The Impact of Cyber learning

On Moral Development

An exploration of Tertiary Education in New Zealand

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Abstract

Cyber learning is learning that takes place making use of cyberspace technology or computer technology. This encompasses any type of learning that occurs while connected to cyberspace, including the Internet, e-mail, virtual reality, computer assisted learning, or computer-mediated learning, electronic learning or telelearning.

This research study is an exploration of views and ideas of tertiary level educators on the impact of cyber learning on moral development. Lawrence Kohlberg's (1981) moral development theory has been used as a framework to establish whether there are any factors that make cyber learning a challenge to moral development in tertiary level students. Kohlberg's moral development theory explains the cognitive development process of moral reasoning and decision making in an individual. The research method used to gather data was in-depth face-to-face interviews. The participants were tertiary level educators from Palmerston North in New Zealand.

The themes that emanated from the data analysis were categorized as negative and positive impact of cyber learning. Related to these categories the following propositions emerged from the research study. They were: cyber learning has resulted in the birth of 'Cyber Identity'; 'Cyber Choice' in cyber learning overrules moral reasoning; cyber learning encourages alienation from human interaction into 'Cyber Isolation'; cyber learning has resulted in 'Cyber Freedom'; cyber learning introduces students into 'Cyber Illusion' in virtual reality; cyber learning is a gateway to new dimensions of learning; a paradigm shift in learning could permeate tertiary education as a result of cyber learning; and, in order to enable tertiary students to face the challenges of cyber learning successfully it is important to equip them with tools of moral reasoning and decision-making skills.

Participants polled in this study believed that New Zealand tertiary education system is impoverished in moral development and as a result New Zealand students are more vulnerable to the impact of cyber learning. The findings highlighted the importance of a moral reasoning framework in tertiary education in order to prepare tertiary students to meet the challenges of cyber learning.

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There are many people who have contributed in numerous ways to make this research a success. I could not have conducted this research without the participation of educators from tertiary institutions in Palmerston North. It was extremely encouraging to have such a positive response from all of you who participated in this project. It was not an easy task to take time off from your busy schedules as lecturers and spend your valuable time on this research. Thank you to all of you for your willingness to participate, and to the invaluable contributions you have made.

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lot of time discussing possible options. Your depth of knowledge has always amazed me. It was a great advantage to have you as my Co-Supervisor. You directed me to a wide range of resources that has influenced me to be passionate on this research topic. Talking to you has always made me realize that I need to read more. Extensive reading as a result of your encouragement has been greatly helpful and effective in doing this research project. Although you have been in Australia, you have communicated via telephone and email, giving constructive feed back on my work. Thank you.

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Chapter One

Introduction

".... We penetrated deeper and deeper into the heart of darkness..."

When I was contemplating my research topic, I recalled the above line from one of the passages I had learnt for my English literature paper at the University as an undergraduate student. 'Why am I thinking of these words now?' I asked. These words are from Joseph Conrad's Heart of Darkness, which is a parable about the loss of one man's soul to a wilderness of evil. Heart of Darkness presents the reader with a series of moral conundrums. It is also a story about what it means to share implicitly the penalty of that loss, a story about the impossibility of innocence.

May be in my imagination, I saw a connection between Conrad's words and words from Brien (2000) about cyberspace technology.

> *"Cyberspace technology has acquired enormous power over our lives. We know what technology does for us, but do we know what it is doing to us? Can we afford to be indifferent to it, or at best neutral? Can we take it or leave it as it serves our purposes? Or on the contrary, are we naïve about its control over us? As a result of willed ignorance, are we giving up certain personal and societal values to what is perceived as technological progress?"* Brien (2000, p.1).

The aim of the thesis

Cyber learning is increasingly gaining popularity in New Zealand tertiary education. As I pondered on Brien's questions I couldn't help asking myself "What will the answers be if we relate this to New Zealand tertiary education? Can cyber learning be a threat to the moral development of tertiary students?" I wanted to find what tertiary educators

thought and what their views and ideas would be about moral development and cyber learning. This thesis is the result of my desire to "Find Out!"

