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Editorial

I am delighted to introduce the **15th edition of the ITB Journal**, the academic journal of the Institute of Technology Blanchardstown.

The first paper included - Using Extended Analogy To Teach Fundamental Computing Concepts by Damian Gordon. Of the eLearning Research Group in the School of Computing, at DIT discusses the use of analogy to help explain complex ideas in teaching. Extended analogy seeks to combine regular analogy with exaggeration or dramatic emphasis. In this case the paradigm is extended by use of Samuel Beckett's play "Krapp's Last Tape" and took cognisance of learning styles and, in particular, a new model of learning styles developed by the author.

Seán Stitt of ITB and Daphne Gibbs of the University of Bolton, discuss an important, topical and serious issue in their joint paper on 'Non-offending mothers of sexually abused children: The hidden victims'. The paper attempts to raise the awareness of health and social care professions (both in practice and in academia) of the absence of any substantial, targeted support, counselling or advocacy services for non-offending mothers of sexually abused children and of the almost complete lack of any meaningful social scientific academic discourse on the nature and extent of the unique problems faced by such mothers.

We follow this with a paper on the evolution of the traditional of the traditional lecture in third level entitled' From passivity to interactivity: how the traditional lecture has evolved as a method of instruction' by Patricia Doherty of ITB. This paper reviews current thinking in this issue and presents recent feedback from students in order to establish what can be done to improve the lecture as a method of instruction by making lectures more interactive and developing student participation. That is, moving from passivity to interactivity.

Lastly, Amanda Clancy, also of ITB, examines the effectiveness of the traditional mode of delivery of academic lectures and contrasts this against distance and blended learning. The paper is called: Factors Relating to the Design of Effective Third Level Learning Environment. Her paper argues that it is essential to ensure that learning environments are well established and help deliver to the students. This paper looks at what the most important factors are when it comes to learning and teaching environments, and what learning environment best delivers these factors. Three learning environments are discussed, Traditional Learning, Blended Learning and Distance Learning.

We hope that you enjoy the papers in this issue of the ITB Journal.

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Using Extended Analogy To Teach Fundamental Computing Concepts

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Abstract

Using analogies has long been used to help explain complex ideas in teaching. One of the most important ideas that a computing student must understand is the basic architecture of a digital computer. Since the late 1960s the standard teaching approach used to explain computer architecture is the Little Man Computer (LMC) Paradigm. This research seeks to expand upon this standard explanation through the use of a relatively recently developed technique called Extended Analogy. Extended analogy seeks to combine regular analogy with exaggeration or dramatic emphasis. In this case the LMC paradigm is extended by use of Samuel Beckett's play "Krapp's Last Tape". The students were presented with a range of exercises based on the play, including creative tasks such as writing a poem, writing a dramatic scene, and drawing pictures. They were designed to take cognisance of learning styles and, in particular, a new model of learning styles developed by the author. The complete process was assessed qualitatively and received a mostly positive reaction.

Keywords

Innovation, extended analogy, the Little Man Computer (LMC) Paradigm, learning styles.

1 INTRODUCTION

Learning to program can initially be very difficult for students. Two barriers to learning this skill are, firstly, the abstract nature of programming, concepts such as variables, data types, arrays, etc. have no real world counterparts, and secondly, programming requires an exactness of specification that contrasts strongly with the flexible nature of the English language. One teaching approach that has existed for many hundreds of years is teaching by analogy. This approach allows students to develop new ideas and new understandings based on existing and familiar understandings. This means that complex technical material can be taught through the use of analogies which can be more interesting ands captivating. This approach is widespread in teaching

programming, examples of it can be found in [1] and [2]. A recent approach to this same problem is teaching by Extended Analogy [3]. Extended analogy combines analogy with high drama to make the lesson more memorable. This approach can help the student to remember the concept being taught using exaggeration or dramatisation [4,5].

In this research the concept being taught is the basic architecture of a computer, essentially how a computer computes. The architecture is explained using a Samuel Beckett play "Krapp's Last Tape" to illustrate the key operations of the system. The students are given a number of exercises to reinforce the ideas being taught and are given a questionnaire to provide them with the opportunity for feedback.

2 THE LITTLE MAN COMPUTER PARADIGM

Most computer architectures conform to the so-called von Neumann Architecture. This means that they execute programs by accessing both instructions and data on the same storage device, which makes the computer a very flexible device. By treating the instructions in the same way as data, a computer can easily change the program, and can do so under program control.

The computer performs the following sequence of steps:

1. Fetch the next instruction from memory at the address in the program counter
2. Decode the instruction using the control unit
3. Increment the program counter
4. The control unit commands the rest of the computer to execute the instruction
5. Go to step 1

This is the Fetch-Decode-Execute (FDE) cycle. These computers are known as Stored-Program Computers since the separation of storage from the processing unit is implicit in this model.

A conceptual device or thought experiment to teach this architecture was developed by Stuart Madnick of MIT in the 1960s and is called the Little Man Computer (LMC) Paradigm [6,7]. The LMC Paradigm consists of a room with a 'Little Man' who

simulates the operations of a computer. The room has an array of locations that store information (and instructions), an input and output tray, and a calculator. The analogy between the LMC and real computers is not perfect, but this approach is a simple and powerful conceptual model which allows students easy entry level to the basics of computer architecture.

3 KRAPP'S LAST TAPE: THE PLAY

"Krapp's Last Tape" by Samuel Beckett has been called both "very straight-forward and accessible" [8] and "Beckett's most perfect piece of writing for the theatre"[9]. It was written in 1958 for actor Patrick Magee whose sonorous voice had captured Beckett's imagination after hearing him read from "Molloy" and "From an Abandoned Work" on BBC radio. The play was written in English and was provisionally entitled "Magee's Monologue". It is considered by many one of the most important plays written in the twentieth century.

The play concerns Krapp, a 69-year-old man who is seen throughout the play residing in a single room. He records his memories regularly, and although all the recordings are made by the same person, the effect of listening back on older tapes gives the illusion of distinct identities. Each recording is logged by Krapp in a ledger for easy later retrieval. His initial interactions with his recordings are quite jovial; both Krapp and his past voice laugh together. As the play continues things become darker with Krapp expressing distaste for his younger self.

4 KRAPP'S LAST TAPE: AN EXTENDED ANALOGY

"Krapp's Last Tape" centres on the idea of a single individual in a single room, recording and accessing information (on his tapes) by indirect means through his ledger. This clearly maps onto the LMC paradigm. The Little Man becomes Krapp, the LMC room becomes Krapp's Den, and the stored information becomes Krapp's Tapes. The analogy of the LMC paradigm becomes the extended analogy of "Krapp's Last Tape" which will hopefully be more dramatic and memorable for the students. Therefore, in an effort to assist the students understanding of the basic architecture of a digital computer, the students were required to read the play and undertake exercises

based on it. Another benefit to this approach is that it exposes the students to the extremely important concept of indirection. Because Krapp does not directly search through his boxes of tapes, but rather locates the address of the appropriate tapes using his ledger ("…box three, spool five…"). This same indirect approach to accessing information can be seen throughout computer systems, for example, in pointers, which store the address of a particular variable (but not its value). Other examples of indirection can be seen in hashing, look-up tables, and overlay networks.

Additionally the students were required to read a text which was difficult to understand at first but persistence helps make it much clearer. This is an important skill to develop for an I.T. professional, since they are often required to develop software for an organisation whose system may be expressed in its own business-specific terminology. This can seem like a daunting task at first, but a little practice can be of great benefit. Thus, these exercises were an ideal opportunity to begin developing the necessary patience and thoroughness required.

5 FACTORS CONSIDERED IN DEVELOPING EXERCISES

The exercises were designed to take into consideration the individual strengths and weaknesses of the students as learners. Learning depends on a large number of factors, many of which are specific to the individual person. The individual learning style represents the particular set of strengths and preferences that an individual or group of people have in how they take in and process information [10]. The idea of a learning style is certainly a controversial one, and one which there is little agreement over. Everything from the exact definition of learning styles to the very existence (and stability) of learning styles has been hotly debated. The most commonly accepted definition is by Keefe [11] who defines it as "the composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment."

5.1 The Nexus Model of Learning Styles

The exercises were designed to encourage students to employ a range of skills and to help scaffold and encourage a creative approach to computing. The design of the exercises was based on a four-quadrant learning styles model developed by the author [12] called the Gordon-Bull learning styles model. The individual learning style

represents the particular set of strengths and preferences that an individual or group of people have in how they take in and process information. The learning styles model in this case divides students into four categories:

Alpha (α) Style - these are the practical students, they like to understand how topics being taught relate to the real world. They also like topics which are clearly structured.

Beta (β) style - these are the discussion-oriented students, they like to work in groups, and derive most benefit from intrapersonal learning.

Gamma (γ) style - these are the holistic students, they prefer an overview of topic before delving into specific detail. They are also highly imaginative individuals and bring this resource to the learning process.

Delta (δ) style - these are the analytical students, they are dispassionate students who like to focus on concepts, theories and logic.

5.2 Learning Styles Exercises

Based on these categories, a series of exercises were devised to compliment each student's style on one exercise and to challenge them on three others. The objective of which was to help create a more rounded learner in terms of being able to approach a problem from a range of different perspectives, and also to equip the students with the skills they will need to develop to be an industrially-oriented practitioner. The ultimate goal of this approach is to help the students develop as reflective practitioners [13]. That is, they must learn to employ metacognition in decision-making and problem solving, which means that when working through a problem they draw on previous experiences and test various possible solutions until they resolve the issue. The exercises were as follows:

- ***Exercise 1: Chronology of Krapp***

  After asking the students to read the play, the first exercise that they were required to undertake was an analysis of the text to create an internal chronology of the play. This exercise was designed to foster logical thinking and an analytical approach to problem-solving. This exercise will appeal to the delta-style students (the practical learners) who will have a natural ability with it but all students will need some skill in this way of thinking.

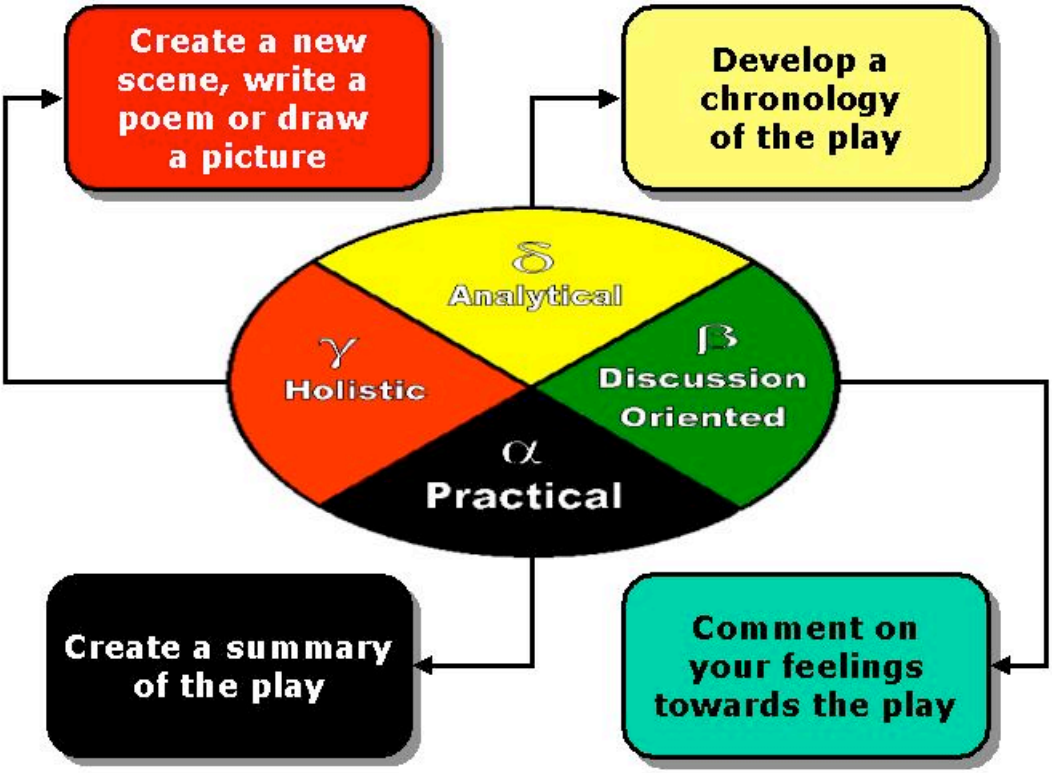

Figure 3. Learning Styles and Exercises

- ***Exercise 2: Krapp in Brief***

  The second exercise that the students undertook was to create a summary of the play. This required that they go back and re-read the play slowly, and distil the salient points of the play. This is a very significant skill for an I.T. professional to have, the ability to recognise the most important points in a specification. This exercise appeals to the alpha-style students (the practical learners) but again all students need some skill in this way of thinking.

- ***Exercise 3: Krapp's Lost Tapes***

  The next exercise was a creative one; to either write an additional scene for the play, write a poem about the play, or draw a picture of Krapp. This exercise required that the students access their creative abilities. This creativity has to be tapped into every time a computer program is written, it is a fundamental skill of any programmer. The gamma-style students (the creative learners) will enjoy at these kinds of exercises but all students need some skill in this way of thinking.

- ***Exercise 4: Krapp in Action***

  The final exercise the students undertook was simply to reflect on the work that was done and to identify what effect, if any, it had on them. The students were given a questionnaire to help in this process, to help them become reflective practitioners. Examples of questions included:

  - *Had you read any Beckett works before you started the course?*
  - *Will you read any more?*
  - *What did you think of Krapp's Last Tape?*
  - *Did you find the exercises interesting related to Krapp's Last Tape?*

The beta-style students (the intrapersonal learners) will excel at these kinds of exercises but all students must develop skills at this.

These exercises also map onto various stages of a software development lifecycle. The first exercise (the analytical one) is like the analysis of requirements of a system. The second exercise (the practical one) is like the design phase of a system. The third exercise (the creative one) is like the development phase of a system. And the final exercise (the reflective one) is like the implementation and maintenance phases of a system. As state above, it is the ultimate goal of this approach is to help the students develop as *reflective practitioners*.

6 RESULTS AND CONCLUSIONS

As expected the outcome varied greatly from student to student. Those who excelled at one exercise often did less well in other exercises. So, for example, the first exercise which required the creation of a chronology resulted in a detailed analysis by some and a very superficial analysis by others. Equally with the practical and creative exercises different students did better at each one.

The final questionnaire provided the students with the opportunity to comment on how they felt the entire process went for them, and reactions were somewhat mixed. Students with prior experience of programming (and, therefore, a range of preconceived notions) were less willing to participate in the process, whereas those with no prior

experience were more willing to immerse themselves in the process and thus achieved more significant gains. The final outcomes for the 2004 - 2005 K268/1 Software Development class are available at **http://www.comp.dit.ie/dgordon/KLT**.

Examples of positive student feedback included:

- *"Good practice for understanding specifications"*
- *"It was a bit of a laugh and brought the class together"*
- *"It made me think outside the box"*

Other students did not feel that they benefited from the process, so much so that they gave very negative feedback on the process, which will guide the next iteration of this research process. A breakdown of questions answered is presented below.

