Understanding Practice: Perspectives on Activity and Context, Developmental Studies of Work as a Testbench of Activity Theory: the case of primary care medical practice, Chaiklin, S; Lave, J., USA, Cambridge University Press, 0-521-55851-4
- EU, 1998, Learning in the Information Society: Action Plan for a European Education Initiative, CEPCESSCR
- Evans, T.; & Kay, C., 1998, Partnerships for School Effectiveness: Developing the Work-Related Curriculum, Model business links policy for businesses, London, Latchmere Press
- FEDA, 1999, Networking Lifelong Learning: An ILT development strategy for FE - a consultation report prepared by the FE Information and Learning Technology Committee, London, FEILT
- Fineman, S, 1991, Analysing Organizational Behaviour, Change in Organizations, Smith, M, London, Macmillan Education Ltd, First, 0 333 51704 0
- Flew, A, 1956, Essays in Conceptual Analysis - selected and edited by Anthony Flew, Flew, A, London, Macmillan
- Flyvbjerg, B, 2007, Qualitative Research Practice, Five misunderstandings about case-study research, Seale, C; Gubrium, J; London, Thousand Oaks, CA; Sage, <http://flyvbjerg.plan.aau.dk/Publications2007/0701FIVEMISSAGEBPUBL.pdf>
- Freeman, L, Visualizing Social Networks, Journal of Social Structure, Vol 1, <http://www.cmu.edu/joss/content/articles/volume1/Freeman.html> (Viewed Oct 2001)
- Frye, M, & Webb, A, 2002, Working Together - Effective partnership working on the ground, London, HM Treasury
- Fryer, R, 1997, Learning for the Twenty-First Century. First Report of the National Advisory Group for Continuing Education and Lifelong Learning, on-line

- Fryer, R, 1998, *Creating Learning Cultures: Next Steps in Achieving the Learning Age (Second Report of the NAGCELL)*, London, DfEE Publications
- Fullan, M, 2001, *The New Meaning of Educational Change*, London, Routledge Falmer, Third Edition, 0 415 26020 5
- Furlong, J, & Oancea, A, 2005, *Assessing Quality in Applied and Practice-based Education Research - a framework for discussion*
- Galbraith, J, 1977, *The Age of Uncertainty*, England, BBC Publications,
- Gardner, H, 2000, *Intelligence Reframed: Multiple Intelligences for the 21st Century*, Basic Books, 0-4650-2611-7
- Geddes, M, 1997, *Partnership Against Poverty and Exclusion? Local regeneration strategies and excluded communities in the UK*, Bristol, Policy Press
- Geertz, C, 1973, *The Interpretation of Cultures, Thick Description: Toward and Interpretive Theory of Culture*, New York, Basic Books
- Gergen, K, 1994, *Rethinking Organization: New Directions in Organization Theory and Analysis, Organization Theory in the postmodern era*, Reed, M.; Hughes, M.
- Giddens, A, 1994, *Sociology*, Surrey, Polity Press, Second, 0 7456 1115 X
- Gill, P, & Bohnert, D, 2003, *Determinism: a realistic definition*, (excerpted from the Cambridge Psychotherapy Institute Glossary),
<http://www.determinism.com/definition.shtml> (viewed August 2004)
- Glaserfeld, (von), E, 1997, *Issues in Education: Contributions from Educational Psychology, Amplification of a Constructivist Perspective*, Carlson, J, London, JAI Press Inc, 2, 1080-9724
- Gleick, J, 1998, *Chaos*, London, 0-7493-8606-1,
- Goldstein, G, 1997, *Information Technology in English Schools - a commentary on inspection findings 1995/6*, UK, Ofsted, 1-85379-406-6
- Graziano, A, 1997, *Research Methods: a process of enquiry*, New York, Longman, Third
- Guba, E, & Lincoln, Y, 2005, *The Sage Handbook of Qualitative Research, Paradigmatic controversies, contradictions, and emerging confluences*, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage Publications, Third, 761927573

Guile, D, 1998, Information and Communication Technology and Education, London, University of London

Guile, D, 1998, Perspectives on Education Policy, Information and Communication Technology and Education, Guile, D, London, Institute of Education, University of London, 0-85473-569-0

Gulbriun, J, 1988, Analysing Field Reality, Beverley Hills, Sage,

Hammersley, M, 1995, The Politics of Social Research, London, Sage Publications, 0 8039 7719 0

Hammersley, M, & Gomm, R, 2000, Case Study Method: key issues, key texts, Introduction, Hammersley, M; Gomm, R. & Foster, P, London, Sage, Mar,

Hammersley, M, 1993, Educational Research: Current Issues, Hammersley, M, Newcastle upon Tyne, Paul Chapman Publishing Ltd, 1-85396-243-0

Handy, C, 1986, Understanding Organisations, England, Penguin Books Ltd, Third, 0 14 009110 6

Hargreaves, L, Coomber, C, & Galton, M, 1996, British Educational Research Journal, The National Curriculum: can small schools deliver? Confidence and competence levels of teachers in small rural primary schools, British Educational Research Association, 1

Harvey, D, 1989, The Condition of Postmodernity: an enquiry into the origins of cultural change, Oxford, Blackwells,

Hatch, M, 1997, Organization Theory: Modern, symbolic, and postmodern perspectives, Oxford, Oxford University Press, 0-1987-7491-5

Hawking, S, 2001, The Universe in a Nutshell, Somerset, Bantam Press, 0-593-04815-6

Hawkrige, D, 1990, Computers and Education - An International Journal, Who Needs Computers in Schools and Why? Heller, R. S.; Underwood, J. D. M., Exeter, Pergamon, 0360-1315

Heidegger, M, 2000, Being and Time, Oxford, Blackwell Publisher Ltd, 0 631 19770 2

- Heppell, S, 1997, Information Technology Communications and the Future Curriculum, Issues for a future curriculum, SCAA, Middlesex, SCAA Publications,
- Heppell, S. 1999, Common sense things you knew already, Ultralab, http://www.ultralab.ac.uk/papers/school_ict_management/things.html viewed June 1999
- Higham, J, & Sharp, P, 2002, Journal of Educational Administration and History, Managing Improvement in the 16-19 Curriculum through Student Monitoring and Target Setting: a critical evaluation, Sharp, P, Leeds, University of Leeds, 1, Jan, 0022-0620
- Hirst, P, 1974, Knowledge and the Curriculum, London, Routledge & Keegan Paul
- HMI, 1992, The Impact of the Information Technology in Schools Initiative 1988-1990, UK, DES
- HMSO, 1999, Statistics of Education: Survey of Information and Communications Technology in Schools 1999, London, The Stationery Office
- HMSO, 1999, Statistical Bulletin, Statistics of Education: Survey of Information and Communications Technology in Schools 1999, London, The Stationery Office, 13, Nov, 0-11-271076-X
- Holstein, J, & Gubrium, J, 1995, The Active Interview, London, Sage Publications, 0-8039-5895-1
- Holstein, J, & Gubrium, J, 1998, Strategies of Qualitative Inquiry, Phenomenology, Ethnomethodology, and Interpretive Practice, Denzin, N.; Lincoln, Y, London, Sage Publications, 0-7619-1435-8
- Holstein, J, & Gubrium, J, 2005, The Sage Handbook of Qualitative Research, Interpretive Practice and Social Action, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage Publications, Third, 761927573
- Huberman, M, & Miles, M, 1994, Handbook of Qualitative Research, Data Management and Analysis Methods, Denzin, N.; Lincoln, Thousand Oaks, Sage, First, 0 8039 4679 1,
- Hughes, M, 1994, Rethinking Organization: New Directions in Organization Theory and Analysis, Deluding Organization, Reed, M.; Hughes, M, Great Britain, Sage Publications, 0 8039 8288 7