The significance of the thesis

During the last decade in many parts of the world there has been a great interest to discuss issues of moral development in education. This increased interest could be the result of a realization that some immediate measure has to be taken to avoid increased violence, introduction to new types of mass education and pluralism of values. Critics are quick to blame technological progress for the degradation of moral values in the society. Will cyber learning also be blamed for having a negative impact on tertiary students? There was an unheeded urgent need for investigation in the area of cyber learning and moral development. This research project meets the urgency of a need to present the issue of moral development in cyber learning as an enigma to deal with; or come to terms with, in the cyber era.

Does cyber learning really affect moral development? Literature has generated numerous statements to affirm this. "The computer is a threat to the intellectual and moral education of students.... Computer turns us into consumers of information that fragments the personality and makes moral responsibility increasingly difficult... It allows for anonymous discourse and substitutes information for judgment ... I want to make the strongest case possible against the use of computer in education" (Strivers, 1999, p.99). These are just a few expressions made by only one author. The literature, reviewed in chapter two, depicts negative as well as positive thoughts and views of writers who have generated literature on issues related to this topic. But what is the situation of tertiary education in New Zealand? What do experienced tertiary educators think? The thesis provided an opportunity to explore and analyze views and ideas of New Zealand tertiary educators on an issue relevant to tertiary education in New Zealand.

A great amount of literature has been produced for many years on issues of moral development. But literature on cyberspace technology has been generated only recently,

a few since 1984, and the majority between 1999 and 2002. Some of the writers who have commented on cyberspace technology tend to think of it as something evil for human beings. Others consider the shift to computer-mediated learning poses enormous challenges to tertiary education, tertiary institutions and the teaching staff. But I did not find any literature or any research done on the impact of cyber learning upon moral development in tertiary education in New Zealand. This research project makes a contribution to knowledge in the field of study in tertiary education. The aim of the thesis has not been to solve problems related to moral development and cyber learning, but to crystallize an issue of importance in tertiary education.

Definitions of terms and expressions

"Tertiary education", in this thesis means "all of the learning that takes place in the field of post-school education and training" (Ministry of Education, 2002, p.3).

"Cyber learning" has emerged from cyberspace technology or computer technology. It is also expressed in related terms such as computer-mediated learning, computer assisted learning and electronic learning (e-Learning). In this thesis what I mean by cyber learning is learning that takes place by making use of cyberspace technology or computer technology; any type of learning that occurs by being connected to the cyberspace, including the Internet, e-mail, virtual reality, computer assisted learning, and electronic learning.

"Moral development" refers to growth of the individual's ability to distinguish right from wrong, to develop a system of ethical values, and to learn to act morally" (Rich, 1994, p.6). I have used Lawrence Kohlberg's (1981) theory of moral development as the framework to inquire into the impact of cyber learning on moral development. Kohlberg based his theory on cognitive reasoning.

Moral reasoning consists of four components of internal processes that occur in an individual (Gale, 2002). They are:

- Moral sensitivity - empathy (identifying with another's experience) and cognition of the effect of various possible actions on others
- Moral judgment - choosing which action is the most moral
- Moral motivation - deciding to behave in the moral way, as opposed to other options
- Implementation - carrying out the chosen moral action.

The difference between moral judgment (perceiving an act as morally right or wrong) and moral choice (deciding whether to act in the morally "right" way) has been explained in a number of ways, any one of which may be true in a given situation (Gale, 2002). They are:

- Weakness of will (the person is overwhelmed by desire)
- Weakness of conscience (guilt feelings are not strong enough to overcome temptation)
- Limited/flexible morality (some latitude allowed in moral behavior while still maintaining a "moral" identity)

Decision Making: in decision tasks the goal is to make a good choice between a set of alternatives. There is a requirement on the decision maker to form judgements of the values of the possible outcomes of alternative choices and of the probabilities of those outcomes occurring (Gilhooly, 1990).

Research Questions

The main aim of this research project is to address the following research questions.
Has cyber learning affected moral development in tertiary education?
What factors have made cyber learning a challenge for moral development in tertiary education?

The rationale

I have been particularly interested in this research project for the following reasons.