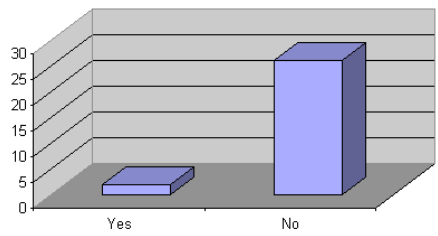

Figure 4. Had you read Beckett before?

Out of 28 responses:

- 26 No, 2 Yes

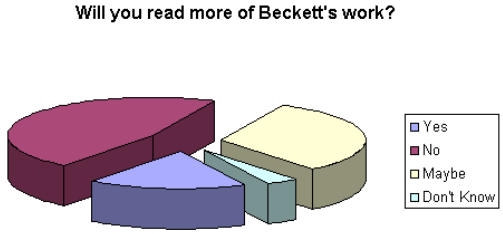

Figure 5. Will you read more Beckett?

Out of 28 responses:

- 5 Yes, 13 No, 9 Maybe, 1 Don't Know

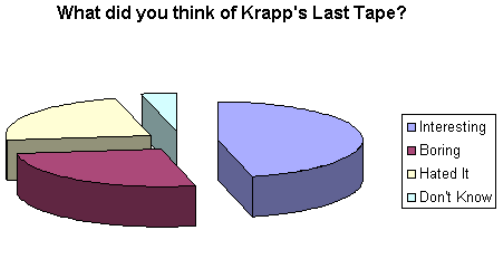

Figure 5. What did you think of the play?

Out of 26 responses:

- 12 Interesting, 7 Boring, 6 Hated it, 1 Don't Know

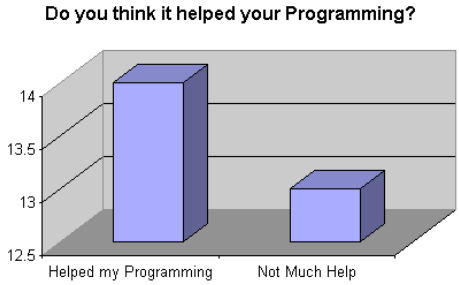

Figure 6. Has it helped your programming?

Out of 27 responses:

- 14 yes, 13 No

Teaching by analogy is an approach which has been used for many hundreds of years and has proven to be enormously beneficial (when properly implemented) whereas

teaching by *extended* analogy is a relatively recent development and bears a great deal more investigation.

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Non-offending mothers of sexually abused children: The hidden victims

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Abstract

This paper is an attempt to raise the awareness of health and social care professions (both in practice and in academia) of the absence of any substantial, targeted support, counselling or advocacy services for non-offending mothers of sexually abused children and of the almost complete lack of any meaningful social scientific academic discourse on the nature and extent of the unique problems faced by such mothers. What little specific research literature that does exist on this issue has been generated in the U.S. and any generalised European commentaries on child sexual abuse that exist actually focus upon: (a) the child survivor of the abuse; (b) the perpetrators of the abuse and; (c) the mother as, either, partly to blame for the abuse or as being unworthy of consideration for independent client status themselves.

METHOD: The paper will report on a series of focus group interviews carried out with a small sample of non-offending mothers of sexually abused children (n=12) and on responses to questionnaires completed by a sample of agencies working in the area of child sexual abuse (n=6).

RESULTS: The interviews concluded that: non-offending mothers feel that they are viewed by relevant professionals as either partly to blame for the abuse or as a source of support for the abused children, not as being in need of support themselves; there are no intervention strategies in place to meet the specific needs of non-offending mothers. The responses from the questionnaires supported these findings.

CONCLUSION: Professionals working with sexually abused children need to acknowledge that non-offending mothers are also victims and have their own needs for support and assistance which are separate and independent from the needs of the abused child. Academic researchers need to address the unique needs of such mothers to be treated as clients in their own right and not as, either, partial collaborators in the abuse or as being inconsequential.

A Historical Perspective of Child Sexual Abuse

Child sexual abuse is not new, although it has culminated in a heightened awareness of abuse issues during the 20th and 21st centuries. Early historical accounts (Rush 1980 & Gray-Fow 1987 in Bolen 2001) indicate that child sexual abuse has always existed but has not always been acknowledged and no reference to child sexual abuse is made before the 1880's. DeMause writes *'The history of childhood is a nightmare…. The further back in history one goes…. the more likely children are to be killed, abandoned, beaten, terrorised and sexually abused*' (DeMause 1988:1 in Bolen R 2001:12).

This strongly indicates that child sexual abuse is not a new phenomenon but its recognition is comparatively new. According to Morris (1971), Vicinius (1977) and Hopkins (1979), prior to 1839, fathers automatically took custody of their children if a marriage broke down. From this stemmed a societal perspective of children as the possessions of their father. Evidence of child sexual abuse was ignored and accredited to female hysteria (Brandcraft and Stolcrow [1984] in Bolen 2001); this was a serious medical diagnosis at the time (http://en.wikipedia.org/wiki/Female_hysteria) which has long since been discredited. Writers like Brandcroft and Stolcrow (1984 in Bolen 2001) are of the opinion that patients presenting with the symptoms attributed to female hysteria were possibly victims of child sexual abuse. Bolen suggests the earliest work on child sexual abuse was undertaken by Frenchman Ampouse Tardie, a forensic-medical expert who, as early as 1862, reported on 420 sexual offences committed against children under 15. Later, from an eleven year study, he cited over 80 incidents of sexual abuse involving child victims (Masson 1984 in Bolen 2001). According to Bolen (2001), Ampouse was the first to write professionally about child sexual abuse as a social problem. The views on child sexual abuse have always been complicated. Jean Martin Charcot (1825-1893), a neurologist, presented victims of child sexual abuse as mentally ill and the perpetrators of their abuse as 'honest family men' (Cunningham 1988:347 in Bolen 2001:12). Meanwhile Binet, a French psychologist, promulgated the idea that the suggestibility of children made them unreliable witnesses and this provided a 'rationale for disbelieving children especially those involved in sexual crimes' (Cunningham 1988:349 in Bolen 2001:13).

Generally then, the view up to and including Freud was heavily weighted against believing children's accounts of child sexual abuse (Bolen 2001). Later historical evidence suggests that incest was explained in terms of girls seducing their fathers (Bender and Blau 1937 in Hooper 1992:1). This stemmed from work done by Freud (Bolen 2001) who, having heard accounts of sexual assault from female clients, first circulated the idea of the Oedipus complex as a developmental stage in girls which included penis envy and meant the father replaced the mother as the child's love object. According to Bolen (2001), Freud conjectured that girls fantasized about incest and considered their accounts to be imaginary. The thinking current at that time was that it was 'preposterous that parents would molest their own children' (Joyce 1995:200 in

Bolen 2001:14). Freud's work is cited as having 'profoundly affected the mental health profession' (Bolen 2001:19). It is clear that the understanding of child sexual abuse has been dramatically affected by Freud's ideas, not least because his psychoanalytical approach contradicts client's reality by placing the interpretation of their account by the expert in a more favourable and acceptable light than the clients own perspective. In the context of the survivor of child sexual abuse this means:

> *'Any attempt on the part of the child or her family to expose the violator also exposes her own alleged innate sexual motives and shames her more than the offender; concealment is the only recourse. The dilemma of the sexual abuse of children has provided a foolproof emotional blackmail; if the victim incriminates the abuser, she incriminates herself' (Rush 1996:275 in Bolen 2001:19).*

In the 1950's and 1960's, the attitude towards child sexual abuse was influenced by an approach which placed the blame for father/daughter incest on the mother (Kaufman et al 1954 in Hooper 1992), or the child (Bender and Grugether 1952 in Bolan 2001). In the 1960's, the blame for child sexual abuse was again distanced from the perpetrator and this time placed on the entire family including the child survivor (Machotka Pittman and Flomenhaft 1967 in Bolan 2001).

The next part of the literature review concentrates on the extent to which the lack of support for mothers of sexually abused children is reflected in academic literature, which appears to neglect, or overlook them in the context of child sexual abuse. Such neglect and the negative attitude toward non-offending mothers found in the literature is indicative of a lack of support for those mothers. It is important to define child sexual abuse because there is a diversity of understanding about what involves. There is the strong tendency to assume that child sexual abuse is the same as incest and includes contact; however, as Barker and Hodes (2004) assert, 'any activity that leads to sexual arousal in the perpetrator' (2004:42). Barker and Hodes (2004) go on to define child sexual abuse as any sexual molestation of children by adults or older children, which again infers contact, but later defined child sexual abuse as

> *'Forcing or enticing a child or young person to take part in sexual activities, whether or not the child is aware of what is happening. The activities may involve physical contact, including penetrative… or non-penetrative acts. They may include non-contact activities, such as involving children in looking at pornographic material or watching sexual activities, or encouraging children to behave in sexually inappropriate ways'* (Barker and Hodes 2004: 42 bold italics ours).

This study used the above as its definition of child sexual abuse, alongside the concept that:

> *'... children are incapable of being sexually provocative or seductive. They do not understand what this is or the meaning of sexual body language. Once again this is the shifting the responsibility for the abuse from the abuser onto the child. It gives us the impression that we should feel sorry for the poor man who has been taunted by a 'seductive' child. The only person responsible for the abuse of a child is the abuser'.*
> http://www.gvawp.org.uk/InfoWomen/pdfs/ChildSexualAbuseinfopack.pdf

While this review acknowledges that women also abuse children, current statistics show 97% of offenders are men (http//www.gvawp.org.uk/infoWomen/pdfs/ChildSexualAbuseinfopack.pdf).
However writers still exhibit mother blaming attitudes, even though mothers have been described as 'the primary adult actors in child protection' (Hooper 1992:4) and, according to the Metropolitan Police & Bexley Social Services (1987), they are also the main source of referrals to professionals regarding child sexual abuse.

This study discovered no Irish and only two British books which solely focus on the impact of child sexual abuse on the mother: Hooper 1992 (1992); Trotter 1998. Tamraz (1996) endorses this saying '… Few research studies have investigated non-offending mothers…' (1996:77). It has been difficult to find literature on the issue of services and support for non-offending mothers or reference to the non-offending mother's role in the context of child sexual abuse or child protection between 2000 and 2006, the exception being Hill's (2001) article in which he too refers to the tendency of the literature to overlook mothers of sexually abused children.

Wyatt (1985 in Bannister 1998) asserts that, as the mother is the non-abusing parent in most cases of intra-familial sexual abuse, she has a crucial role to play in helping her abused child because professionals consider that the non-believing mother cannot protect her child (Furniss 1991). Jones and Ramchandani (1999) indicate that child protection workers often need the mother to openly acknowledge the child's account of abuse very early in the process of disclosure and investigation, denying her the time to work through and adjust to what has happened. Mothers are described as 'a key resource for children' (Rickford 1992:15), but not as independent clients themselves in need of care and support. Feiring, Taska and Lewis (1998) assert that it is imperative to meet the needs of mothers because their studies indicate that the majority of children who are believed and supported by their mothers when they disclose their abuse recover better than those who are not believed or supported by mothers. In an American study Spaccarelli and Kim (1995 in Elliott and Carnes (2001) affirm that 'parental support was the single best predictor of resiliency in sexually abused girls' (1995:322).

Hooper (1992) and Trotter (1998) both assert that much of the literature on child sexual abuse emphasises the mother's possible collusion, failure to prevent the abuse and failure to identify the perpetrator as abusive before he abused. Porter (1984) suggests that emphasising mothers' failure to protect places the responsibility for protection erroneously on the mother not the perpetrator. These assertions indicate a lack of support for mothers of sexually abused children in the literature on child sexual abuse. After intra-familial abuse has been disclosed, the mother is seen as supporter and enabler, and responsible for empowering the child (Bagley and King 1990; Bannister 1998) but is not identified as requiring assistance themselves. Hill (2001) asserts '… the literature on child protection practice continues to focus on assessing mothers "ability to protect" and even on the possibility of collusion … mothers of sexually abused children are entirely overlooked in influential texts on partnership…' (2001:386)

Bannister (1998), Finkelhor (1986) and Calder (2001) provide evidence that many writers blame mothers for the sexual abuse of their children especially where the abuse is committed by her husband or partner. Johnson (1992) writes 'The mother is the family member most often neglected or maligned when daughters are abused, mothers

are accused' (1992 in Feigenbaum 1997). Hooper (1992) cites evidence that abusive tendencies are formed during adolescence but, in spite of this, as Hildebrande (1989) avers, therapeutic work with mothers requires them 'to acknowledge how the marriage relationship or partnership as the structure and organization of the family may have contributed to the sexual abuse (Hildebrande 1989:244).

Miller (1990) and Barker and Hodes (2004) suggest that, prior to 1980, the collusion of the mother was assumed and blame was apportioned to her in equal measure. According to Rich, (1977 in Hooper C~A 1992:13), 'motherhood is characterised by personal responsibility'. Tamraz (1996) suggests a covert form of mother-blaming prevails in current literature, citing from her American literature review the example of the working mother abandoning her child to be abused, and the non-working mother giving her child a victim mentality by providing a role model of dependency. However, Bagley and Naspini (1987 in Bagley 1990) cite primary data demonstrating that few mothers know about intra-familial child sexual abuse and that the idea that men abuse because their wives are sexually withdrawn was untrue. Bagley and King 1990) question the prevalence of the myths about mothers' collusion and suggests 'This stereotype is part of an ideology which perpetuates male dominance' (Bagley and King 1990:49), while Rickford (1992) reports that professionals working with mothers of sexually abused children find the model of assumed collusion less than helpful. The perpetuation of this model of mothers as directly or indirectly collusive is symptomatic of the absence of support for mothers of sexually abused children in literature. It is imperative that literature and society place the blame for child sexual abuse with the abuser and stops seeking to shift blame onto mothers or the child victim.

Armstrong (1978 in Bagley and King 1990) argue that sexual abuse of a child does not arise from 'physical addiction'' instead, it stems from an 'assumed prerogative, super-structured with rationale, protected by traditions of silence, and even more than in rape, an assurance of the objects' continuing fear, shame, powerlessness and therefore silent acquiescence' (Armstrong 1978:277 in Bagley and King 1990:47). This acknowledgement of child sexual abuse as a premeditated, considered act or acts, is often not made clear in academic literature and both society and theorists seems to endorse (or encourage) the view, that in some way mothers have to share the blame for child sexual abuse within the family. This apparent effort to render the non-offending

mother directly or indirectly responsible for the intra-familial child sexual abuse is important because it is these assumptions that may lie behind the paucity of services for mothers of sexually abused children.

Mother-blaming within the literature is sometimes very subtle. Bagley and King (1990) for example appear supportive of the innocence of non-offending mothers but insist that it is 'essentially the mother must (after her child discloses abuse) acknowledge her role as parent and protector to her child and apologize for her inability to effectively carry it out in past circumstances' (Bagley and King 1990:177). This seems to suggest the belief that mothers must apologise for not stopping something they did not know was happening and again places the responsibility for preventing the abuse on the mother rather than the perpetrator. Meanwhile Kelly (in Rickford 1992) states, 'mothers are either represented as collusive and offered no support, or else they are good mothers who believe in and support the child so they are just left to get on with it' (Rickford 1992:15).