- Hunt, E, 1997, Issues in Education: Contributions from Educational Psychology, Constructivism and Cognition, Carlson, J, London, JAI Press Inc, 2, 1080 9724
- IFIP, 1993, Guidelines for Good Practice: Integration of Information Technology into Secondary Education - Main Issues and Perspectives, IFIP, Feb
- ITCE, 1999, Skills for the Information Age - Second Report from the ITCE Skills Strategy Group, ITCE
- Janesick, V, 1998, Strategies of Qualitative Inquiry, The Dance of Qualitative Research Design: Metaphor, Methodolatry, and Meaning, Denzin, N.; Lincoln, Y, London, Sage Publications, 0-7619-1435-8,
- Jensen, A, Malcolm, L, Phelps, F.; & Stoker, R, 2002, Educational Psychology in Practice, Changing Patterns of Thinking: individuals and organisations, Monsen, J, Hampshire, UK, Carfax Publishing, 1, Mar, 0266-7363
- Jonassen, D, & Marra, R, Concept Mapping and Other Formalisms as Mindtools for Representing Knowledge,
http://www.icbl.hw.ac.uk/projects/class/granum/altdocs/dav_alt.htm (viewed Feb 1997)
- Kagan, D, 1992, Implications of Research on Teacher Beliefs, Educational Psychologist, 27, 65-90. York University Education Quarterly, 10, 9-16
- Kay, C, 1998, Partnerships for School Effectiveness: Developing the Work-Related Curriculum, Partnership perspectives, Evans, T.; Kay, C, London, Latchmere Press,
- Kelso, J, 1995, Dynamic Patterns: The Self-Organization of Brain and Behaviour, Cambridge, Massachusetts, MIT Press, First, 0 262 61131 7,
- Kennedy, H, 1997, Learning Works. Widening participation in Further Education, Coventry, FEFC,
- Kennewell, S, 1997, Information Technology. Supporting change through teacher education, The integration of information technology into teachers' decision-making, Passey. D.; Samways, B, London, Chapman & Hall
- Kerka, S, 1997, Constructivism, Workplace Learning, and Vocational Education, ERIC Identifier: ED407573
- Source: ERIC Clearinghouse on Adult Career and Vocational Education Columbus

- OH. , ERIC Digest No. 181,
http://www.ed.gov/databases/ERIC_Digests/ed407573.html
- Kincheloe, J, & McLaren, P, 2005, *The Sage Handbook of Qualitative Research, Rethinking Critical Theory and Qualitative Research*, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage Publications, Third, 761927573
- Kosko, B, 1994, *Fuzzy Thinking*, London, Flamingo, 0-00-654713-3
- Kraus, W, 1980, *Collaboration in Organisations*, New York, Human Sciences Press, 0 87705 491 6
- Krempel, L, 1995, *Simple Representations of Complex Networks: Strategies for Visualizing Network Structure*, <http://www.mpi-fg-koeln.mpg.de/~lk/algo5a/algo5a.html> (viewed Jan 1999)
- Kuhn, T, 1996, *The Structure of Scientific Revolutions*, Chicago, University Press of Chicago, Third, 0-226-45808-3
- Kurzweil, R, *The Age of Spiritual Machines: When computers exceed human intelligence*, Penguin, 0-14-028202-5
- Kushner, S, 2002, *The Object of One's Passion: Engagement and Community in Democratic Evaluation*, Keynote Address presented at the 2002 Australasian Evaluation Society International Conference, October/November 2002 – Wollongong Australia, <http://www.aes.asn.au/conference/kushner>
- Kushner, S, 2000, *Personalising Evaluation*, London, Sage,
- Kvale, S, 1995, *Qualitative Inquiry, The Social Construction of Validity*, 1, 19-40
- LaFollette, H, 2002, *Ethics in Practice: an anthology*, Oxford, Blackwell, Second, 0 631 22834 9
- Langer, S, 1953, *Feeling and Form: A theory of art developed from Philosophy in a New Key*, reprint (1976), London, Routledge and Kegan Paul, 0-7100-1715-4
- Langer, S, 1953, *Philosophy in a New Key: a study in the symbolism of reason, rite, and art*, Cambridge (Mass), Harvard University Press, Third, 0-67466-5031-v
- Lave, J, & Wenger, E, 1991, *Situated learning: Legitimate peripheral participation*, Cambridge, Cambridge University Press, 0 521 42374 0

- Lave, J, 1996, *Understanding Practice: Perspectives on Activity and Context*, The Practice of Learning, Chaiklin, S; Lave, J, USA, Cambridge University Press, 0-521-55851-4
- Leader, G, 2003, *Education & Training, Lifelong learning: policy and practice in further education*, Northampton, Emerald, 7, 0040 0912
- Lechte, J, 1995, *Fifty Contemporary Thinkers: From structuralism to postmodernity*, London, Routledge, 0 415 07408 8
- LeCompte, M, & Preissle, J, 1993, *Ethnography and Qualitative Design in Educational Research*, London, Academic Press Ltd., Second, 0-12-440575-4,
- Levinson, J, 2001, *Aesthetics and Ethics: Essays at the intersection*, Introduction: aesthetics and ethics, Levinson, J, Cambridge, Cambridge University Press
- Lewin, R, 2001, *Complexity - Life at the edge of chaos*, Great Britain, Phoenix, Second, 0-75381-270-3,
- Lewis, J, & Romiszowski, A, 1996, *Journal of Instructional Science and Technology*, Networking and the learning organization: Networking issues and scenarios for the 21st century, http://technologysource.org/article/technological_minimalism_in_distance_education/ (viewed October 2000)
- Lewis, M, 2001, *The Future Just Happened*, London, Hodder and Stoughton, 0340 79500 X,
- Lincoln, Y, & Guba, E, 2000, *Case Study Method - key issues, key texts*, The only generalization is: There is no generalization, Gomm, R; Hammersley, M; Foster, P, London, Sage Publications Ltd,
- Loveless, T, 1996, *Educational Policy, Why aren't computers used more in school?* 4
- Luck, L,; Jackson, D, & Usher, K, 2006, *Nursing Inquiry, Case Study: a bridge across the paradigms*, England, Blackwell Publishing,
- Lyotard, J, 1984, *The Postmodern Condition: a report on knowledge*, Manchester, Manchester University Press,
- Mabry, L, 1997, *Advances in Program Evaluation: Evaluation and the Postmodern Dilemma*, A postmodern text on postmodernism, Stake, R (Series Ed); Mabry, L (Vol Ed), London, JAI Press Ltd, 1-55938-770-X,