1. I saw the necessity and urgency for such research.
2. I have always been interested in reading literature on cyberspace technology and on related topics. When I studied for the NZQA qualification of Advanced Computer User course and some computing papers of the Bachelor of Applied Information Systems Degree, I became more interested in doing research in this subject field and on this topic. I started reading books and journals that enabled me to delve deeper into subject matter relating to cyberspace technology, its forever-renewing advancements and its impact upon human lives.
3. My personal experiences as a teacher at tertiary level made me concerned about the moral development of students. Cyber learning is the trend of the day in tertiary education. As I reviewed and compared my experiences as a teacher and the present learning environment in cyber learning, I was able to see that the free access students have to uncontrolled amounts of information, could easily lead to abusive use of such information. It made me question, "Can cyber learning have harmful effects upon moral reasoning and moral judgments of students?"
4. I became keenly interested in Kohlberg's theory on moral development. A literature review made me realize that research done on moral development was on a psychological perspective. Researchers have been interested in the measurement of moral reasoning. The Moral Development Research Group in Canada, talking about the latest developments in moral development, says that Rest (1994) has developed an instrument, the Defining Issues Test (DIT) that provides more information on the role of moral judgment in moral development (Brockett, 2002). In this research project I do not measure the level at which a tertiary student is operating as a result of the impact of cyber learning. The research paradigm I use as methodology is a constructive interpretive paradigm. This in it self is a challenge, as it focuses moral development on interpretive methodology instead of focusing on the conventional psychological dimension.

Structure of the thesis

There are seven chapters in this thesis. The first chapter, which is this, is the introduction. It states the aim of the thesis, the significance of the research project, research questions, the rationale and the structure of the thesis.

In order to do effective research it is important to find out what literature has already been written on the topic. Chapter Two gives a review of the literature in the field, which is the basis for the background theory of the research project. This chapter also shows readers that as the researcher, I have studied the existing works on the topic, and I have tried to link previous studies, reviews, arguments, and theories on the topic. One of the main areas I have dealt with here is cyber learning. I have looked into literature on cyberspace technology, computer technology, computer assisted learning and electronic learning because they all fall into the same category and deal with the same subject matter although we may find slight differences according to the scope, range, and level of knowledge. In order to get a clear understanding of the literature that has already been generated about 'learning that occurs, making use of cyberspace' it was necessary that I search literature under all these different headings. The other two areas I have looked into are literature on moral development and on New Zealand tertiary education. In this chapter I also identify certain claims made in literature on the impact of cyber learning or cyberspace technology upon human beings. I have used some of these claims in interviews to get participants' insights and to explore what they think about these claims.

Chapter Three explains the context of this research. To have a clear understanding of the research project it was important to examine the origins of tertiary education in New Zealand and then the changes that have occurred up to now. Since this research concentrates on moral development, the research context specifically emphasizes this aspect.

The focus of Chapter Four is theory and research method. The theory that directed the research project is Kohlberg's theory of moral development. In this chapter I also

explain the research paradigm that influenced me in conducting this research project, and its appropriateness to the research problem. As methodology, I have used a constructivist-interpretive paradigm. I have selected in-depth face-to-face interviews as the most suitable research method. I have evaluated the other research methods in order to highlight any limitations. In this chapter, I also explain the ethical issues that have been taken into consideration. Next, I have described the research process; how the research was undertaken.

Chapter Five presents data gathered during interviews. This data presentation categorizes the views and ideas of participants on the impact of cyber learning on moral development, concentrating on tertiary education in New Zealand.

Chapter Six is the discussion chapter. Data that was recorded in the earlier chapter is analyzed, interpreted, and discussed in this chapter.

Chapter Seven is the final chapter, which is the conclusion. Here I give an overview of the whole thesis, a brief evaluation of the propositions that emerged from the research, recommendations for further study, and the final results of the thesis.

Chapter Two

Literature Review

Cyber learning, moral development and New Zealand tertiary education are the three main areas that are emphasised in this research project. They form the field of study that would lead to background theory of my thesis. Since I look at literature on New Zealand tertiary education in the next chapter on Research Context, I examine literature on cyber learning and moral development in this chapter. I have searched for links in all available literature on these areas.

Cyber Learning

Cyber learning is learning that takes place making use of cyberspace technology or computer technology; any type of learning that occurs being connected to cyberspace, including Internet, e-mail, virtual reality, computer assisted learning, or computer-mediated learning, electronic learning or telelearning.