Dergamo and Forgatch (1997) reveal that, following divorce, a mother's parenting is affected by her distress and her ability to cope is very dependent on her networks of support. Hooper (1992) and Trotter (1998) demonstrate that, in the plethora of literature concerning child sexual abuse, the impact on the mother of her child's disclosure and her separation from and feelings of betrayal by her partner or husband are to a large extent ignored. According to Bannister (1998), mothers experience feelings similar to those of the sexually abused child, 'these include, shock; disbelief; anger; powerlessness' guilt and betrayal' (1998:79). Bryerly (1985) specifies the life changing decisions non-offending mothers have to make in the aftermath of a disclosure of child sexual abuse which renders her breadwinner, witness, and lone carer. Hooper (1992) further stresses:

> '[Mothers'] *resources (emotional, social and material) are generally depleted by the disclosure of their child's abuse and the losses this involves for them, at the same time as the expectations on them are increased by the child's needs and by the demands of professionals'* (Hooper 1992:13).

Hooper (1989) in Trotter 1998; 97) also states, 'mothers should be heard … for their own sake, not only as appropriate or inappropriate reactions to the child'. Written, practical and societal support for non-offending mothers is vital because as Print and Dey (in Bannister 1998) acknowledge, the response of mothers to their child's disclosure of sexual abuse is critical because children who are not believed and supported by their mothers suffer more serious long term effects than those children who do receive that maternal support. Furthermore, they suggest that, in a high number of cases, it is legitimate to view the mother as a secondary victim of the child sexual abuse.

However, the initial disbelief, guilt, sense of betrayal and loss felt by the mother are often lost in the victim focused process of a Child Protection investigation, and are rarely mentioned in the literature. Feigenbaum (2001) agrees that 'very few studies have looked at the impact of disclosure on mothers' (2001:478) and Bagley and Mallick (1999) assert that family therapy should be included in the help assigned to the child victim.

The lay assumption that, on disclosure, an abused child will immediately feel better for having told and behave accordingly, is untrue (Bannister 1998); rather there is evidence from Ainscough and Toon (1993), Bagley *et al* (in Bagley and Mallick 1999) and Jones and Ramchandani (1999) that the child's behaviour may alter, sometimes dramatically, as a result of the abuse. Ainscough and Toon (1993:65) list forty eight possible effects, while Bagley (1990:14) states 'child sexual abuse destroys the spontaneity and freedom of childhood and imposes a state of lonely terror on the victim…, profound psychological problems almost inevitably result' (Bagley 1990:14). Mullen and Flemming (1998) assert:

> '*…the fundamental damage inflicted by child sexual abuse is to the child's developing capacities for trust, intimacy, agency and sexuality, and that many of the mental health problems of adult life associated with histories of child sexual abuse are second-order effects*' (Mullen and Fleming J 1998).

Yet these effects are frequently omitted from the academic literature, along with any consideration of their affect on the mother/child relationship. Furthermore, Feigenbaum (2001) addresses this issue, stating 'a common reaction to disclosure is for the mother to withdraw from her daughter. This may be due to remorse, guilt, self-blame, depression or even anger' (Feigenbaum 2001:478). Likewise it can be asserted that '… child sexual abuse has long-term repercussions for adult mental health, parenting relationships, and child adjustment in the succeeding generation' (Roberts *et al* 2004).

The mothers in the studies by Hooper (1992) and Trotter (1998) refer to negative, disturbing and worrying changes in their child's behaviour following the disclosure of sexual abuse. Hooper (1992) cites a variety of behaviour patterns which mothers in her sample had experienced from their children; anger, ambivalence, sexually inappropriate behaviour; distrust; neediness. He goes on to state clearly that mothers reported a lack of help in dealing with these difficulties. It is interesting to note that foster carers receive training regarding the care of an abused child (Finkelhor 1986: O'Hagan 1986), but mothers of sexually abused children do not.

Trotter (1998) highlights the difficulties non-abusing mothers face when there are other children in the family, because siblings are also neglected in the literature and in practice. Mills (1988) points out the lack of books and information aimed to help parents with this task, indicating that far more are available in America. Trotter (1998) also emphasises the benefits to those mothers who were able 'to involve themselves … with adult survivors' (1998:60). In her interviews with mothers, Trotter (1998) was able to identify a lack of empathy from professionals tantamount to being dismissive, claiming that '…experts were not always as helpful as the might have been' (Trotter 1998:61). Hooper (1992) and Trotter (1998) identified a sense of abandonment among mothers, especially when the official process was completed and professionals withdrew. Jones and Ramchandani (1999), in their research into the child protection process, found that mothers felt they received suspicion rather than help. Mothers in all three studies expressed a sense of being left without support advice or guidance. This constitutes substantial evidence of the propensity of academic literature to ignore the damage child sexual abuse does to the relationship between non-offending mothers and their children which is another way of denying support to mothers of sexually abused children.

A review of literature from other countries, suggests that a different approach exists and that there is more current literature being generated about support for non-offending mothers. Nurcombe (1999) writes about a treatment programme in Queensland including non-offending parents as standard. Carnes and Leslie (2000) refer to The Family Advocates Programme, an early intervention model in America, which initiates professional support alongside the non-offending primary carer during the investigation into the abuse allegations. Also in the U.S., Alaggia et al (1999) cites a peer support programme led by paid non-professional staff who have themselves been sexually abused or are the mother of a sexually abused child. Junich and Litrownik (1999) report good results following the use of a video tape about coping with child sexual abuse with non-offending parents during the initial investigation into the child's disclosure. In another U.S study, Massat *et al* (1999) reported that participants in their study identified another parent of a sexually abused child as the most helpful kind of support.

In Britain, child psychologists at Park Hospital for Children in Oxford (Wright and Portnoy 1990), the National Children's Home (Eaton 1993) and Barnardos (McDonald and Winkley 2000) found programmes that offered help to mothers and children simultaneously were more helpful than those which dealt with them separately. A thorough scrutiny of academic journals dealing with the subject area of child sexual abuse seems to suggest that scant attention has been paid by academic literature to the lack of support for non-offending mothers since Trotter's work in 1998. Acknowledging this is vital because the literature either reflects a societal attitude of not supporting mothers or perpetuates it through its use in training child protection workers.

Sociological research contributes considerably to our understanding of families, resulting in a plethora of theories about why families function as they do; this paper admits that it is impossible to deal fully with any of these theoretical perspectives due to the constraints of space. However, it is illuminating to very briefly consider functionalism and Foucault's and Weber's perspectives on power. 21st century perceptions of family are strongly affected by functionalism and Parsons, one of its most prominent proponents, argued that society is made up of structures and that the downfall of the traditional family structure was tantamount to the collapse of society

(Parsons in Walklate 2004). Parsons maintained the family has two essential functions (Morgan 1975 in Bernardes 2002): the socialization of children; and the maintenance of adult personalities. He asserted that the 'nuclear family' was essential to industrial society (Newman and Grauerholz 2002). The functionalist view is deeply embedded in common sense thinking about society's expectations of the family and sees the family as controlling and regulating the reproduction and socialization of children. According to functionalism, families provide 'an antidote to the dehumanising effects of society... a haven in a heartless world' (Lasch 1977 in Newman and Grauerholz 2002:90). However, functionalism is silent regarding domestic violence and child abuse during the era in which this theory was most popular. As Cheal (2002) indicates, families are both the context of love and nurture and the arena of violence and murder.

The functionalist approach perceives society as a system which, when it 'functions', produces social cohesion (Bernardes 2002). Parsons believed that industrial societies needed stable families as a base and further purported that stable families included a clear division of domestic labour, with women taking most responsibility for children through the expressive roles of caring and providing security. Meanwhile men's role is instrumental, demonstrated by being the breadwinner. According to Newman and Grauerholz (2002), Parsons broadened women's roles to include, not only nurturing children, but also stabilizing and comforting men. It can be contested that this underpins assumption such as Bagley and Mallick's (1999) assertion that the mother's failure to fulfil her role as wife is a reason why men sexually abuse children.

Functionalism places parents and in particular fathers, generally, in a position of unquestionable authority supported by the wider organisation of society. This renders children vulnerable and adults powerful. Socialisation of children in the past has meant teaching children to be 'seen and not heard', subject to parental [and particularly paternal] authority and to obey parents/adults without question. Where a family is functioning well, the adults make demands on their children that are in the children's long term best interest. However, as Finkelhor (1986) asserts, a sexually abusive father or father figure abuses his authority by lying to the child about the acceptability of his actions. There is evidence from practice (Jones and Ramchandani (1999) that children are told by the abuser that the mother knows about the abuse and does not mind or that all families do these things.

It could be contested that, functionalism, adopted in lay circles as well as academia, fosters the tendency of child sexual abuse literature to blame mothers, for example Macionis and Plummer (2002:440) state:

> '[Functionalism] *minimizes the problems of family life. Established family forms reinforce patriarchy and incorporate a surprising amount of violence, with thedysfunctional effect of undermining individual self confidence, health and well being, especially of women and children'*.

However functionalism does not stand alone in its underpinning of society's understanding and expectations of mothers. The conflict perspective describes society and family in terms of conflict and struggle (Newman and Grauerholz 2002). Though this perspective acknowledges the inequalities which exist within the family, it does not comment on those inequalities which exist between adults and children especially in the context of intra-familial abuse. Social exchange theory (Newman and Grauerholz 2002) on the other hand uses market principles to describe family experiences. The concept of rewards and costs are difficult to appropriate within the family setting and in the context of abuse, fails to show that the cost of the effects of child sexual abuse always outweigh any positive contribution the abuser makes. Symbolic interactionism examines language and body language and asserts that understanding of family lies in the interpretations of individuals (Ibid.). The danger of this theory in the context of child sexual abuse is that abusers can try and disguise their abusive actions and suggest the child has misunderstood ordinary social interaction as abusive.

From yet another perspective, Weber perceives men as having economic power and therefore coercive power over their dependents. According to Weber, men's power is seen as traditional in origin, therefore it seems that patriarchal power inside the family is backed by a wider societal patriarchy in which men continue to be seen as most powerful (Macionos & Plummer 2002: 445. This belief in and societal acceptance of male power and dominance is open to exploitation which encourages child sexual abuse or masks it. Once again the male abuser is in a place of authority supported by society and by the way society is run. Survivors of child sexual abuse find this 'society deep' acceptance of men's power difficult to challenge

Power in the family is perceived as based on self restraint, the traditional father figure is perceived as 'natural'. People are not coerced but discipline themselves and use negotiation to get their needs met or their voice heard. Sherratt and Hughes (2000) assert that this version of power is more open to diversity. However, Dobash and Dobash (1979) highlight Foucault's silence regarding domestic violence. Foucault's thinking does not deal with what happens when negotiation breaks down. In the context of child sexual abuse, there is no negotiation only coercion and exploitation. Data highlight the reality of this by indicating that 'three-quarters of sexually abused children do not tell anyone about the abuse at the time and around a third still have not told anyone about their experience(s) by early adulthood' (www.nspcc.org.uk/WhatWeDo/AboutTheNSPCC/KeyFactsAndFigures/KeyFacts_wda33645.html).

These theories regarding power have to a great extent been absorbed into the popular culture of Ireland and accepted as a 'norm'. Feminists (e.g. Walby 1990) have sought to contest underlying patriarchy but power imbalances remain prevalent in families and in society. As Bernardes (2002) contests, it would be an acceptable assumption to presume that 21st century sociologists are preoccupied with studying family lives. However Bernardes asserts that, 'In fact, family living is absent from many of the social sciences, even in sociology, the study of family lives is far from a central concern' (2002:27). Similarly it can be contested that non-offending mothers are neglected in academic literature as part of a wider disregard of the family or families.

METHODOLOGY

Given the highly sensitive and private nature of the research topic – child sexual abuse – and considering that no previous research findings exist in this area, it was deemed most appropriate to adopt a qualitative approach to data collection. However, there were two samples: non-offending mothers of sexually abused children; and organisations with a specific interest in the welfare of such mothers. So, suitable data collection instruments had to be designed to provide the required findings from both sources.

Interviews are the most common form of qualitative research, involving the collection of information by verbal communication. However, as there are a number of different types of interviews, consideration was given to the most appropriate for this study. For the purposes of this research, it was decided, for the sample of mothers of sexually abused children, to carry out the interviews over the telephone and record them. This, it was reckoned, would encourage more open and honest disclosure of highly sensitive and personal experiences, as the interviewees would not have to face a stranger asking them for extremely private and possibly traumatising information. For the organisations, such privacy matters were not so relevant and so, hand delivered and hand collected questionnaires were deemed most appropriate.

Analysis of the data from the telephone interviews was not an easy matter, given the quantity of information. The data from these was analysed using a combination of grounded theory and discourse analysis. The telephone interviews preceded the questionnaires and the data from the former constituted the structure and content of the latter. The data from the questionnaires was analysed manually.

The sample of mothers was accessed via gatekeepers, relevant organisations who work with child survivors of sexual abuse and their mothers. Each was contacted in turn and asked to act as a source of contact between mothers of sexually abused children and the researcher. Contact was made with organisations in order to gain access to representatives who were to provide the data, via the questionnaires, responding to the information obtained from the telephone interviews among the sample of mothers.

FINDINGS & DISCUSSION

The mothers interviewed were aged from late twenties to early fifties. Some were themselves survivors of sexual abuse. The women came from a wide range of educational backgrounds. All the respondents lived in different geographic areas. All the abused children of the mothers in this study were girls. Even the relatively small amount of primary data gathered was difficult to analyse, the client-led approach used over the telephone meant that specific information was not directly asked for, but the clients were allowed tell their stories in their own way. The questionnaire sent to organisations was similarly difficult to scrutinize, but every effort was to represent the comments and feelings of the participants as accurately as possible. The validity of the

information from the different organisations questioned rested on their expertise and cognizance therefore it was important to include a brief resume of their spheres of activity.

1) CCPAS

The Churches Child Protection Advisory Service is the only independent Christian charity providing professional advice, support, training and resources in all areas of safeguarding children and for those affected by abuse. CCPAS runs a helpline, training, sex-offender supervision, advises government, Children's Services Departments, police and probation services, faith organisations and other bodies on policy and practice and in individual cases.

2) JACAT

Jointly funded by Social Services and the Health Service, JACAT hopes to achieve:

- The highest possible standards of therapeutic work with our clients
- A steady improvement in the handling of child abuse issues
- The wider dissemination of information regarding child abuse
- Better support for workers in the area
- A heightened general awareness of the complexities of working in this field

3) MOSAC

Mothers of Sexually Abused Children is a self help support group for non-abusing parents and carers of sexually abused children and a registered charity since 2002. Initiated by three mothers, MOSAC offers counselling services to mothers of sexually abused children, a drop in service and individual and group support, and is involved in awareness raising. The group also offers confidence building courses for young people facilitated by women's refuges and a course for adults facilitated by the local College. MOSAC also supports members who wish to pursue qualifications.