- Mainzer, K, 1994, *Thinking in Complexity: The Complex Dynamics of Matter, Mind, and Mankind*, Germany, Springer-Verlag, 3 540 57597 9,
- Mariotti, H, *Autopoiesis, Culture and Society*, <http://www.oikos.org/mariotti.htm> (viewed Sept 2005)
- Mason, 1999, *Toward a New Educational Culture - Matching Human Networks with the Technical Architecture*, conference paper, edna, <http://www.edna.edu.au/edna>
- Mason, J, 1996, *Qualitative Researching*, London, Sage Publications,
- Maturana, H, & Varela, F, 1992, *The Tree of Knowledge: the biological roots of human understanding*,
- Maturana, H, & Varela, F, 1980, *Boston Studies in the Philosophy of Science, Autopoiesis and Cognition: the realization of the Living*, Cohen, R. & Wartofsky, M. (Eds), Reidel Publishing Co, 90 277 1015 5,
- Mayer-Kress, G, 1996, *Predictability of Complex Dynamical Systems, Messy Futures and Global Brains*, Kravtsov, Y & Kadtko, J (Eds), Berlin, Springer
- McDermott, R, 1996, *Understanding Practice: Perspectives on Activity and Context, Acquisition of a child by a learning disability*, Chaiklin, S; Lave, J, USA, Cambridge University Press, 0-521-55851-4,
- McKinsey, 1997, *The Future of Information Technology in UK Schools*, London, McKinsey & Company,
- Meadows, J, & Leask, M, 2000, *Teaching and Learning with ICT in the Primary School, Why use ICT*, Leask, M.; Meadows, J., London, Routledge Falmer,
- Mehan, H, 1996, *Understanding Practice: Perspectives on Activity and Context, Beneath the skin and between the ears: A case study in the politics of representation*, Chaiklin, S; Lave, J, USA, Cambridge University Press, 0-521-55851-4,
- Mercer, N, 1991, *Doing Educational Research, Researching common knowledge: studying the content and context of educational discourse*, Walford, G, London, Routledge,
- Merriam, S, 1988, *Qualitative Research and Case Study Applications in Education*, San Francisco, Jossey-Bass, 07870 199 90,

- Miles, M, & Huberman, A, 1994, *Qualitative Data Analysis*, Sage, Second,
- Miller, R, 2001, *Aesthetics and Ethics: Essays at the intersection*, Three versions of objectivity: aesthetic, moral and scientific, Levinson, J, Cambridge, Cambridge University Press,
- Mintzberg, 1983, *Power in and around Organisations*,
- Moriyama, S, *What is Line and Environment?: Autopoiesis of Life World*,
- NAACE & NCET, 1997, *Implementing IT*, NAACE & NCET,
- Nagel, T, 1974, *The Philosophical Review*, What is it Like to Be a Bat? 435-450
http://members.aol.com/NeoNoetics/Nagel_Bat.html
- NCET, 1996, *Managing IT in Primary Schools: A planning tool for senior managers*, Coventry, NCET,
- NCET, 1998, *Training Today's Teachers in Information Technology - IT elements of capability for teachers*, Coventry, NCET,
- NCET, 1998, *Information Sheet - IT Policy: how to write a whole-school IT policy document*, Coventry, NCET,
- NCET, 1996, *Managing IT in Primary Schools: a planning tool for senior managers*, NCET,
- NDAD, 2000, *NDAD National Archives: Surveys 1999 - 2002, Learning and Training at Work*, NDAD, <http://www.ndad.nationalarchives.gov.uk/CRDA/52/detail.html>
(viewed June 2002)
- NOF, 1998, *ICT Training for Teachers and School Librarians*, London, NOF,
- Nonaka, I, & Takeuchi, H, 1995, *The Knowledge-creating Company*, Oxford, Oxford University Press,
- Novak, J, 1998, *Learning, Creating and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporations*, New Jersey, Lawrence Erlbaum Associates, 0-8058-2625-4,
- Novak, J, & Gowin, B, 1984, *Learning how to Learn*, USA, Cambridge University Press, 0-0521-26507-9,
- Novak, J, & Canas, A, 2006, *The theory underlying concept maps and how to construct and use them*, Technical Report IHMC CmapTools 2006-01 Rev 01-2008,

<http://cmap.ihmc.us/Publications/ResearchPapers/TheoryCmaps/TheoryUnderlyingConceptMaps.htm> (viewed March 2002)

O'Neill, O, 2002, BBC Reith Lectures, Called to Account, BBC Radio 4 Broadcast, Cambridge University Press, ISBN-10: 0521529964

Oakeshott, M, 1985, Experience and its Modes, Cambridge, Cambridge University Press, 0-5213-11799,

ODI, 2003, Multi-Stakeholder Partnerships Issue Paper, Optimising the Development of Corporate Investment, Multi-sector Partnerships - Telecommunications Sector, ODI,

OFSTED, 1994, OFSTED Handbook for the Inspection of Schools, London, HMSO,

OFSTED, 1995, Inspecting Schools: The Framework, London, OFSTED,

OFSTED, 1999, Handbook for Inspecting Primary and Nursery Schools with Guidance on Self-Evaluation, London, The Stationery Office,

Patton, 1980, Qualitative Evaluation Methods, London, Sage,

Polanyi, M, 1967, The Tacit Dimension, London, Routledge and Kegan Paul,

Punch, 1994, Handbook of Qualitative Research, Politics and Ethics in Qualitative Research: Denzin, N.; Lincoln, Y, Thousand Oaks, Sage, First, 0 8039 4679 1,

Putnam, H, 1988, Representation and Reality, Cambridge, Mass., MIT Press,

QCA, 1998, Information Technology: A Scheme of Work for Key Stages 1 and 2, London, QCA,

Railton, 2001, Aesthetics and Ethics: Essays at the intersection, Aesthetic value, moral value, and the ambitions of naturalism, Levinson, J, Cambridge, Cambridge University Press,

Reason, P, 1994, Handbook of Qualitative Research, Three Approaches to Participative Inquiry, Denzin, N; Lincoln, Y, Thousand Oaks, Sage Publications, First, 0 8039 4679 1

Reed, M, 1992, The Sociology of Organizations: Themes, Perspectives and Prospects, Hemel Hempstead, Harvester Wheatsheaf, 0 7450 0775 9

Reimer, B, 1970, A Philosophy of Music Education, New Jersey, Prentice Hall,

- Richardson, L, & St Pierre, E, 2005, *The Sage Handbook of Qualitative Research, Writing - a method of inquiry*, Denzin, N.; Lincoln, Y, Thousand Oaks, Sage Publications, Third, 761927573
- Richie, J, 1998, *Partnerships for School Effectiveness: Developing the Work-Related Curriculum, Establishing and maintaining effective partnerships*, Evans, T; Kay, C, London, Latchmere Press,
- Robinson, K, 2001, *Out of Our Minds: Learning to be Creative*, Oxford, Capstone Publishing Ltd, 1-84112-125-8
- Robson, C, 1993, *Real World Research: a resource for social scientists and practitioner-researchers*, Oxford, Blackwell, 0-6311-76896-v
- Sardar, Z, & Abrams, I, 1999, *Introducing Chaos*, Cambridge, Icon Books Ltd, 1-8404-6078-4
- SCAA, 1995, *Key Stages 1 & 2, Information Technology, the new requirements*, SCAA,
- SCAA, 1997, *Expectations in Information Technology at Key Stages 1 and 2*, London, SCAA,
- Scase, R, 2000, *Britain Towards 2010: the changing business environment*,
- Schein, E, 1992, *Organizational Culture and Leadership*, San Francisco, Jossey-Bass,
- Scott, J, 2000, *Social Network Analysis: a handbook*, Guildford, Sage Publications Ltd, Second, 0 7619 6338 1
- SEEDA, 1999, *Towards a World Class Learning Region: a draft skills action plan for the South East of England*, Guildford, SEEDA,
- Selwyn, N, 1998, *Computers and Education - An International Journal*, The effect of using a home computer on students' educational use of IT, Heller, R. S.; Underwood, J. D. M., Exeter, Pergamon, 2, 0360-1315, 1315
- Senge, P, 1990, *The Fifth Discipline: the art and practice of the learning organization*, Great Britain, Random House Business Books, 0-7126-5687-1,
- Senge, P, 2000, *Schools that Learn - Annex, A supplement to: Schools that Learn - a fifth discipline fieldbook for educators*,