William Gibson (1984) first coined the term cyberspace in the science fiction Neuromancer that describes a future dominated by vast computer networks and databases. "Cyberspace is a global artificial reality that can be visited simultaneously by many people via networked computers. Cyberspace is where you are when you're hooked up to a computer network or electronic database" (McLellan, 1991, p.462).

Burke (1980, as cited in Rota, 1981).has said that by using computers to facilitate the teaching and learning process, one can improve the quality and efficiency of the process. Rather than dehumanising the educational experience as computers are traditionally accused of doing, today's computers have shown themselves to be capable

of enriching and enhancing education by improving the efficiency of human communication in education (Burke, 1980, as cited in Rota, 1981).

Computer–assisted instruction is another term used for cyber learning and Thomas (1979, as cited in Rota, 1981) defines this as "a pedagogical technique in which a student interacts with instructional stimuli at a computer terminal".

The Internet is considered the most important aspect of cyber learning. "Technology enthusiasts declare a marriage between the Internet and education to be made in heaven" (Zepke, 1998, p.173). He has said that to give substance to their enthusiasms, such enthusiasts pointed to the learning flexibilities offered by Internet databases, e-mail bulletin boards, and computer conferencing and hypertext software.

Kitchin (1998) has explained the Internet as a "vast collection of computers linked to networks within larger networks spanning the globe - a huge anarchic, self-organising and relatively unpoliced system which allows unlimited access to the other people connected, and the information stored on public databases and computer sites; a new network of virtual sites...superimposed on the world of places" (Kitchin, 1998, p.2).

The World Wide Web, the Web or WWW is the Internet multimedia service that contains a vast storehouse of hypertext documents written in HTML. Hypertext provides a method for presenting text, images, sound, and videos that are linked together. Hypertext Markup Language or HTML is a language developed for writing pages for the World Wide Web. The Internet affects the exchange of information and sharing of learning experiences in cyber learning. Bordt, Iasella & Nowark (1999) have said that Internet technology can enhance learning in unlimited ways, using it as a research tool, a communication tool and as a support system for teachers. Through access to resources available on the Internet a variety of individual or group projects can be generated, students can collaborate with other students throughout the world, curriculum–related materials can be examined, subject experts can be questioned, and other cultures' perspectives can be explored

Tiffin & Rajasingham (1995) have identified basic levels of communication in cyber learning. These levels are the individual learner with PC and modem; small-group networks; course network; and virtual learning institutions. They have said that the first three levels form the virtual class while the fourth relates to universities in cyberspace.

Cyber learning occurs in synchronous and asynchronous modes. Asynchronous is a form of data transmission in which information is sent one character at a time. It does not rely on a shared time. Asynchronous communication is used in correspondence courses. Synchronous mode is used when the transmitter and receiver operate in the same timeframe. This is used for teleconferencing, which takes the forms of audio conferencing, audio graphic conferencing and videoconferencing. E-mail, bulletin boards and computer conferencing are asynchronous technologies of cyber learning (Tiffin & Rajasingham, 1995). Students enrolled in Internet-delivered distance courses can debate and construct and interpret in course groups. They can also join discussion groups beyond their course, thus testing their ideas beyond the ideological boundaries set by institutions and teachers (Zepke, 1998).

Electronic mail (E-mail) has become very popular in cyber learning. E-mails can be used to distribute information to a class as a whole, to individuals or to groups. Students can do work on a word processor and then send it as a file to the teacher who can correct and return it (Tiffin & Rajasingham, 1995).

Billboards are used for debates when the focus is on a special topic and messages can be posted on billboards for a period of time. Bulletin boards and news groups extend individual communication to groups. It plays a crucial part in the construction and testing of knowledge. It is used by students to discuss issues with other class members, to put their own ideas out for critique by classmates and to critique them to enable groups to work together on common projects and to publish work for access by a wider audience (Zepke, 1998).

Computer conferencing is a kind of billboard that is extensively used in cyber leaning. Computer conferencing restricts interaction to people in a special interest group. Another area where cyber learning occurs is when students make use of online database

services for their studies. Access to libraries and down load textbooks are greatly advantageous.

In cyber learning virtual reality applications are used extensively. McLellan (1991) thinks that Virtual realities are a set of newly emerging educational technologies which can be defined as a class of computer-controlled multisensory communication technologies that allow more intuitive interactions with data and involve human senses in new ways. He has said that virtual reality can also be defined as an environment created by the computer in which the user feels immersed in the present.