4) Stop It Now

This is public information and awareness raising campaign regarding child sexual abuse that:

- Aims to prevent child sexual abuse by increasing public awareness and empowering people to act responsibly to protect children

- Believes that it is the responsibility of all adults to take positive action to prevent the sexual abuse of children
- Is an alliance of leading children's charities, working with the government and child protection agencies, to promote public education and prevent child sexual abuse
- Believes that the sexual abuse of children must be recognised as a public health problem that affects everyone
- Aims to break through the secrecy and taboo that surrounds child sexual abuse and to ensure that child sexual abuse is everyone's business

5) LASA

League Against Sadistic Abuse provides the following support services to adults who suffered any of the following types of abuse in childhood:

- Emotional abuse
- Physical abuse
- Sexual abuse

It is a support network for the carers and family of people who allege they have been abused in a ritual setting.

6) St Mary's Sexual Abuse Referral Centre

St. Mary's Centre offers high quality, comprehensive and co-ordinated forensic, counselling, and medical services to males and females who have experienced rape or sexual assault, and their supporters. A free counselling service is available to supporters as well as the person directly involved.

Three issues introduced by the organisations and not covered elsewhere in the research are discussed at the end of this analysis. The information collected from mothers and organisations is laid out as follows.

- Topic or theme
    - What mothers say
    - What organisations say
    - Whether this is supported or not by the literature review.

Support

The primary data indicate that mothers feel support at the time of their child's disclosure was difficult to find:

a. None of the mothers mentioned feeling supported by social workers and three referred negatively to their experiences of working with Child Protection teams.
b. Two respondents referred positively to feeling supported by the police responding to the initial allegations.
c. Three received support from other sources
d. One comment: 'the support offered me was non existent'.
e. Another said 'mothers need someone who is there for them'.
f. One respondent mentioned that the support from an NSPCC group was good but not long enough.

The organisations indicated that their clients were dissatisfied with their experiences of support:

g. All six organisations referred to mothers' complaints concerning lack of support.
h. Two suggested peer support programmes as a way forward.
i. One organisation suggests 'support should come from someone who understands the dynamics that follow disclosure and the emotional journal the mother travels'.
j. All organisations referred to the current provision as 'patchy, 'difficult to access'.
k. One organisation comments, 'almost every mother I have met … has complained about the paucity of support, advice and help available'.

Hooper (1992) refers to similar difficulty of finding support which the mothers in her study experienced and both she and Trotter (1998) report that mothers feeling deserted after the initial investigation ended. Rickford (1992) suggests two extremes exist with mothers, either being blamed for the abuse or being judged whether they are 'good mothers' and supportive toward their children.

Effects of improved support:

1. Mothers felt that their recovery would have been quicker and possibly less painful with more support:
    a. 'To succeed in supporting her family through such an experience, she needs all the help she can get'.
    b. 'The child protection people didn't care for you as a person, you were just a case'.
    c. 'The abuser seems to get more attention than the mother'.
    d. Another mentioned feeling blamed for choosing a partner who then abused their daughter.
    e. Mothers indicated that there should be the same degree of help regardless of where one lives.

2. Asked about the effect of increased support on mothers, the organisations responded:
    a. 'Support may not actually reduce the distress but would help mothers respond to it in a less negative and unhealthy way'.
    b. Mothers acknowledged that the sooner they are enabled to come to terms with and make more sense of what has happened to their child the better.
    c. 'Mothers would be more robust in matters of child protection … if they received more consistent, informed and lasting support'.
    d. 'I am in no doubt that if there were universal services for mothers… the trauma of disclosure … would be softened'.
    e. The organisations referred to the availability of support as being a matter of luck.
    f. Even in their localities, they counted the coverage as 'patchy'.
    g. They universally agreed that coverage should be in 'every major city … countrywide'.

The literature review indicates that these issues are often overlooked about child sexual abuse or child protection. Attempts to find some way of blaming mothers for the sexual abuse of her child, as in the example above criticising the mother's choice of partner, is significantly unsupportive of non-offending mothers because it refuses to place all the blame on the perpetrator of the abuse. It also indicates a lack of understanding in

academic discourse of the subtlety of the abuse cycle. Rickford (1992) suggests mothers can only be collusive or supportive, but Hill (2001) contests this, indicating that the feelings and process of coming to terms with intra-familial child sexual abuse are far more complex. Some of the articles, Rickford (1992) and Hill (2001), were written about small self-help groups set up by mothers for mothers and others, Wright and Portnoy (1990) and Eaton (1993), were facilitated by statutory agencies. This seems to support the evidence of primary data that the best help is from someone who has been there'. It also indicates that, where such groups exist, they are very useful. The fact that only five such groups were found during the course of this investigation emphasises the paucity of support for non-offending mothers in 2006.

Recognising the mother beyond her role as the child's supporter/protector:

1. Two out of the six organisations referred to helping the mother to help her child:
    a. 'Mothers would be more robust in …child protection, helping their child through the process of disclosure, court hearing or lack of it, and in their contribution to the healing of their child if they had more consistent, informed and lasting support'.
    b. 'I would agree that scant attention is paid to mothers in their own right apart from being their child's supporter/protector'.

2. Five organisations referred to the mother as having needs in her own right:
    a. 'There is little recognition of the mother's needs…'
    b. 'Mothers find it difficult in accessing counselling services in their own right'.
    c. 'Help, sensitive to the needs of the mother for the inevitable distress she will feel'.
    d. 'Unfortunately mothers are the forgotten victims'.
    e. 'Mothers … have struggled to access appropriate and sensitive help at the time they have needed it'.

Hooper (1992) and Hill (2001) assert that there is a tendency in the literature on child sexual abuse to refer only to supporting the non-offending mother in the context of ensuring she protects her child.

The organisations raised three other issues:

1. the effects of lack of funding on service provision for non-offending mothers;
2. the belief of two organisations that mothers are too wary of statutory agencies to use any groups they facilitate;
3. the literature they produce to assist families in coming to terms with intra-familial child sexual abuse is not used by statutory agencies nor do these agencies offer their own literature.

Lack of funding:

One organisation indicated that support for mothers can be '…expensive to run, but the cost in human misery where such help is not readily available … (this would) make the expenditure fully justified'. The literature did not comment on funding because support for non-offending mothers is rarely mentioned, their needs are not recognised or recorded, therefore they are not considered to be in need of services.

Belief that mothers are suspicious of statutory agencies:

The idea that non-offending mothers are wary of the statutory agencies was mentioned by almost all of the mothers, a particularly negative response and an attitude that appears to exist towards social services/child protection workers.

That non-offending mothers will not attend groups run by statutory agencies is not borne out by the literature which mainly refers to groups successfully facilitated by different statutory agencies; for example, the National Children's Homes project (Wright and Pornboy 1990) and Park Children's Hospital (Eaton 1993). Similar success is reported by two of the organisations which are run jointly by different agencies, one with a high level of volunteer support from mothers of sexually abused children. Two mothers mentioned attending a joint initiative run by the NSPCC and Social Services in 1998 and 2004 in two areas of the country 200 miles apart. The courses sounded similar though not necessarily the same and comprised of a ten-week 'course' of two hours per week. The programme was referred to as a 'Non-Offending Partners Group' and informed mothers of the abuse cycle of the perpetrator, seeking to help mothers understand the grooming process applied to their child and how the abuse may have been hidden from them and their relationship with their child deliberately undermined by the abuser. Both mothers found some parts of this group work helpful and other

parts unhelpful. However this investigation has failed to discover how widespread these groups are and whether anything similar is still being conducted.

Organisations' literature not used by statutory agencies:

Information about coping with child sexual abuse is mentioned in the literature, with Cousins Mills (1988) indicating that there seemed to be more available in America during the eighties than in Europe. Material has been produced by the NSPCC, Childline and Kidscape, but none of the mothers mentioned receiving this information from social workers or child protection teams or finding it in their local libraries. One of the organisations questioned produces a series of leaflets and feels that these too are under used by statutory agencies.

Theories outlined earlier appear to record reasons why families perform as they do, without considering whether any kind of accountability should be imposed on them. Nor in turn do theorists take responsibility for the views they perpetuate and the affects these have on real people and their lives. Much of the lack of support experienced by non-offending mothers and the negative view society has of them could stem from academic theorising which has become written into public lay 'knowledge'. That sociology is not obsessed with family matters is a dire indictment against it (Bernardes 2002).

An examination of current academic literature revealed that the majority of books and articles scrutinised for this study almost entirely omitted mothers completely from discourses about child sexual abuse. Of those texts which did mention non-offending mothers, many made cursory remarks concerning the need for mothers to support and protect their abused child from the perpetrator. A very small number of books allocated just one chapter to the consideration of non-offending mothers and even here this investigation discovered that mothers were only written about as supporters and protectors, rarely in their own right as having been hurt by the abuse themselves and therefore in need of support and services. Seventy four books and articles were reviewed and only two were found which focused exclusively on non-offending mothers and discussed their needs in addition to their supportive and protective role. A considerable number of texts were found which discussed mothers only in the language of collusion and blame. This study emphatically asserts that the exclusion of non-

offending mothers and the negative treatment of them reflect their marginalisation in existing research. This is considered important to the assessment of the support received by non-offending mothers because, although the mothers themselves may not read the academic literature, the statutory agencies working with them could find such texts are part of their training. This could mean that professional attitudes towards non-offending mothers and the services they offer them would be influenced by what is clearly highly biased and negative literature.

The emphasis on the non-offending mother as supporter/protector is paramount throughout the review of the literature and while it is not the intention of this study to suggest that the child victim should be less than the primary focus of child protection initiatives, this study does claim that mothers have the need and the right to be treated more holistically as clients of social services themselves with their own agenda of needs. They are referred to as the primary actors in incidents of abuse and their importance to the abused child's recovery is second to none. This investigation has confirmed that mothers need support in recovering because they too are harmed by incidents of sexual abuse. In a tiny glimpse at the international scene, it becomes apparent that in Europe, America and Australia, peer groups, buddy systems and advocacy programmes are being found to improve the recovery of whole families.

The literature includes an analysis of sociological theories relevant to our understanding of the family. Due to the constraints of space, it is extremely brief, but is sufficient enough to indicate that some of the thinking behind our beliefs about family may encourage a lack of support for mothers, both in the context of intra-familial child sexual abuse and in the wider sense of mothering. For example, the notion that mothers are held more responsible for the well being of children than fathers surely calls for a fresh examination of the status and support given to mothers and perhaps a new look at the sociology of motherhood.

The reports of the mothers and the organisations challenge the validity of the exclusion and negative treatment of mothers of sexually abused children in academic discourses about child sexual abuse. A strong and urgent need for support and services offered to mothers of sexually abused children is identified. There is currently no government funded department responsible for the support of mothers in the aftermath of child

sexual abuse nor is there a systematic network of support services. The majority of mothers felt unsupported, both at the time of disclosure and later on and they intimated that more ongoing support was vital. Such feelings were sustained by the impressions received by organisations as well.

This study would recommend the initiation of fresh discourses regarding mothers, especially in the context intra-familial child sexual abuse. Furthermore the negative view of mothers perpetuated by the academic literature calls for a review of our understanding of motherhood, parenting and family and the effects negative theorising has on real people and real situations. Practically, the recommendations are that support groups are required in every major town and city nationwide and there should be free, easily accessed counselling for mothers as part of the support offered to the child victim. Much could be learned from the work done in other countries which perceives providing support for mothers as a standard part of the child protection process.

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From passivity to interactivity: how the traditional lecture has evolved as a method of instruction.

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Abstract

D'Inverno (2003:19) notes that "Most of the lectures which students attend require little engagement and they may well have developed a passive mentality in which some largely expect to switch off". This paper reviews current thinking in this issue and present recent feedback from students in order to establish what can be done to improve the lecture as a method of instruction. We present a discussion that will help encourage a deeper sense of learning, make the lecture into something that students do not want to miss through promoting inclusiveness in learning, by making lectures more interactive and developing student participation. That is, moving from passivity to interactivity.

1. Background

A key issue for many lecturers is poor attendance at lectures. What we can do within our span of control to improve lectures regardless of class size? O'Neill (2003, p. 2) raises the important question "*How then can a lecturer create the best learning environment in the class size that they teach*?" As well as reviewing the literature, feedback on the lecture as a method of instruction was gained from students in the form of a focus group session. According to (Evaluation of Teachers and Courses for Feedback and Quality Improvement: Formative Evaluation 2006, p. 27) *"Student opinions are legitimate because they are the learners who are the sole purpose of teaching*".

2. The Literature

2.1 The Traditional Lecture

"*The demise of the lecture method has long been predicted, yet it still remains the most widely used teaching method in higher education*" (Horgan 1999, p. 76). In fact Griffin and Cashin (cited in Robinson et al, 1997, p. 260) estimated that 75% of college courses include lectures as a method of instruction. While Ardalan (2006, p. 267) proclaims the merits of the lecture when the key objective is the transfer of knowledge;

he acknowledges that if the development of critical thinking, problem solving and other qualities such as sensitivity, cooperation and an enthusiasm for discovery are the objectives he would favour discussion pedagogy over the lecture method of instruction. Ardalan (2006, p. 267) continues by stating that the lecture as a method of instruction has many advantages. "It is efficient and economical of the time, energy, and the patience of instructor and student. It produces brilliant results. A student raised under it seems to possess a sureness, a precision, a firming of grasp remarkable for the relatively short time when he/she is compelled to spend on acquiring his/her knowledge" (Ardalan 2006, p. 267).

Horgan (1999, p. 76) suggests that many university teachers argue that the lecture is an essential part of any course and they provide valid pedagogic reasons for using this method of instruction. According to Horgan (1999, p. 76) "*Lectures are seen as necessary for providing background information and ideas, basic concepts, and methods required by students before they can learn much on their own and become effective participants in classroom discussion*".

Gilstrap & Martin, 1975 and Good & Brophy, 1990 (cited in Stephenson et al 2006, p. 1) suggest that lectures have remained popular as methods of instruction since universities were founded because of their efficiency, because they are tutor-centered and because they can easily be combined with other teaching methods. However Weingartner (cited in Solomon, 2004, p. 84) proposes a rather negative definition of the lecture "*words going from the notebook of the professor into the notebook of the student without passing through the heads of either*". He continues by suggesting that the "effect of lecturer retailing conclusions and of student passively receiving them is temporary memorizing, at best, to serve the need of some test; there will have been little learning".

Horgan (1999, p. 76) agrees that students are largely passive in traditional lectures and that rarely is there the opportunity for active learning where the student can engage with the material that is being presented. This view is shared by Goodwin (2003, p. 171) who claims that "*the lecture is not a good tool to ensure student participation*" and by O'Neill (2003, p. 2) who states that while the lecture is *"popular as an efficient way to 'teach' large numbers of students...(it) has often been criticized for lack of*

active learning and opportunity to interact with others...small group teaching has become more popular as a means of encouraging student learning". O'Neill (2003, p. 2) continues by suggesting that to move away from a large lecture format would require a complete review of the curriculum and that many lecturers are not able to do this nor do they have any choice over student numbers. Ramsden (cited in Horgan 1999, p. 78) goes as far as suggesting that "*the use of the traditional lecture may actually be detrimental to the quality of student learning, in that it leads students to expect learning to be a passive experience and does not provide them with opportunities to engage in deep processing of the subject matter*". Barnett (cited in Solomon, 2004, p. 93) claims that the lecture "*keeps channels of communication closed, freezes hierarchy between lecturer and students and removes any responsibility on the student to respond*".