- Silverman, D, 2000, *Doing Qualitative Research: A Practical Handbook*, London, Sage, 0-7619-5823-1,
- Social Exclusion Unit, 1999, *Bridging the Gap: New Opportunities for 16-18 Year Olds Not in Education, Employment or Training*, London, The Stationery Office Ltd, 0-10-144052-9,
- Stake, R, 1995, *The Art of Case Study*, London, Sage Publication, 0-8039-5767-X,
- Stake, R, 2005, *The Sage Handbook of Qualitative Research, Qualitative Case Studies*, Denzin, N.; Lincoln, Y., Thousand Oaks, Sage Publications, Third, 761927573,
- Stern, E, & Sommerland, E, 1999, *Issues in People Management, Workplace Learning. Culture and Performance*, London, Institute of Personnel and Development, 0 85292 805 X,
- Stevenson, D, 1997, *Information and Communications Technology in UK Schools: an independent enquiry*, Great Britain,
- Strain, M, 1998, *British Journal of Educational Studies, Towards and Economy of Lifelong Learning: Reconceptualising Relations between Learning and Life*, Halpin, D. & Pring, R, Oxford, Blackwells Publishers Ltd & SCSE, 3, 0007-1005, (199809) 46:3; 1-N,
- Strati, A, 2000, *Theory and Method in Organization Studies*, London, Sage Publications, 0 7619 6402 9,
- Strauss, A, & Corbin, J, 1990, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*, London, Sage Publications, 0-8039-3251-0,
- Stronach, I, & MacLure, M, 1997, *Educational Research Undone: the postmodern embrace*, Buckingham, Open University Press, 0 355 19433 8,
- Stronach, I, 1997, *Advances in Program Evaluation: Evaluation and the Postmodern Dilemma, Evaluation with the lights out: Deconstructing illuminative evaluation and new paradigm research*, Stake, R (Series Ed); Mabry, L (Vol Ed), London, JAI Press Ltd, 1-55938-770-X
- Tarter, J, Hoy, W, 1998, *Journal of Educational Administration, Toward a contingency theory of decision making*, Thomas, A, Bradford, MCB University Press, 3, 0957-8234

- Tesch, R, 1995, *Qualitative Research: Analysis Types and Software Tools*, New York, Sage Publications, 1-85000-609-1
- TTA, 998, *Lottery Funded ICT Training Programme for Serving Teachers: Specifications for the Approval of Training Providers*, London, DfEE Publications
- Ufl, 1999, *A New Way of Learning: The Ufl Network - Delivering the Ufl Concept*, London, Ufl Ltd
- van Geert, P, 1994, *Dynamic Systems of Development: change between complexity and chaos*, London, Harvester Wheatsheaf
- Vardy, P, & Grosch, P, 1999, *The Puzzle of Ethics*, St Ives, Fount, 0 00 628144 3
- Walford, G, 1991, *Doing Educational Research*, Walford, London, Routledge
- Waltz, D; & Feldman, 1988, *Connectionist Models and their Implications: Readings from cognitive science*, Waltz, D; Feldman, J, New Jersey, Ablex Publishing Corporation, 0 89391 456 8
- Wardell, M, 1994, *Rethinking Organization: New Directions in Organization Theory and Analysis*, *Changing Organizational Forms: From the bottom up*, Reed, M.; Hughes, M.
- Warner, M, 003, *Optimising the Development Performance of Corporate Investment, Partnerships for Sustainable Development: Do we need partnership brokers?* London, Overseas Development Institute,
- Wasserman, S.; & Galaskiewicz, J, 1993, *Advances in Social Network Analysis: Research in the social and behavioural sciences*, USA, Sage Publications, 0 8039 4303 2
- Watson, D, 1997, *Information Technology. Supporting change through teacher education, A dichotomy of purpose: the effect on teachers of government initiatives in information technology*, Passey. D.; Samways, B., London, Chapman & Hall
- Web Grid III User Guide, <http://www.webgrid.com/>
- Weick, K, 2001, *Making Sense of the Organization*, London, Blackwell
- Weick, K, 1987, *The Competitive Challenge, Substitutes for corporate strategy*, Teece, D, Cambridge, Mass., Ballinger
- Weirsmas, W, 1991, *Research Methods in Education*, London, Allyn & Bacon

Wellman, B.; & Berkowitz, S, 1988, *Social Structures: a network approach*, Wellman, B.; Berkowitz, S, USA, Cambridge University Press, 0 521 28687 5

Wenger, E, 1999, *Communities of Practice: Learning, Meaning and Identity*, Cambridge, Cambridge University Press, 0-521-66363-6

Wilkes, A, 1997, *Knowledge in Minds: Individual and Collective Processes in Cognition*, Hove, Psychology Press, 0-86377-439-3

Williams, R, 1988, *Keywords: a vocabulary of culture and society*, Great Britain, Fontana Press, 0-00-686150-4

Wilson, A, Charlton, K, 1997, *Making Partnerships Work: a practical guide for the public, private, voluntary and community sectors*, York, York Publishing Services Ltd, 1 899987 397

Witkin, R, 1976, *The Intelligence of Feeling*, London, Heinemann Educational Books, 0-435-80938-5

Wittgenstein, L, 1969, *On Certainty*, Oxford, Blackwell

Wright, A, 1987, *Educational Review, The Process of Microtechnological Innovation in Two Primary Schools: a case study of teachers' thinking*, London, Educational Publishing Company Ltd, 2, 1 462 7272

Yin, R, 2003, *Case Study Research: Design and methods*, Thousand Oaks, Sage Publishing, Third Edition

Appendices

Appendix 1 Read Me Files (navigating electronic documents)

.pdf

To view the .pdf file it is necessary to have the appropriate program such as Acrobat Reader. This is a free program that can be downloaded by clicking the following link.

<http://get.adobe.com/reader/>

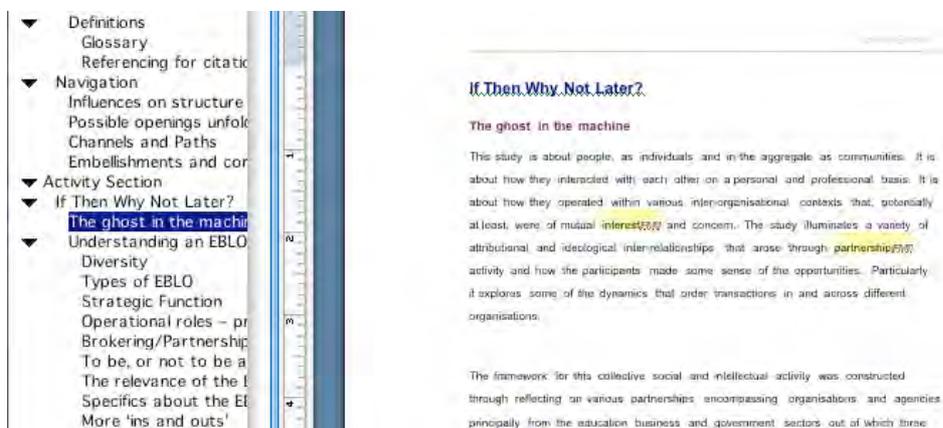
The program provides all of the necessary help to be able to navigate the thesis.