McLellan (1991) has said that virtual reality provides a different way to see and experience information, one that is dynamic and immediate and that it is potentially a tool for experiential learning. The virtual world is interactive and it responds to the user's actions. It evokes a feeling of immersion, a perceptual and psychological sense of being in the digital environment presented in the senses. Virtual reality offers professional applications in many disciplines and it can support all seven of the multiple intelligences, linguistic, spatial, logical, musical, kinesthetic, and interpersonal and intrapersonal intelligences (McLellan, 1991).

There were other aspects in the use of cyberspace that had been mentioned in literature. They are cyber-life, cyborgs, cyber society, cyber culture, cyberia, cyber-evolution, cyber community, cybersex, cyber ethics, cyber privacy, cyber law, cyber cities, cyber cafes, and cyber crime. Although these are not directly connected to cyber learning, through cyber learning students could get affected by these as well. It could even be an interesting argument, although I do not wish to pursue it here, whether being a participant of cyber learning could eventually entrap students in the participation of these other areas of cyberspace technology.

Moral development

"Moral development refers to growth of the individual's ability to distinguish right from wrong, to develop a system of ethical values, and to learn to act morally" (Rich, &

DeVitis, 1994, p.6). There are several approaches to the study of moral development which are categorized in a variety of ways. The social learning theory approach claims that humans develop morality by learning the rules of acceptable behavior from their external environment. Psychoanalytic theory proposes that morality develops through humans' conflict between their instinctual drives and the demands of society. Cognitive development theories view morality as an outgrowth of cognition or reasoning and, personality theories are holistic in their approach, taking into account all the factors that contribute to human development (Gale, 2002).

A moral development theory explains how individuals develop morally. Jean Piaget was among the first psychologists whose work remains directly relevant to contemporary theories of moral development. According to Piaget all development emerges from action, and individuals construct and reconstruct their knowledge of the world as a result of interactions with the environment (Nucci, 2002).

Lawrence Kohlberg (1981) modified and elaborated Piaget's work and identified six stages in the development of moral reasoning, grouped into three levels. He named these three levels as pre conventional, conventional and post conventional. Kohlberg's moral development theory is examined in depth in Chapter Three.

Kohlberg believed in the importance of moral education. The goal of moral education is to encourage individuals to develop to the next stage of moral reasoning. According to Kohlberg the most common tool for doing this was to present a moral dilemma that requires students to determine and justify what course the actor in the dilemma should take. Talking about moral education, Sprod (2001) has said that a moral education program must be based on a well supported account of the development of moral competence, that enables moral maturation, rather than on a specific moral code.

Moral development occurs not only through education but socialization as well. "Socialization is the process by which the individual becomes inculcated with societal values and acquires appropriate social roles. It involves the internalization of social norms as individuals guide their own actions to comply with the expectations of others" (Rich, & DeVitis, 1994, p.7). Socialization contributes to empathy, and has a significant

cognitive component. It is connected with cognitive development, as humans gain greater abilities to perceive the perspectives of another (Hoffman, 1991).

There are two key concepts, rooted in Kohlberg's framework that assists in developing an understanding of moral reasoning in the information age (Willard, 1997).

1. Students construct their framework for reasoning about moral issues through their interactions with others and their level of cognitive development shapes these interactions. This concept raises the need to consider what the impact of electronically mediated interactions will be on students as they are in the process of constructing their moral reasoning framework.
2. Human kind has the capability to expand their moral reasoning capacity to a level necessary to effectively sustain greater complexity (Willard, 1997, p. 5).

Moral development in tertiary education

"Moral development is an important outcome of higher education" (Mathiasen, 1998, p.374). He conducted an electronic survey on how faculty and staff in American Universities viewed the role of universities and colleges in student moral development. Participants agreed that the university should play a proactive role. He has said that other American authors such as Bloom (1987, as cited in Mathiasen, 1998), Lamm (1986, as cited in Mathiasen, 1998), and Levine (1980, as cited in Mathiasen, 1998) have suggested that higher education was doing a poor job in facilitating the moral development of students. Others such as Ignelzi, (1990, as cited in Mathiasen, 1998); Morrill, (1980, as cited in Mathiasen, 1998); Nucci & Pascarella, (1988, as cited in Mathiasen, 1998); Rest, (1988, as cited in Mathiasen, 1998); Rest & Narvaez, (1991, as cited in Mathiasen, 1998) argued that moral development is important in higher education. Mathiasen (1998) has said that he feels that students' moral development can be accomplished through class discussion, critical analysis of theories and case studies, reflective thinking, and community service activities, and more importantly, faculty and staff should serve as models.