2.2 The Interactive Lecture

According to D'Inverno (2003, p. 19) "if we are to expect students to attend lectures then there surely needs to be some "value added" other than that of providing them with a complete set of notes". D'Inverno believes that student interaction can provide some of the value added component necessary. There are many ways to make lectures more interactive. Horgan (1999, p. 83) provides at least twelve ranging from giving students a question/problem to be approached individually and then asking them to share their answers in small 'buzz groups' to turning part of the lecture into a question and answer session. According to Jensen and Davidson (1997, p. 102) lecturers must be brave enough to risk losing control. They propose that lecturers can begin by posing a question, giving students time to think about it and to talk with a partner before they respond in a whole-class discussion. Another suggestion is to rearrange the chairs into groups of three or four, and push the podium into a corner. Finally they suggest that lecturers be adventurous and move around the room joining the small discussion groups.

There are many challenges to face when planning to make lectures more interactive. Jarvis (2004, p. 161) cautions that "students may put pressure on a teacher to give a (traditional) lecture because they may not want to reveal their level of knowledge or understanding of a topic and they may feel threatened if they think that their lack of comprehension will become apparent for others to see". Horgan (1999, p. 89) proffers some advice on how to approach this change, "The best advice that can be given to

anyone contemplating a change, from a traditional lecture to a more interactive approach, is to suggest that step-by-step change works best for both students and the lecturer. If your first attempt does not work as you had planned, do not abandon the idea, but rather reflect on why this was so and try again". The approach proffered by Solomon (2004, p. 87) suggests that if students resist participating (in interactive dialogue) because they are shy or inarticulate "they are to be induced into the classroom discussion, called upon or penalized or assigned, but not overlooked". I agree that those students choosing not to participate should not be overlooked but forcing or penalising them into participation is not the ideal solution.

3. The Student Voice

A focus group session was held with 12 Business Studies students in December 2006. Some of the students were regular attendees at lectures; some had sporadic attendance and some rarely attended. The session lasted for 1 hour 30 minutes. Several areas were discussed during the session. Students were first asked to discuss what they felt the function or purpose of a lecture was. Functions of lectures provided by the students ranged from to educate and to outline important issues to covering theory. It was also stated by the students that the lecture was an efficient means to teach a large group. Interestingly the discussion kept digressing into a discussion on the tutorial which the students seemed to prefer as a method of instruction because they said they felt more comfortable in a smaller group.

The next area discussed was the strengths of the lecture as a method of instruction. This discussion was a little like getting the proverbial blood from a stone. Some of the strengths noted were that you can get through more material in the lecture, the lecturer provides examples to make you understand in the lecture and the lecture makes you disciplined. One student stated that the strength of the lecture for them was being able to see the "*facial expressions of the lecturer*".

The students were a little more forthcoming when discussing the weaknesses of the lecture as a method of instruction. The lecture *"doesn't cater for individual / different learners*", lectures can be "*intimidating*", lectures can "*get boring after a while*", and "*concentration goes*". More than one student claimed that lectures could be "too hot, with too many people". In fact Lang (cited in Fleming and Storr, 1999, p. 232)

identifies temperature, humidity and ventilation as one of the *"five categories of components of particular importance in the design of academic accommodation in order to provide an optimum learning environmen*t".

The discussion then moved on with students suggesting that they would prefer a shorter lecture. Lectures are currently one hour long – the students unanimously agreed that they would attend more lectures if they were reduced to 40 minutes. A point made by one student was that the shorter lecture would "*ease the transition for first year students*" from second level into third level as such students would be used to the shorter class time.

This feedback from students confers with Horgan's (1999, p. 78) findings on student attention levels during a 50-minute lecture. During the first 10 minutes student attention levels are highest but then as the lecture continues attention levels drop and continue to do so if students aren't actively engaged. Horgan (1999, p. 78) continues by stating that studies on memory and retention found that students forget or never learn most of the presented material during a traditional 50-minute lecture. Students also stated that they would prefer smaller classes for the more practical subjects like mathematics and accounting.

The next topic for discussion was how to improve lectures. The first suggestion, which the majority of the group agreed with, was to make the lectures "*more interactive*". The students felt that if the lectures were more interactive then they would respond more to the material presented. Indeed Bligh (cited in Jarvis 2004, p. 160) suggests that "*most lectures are not as effective as more active methods for the promotion of thought*". The following methods of making lectures more interactive were volunteered by the students: pick different students to answer questions / ask questions of the class in general / split the class into teams and have quizzes / have short group discussions during lectures and have short a,b,c quizzes throughout lectures. Horgan (1999, p, 88) provides feedback from students of the University of Virginia who also like when lecturers ask questions during lectures and who were available to students after lectures. These students also welcomed any form of interactivity during lectures which required them to step away from their passive role. "The art of questioning is a technique that teachers should acquire, so that they are aware of how to gain the most effective

response from the learners", (Jarvis 2004, p. 157). Jarvis (2004, p. 161) suggests that a major challenge of encouraging a questioning culture in lectures is that if a student then interrupts the lecturer with questions the other students may become frustrated and bored while they are being answered. Atherton (n.d. p. 1) states that questioning is the most common variation from directly presenting material and that it is the most basic method of encouraging a dialogue with students. Indeed Bruner (Constructivist Theory, n.d.) is one of the proponents of instructors and students engaging in "*active dialog*".

The majority of the students said that they would prefer to take notes during lectures instead of having the lecture notes provided. Bligh (cited in Horgan 1999, p. 78) finds that there is "*overwhelming evidence to support the view that note-taking during a lecture aids memory of the lecture*". Indeed Creed & Rocklin (cited in Susskind 2004, p. 203) state that "*there is a debate in the educational literature over whether non-interactive educational technology, such as accompanying lectures with PowerPoint presentations, is beneficial to student*s".

From a study carried out by the University of Lancaster which examined student perceptions of good teaching according to Ramsden (cited in Horgan 1999, p. 88) "*the most frequent descriptions of good lecturing commented on the lecturer's ability to pitch material at the right level, to provide a clear structure and to maintain an appropriate pace*". On discussing what makes a good lecturer the students volunteered that a good lecturer is one who "*speaks clearly*", *"provides good notes*", and "*makes you work*". Most notable however was what the students' felt as most important to them – the lecturer's "*attitude towards students*". The students suggested that if they felt that a lecturer respected them then they in turn respected the lecturer and were more motivated to work hard and perform for the lecturer as much as for themselves.

When asked to discuss their preferred method of instruction number one on their list was "*an interactive short lecture*". The majority of students favour the tutorial over all other methods of instruction. Students stated that they learned best by taking notes and reading them / going home and learning their notes / writing out their notes and learning their notes by heart. The final discussion was about why students don't attend lectures. After much deliberation the group decided on the Top 5 reasons why they felt

that they and their colleagues did/would not attend lectures:

i) Boredom
ii) Dislike of lecturer and/or material
iii) Timetable issues (e.g. having 2/3 hour gaps in timetable)
iv) Simply not caring about attendance / course
v) Because they do not have to go i.e. there is no attendance requirement

While further work needs to be done to gain a more comprehensive understanding of student opinion, the focus group was valuable in providing an insight into how one group of students' perceive the lecture as a method of instruction.

4. Conclusion

Woodfolk (cited in Long & Coldren 2006, p. 238) states that *"effective teachers reflect on their practice to make modifications to their teaching to fit learners as necessary*" and this is what the purpose of this paper is – to establish how to improve practice. From the literature it would appear that a move from the traditional lecture where students play a passive role to a lecture that encourages student interaction, and takes into account the varying learning styles of the students, is the way forward. Indeed this view has been reinforced by feedback from the students themselves. "*The curriculum manager's role involves assessing the learner's learning style and incorporating such pedagogical methods such as active teaching and collaborative learning into the delivery of the subject content, so that learning is meaningful to the learner*", (*Theme 1 – Contextualisation and Introduction* n.d. p. 14). "*Although lecturing has lost much of its pedagogical legitimacy, yet if it ever worked at all, if it ever had any validity, it seems reasonable to suspect that it retains some validity today*", (Solomon, 2004, p. 89). Indeed the Dearing Report (cited in Atherton, n.d. p. 1) states that 73% of undergraduates surveyed said that they enjoyed lectures. I believe that the traditional lecture is still valid as a method of instruction today, if used sparingly. It has many benefits including its efficiency in teaching to a large group, providing background information, learning outcomes about a course, to providing students with a shared learning experience. However "*current research indicates that student-teacher interaction is one of the most important characteristics of 'effective learning experiences*'", (*Theme 1 – New Professional Understandings, Insights and Skills* n.d. p.1). The way forward I believe is to promote and encourage inclusiveness in learning by making lectures more interactive and developing student participation – moving

from passivity to interactivity.

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Factors Relating to the Design of Effective Third Level Learning Environment

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Abstract

The number of students attending University in Ireland is at an all time high. Therefore it is essential to ensure that learning environments are well established and that they help deliver the most important aspects necessary to the students. This paper looks at what the most important factors are when it comes to learning and teaching environments, and what learning environment best delivers these factors. Three learning environments are discussed, Traditional Learning, Blended Learning and Distance Learning. The type of factors that are examined range from aspects to do with the material and resources available to the students to areas such as class atmosphere and interaction between students and staff.

Introduction

With the number of students attending third level education in Ireland at an all time high learning and teaching strategies need to be effective and successful. The quality of student learning, theoretical understanding and achievement, is said to be closely related to how students perceive and understand the teaching and learning environment[i]. There are many different learning environments available to lecturers and students today. They vary from the traditional classroom based learning to entirely online learning. Each method has its advantages and disadvantages and there are different factors associated with evaluating these learning and teaching environments. Traditional face to face learning environments typically occur in a teacher directed environment with person to person interaction in a live synchronous environment. There are many different types of traditional teaching methods. Such as:

- "Talk and Chalk" this is using the board all the time while pupils take down notes
- "Jug and mug" this is giving the students information but the students are not active
- Active learning and assessment: Where the students are active and responsive in discussions to give feedback and provide information.

The term blended learning is being used with increased frequency in both academic and corporate circles. In 2002 The Chronicle of Higher Education quoted the president of Pennsylvanian State University as saying that the convergence between online and traditional instruction was "the single greatest unrecognised trend in higher education today". Also quoted in that article was the editor of the Journal Of Asynchronous Learning Networks who predicted a dramatic increase in the number of hybrid courses in higher education possibly to include as many as 80 – 90 % of all courses. There are two definitions when it comes to blended learning: 1) Blended Learning: combining instructional methods[ii] and 2) Blended Learning: combining online and face-to-face instruction[iii].

The first definition suffers from a problem of defining blended learning so broadly that it includes nearly all learning systems. It would be very hard to find any teaching method that did not involve multiple instructional methods. The second definition is a more accurate reflection on blended learning and it is the definition that will be used throughout this project. Definition: Blended learning systems combine face-to-face (F2F) instruction with computer mediated instruction. Figure 1 shows the progressive coming together of traditional F2F and distributed environments allowing the development of blended learning systems[ii].

Blended learning is the convergence of two learning environments. On one side there is the traditional face to face learning environment that has been around for centuries. On the other there are the distributed learning environments that have begun to grow and expand in huge ways as new technologies have expanded the possibilities of communication and interaction. Osguthorpe and Graham[iv] identified six reasons why one might choose blended learning environments:

1. Pedagogical Richness
2. Access to knowledge
3. Social Interaction
4. Personal Agency
5. Cost effective
6. Ease of revision

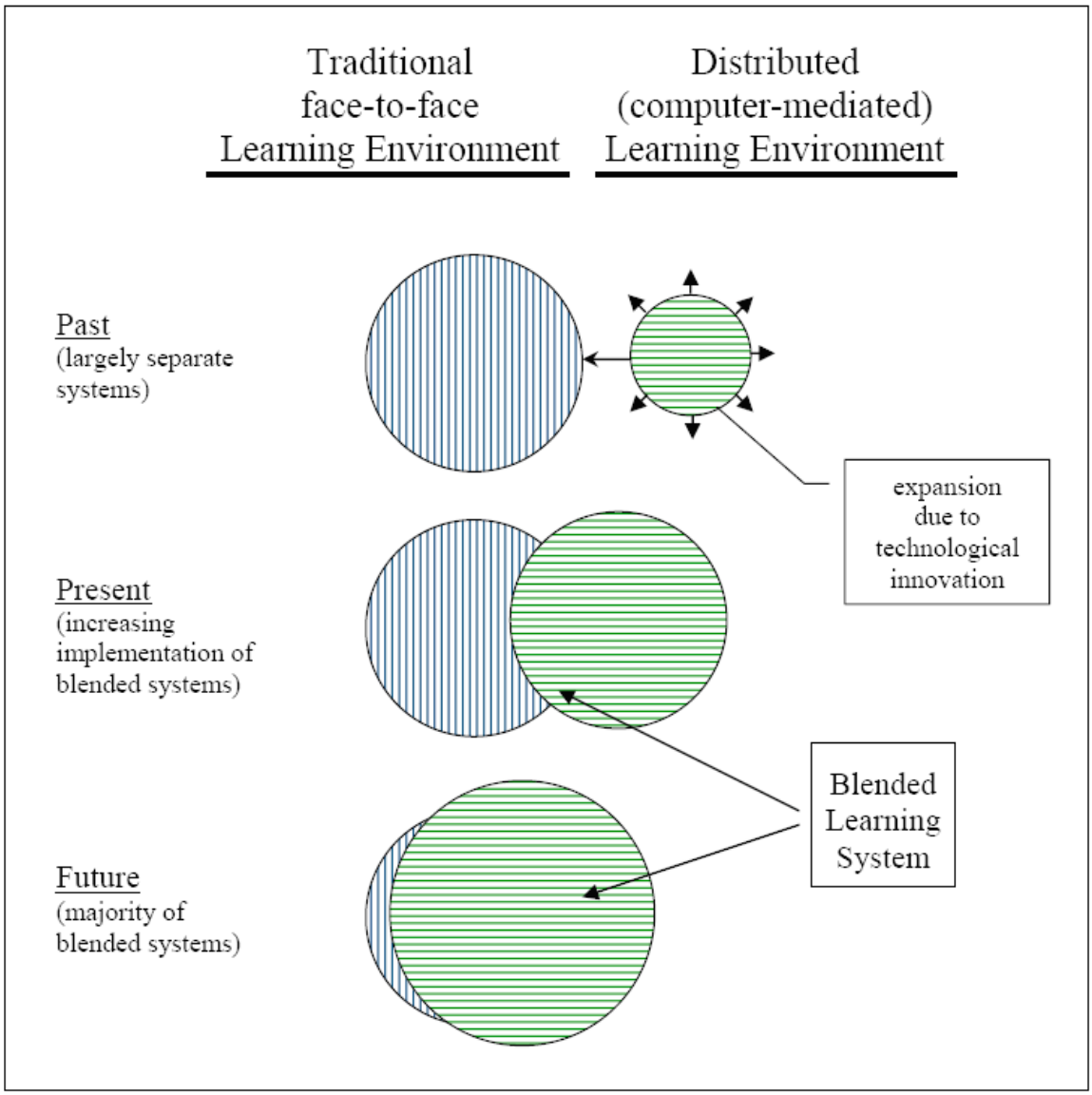

Figure 1: Progressive coming together of traditional and distributed environments[ii]

In literature on blended learning it is said that blended learning "combines the best of both worlds". But it must be designed well, if not it can also mix the least effective elements of both worlds. Distance Learning is another type of learning technique which emphasizes self paced learning and learning materials and interactions that typically occur in asynchronous environments.