.doc

This file is a duplicate of the .pdf document but is viewable using a word processor program. (E.g. Open Office, Microsoft Word). Additional navigational tools are available such as:

Document Map

By clicking on the View Menu it is possible to select 'Document Map'. This provides a navigation tool bar to the left of the screen. This tool bar serves as a fast way to navigate to different sections of the thesis



Hyperlinks

These links work in the same way as Internet browser hyperlinks. Clicking on text that is blue and underlined takes the reader to linked information (such as the <http://get.adobe.com/reader/> hyperlink on this page)

Comment Fields

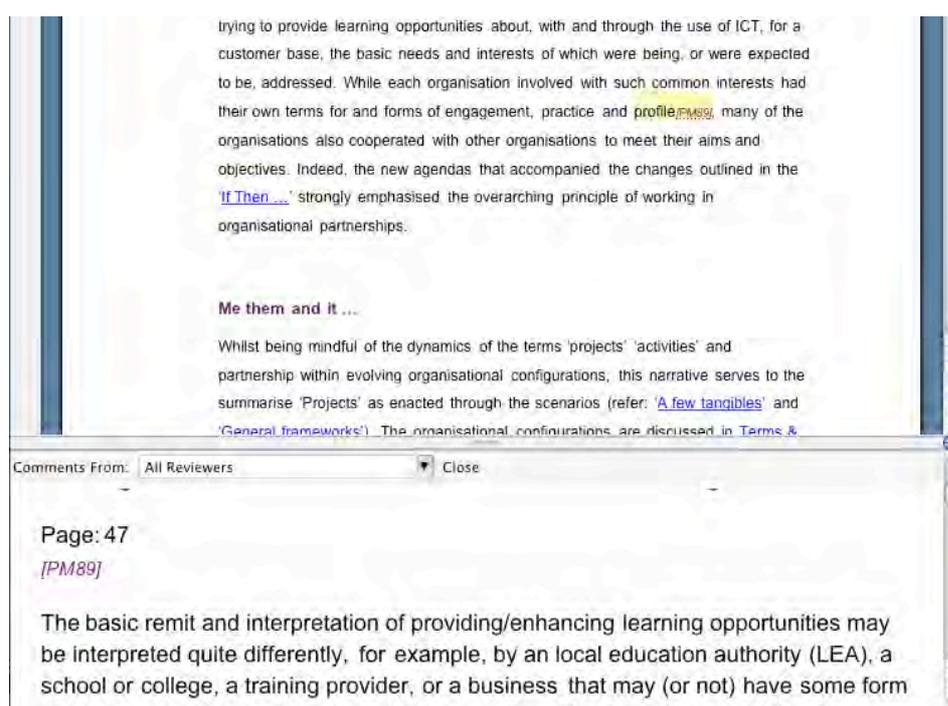
As explained on page xiii ([Media](#)), 'comments' appear as endnotes in the printed format and the .pdf document. When using a word program, comments may appear in different forms according to the set up of the program.

a) roll-over / pop-up dialogue box

Hovering the mouse over the highlighted reference (e.g. [PM427](#)) a text pop-up box will appear

b) comment text viewer

Double-clicking on the comment reference number will open up a new text window revealing the appropriate comment text. This format of this new text window will be determined by the word processor and its setup. E.g. Microsoft Word on an Apple computer shows the comments underneath the main document window:



This and other diagrams represent rich forms of reiteration, signify a reification, illustrate forms of recurrency and a form of open system[PM587] where dynamic relationships both encode and symbolise meanings: data, interpretation (through processes of visualisation, analysis, transcription, transformation, reinterpretation ... They are idiomatic in the sense that they are used to provide narratives in different forms whereby, readers are not bound by the same inadequacies or constraints in drawing meaning about the subject from text alone.

Building up the Layers

The following diagrams each encapsulate qualities of context-in-action. The sequence intentionally builds on the foundational properties (Fig18a). As each layer introduces further variables, the interrelationships between the components in the previous layers take on additional meanings.

Fig 18a (Foundational Properties) shows the fundamental priorities for the EBLO as being:

- a) Education Business Links (**EBL**) and Work Related Learning (**WRL**)
- b) **young people** (as beneficiaries)
- c) developing lasting partnerships between the business, education and government sectors (as stakeholders)

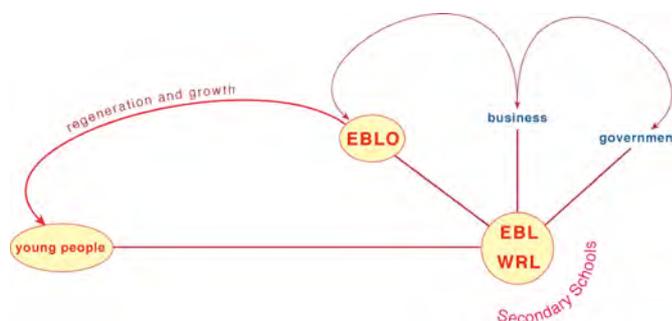


Fig 18a Foundational Properties (Layer 1)

The EBLO was a key stakeholder in brokering the development of relationships and opportunities arising from partnership action. EBL/WRL was an important focal point (or foundation) for stakeholders (e.g. business, education and government sector organisations) to work in partnership with the EBLO in order to develop and engage in activities that could enhance learning (e.g. curriculum enhancement especially for key stages 4 and 5, and work experience placements).

The EBLO was predominantly responsible for the administration and management of the statutory work experience programme on behalf of all the local secondary schools, and associated with which, was a broad programme of extended curriculum activities. This illustration does not show schools as a stakeholder. (Refer: Figs 19 and Fig 20)

Putting the WoW into Learning^[PM588]

Fig 18b identifies some of the key activities that describe 'work related learning' action as defined and provided by the EBLO. Historically, strong relationships were established between WRL and key stage 4 due to the processes of: advancing students' interests in future employment / careers pathways; being mindful of the interests of business; dealing with and being accountable for the legal and procedural processes relating to engaging young people in work experience in the work place, and handling other practicalities such as the logistics/costs of this activity.

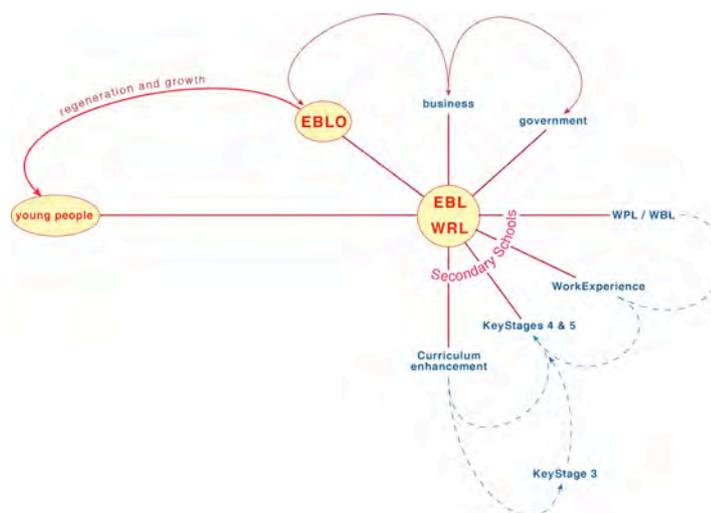


Fig 18b WRL for Local Secondary Schools (Layer 2)

Work Place and Work Based Learning (WPL, WBL) are shown as a sub-set of WRL, and in the context of the partnership between the EBLO and local secondary schools, were predominantly realised as:

- a) student placements in business on work experience (statutory requirement)
- b) teacher placements in business
- c) curriculum enhancement activities (e.g. events that sought to build stronger links between the curriculum and the world of work, by recontextualising skills and concepts, and profiling future opportunities. Refer: Understanding an EBLO'). The EBLO's curriculum enhancement activities were well supported and attended by the local secondary schools not only increasingly encompassed key stage 3 but also pupils from local primary schools. The programme of opportunities was prompted as businesses, the government and education sectors each expressed interests in building links between the curriculum and the world of work. Examples of EBL activities might have included: guest speakers or mentors, as specialists and practitioners from business, offering support, explanations or demonstrations of key concepts and skills, often by re-situating these in order to motivate, challenge, raise awareness and understanding.