Many research projects have been undertaken in the past with students as participants to explore different aspects of moral development among tertiary students. Bockett & Lynne (1997) have looked at different effects of traditional and enhanced ethics education upon the moral development process that students use in reaching moral judgments. Referring to the research undertaken by Rest and his colleagues using Defining Issues Test (DIT), Bockett & Lynne (1997) have said that formal education is a powerful influence in the development of moral judgment. They have claimed that older subjects are especially receptive to moral education programs designed to foster moral judgment development. Personal morality developed in the formative years through stages one and three, as explained in Kohlberg's moral development theory, is bound to influence subsequent moral behaviour towards others in the wider society (Bockett & Lynne, 1997).

In recent years, educators have shown an increased interest in the moral development of university students. Good, & Cartwright, (1998) have quoted literature that shows how American universities acknowledge the importance of moral development among university students. Many educators consider teaching students how to think and act in a responsible way to be a major purpose of post-secondary education (Mustapha and Seybert, 1990, as cited in Good, & Cartwright, 1998). New curricula have been designed which emphasize ethical and moral judgment development (Rest, 1993, as cited in Good, & Cartwright, 1998). In addition to curriculum change, Trow (1976, as cited in Good, & Cartwright, 1998) has suggested that teachers modify their methods of teaching in order to encourage moral development in their students. Trow has challenged university faculty to consider their impact as role models on the lives of students. Both College faculty and administrators have acknowledged the importance of moral development in their students (Lickona, 1992, as cited in Good, & Cartwright, 1998).

In a 10-year longitudinal study, Rest (1986, as cited in Good, & Cartwright, 1998) found that education was the most powerful predictor of moral development. An increase in level of education is generally associated with greater gains of moral development. The general trend is that as long as formal education is continued moral judgment scores continue to rise. When an individual's formal education ends, his moral

judgment development tends to plateau (Rest, 1986, as cited in Good, & Cartwright, 1998).

The reason education is such a powerful predictor of moral development is that formal education provides a challenging and stimulating environment in which students are encouraged to take more interest in their communities and larger societal issues (Rest & Narvaez, 1991, as cited in Good, & Cartwright, 1998).

One group of universities that has persisted in its concern for both the intellectual and moral development of students is the church related university (Good, & Cartwright, 1998). But Kohlberg has argued, says Good, & Cartwright, (1998), that while religious education in formal setting may be capable of playing some role in enhancing an individual's moral development, religious education has no specific role to play in fostering moral development as opposed to the role of secular education and the family. In fact, in an analysis of data, Kohlberg's students found no relationship between the religious belief of atheists, Buddhists, Catholics, Jews or Protestants and their moral-cognitive development sequence. All of these religious groups moved through the same developmental sequence.

Sprod, (2001) has said that much of the moral influence lies in the unreflective moral shaping as part of the hidden curriculum, and moral education is the broad endeavor of producing morally praiseworthy characters and the philosophical thinking that underpins the enterprise. Dammon & Gregory, (1997) thinks that moral education programmes should promote a sense of a moral identity founded upon a deeply held set of beliefs.

Blasi (1984) talks about moral identity and defines it as, the importance of moral concerns to a person's sense of self. Moral identity provides a powerful incentive for conduct, because identity engenders a sense of responsibility to act in accord with one's conception of self. Only when people conceive themselves, and their life goals in moral terms that they acquire a strong propensity to act according to their moral judgments (Dammon & Gregory, 1997).

Durkheim (1961) believes that it is possible to consciously create or at least to discover the kind of shared beliefs that are essential for community and for the moral identities of students. He also says that in order to build common community values in modern times, we need procedures that draw upon the unique qualities and virtues of a democratic society rather than reacting against them.