E-learning

E-Learning has developed significantly in the past 10 years. In the beginning there were poor products and a very high cost associated with E-Learning. There was also a lack of

understanding of learning and teaching. These issues have all been addressed and there are new cheaper products available and more interest from students in using online learning. Online learning has now been promoted as being cost effective, more convenient and providing more opportunities for learners. It has demonstrated several advantages over a traditional learning environment, especially with the idea of "learning anytime and anywhere". Student access to online course material can now be time and place independent[v]. There are many ways that this online learning can be implemented. For students this new way of learning can be a very welcoming alternative to traditional methods and the classroom setup. Online learning can allow students more flexibility to their learning and can be applied in many different ways.

E-learning can improve the flexibility and quality of learning by:

- providing access to a range of resources and materials which may not otherwise be available or accessible, for example graphics, sound, animation, multimedia;
- giving control to students over when and where they study;
- allowing students to study at their own pace;
- providing a student centered learning environment which can be tailored to meet the learning needs of individual students;
- creating an environment that promotes an active approach to learning;
- supporting increased communications between staff and students, and amongst students;
- motivating students through appropriate use of interactive courseware;
- supporting and encouraging students;
- collaborative learning;
- supporting economic reuse of high quality, expensive resources;
- encouraging students to take responsibility for their own learning;

The key features of online learning are time-independence, text format, and computer mediation, multiple threads of conversation and identifiable participation patterns. Online learning design tends to be based on learner-centered principles that increase learners' control, facilitate the sharing of multiple perspectives, and encourage individual learners to create their own meaning[vi].

Although there is also some down sides to this online learning, asynchronous conversations for example can be hard to adjust to. A few of the qualities to

asynchronous learning such as the time lag between interactions, the frequent lack of clear "norms" of communication, and the absence of visual/auditory conversation cues can create anxiety or unease for some students[vii]. The time lag can make it difficult to remain focused because students can be distracted by activities in between communication. It may be frustrating for students to have to wait for a response when you are engrossed in a topic and are interested in discussing it at that moment and by the time the response arrives (which may be a few days later) the excitement may diminish. Another aspect of online learning is the accountability of the class, in traditional learning all class members are to be present in the one location and they can be accounted for, in online learning this is not the case. Also in online learning some course members may not participate in the online discussions but may benefit from others participating. The lack of social interaction in an online learning environment can be a big barrier to online learning. There are also some who believe that online learning is not more effective than traditional learning. They believe that technology does not influence learning it just makes it more accessible.

An Enhanced Learning Environment

When it comes to learning, for a student there are certain criteria that need to be present that will help create that enhanced learning environment. These criteria can range from a sense of belonging within the group that they are learning with, ease of communication, a good lecturer, and good resources available. Past research on student learning in higher education has shown that student learning outcomes are closely related to how students experience and approach their studies. Figure 2 summarizes the results of some of this research in terms of a model of student learning in higher education. It shows that student learning outcomes are closely related to how they say they approach their studies. How they approach their studies is in turn related to how they see and understand the teaching and learning framework.[i] Some factors related to approaches of study and outcomes of teaching are:

1. Quality of teaching
2. Clearness and nature of the goals of the study
3. Nature of the assessment in class
4. Workload
5. Level/Amount of independence in learning

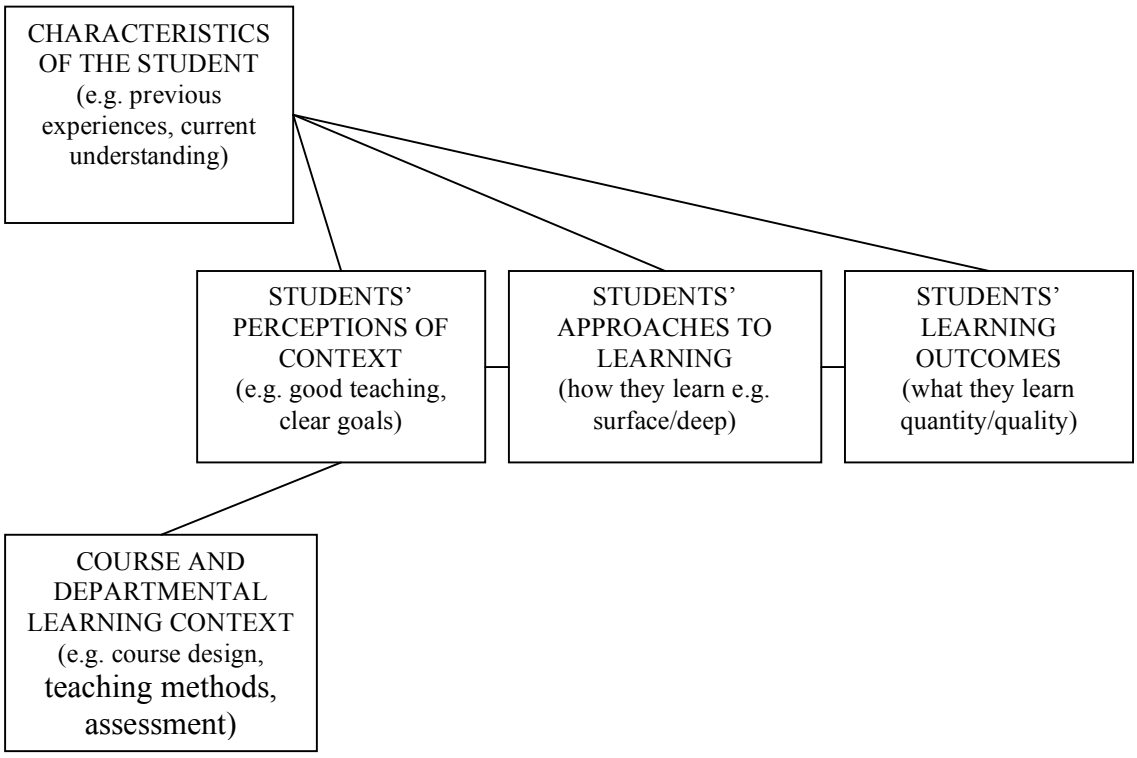

Figure 2: Model of Student Learning

The factors associated with learning are similar whether the learning involves the use of technology or not. Some students may find they have different needs and these may be addressed differently in the diverse learning environments such as distance learning or by traditional classroom learning. Factors such as the need to have comprehensive up to date material, whether the lecturer is present or not or maybe the need for social interaction, all differ for different students and are each addressed in certain ways depending on the learning environment. Technology may be able to influence learning in a positive way. From the day technology first entered the area of higher education there has been debate over its effectiveness. Three camps have established themselves with regard to the introduction of technology into higher education classrooms[viii]:

1 There are the proponents, who cling to the claim that technology improves education.
2 There are the opponents, who complain that technology degrades educational quality.
3 There are those in the middle, who maintain there is no significant difference between traditional education and that facilitated with technology.[ix]

In 1992, Thomas L. Russell[x], set out to find an answer to this debate. He sought out comparative studies that showed that technology had a measurable impact on educational outcomes. His work then and since reveals that, for every study that found a measurable benefit, there tends to be a counter study that found no benefit or even a negative impact[xi]. In addition, Russell determined that the majority of research in this field has found no significant difference in learning outcomes. Nonetheless, comparative studies continue to grow. In another recent review of the literature,[xii] Welsh and her fellow researchers demonstrated the validity of Russell's findings, identifying almost equal numbers of studies in which teaching with technology outperformed traditional teaching methods as there were studies in which traditional teaching outperformed teaching with technology. Greenberg[ix] said the following: "When we accept that, in the final analysis, technology suitably and properly deployed yields no significant difference for learning outcomes; we can stop expecting it to be the be-all and end-all to education". There are some main important factors when it comes to learning in higher education; these are what should be aimed for in any learning environment[xiii]:

- Give out up to date knowledge
- Develop the capability to use ideas and information
- Develop the student's ability to test ideas and evidence
- Develop the student's ability to generate ideas and evidence
- Facilitate the personal development of students
- Develop the capability of students to plan and manage independent learning

In order to make sure that students are accomplishing each of these it is up to the lecturer to review there own teaching techniques ensuring they help the student to achieve each goal. After extensive reading of the literature available on this topic a composite list of factors will be established, this list will then be used for further research. A survey will be created and sent to a wide variety of students and lecturers. This survey will establish the most important factors according to the students and lecturers and will see if these factors are present in the courses examined. At the end of the project an evaluation framework will be established for evaluating teaching strategies with the most important factors in mind. In recent years teaching methods

have moved higher up the agenda within institutions of higher education. They are likely to move higher still as emphasis on teaching quality continues to rise.

Many research studies have shown that cognitive factors such as learning, performance, and achievement in distance education classes are comparable to those observed in traditional classes[xiv], however, perceptions and satisfaction levels of instructors and students of distance education have not shown the same consistency[xv]. Factors such as accessibility to materials, other students, instructors, control of time, and cost can influence individuals' perceptions of distance education[xvi]. Petracchi[xvii] found that students were pleased with the performance of their instructor, availability of materials, and performance of technological tools used for conducting the class, while Carr[xviii] found that undergraduates enrolled in an introductory psychology course performed better in distance education courses, but were generally less happy with them. Students in the web based course consistently scored an average of five percentage points higher on the final exam than did those in the lecture course, but they consistently reported less satisfaction than the students in the lecture course. Carr surmised that one of the reasons for less satisfaction could be more time required to complete assignments.

In a study of adult distance education students, Carter[xix] found that most students did not find that technical equipment used in distance education interfered with the instruction. Carnevale[xx] found that distance education students look for many of the same things found in traditional courses including a knowledgeable professor, interaction with the professor, and additional features that create a feeling of community within the class.

Online Learning Software

In addition to web based courses consisting of an instructor created web site; many instructors are now using course delivery platforms such as WebCT, Moodle or Blackboard. Kendall[xxi] reported on a study in which courses taught through traditional means were converted into units using WebCT software as the primary means of delivery. Results indicated overall satisfaction with the WebCT software and the organization and content of the units.

Wernet, Olliges, and Delicath[xxii] reported on a survey examining the satisfaction levels and perceptions of thirty nine social work students regarding the use of WebCT in

social work education course. All students responded that they found the course materials on the course Web site helpful. Graduate and nontraditional students' responses indicated greater use of the course management tools and nontraditional students responded that they were not disadvantaged by, and preferred access to, Web based courses.

Sanders and Morrison-Shetlar[xxiii] hold that student attitudes toward the Internet and web based courses can influence the future use of the web based instructional materials and how educationally beneficial web based resources are for students. Instructor attitudes toward web based instruction also affect student's experiences with web based courses. The National Education Association administered a survey in which 75% of the instructors surveyed indicated that they were positive about distance education. Inman and Kerwin[xxiv] also found that most instructors currently teaching a distance education course indicated they would be willing to participate in a distance education course again. However, when asked about the quality of the distance education course, nearly 50% of the instructors who indicated they would participate in a distance education course again reported that the quality of the distance education course, when compared to a traditional course, was lower. Additionally, not one instructor indicated that the distance education course was of higher quality.

Successful Learning

The principles that lend themselves to quality face to face learning environments are often similar to those found in web based learning environments. No matter what the environment the factors to successful learning are the same[xxv].

- *The learning experience must have a clear purpose with tightly focused outcomes and objectives.* Learning designs must consider the nature of content, specific context, desired learning outcomes and characteristics of the learner. Learner-centered strategies include modular, stand-alone units that are compatible with short bursts of learning. Learning modules may also be open, flexible and self-directing.
- *The learner is actively engaged.* Active, hands-on, concrete experiences are highly effective. Learning by doing, analogy and assimilation are increasingly important pedagogical forms. Where possible, learning outcomes should relate to real-life experiences through simulation and application.

- *The learning environment makes appropriate use of a variety of media.* Various learning styles are best engaged by using a variety of media to achieve learning outcomes. Selection of media may also depend on nature of content, learning goals, access to technology, and the local learning environment.
- *Learning environments must include problem-based as well as knowledge-based learning.* Problem-based learning involves higher order thinking skills such as analysis, synthesis, and evaluation while knowledge-based learning involves recall, comprehension and application.
- *Learning experiences should support interaction and the development of communities of interest.* Learning is social and sensitive to context. Learning experiences based on interaction and collaboration support learning communities while building a support network to enhance learning outcomes. Multiple interactions, group collaboration and cooperative learning may provide increased levels of interaction and simulation.

"Knowledge becomes a function of how the individual creates meaning from his or her experiences; it is not a function of what someone else says is true.[xxvi]" There are also many other factors that influence student learning which also need to be examined. These can be present in any type of learning environment and different types of students may lean towards a different form of learning environment as it may appeal to them more, such as a shy or self conscious student might choose online learning as they find it easier to participate, factors such as course content and assessment can influence student learning.

Figure 3 shows some of the factors that influence student learning, these factors can be very important when it comes to evaluating a learning environment.