The 'interests of business' were both commercially and altruistically motivated - 'employers/employees' are, generally speaking, also parents with interests in their children's educational development. The EBLO was keen to ensure that while the commercial interests should be acknowledged (i.e. including advancing insights into skill sets within a specific, working environment, marketing / profiling opportunities, recruitment), this aspect would be balanced with the more important needs and interests of schools and those in their charge. Thus, the EBLO, as a matter of routine good practice, would engage businesses intending to participate in learning activities with schools in foundational negotiations that served to: clarify the logistics/requirements of participation (legal, technical, etc.); identify the learning aims and objectives for the activity, establish how these fitted with both the wider school curriculum and the specific needs of the teachers/student participants, and agree the processes by which the participants would be engaged in meaningful activities; clarify procedures for post activity evaluations. The EBLO would also take into account the specific conditions, needs and interests of the schools, and other agencies to whom the EBLO might have been accountable.

The role, responsibilities and forms of engagement of participants may be redefined in a number of different ways. For example, young people were predominantly defined as 'beneficiaries' by business, government, schools and the EBLO, which, in turn, largely defined themselves as 'stakeholders'. Fig 19 (stakeholders and beneficiaries) explores further the dynamics of this relationship, particularly both in relation to Galbraith's comment [\[PM589\]](#) about 'vested interest' and in the light of the events and experiences portrayed in the Scenarios. These not only help to define forms of engagement by participants, they also contribute to the diagrams that explore the dynamics of participation and non-participation (Figs 72, 73, 76 - 79)

Including the excluded?

In addition to the specific EBL/WRL activities such as providing students in key stage 4 with work experience placements (WEX), and other curriculum enhancement programmes, a further important development occurred during the late 1990s. Following the election of the Labour Party ... new political agendas for social reform began to shift emphasis onto matters concerning social and economic regeneration and growth, empowerment, education and learning. (Refer: *If Then Why Not Later*)

As part of the ensuing drive, people that were viewed by Government as 'deprived', 'disaffected' and disengaging from formal education, were targeted with new programmes that sought to re-engage them. (Terms such as inclusion, exclusion, isolation, deprivation, disadvantage, disapplication, disengagement failure, and success were key to the policy rhetoric of the day.)

Concerns about economic regeneration and growth (HR) that had been expressed by the business sector were being emphasised by government agencies (eg. RDAs, TECs, RGAs) with those being expressed through statistical and policy bulletins.

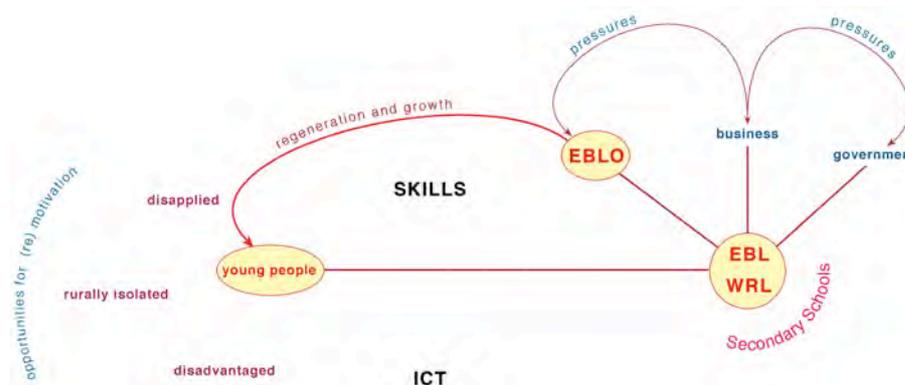


Fig 18c *New Agendas of Inclusion (Layer 3)*

The implications of Fig 18c is discussed in 'If Then' (Rain in a bucket), 'Weigh in' and Scenario 2. This illustration indicates that 'disadvantage' and 'disapplication', at the time, were becoming part of the national, regional and local agendas and being identified as 'issues'. However, these issues were not at that time being integrated into existing or new EBL/WRL programmes unless an EBLO took it upon itself to fund such initiatives and/or acquire funding from other sources. Locally, some organisations were keen to point out that disapplication and disadvantage were not isolated to urban communities, and could also be related to rural isolation. ICT as a key topic of concern was beginning to gain a higher profile, partly in recognition of the rapid advances that were being made within the industry, that business was becoming increasingly technologically aware, that personnel skilled in ICT was becoming identified by industry as a problem area, and that new ICT initiatives for education (largely motivated by business) was gaining pace.

Projecting Opportunities

New project opportunities arose from forming new relationships between the emerging key terms of reference (skills, work related, ICT, enhancement, regeneration, isolation, disadvantage, disapplication, disengagement, etc.) and funding streams that were identified/nurtured, such that (it was claimed) certain needs and interests of young people could be met. (but also/predominantly those of business, Government, schools and the local community. Various interpretations and opportunities arose as organisations identified and gave different priorities to 'the plight of young people' (for example, by The Princes Trust, Connexions, Education Action Zones (EAZ) and other community programmes. One such project development was the commencement of 'Rural Communities Project' (the aims / objectives of which are outlined on in Project Outlines – Weigh-in). This Project was distinct from other EBLO activity inasmuch that secondary schools did not have an

essential, regulatory role in the Project - that is to say, the Project activities were largely negotiated between:

- a) the young people participating in the evening sessions and the tutor;
- b) the tutor/s and the EBLO / Project Steering Group

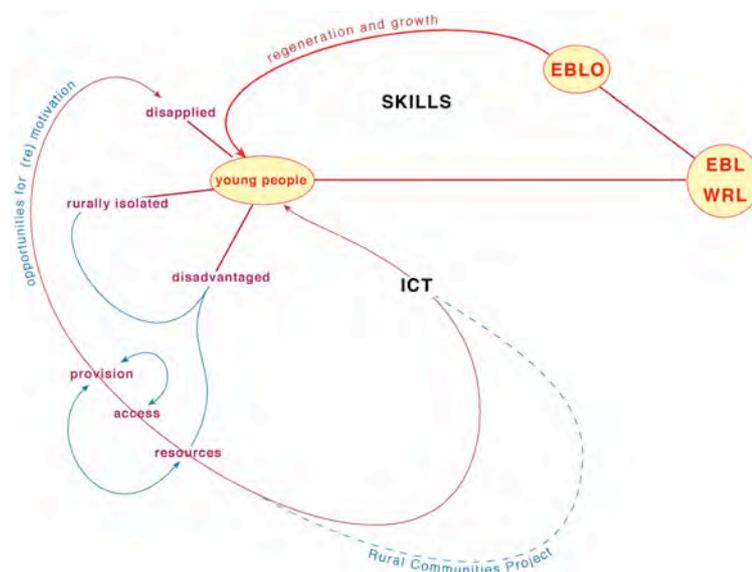


Fig 18d Project Opportunities (Layer 4)

Fig 18d suggests that the activities were not directly driven by school / curriculum requirements but rather, offered the means to address the individual needs and interests of the young people as determined by them and the circumstances of the Project. However, this notion was itself, underpinned by the rationale formed by the EBLO, the interests of which were also fundamentally determined by:

- a) the needs and interests of business and education sectors;
- b) access to funding through corporate sponsorship (which as initially from various charity funds, then business sector, and later, through discretionary funding from local government.
- c) with the funding came tighter controls ... (eg responsibilities, targets, accountabilities that were bound by contracts and formalised policies), many of which were set by those outside the EBLO, the RCP, and by people who had limited insight into the Project rationales or associated logistical issues.