Durkheim (1961) also thinks since so many communities have become polarized around matters of belief, it is not easy in modern times to educate students with philosophical underpinnings necessary for moral reasoning. He says in order to accomplish moral education in times of society-wide discord, communities must make special efforts to identify their common values, at least with respect to their hopes and expectations for their young.

Cyberspace technology and moral development

Many authors who have commented on cyberspace technology and issues on human well-being and moral values have tried to warn the reader of the dangers of cyberspace technology. Joy (2000) says that the answers we look for, as human beings, will not come from the technologists but from our own ethical, philosophical, spiritual and psychological resources, which so far have not seriously taken up the challenge of technology. It is estimated that by the year 2030 machines will be built and in sufficient quantity, which will be a million times faster than our personal computers. These machines, Joy tells, us will be able to obliterate the boundaries between human and machine. As Joy points out we have unfortunately come to accept technological advances without questioning them. We prefer to recognize only their immediate benefits and ignore the less obvious, long-term destructive consequences.

Talbott (1995), focusing on the computer and the Internet as the dominant technologies of this time, argues that they do not exist purely exterior to us. As creatures of our own making, they are actualizations of capabilities, certain tendencies, biases, desires and intentions. But we fail to see ourselves in them because we have "abdicated consciousness". "Unawares as we are, we seem not to care about the effect they are having on us, and so will do nothing about it, offering no or little resistance to its

advance onto our lives. We have adopted a passive, even fatalistic view of this technology in which we are embedded and upon which we are increasingly dependent" (Talbott, 1995, p.1).

Brien (2000) thinks computer technology is shaping who we are as individuals and as a society and determining for us, without our being aware of it, what our values should be, and the direction our future should take. He has said that with this unquestioning acceptance, there is a belief that technological advancement is inevitable and non-stoppable. He thinks that as a result, it has acquired enormous power over our lives. He has also said that although we know what technology does for us, we do not know what it is doing to us. "We cannot afford to be indifferent to it, or neutral. We cannot take it or leave it as it serves our purposes...are we naïve about its control over us? As a result of willed ignorance, are we giving up certain personal and societal values to what is perceived as technological progress?" (Brien, 2000, p.1).

But Davison (2001, p.101) thinks "Technology is neither neutral nor an unstoppable force-good, bad, or indifferent. Technology is not the neutral vehicle of human agency; it is the essence of human agency". He has said that the task of waking up from our technological sleepwalk, reclaiming technology as a crucial space of moral and political judgment and choice, is the task of recognizing technology as the practices through which we come to know ourselves, each other, and our shared world.

The impact of cyber learning on tertiary students

Zepke (1998) thinks that cyber learning has a positive impact on tertiary education. "Educators can only watch with awe the spectacular developments in information technologies. Only the extremely conservative would deny that they will have a major impact on teaching and learning in higher education" (Zepke, 1998, p.173). As a 'technological sceptic', he was satisfied that technology can serve educational assumptions without dominating them (Zepke, 1998, p.185).

Some authors commented on the negative impact of cyber learning. Strivers (1999) thinks that computer is a threat to the intellectual and moral education of students He gives the following reasons for his comment. "The computer promotes logical thought at the expense of dialectical thinking" ... "it reduces words to their most abstract meaning, thereby objectifying meaning"... "It is behind the proliferation of random information, all of which is at the disposal of the individual user"... "It fosters a cynical worldview that information is random and exists to be exploited" ... "the computer turns us into consumers of information that fragments the personality and makes moral responsibility increasingly difficult" ... "it allows for anonymous discourse and substitutes information for judgment" (Strivers, 1999, p. 99). He strongly believed that teachers should resist the use of computers.

Some authors thought that it was important to prepare students to face the challenges of the information age. "Preparation for success in the information age", according to Willard, (1997, p.1) was extremely necessary, and he suggested the following to be introduced as preparation.

- A respect for the laws and standards that society has agreed upon for governing behavior related to the use of information technologies
- The ability to engage in moral reasoning and decision-making, especially when there are conflicts in values and interests
- The moral motivation and self-control to engage in appropriate and ethical behaviour, even in situations where there is the freedom to do otherwise.

Talking about Internet ethics issues and concerns that educators must deal with as their students go online, Willard (1997) has pointed out the following:
"computer hacking; copyright; respectful communication and the avoidance of irresponsible speech; defamation; harassment; abusive language; spamming; use of e-mail forgery to disguise the source; irresponsible speech; activities that generally do not have an impact on others but can be injurious to the self, such as addiction, personal safety, and 'garbage' activities" (Willard, 1997, p. 2).