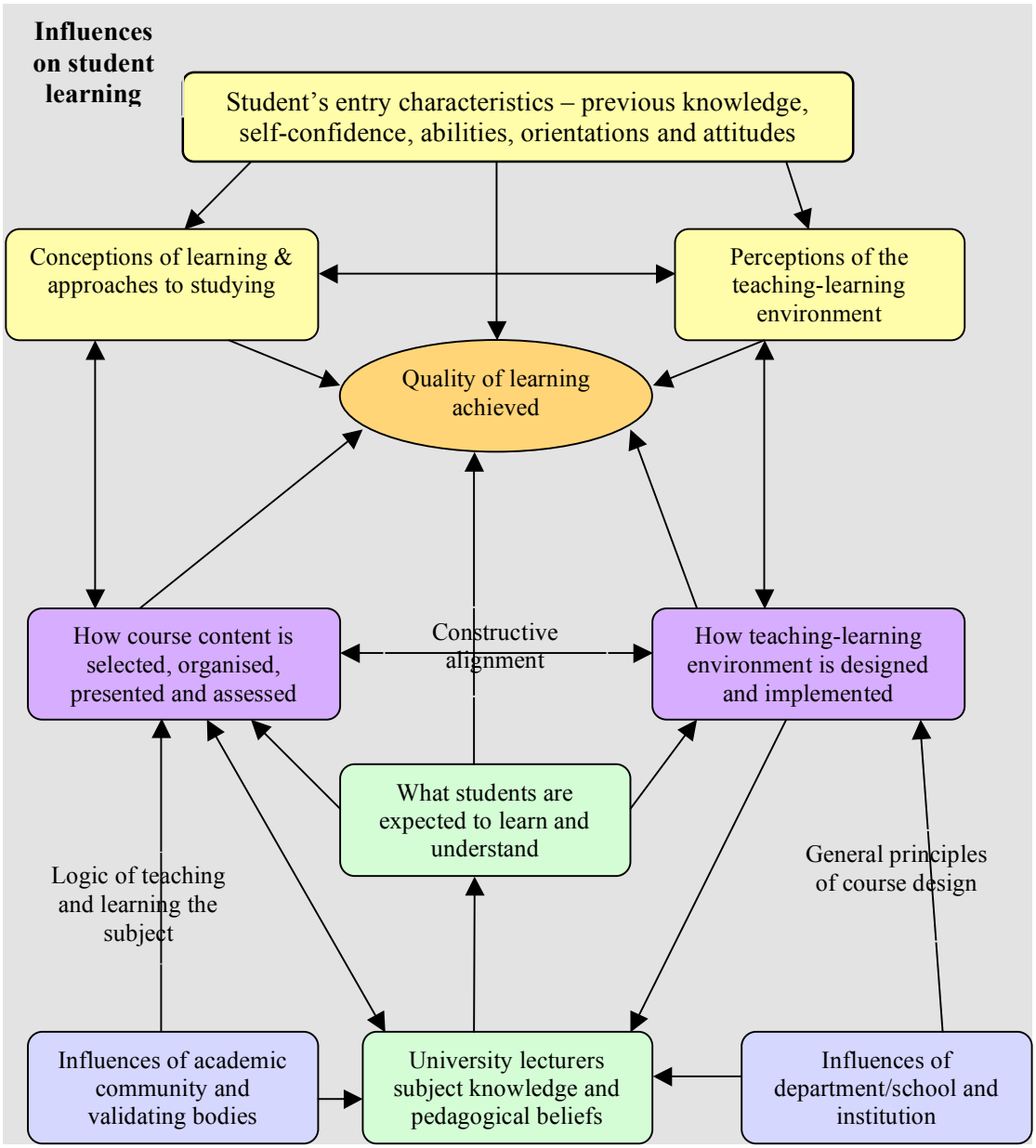

Figure 3: Influences of Student Learning[xxvii]

The Learning Environments

There are many articles, books and web sites available which document the benefits and drawbacks to the different learning environments. In particular they provide some insight into the concept of distance learning and also the place that technology has in our educational environment. Jegede, Fraser and Curtain[xxviii] identified eight components of effective learning environments these were: interactivity, institutional

support, task orientation, teacher support, negotiation, flexibility, technological support and ergonomics. It is thought that by building on these basic, valid and reliable measures of effective learning environments, more significant learner satisfaction outcomes can be obtained[xxix]. Some factors that affect learning in any learning environment are:

- Cognitive abilities and developmental potential of the learner
- Previous experiences with a learning environment
- The arrangement of the environment itself, including the level of message abstraction, the motivational strategies employed the clarity and effectiveness of the message.
- The type and degree of interactions that is possible with the instructional media present.
- Social interaction within the learning context
- Motivational level
- Personal learning style

Traditional Learning

Traditional Leaning is based on the classroom style of learning and teaching where both student and lecturer are present. In the traditional framework, teachers come to class with highly structured syllabus and activity plans, sometimes referred to as "scope and sequence." They act as the source of knowledge and as the person who determines which information is important. There is creativity and flexibility in how each teacher runs his or her class, but the topics and projects are driven and evaluated based on what a lecturer, administrator or school board have decided what students should know and master.[xxx] There are advantages to the lecture approach to learning. These are:[xxxi]

- To give students a shared learning experience
- To clarify expected learning outcomes, and standards
- To provide a focus where everyone (especially where large groups of students are concerned) gets together regularly
- To give students the opportunity of learning by doing, where they can get feedback from an “authority” and from each other
- To add the power of tone of voice, emphasis, facial expression, and body language to printed words, helping learners see what is important, and what is not

- To provide material for later discussion
- To challenge assumptions and beliefs
- To change or develop attitudes and perspectives
- To give students the chance to make sense of things they already know

And there are also disadvantages such as:

- In lectures students are often passive because there is no mechanism to ensure that they are intellectually engaged with the material.
- Students' attention wanes quickly after fifteen to twenty-five minutes.
- Information tends to be forgotten quickly when students are passive.
- Lectures presume that all students learn at the same pace and are at the same level of understanding.
- Lectures are not suited for teaching higher orders of thinking such as application, analysis, synthesis, or evaluation; for teaching motor skills, or for influencing attitudes or values.
- Lectures emphasize learning by listening, which is a disadvantage for students who have other learning styles.

Blended Learning

Blended learning is an important building block of the new schoolhouse that offers students both flexibility and convenience which are important characteristics for working adults who decide to pursue postsecondary degrees. According to Colis and Moonen[xxxii], blended learning is a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning. Blended learning is thereby a flexible approach to course design that supports the blending of different times and places for learning, offering some of the conveniences of completely online courses without the complete loss of face-to-face contact. The result is potentially a stronger educational experience than either traditional or fully online learning can offer**.**

Martyn[xxxiii] described a successful blended learning model. It consists of an initial face-to-face meeting, weekly online assessments and synchronous chat, asynchronous discussions, e-mail, and a final face-to-face meeting with a final examination.

Distance Learning

Distance education traces its origins to mid-19th century Europe and the United States. The pioneers of distance education used the best technology of their day, the postal system, to open educational opportunities to people who wanted to learn but were not able to attend conventional schools. Distance education increasingly uses combinations of different communications technologies to enhance the abilities of teachers and students to communicate with each other.

Distance education also makes use of computer conferencing on the World Wide Web, where teachers and students present text, pictures, audio, and video. File sharing and communications tools like email, chats and audio and video conferencing are integral to the Internet model. Several key features define distance learning:

- The separation of teacher and learner during at least a majority of each instructional process
- Separation of teacher and learner in space and/or time.
- The use of educational media to unite teacher and learner and carry course content.
- The provision of two-way communication between teacher, tutor, or educational agency and learner, and
- Control of the learning pace by the student rather than the distance instructor.

The importance of the teacher — learner communications cannot be overstated. Distance education is already an important element of higher education and it continues to rapidly expand. Research, however, suggests that online courses are not suitable for all types of students and faculty. Collins[xxxiv] noted that students and teachers react to new educational technologies with varied emotions, ranging from enthusiasm to disabling fear. Abrahamson[xxxv] reported that distance education required students who were self-regulated and independent. Marino[xxxvi] also discovered that some students experienced difficulty adjusting to the structure of online courses, managing their time in such environments, and maintaining self-motivation.

Sikora and Carroll[xxxvii] reported that online higher education students tend to be less satisfied with totally online courses when compared to traditional courses. Fully online courses also experienced higher drop out rates[xxxviii]. The research is mixed regarding the

reasons for these higher attrition rates. Hara and Kling[xxxix], conducting a study of online courses, found that feelings of isolation were an important stress factor for online students, but not the primary factor as frequently mentioned in the professional literature. Rather, "students reported confusion, anxiety, and frustration due to the perceived lack of prompt or clear feedback from the instructor and from ambiguous instructions on the course website and in e-mail messages from the instructor". Thus, it may be that the reason some online courses suffer more dropouts is less related to the course delivery medium and more related to the online course design and pedagogy employed by some online faculty who have limited skills in using computers to facilitate learning and to foster sense of community.

To have an effective online course, Hines and Pearl suggested that there are four levels of learner interactions to incorporate. These levels of interactions include interfaces with content, instructors, classmates, and self. Students need "to be involved in the process of activities".[xlv]

Comparative Study of Online versus Traditional

In a study comparing traditional and online education programs, Althaus examined the academic performance of students who had face-to-face discussions versus those who used on-line discussions. Althaus found that students who were involved in online discussions created responses that were more thoughtful because they had more time to read and think about their responses compared to students in a face-to-face setting. Althaus also found that the student in the online class earned higher grades than that of the student in the traditional classroom[xl]. However, there is a scarcity of scientifically sound research regarding student perceptions of learning in an online environment versus a more traditional face-to-face setting. The exploration to date indicates variation in the study results. Traditional education programs do not fit into the schedules of adult learners. The use of an online forum appeals as an alternative way to complete a degree[xli]. According to Kearns, Shoaf, and Summey[xlii], most students were satisfied with the flexibility of an online education platform. The "convenience, flexibility, and course quality were the primary motivators for taking online courses". In addition, accessibility of content resources, the frequency, and timeliness of faculty feedback, and the use of innovative learning environments were other advantages over traditional face-to-face learning modalities.

Leasure, Davis, and Thievon[xliii] discovered that the traditional classroom afforded students the opportunity for direct interaction with decreased procrastination and immediate feedback fostering more meaningful learning experiences than that which is found in an online forum. However, Leasure et. al also discovered that an online forum afforded the student flexibility with various methods of communication, which increased student confidence. The higher education sector is changing rapidly mainly as a consequence of its response to the various pressures associated with widening access, commercialism and developments in information and communication technologies. The adoption of the concept of flexible delivery has been a key initiative in many institutions although this concept has been interpreted in many ways.

Students learn in different ways and the learning environment can influence both the student and the lecturer. Effective learning environments have a combination of dimensions:[xliv]

- Students work socially well together
- Teacher is present
- Resources are available in print and also online for flexibility
- Students purposively interact with the computer

There are key factors that affect the perceptions of the experience from both the student and the lecturer. For faculty responding to student demand for online environments requires them to venture to a non traditional classroom. Multiple issues can surface which are not present in a traditional setting. These issues are broadly included under the pedagogical paradigm shift.[xlv] Online learning can require the instructor to facilitate extensive written communications. This can lead to extra work posting and responding to threaded questions, evaluating students work and answering concerns and questions, the upside is "the learning appears more profound as the discussions seem both broader and wider"[xlvi] The effectiveness of online instruction has been criticized from many perspectives one being whether or not it is as effective as traditional fact-to-face instruction. The research in some studies show that student satisfaction with their learning experience tends to be more positive for students in a traditional course format although there is no difference in the quality of the learning that takes place. These

support the argument that online instruction can be designed to be as effective as traditional face-to-face instruction[xxix]

In traditional learning environments students have the ability to dialogue with the lecturer about the content being presented; they also have the opportunity to receive multiple examples and illustrations from the lecturer to help in understanding a topic or problem. In online learning this dialogue or discussion is in the form of email, asynchronous chat, synchronous chat, IRC (Internet Relay Chat) and phone calls. Face to face classes can meet once a week they can talk out problems, work out differences of opinion, and build social relationships. Online environments may lack the strong social dimension that is beneficial in face to face learning experiences. It can be a difficult transition to make going from one learning environment to another. Various criticisms of traditional classrooms appear frequently, such as lack of teacher attention, boredom, outdated knowledge, and inappropriateness for a diverse population[xlvii]. Many researchers advocate new concepts such as active learning, student-centered principles, effective use of technology, and collaborative learning[xlviii]. There are high expectations that technology will transform higher education. The classroom environment has changed significantly during the 20th century. Classrooms are evolving from the one room school house to learning opportunities available in an online virtual cyberspace environment in many cases.

Principles for Higher Education

Research regarding teaching in an online environment versus a more traditional face to face setting indicates that there are key factors that affect perceptions of the experience and key factors associated with the experience from both a faculty and student point of view. Angelo[xlix] articulated a well supported list of general research based principles for improving higher education that can be applied to traditional and web based learning.

Some of the most important factors are:

1. Active learning is more effective than passive learning.
2. Learning is more effective and efficient when learners have explicit, reasonable, positive goals, and when their goals fit well with teachers' goals.
3. High expectations encourage high achievement.

4. Motivation to learn is alterable; it can be positively or negatively affected by the task, the environment, the teacher, and the learner.
5. Learning requires focused attention and awareness of the importance of what is to be learned.
6. To be remembered, new information must be meaningfully connected to prior knowledge, and it must first be remembered in order to be learned.
7. Information that is organized in personally meaningful ways is more likely to be remembered, learned, and used.
8. The ways in which learners are assessed and evaluated powerfully affect the ways they study and learn.
9. Interaction between teachers and learners is one of the most powerful factors in promoting learning; interaction among learners is another.
10. Learners need feedback on their learning, early and often, to learn well; to become independent learners, they need to become self-assessing and self-correcting.

Research has shown learning occurs when students are actively engaged, have opportunities for interaction with others, are presented with challenging situations or questions that require critical thinking skills, and are surrounded by a nurturing learning environment[I]. There are different teaching strategies that are effective in helping students develop in depth understanding of new concepts. Structuring group discussion is a useful method of helping students explore concepts and share their experiences or understanding of the information. Two examples of these teaching methods from Kogan's[li] cooperative learning strategies are "Think, Pair, Share" and "Numbered Heads Together". In *Think, Pair Share* students are given a challenging question relating to the lecture that they must first think about; and then pair up with another student to discuss, and then share their ideas with the class. When using *Numbered Heads Together*, students are put in equal-sized small groups to discuss a topic or put their "heads together" to make sure they all understand the concept. Each student numbers off in the group, and after the discussion, the instructor calls out different numbers for the students with that number to stand and share answers, thus requiring individual accountability within the group. These modes of learning and teaching are not possible in an online learning environment to the same extent as they are in the classroom face-to-face environment.

Community of Inquiry

In the research for this project a model was examined that dealt with the theory of "*Community of Inquiry"* established by Garrison and Anderson[lii]. In this model shown in Figure 6, deep and meaningful learning, the central goal of higher education, takes place within a *Community of Inquiry* composed of teachers and learners as the key participants in the educational process. The model assumes that within this community, learning occurs through the interaction of three components: cognitive presence, social presence and teaching presence.