The education sector never contributed capital or revenue funds to the Project. This issue links directly to Fig. 19 (stakeholders and beneficiaries) and Fig. 20 (Providers and recipients making sense of opportunity)

The EBLO's Rural Communities Project was largely independent to its programme of EBL/WRL which it provided to secondary schools, though it was argued by the EBLO that they could be mutually supportive. By providing ICT resources and support for young people, out of school hours, without necessarily having to conform to conventional teaching/learning approaches, it was hoped that the attendees would be re-motivated, re-engage in learning, and in the long term, enhance their employment prospects while simultaneously, address wider issues relating to economic regeneration and growth. As one senior policy officer for the local council remarked: 're-engaging just one young person such that they do not sign on the dole will, in the long term, save the country more money than the entire project has cost so far' (G1/Policy Officer/1).

The rationale for the project was essentially motivated by issues that were common to that which justified its constitutional priorities (the EBLOs' strapline being 'Education today for the business of tomorrow'). To further support the proposition for the project, the EBLO also emphasised other evolving issues (eg rural isolation and disadvantage).

To strengthen the rationale for the RCP, the EBLO highlighted possible 'value-added' relationships such as those between:

- measures to (re)motivate and engage young people in learning
- young people's learning outcomes
- optimisation of resources

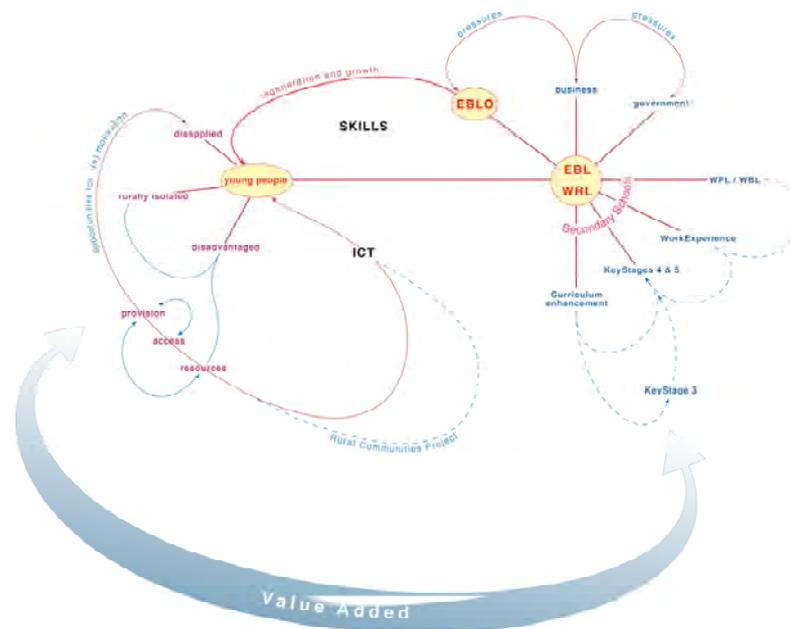


Fig 18e *Joined up Thinking? (Layer 5)*

The value added link was relatively explicit inasmuch that it was identified within the EBLO's proposals, policy documentation and reports and was recognised by investors, sponsors, and participants. However, the link is shown with faded arrows as my research study did not seek or manage to validate those claims

Both the EBLO and I as researcher believed, for different reasons, that to establish and qualify the important relationships between and attributed to 'value added' was too complex, indeterminate, not cost effective, would not necessarily have a significant influence on the development of the Project and associated practice.

Despite the important relationships that could be, and were drawn between these two facets of learning opportunities for young people, the overall Project was not a schools project. It was essentially defined as a Rural Communities Project in order to make a distinction in the form and style of learning opportunities to which the young people, and others in the local community, could have access to resources for learning.

As the conceptual framework of the RCP was being formed by the EBLO, they sought and were awarded funding from various charities and business sponsors. This development brought with it new opportunities and accountabilities (Ref Project Outlines in 'Weigh in').

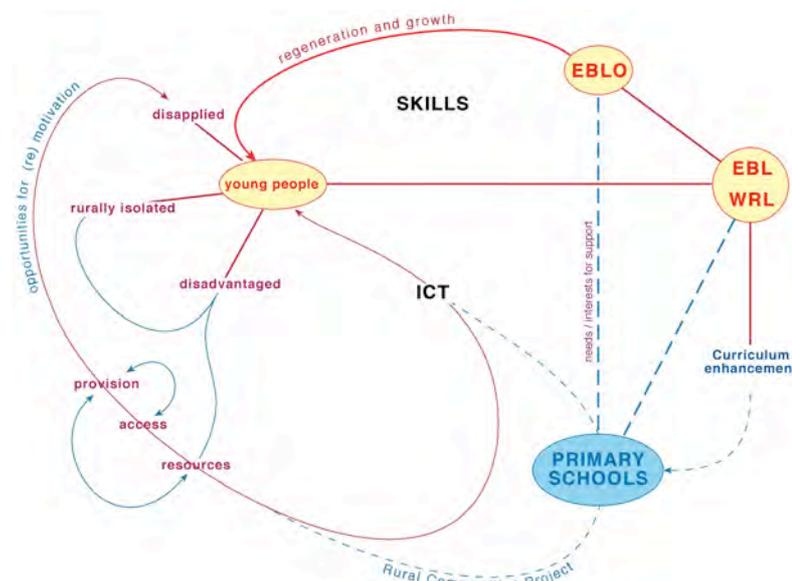


Fig 18f Including Primary Schools (Layer 6)

As outlined above, the EBLO's programme of EBL/WRL activities, for historical and economic reasons, predominantly focused on secondary schools rather than primary schools. The EBLO nevertheless, shared the view of many of its partners (from all sectors) that (ideally) the foundations for developing EBL/WRL should be established as early as possible. Thus, from 1997, the EBLO endeavoured to promote a range of practices that could build stronger links with primary schools. These activities were

dependent on sponsorship from business rather than government or the education sectors. Generally, the sponsorship was manifest as 'in-kind' support (such as staff time to support events) rather than direct funding.