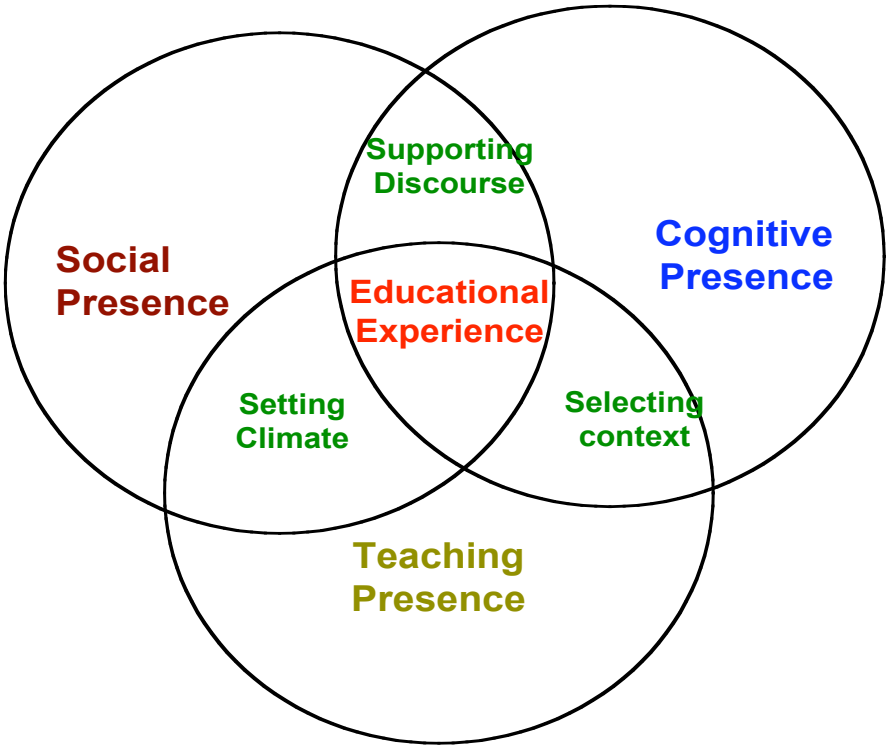

Figure 4 Elements of an educational experience

The first element in the model is the development of *cognitive presence*, which Garrison *et al*.[liii] define as "the extent to which the participants in any particular configuration of community of inquiry are able to construct meaning through sustained communication". This is particularly important when the medium of communication changes, as in adoption of online learning for education purposes. The second element is *teaching presence*, which includes designing and managing learning sequences, providing subject matter expertise and facilitating active learning. Teaching is an obvious function in higher education, whether traditional or online. In either case, it represents a means to support and enhance social and cognitive presence for the purpose of realizing educational outcomes[lii]. Teaching presence can include factors

such as course management and teaching techniques. The role of the lecturer can also be very important for the students, this aspect is equally as important in both traditional and online learning, but it may be harder to convey in the online environment. The third element is *social presence*, defined as the ability of learners to project themselves socially and emotionally in a community of inquiry. The function of this element is to support the cognitive domain through its ability to instigate, sustain, and support critical thinking within a community of learners. It supports affective objectives by making group interactions appealing and rewarding, leading to an increase in academic, social and institutional integration (and increased course completions).

When there are affective educational goals, as well as purely cognitive ones, then social presence contributes directly to the success of the educational experience. The most important factor in social presence is the communication and interaction in the learning environment. Communication among students and with lecturers should effectively assist students to develop critical and high-order thinking. In the traditional model, students are used to authoritarian practice, and are willing to accept what their teachers say without question, continuing the passive approach of their traditional schooling.liv

In a study performed by Pannee Suanpang[liv] communication in the traditional mode was face-to-face, and few students were willing to ask questions of teachers. Online study is very beneficial for this reason as students gain advantages from using synchronous (chat) and asynchronous (discussion board and e-mail) communication methods. In particular, the discussion boards open up opportunities for shy students to reflect on their opinions and use it for communicating in learning and collaborative group working on their project, and students can receive interactive feedback. A very important factor that influences students learning is the class atmosphere and this is not present in online learning. Although some people think that the formal nature of classroom environments can hinder learning, while the expansive nature of online interaction enhances the learning environment and enables students to construct personal knowledge. Some other factors that are also of importance for students are mutual respect and tolerance, trust, being kept informed of aspects of the course and being informed of the course instruction format from the beginning of the course. Comprehensive and complete content are also of major importance to students as well

as accessibility to tutors or lecturers, and of course feedback from lecturers with regard to progress in the course.[lv].

In a review of recent literature on online learning, it was found that the majority of studies focused on the outcomes of learning rather than the process of learning[lvi]. While quantitative methods are often appropriate for investigating the medium of learning[lvii] or student characteristics, qualitative methods can provide more insight into the process of learning, including the quality of interaction and the relationship between interaction and knowledge construction[lviii].

Analysis of Results

Descriptive Statistics:

Gender: The categorical variable Gender divides the respondents into either Male or Female groups.

Table 1: Frequency Table

	Gender		
Environment	Male	Female	Total
Distance	14	5	19
Traditional	47	51	98
Blended	15	15	30
Lecturer	12	8	20
Total	88	79	167

Age: The age variable is also a categorical variable with 4 categories.

- 18-25
- 26-35
- 36-45
- 50+

Table 2: Percentages of the age groups of the students for each survey

Age	Distance	Traditional	Blended
50+	5%	1%	3%
36-45	32%	9%	17%
26-35	53%	29%	30%
18-25	11%	61%	50%
Total	100	100	100

Most of the participants were between the ages of 18-35; this was as expected as this is the stereotypical age group that usually attend college. An overwhelming amount

(61%), of the respondents from the Traditional survey were between the ages of 18-25 and 50% of the Blended Learning students were in this category. This is because most third level students in Full Time education are at this age. The majority of the Distance learning students were between the ages of 26-35 this is mainly due to the fact that most distance learning students have jobs, families or other full time commitments and they sign up for Distance Learning as it suits there learning style to be Independent in their studies and not to be tied down to a time and place for classes. Distance learning has become an important factor in maintaining competitiveness in the current economic environment. Ireland is increasingly coming under competition from countries like India and China which have a larger well educated low cost employee sector. If Ireland is to maintain a competitive advantage with these countries it has to increase the skill set of their current work force and this phenomena has led to an increased participation in college courses such as Masters. Most people who are working will try and do these courses part time or through Distance Learning. Figure 5 shows a line graph focusing on the categorical variable "AGE". Looking at the graph below shows that as the participants age increases the traditional and blended learning attendants decline with low numbers especially in the categories 36-45 and 50+. The distance learning peaks for the age group 26-35 which is as expected.

The first section of the survey required the students and lecturers to rate certain factors based on there level of importance in their learning and teaching environment. On analyzing the results, each survey was firstly evaluated separately and the "Very Important" percentages were examined. The top five from each survey was extracted and have been highlighted below and are visible in Table 5.

Traditional Learning Survey

1. Material Available is comprehensive complete and up to date 80%
2. Resources available to you (PC's, printers, Library) 74%
3. Lecturers Enthusiasm for the topic/subject 71%
4. Encouragement and Support from the Lecturer 60% / Having an active approach to learning (Learn by doing) 60%
5. Increasing Communication Between Students and Staff 58%

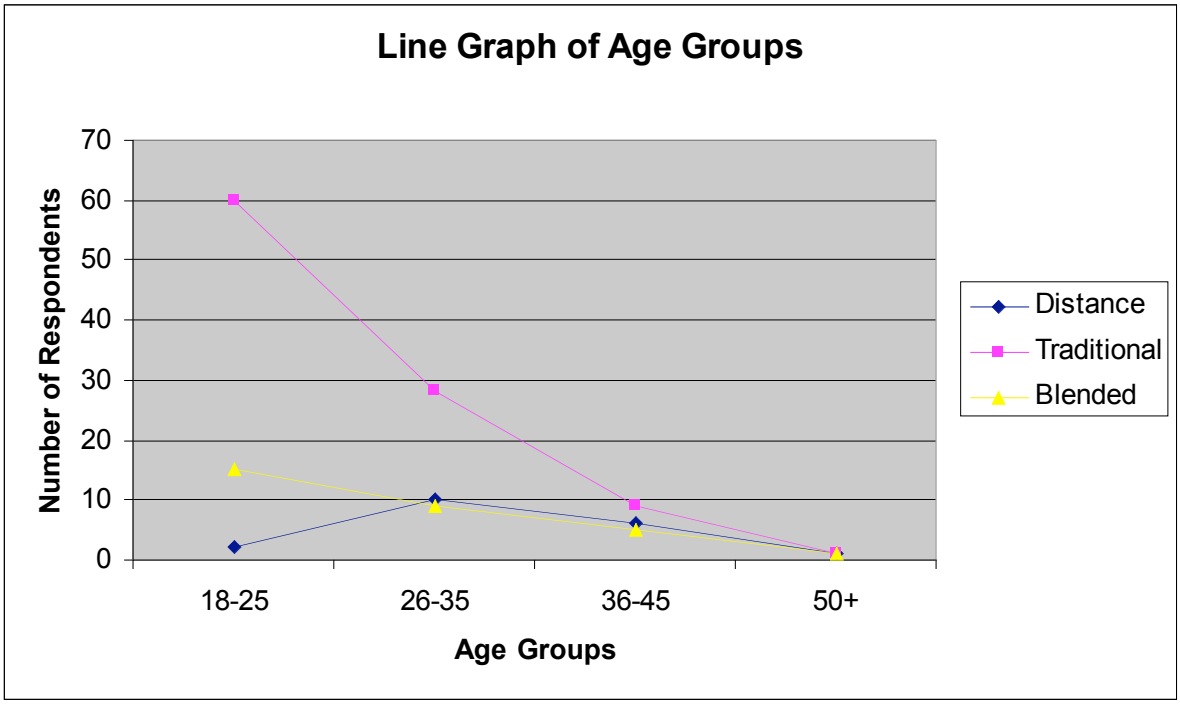

Figure 5: Line Graph to show the trend of the Age Variable

Blended Learning Survey

1. Material Available is comprehensive complete and up to date 87%
2. Resources available to you (PC's Printers, Library) 73%
3. Lecturers Enthusiasm for the topic/subject 67% and the way media available (print, online, CD) 67%
4. Clarity and Nature of goals 63%
5. Encouragement and support from lecturers 55%

Distance Learning Survey

1. The way media is available (Print, Online, CD) 74%
2. Material Available is comprehensive complete and up to date 68% and lecturers enthusiasm for the topic 68%
3. Resources available to you (PC's, Printers, library) 63%
4. Clarity and Nature of goals 53%
5. The way Class Assessment takes place 47% and Independence in your learning (Time and Place Independence) 47%

Lecturers Survey

1. Material Available is comprehensive, complete and up to date 80%

2. Class Atmosphere 70% and social interaction 70%
3. Student centred learning environment 65% Resources available to you (PC's Printers and Library) 65%, Being able to express and contributes individual thoughts and ideas 65% and the clarity and nature of goals when learning.
4. Having an active approach to learning 60% Student Participation within the class 60% and a sense of belonging within the group where you are learning 60%.

Table 3: Matrix of the Most Important Factors and their percentages

Factors	Traditional	Blended	Distance	Lecturer
Material Available	80%	87%	68%	80%
Resources	74%	73%	63%	65%
Lecturers Enthusiasm	71%	67%	68%	-
The way media is available	-	67%	74%	-
Clarity and Nature of Goals	-	63%	53%	65%
Encouragement and Support from the Lecturer	60%	55%	-	-
Having an Active Approach to Learning	60%	-	-	60%
Class Atmosphere	-	-	-	70%
Social Interaction	-	-	-	70%
Student Centred Learning Environment	-	-	-	65%
Student Participation within the class	-	-	-	60%
Sense of belonging within the group	-	-	-	60%
The way class assessment takes place	-	-	47%	-
Independence in your learning	-	-	47%	-
Increasing communication between students and staff	58%	-	-	-

Red: First Most Important Factor
Blue: Second Most Important Factor
Green: Third Most Important Factor
Purple: Fourth Most Important Factor

It became apparent that the three student surveys yielded similar results however the results from the lecturer survey differed slightly. The following factors are the ones that were taken to be similar in each group or to be the most important for a certain group:

a) The **Material** Available is comprehensive, complete and up to date.
b) The way **Media** is Available (Print, Online, CD)
c) The **resources** available to you (PC's, printers, library)
d) The **lecturer's enthusiasm** for the topic/subject
e) The **clarity and nature of goals** when learning

f) **Social Interaction** in the class

g) **Class Atmosphere**

h) Having an **active approach** to learning (learn by doing)

Within the student surveys the **Material, Resources and Lecturers Enthusiasm** appeared in the top three of each environment. Material was also the top most important Factor for lecturers.

Conclusions

Traditional classroom learning continues to be the principle method for course delivery in universities throughout Ireland. However with the upsurge of Information Technology there seems to be a place in Irish Universities for the Blended Learning and Distance Learning approaches. In the results of this survey it was observed that the lecturer's most important aspects focus more on the classroom and what way the class should be with a strong influence on focusing on the students and ensuring that they are comfortable and confident in the class environment. This differs from the students whose main concern is on the material and the resources available to them and that the information is relayed to then by an enthusiastic lecturer. The notes/documentation and how they are distributed is more important to students than the atmosphere of the class or even the social interaction in the class. The lecturer on the other hand is focusing on how the class is held and how the students learn, such as learning interactively within a group and participating within the class. The students do place such a high value on the above aspects they emphasize that having up to date notes, good resources and a wide variety of ways to acquire these notes as being essential

The results of this survey showed that the most <u>important factors to students</u> are:

1 The **Material** Available is comprehensive, complete and up to date.

2 The **resources** available to you (PC's, printers, library)

3 The **lecturer's enthusiasm** for the topic/subject

4 The way **Media** is Available (Print, Online, CD)

5 The **clarity and nature of goals** when learning

6 **Encouragement and Support** from the lecturer

7 The way **Class Assessment** takes place

8 **Increasing Communication** between students and staff

9 Having an **Active Approach** to learning

10 **Independence** in your learning

The most important factors to lecturers are:

1 The **Material Available** is comprehensive, complete and up to date.

2 **Class Atmosphere**

3 **Social Interaction**

4 **Student Centred** Learning Environment

5 The **resources** available to you (PC's, Printers, library)

6 Having an **active approach** to learning

7 **Sense of belonging** within the Group where you are learning

8 **Student Participation**

All three learning environments have positive and negative aspects, but it has been observed that students in all three environments want the same things and want to achieve the same goals, all of the environments seem to achieve certain objectives in a different way, and the student seems to choose the environment depending on their needs. The environment that seems to be the most effective for achieving everything that a student does need is the Blended Learning Environment, this is because it has both the online and the classroom aspects and it also leaves a certain level of independence in the learning environment as it is not completely classroom based. The level of the blend seems to be what is important to most students and if there are the correct balances to suit the needs of the individual then this is when the environment works at its best. The reasons identified by Osguthorpe and Graham[iv] as to why one might choose blended learning environments seems to be true here also. Especially the top three:

- Pedagogical Richness
- Access to knowledge
- Social Interaction

As mentioned earlier blended learning is said to "combines the best of both worlds". This statement also seems to be true as all areas of requirements seem to be covered in Blended Learning. Students in this environment are not missing out on Social Interaction or having the benefit of being able to build social relationships with other students, and having broad and wide discussions, these are all areas that are covered in

blended learning more so than Distance and it also has the advantage of time and place independence to a certain extent. Some of the down sides to online learning that were mentioned were the fact that there were time lags between interactions, a frequent lack of clear "norms" of communication, and an absence of visual/auditory conversation cues. These can all be addressed in Blended Learning as when students get to meet the lecturers and other students they get to counteract these negatives. The lack of social interaction in an online learning environment can be a big barrier to online learning, but when using blended learning students get to meet other students and lecturers and to build a relationship with them.

In the study that was previously discussed that was carried out by Pannee Suanpang[liv] communication in the traditional mode was face-to-face, and few students were willing to ask questions of teachers. It was said that online study is very beneficial for this reason as students gain advantages from using synchronous (chat) and asynchronous (discussion board and e-mail) communication methods. But in this study when students were asked if they participated more because part of their course was online they did not seem to agree, this shows that the students that took part in this survey that were in Blended and Distance Learning courses did not seem to think that this influenced their participation to discussions.

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