For reasons outlined in greater detail in the Project Outlines, and Scenarios 3, and 5, there were numerous advantages to encompassing primary schools in the RCP. In one sense, primary schools merely provided a 'convenient venue' for the RCP in that the alternatives within small rural communities might have included the church, village hall, pub, or community centre (if they existed and were in favour of accommodating 'the Project'). The initial idea of using primary schools for the Project was that of the EBLO as:

- a) primary schools provided 'a more suitable venue' than that which was available in many small rural village communities - 'suitability' determined as much by the accommodation itself (e.g. accessibility, security, heating, lighting, power, cost) as the interests of the EBLO were in strengthening its relationships with the 'education sector' rather than the church, community centres, publicans, etc. (the notion of 'learning in the community' and 'lifelong learning' was, at the time of the Project's initial development, also in its formative stages within the public arena - for example, Lifelong Learning Partnerships at this time did not exist.
- b) the EBLO was seeking means to build stronger links between EBL and WRL, and believed that this should also occur in primary education.
- c) the EBLO was seeking means to enhance its own economic sustainability and was considering various measures to develop service relationships with primary schools (e.g. curriculum enhancement activities perhaps based on membership/subscription). The EBLO was also aware of the possibilities for private sector funding for WRL in primary schools.
- d) it was clearly evident to the EBLO that ICT resources in local primary schools around the mid 1990s was in a deplorable state, could be significantly enhanced (Refer BESA Reports RID418, 419) and that no formal, funded scheme was in place at that time to rectify the situation.
- e) the EBLO was aware that one of the potential, key sponsors for the RCP had already invested considerable funding into ICT project developments for isolated rural communities and had indicated that they would look favourably on further investment in other locations; the majority of key sponsors expressed a particular interest in notions of sustainable rural development, and enabling opportunities locally by supporting young people and the local community, rather than 'supplementing or compensating for the inadequacies of statutory funding'. Some sponsors were quite explicit that the funding should not be used in, by or for schools where statutory was already available.

Considered within the wider sense, hosting the RCP within primary schools provided a means to:

- enhance the level of resources within the school, and potentially influence curriculum, teaching and learning opportunities/developments.
- build a stronger link between the EBLO and primary schools such that further WRL / enhanced curriculum opportunities might be developed

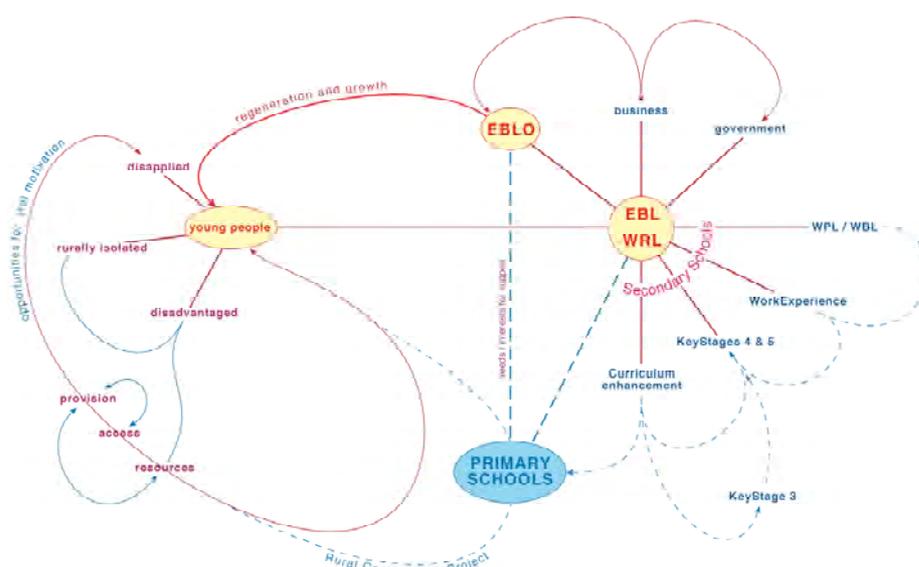


Fig 18g Bringing in the Sheaves? (Layer 7)

Despite these developments:

- 1) the EBLO did *not* view the RCP as a primary school project per se. Nevertheless, the EBLO ensured that significant levels of support were provided to ensure the smooth running of the Project, and also, offered further support directly to the primary schools to ensure that the benefit of the new resources could be optimised. (refer above comments). The EBLO considered that publicising the RCP as a community project development significantly enhanced the nature and levels of support that would have been accrued by otherwise, declaring the Project as being principally for schools.
- 2) the EBLO did not impose conditions on the primary schools that they had to use the new ICT resources for teaching / learning / curriculum development. Rather, there appeared to be a mutual recognition that the new resources represented great potential and offered new opportunities within the school. It was this 'potential' and the subsequent 'opportunity' by and for the primary schools staff and pupils that the EBLO wished to promote, encourage and support.
- 3) Scenario 1 refers to four primary schools that were part of the rural communities ICT project. The resources in one of these schools was located in the old school house in order to enable wider levels of access by the local community

during school hours. Furthermore, this project extended beyond those four primary schools. Additional venues were located in: one secondary school, two in small community centres, one in a methodist church hall.

4) From both a technical and ethical point of view, the EBLO was challenging the 'boundaries of acceptability' by locating the project in primary schools: from one point of view, it made sense to locate resources in primary schools providing they were available to the wider community; conversely, it also created huge problems for the EBLO as, from the perspective of some major sponsors, especially the National Lottery Charities Board, this stance was undesirable – according to the NLCB, all schools received statutory funding and as such should not become beneficiaries of charitable funding provided by them.

As outlined above and discussed in Terms & Conditions, Weigh in and the various Scenarios, the various concepts, events and processes (identified above) can be re-presented in a number of different ways such that they may take on a different emphasis or meaning. For example, EBLO interests can be succinctly summarised as: education business links (EBL), work related learning (WRL), lifelong learning (LLL), each of which interacts, and fits into the national, regional and local agendas of regeneration and growth (HR), social inclusion and social responsibility. In one sense, this description is independent to the detail of the Projects outlined in the Scenarios and the Figures above as, while they were fundamental to the EBLO's strategic role, the principles were not always expounded while engaging with its partners. Fig 18g provides an adaptation of Fig 18.

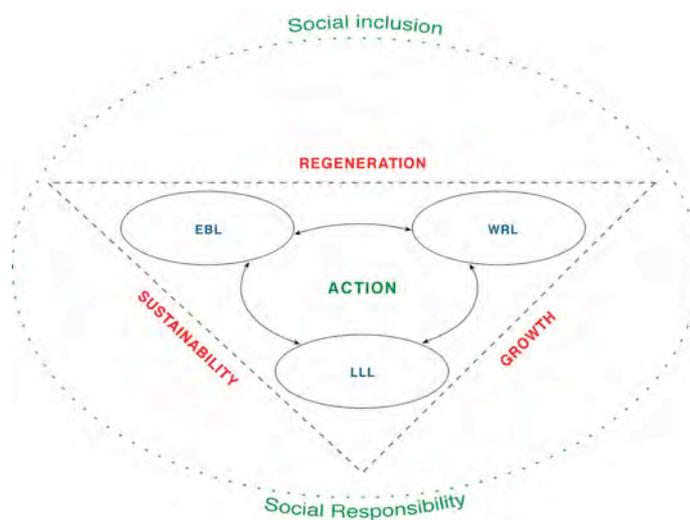


Fig 18h **Adaptation of Figure 1 (Layer 8)**

From this model, other ways of considering these issues are posed by Figs 73, 80; 47, and, in a more objective sense, Figs 24, 4 and 8.

<p>Fig 24 (Organisation/Project Network)</p> <p>It is important to retain an image of where and how the EBLO and the RCP represented 'an extensive undertaking' and was situated in a complex and dynamic framework of organisational activity.</p>	<p>Fig 4 (Project Development Map)</p> <p>This Figure is idiographic</p>	<p>Fig 8 (Project Rationale)</p> <p>The ethical notion of altruism fits somewhere within the action as defined by 'rationale', the potential that energised opportunity and action, and the processes by which this became situated in the action-context. Thus Fig 8 establishes further links to Figs (OAR/I), Fig 20 (stakeholders and beneficiaries) and Fig 45 (Ethical Action in Practice)</p>

Alternative Representations of Activity encapsulated in Figure 18