In cyber learning students get into a sense of non-accountability. Users of cyber technology are distanced from the potential harm they may cause by their actions.

Therefore the intangible nature of cyberspace creates the impression, that actions or words have no real impact (Willard, 1997).

Emmans (2000) has said that the Internet is unmanaged, unedited, and unsupervised. Anyone can post information on the Internet for all to see. Opinions can parade as hard facts. People with far-flung ideas can easily find an audience. Photos, jokes, and drawings can be published. Access is easy to obtain. Internet does not know any physical, moral or ethical boundaries. People have the ability to post any kind of data, even if it is false, inflammatory, pornographic, or libelous. For the most part, there are no editors reviewing materials for the Internet; no one is controlling the kind or quality of information that can be made available on the Internet. (Emmans, 2000). He has said that educational institutions must protect students without stifling their creativity and without putting too much control on what they can view. Policies must be created and put into place, which clearly state the rules governing computer use, with clear consequences for violations.

For many, cyberspaces form a new social space where reality and virtuality merge, where the physical and material are transcended and arguments center on the ideas of disembodiment and transcendence (Kitchin, 1998).

Baudrillard has termed the simulations in virtual reality as 'hyperreality; more 'real' than reality (Poster, 1988). Virilo has called virtual reality simulations a substitution. "This is a real glass, this is no simulation. When I hold a virtual glass with a data glove, this is no simulation, but substitution... As I see it, new technologies are substituting a virtual reality for an actual reality... there will be two realities: the actual and the virtual...this is no simulation but the coexistence of two separate worlds" (Kitchin, 1998, p.18).

Castells (1996, as cited in Kitchin, 1998) has argued that 'virtual reality' is a misleading term. He has suggested that there has always been a separation of reality and symbolic representation because we always interpret everything we encounter through some system of meaning. He has contended that we are constructing a real virtuality where

reality is entirely captured by the medium of communication so that our everyday lives are increasingly structured around what we have read, seen or heard.

For Slouka (1996, as cited in Kitchin, 1998) the danger was that many of us are now willing to accept the copy as original, and put our trust in those that re-represent the world to us; to accept simulation as substitution. He believed that these are self-indulgent technologies that would make it increasingly difficult to separate real life from virtual existence. For many of the people that Slouka met, cyber spatial interactions on chat and MOO facilities were a reality. The new identities they had formed had blended with their former persona, the virtual was blurring with the real. Slouka's fear was that we are increasingly 'seeing' and understanding the world in isolation, staring through a computer screen.

Theorists such as Haraway (1991, as cited in Kitchin, 1998) and Plant (1993, as cited in Kitchin, 1998) argued, the boundaries between people, their bodies and the outside world are reconfigured. Rheingold (1994) has said, that people in virtual communities use words on screens to exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, create a little high art and a lot of idle talk. "To the millions who have been drawn into it, the richness and vitality of computer-linked cultures is attractive, even additictive" (Rheingold, 1994, p. 3).

In cyberspace an individual could hide behind a mask and be highly manipulative. Nobody would know your race, disability or gender. Your body is irrelevant and invisible. Unlike real world meetings, individual representation on the Net is not based upon biology, birth or social circumstance, but is a highly manipulable, completely disembodied intellectual fabrication (Mitchelle, 1995).

Cyberspace technologies provide unrestricted freedom of expression that was far less hierarchical and formal than the real world interaction (Heim, 1991). Anonymity and opportunity to escape have also become characteristics of cyberspace technologies. Cyberspace appealed to the young because it represents an escape from a world that

does not, and does not want to, understand or provide for them. Online, they can explore their feelings and identity, and communicate with like-minded individuals. Cyberspace carries less responsibility (Kitchin, 1998).

This review of literature has looked at important topics that are relevant to this research project. It has helped me to collate views, arguments and research done by others on cyber learning and moral development. It was evident that many have recognised the importance of moral development in tertiary education. Those who commented on the impact of cyberspace technologies have looked at its positive as well as negative impact on human beings. Some authors expressed their views on the impact of cyberspace technologies on students. In the next chapter I look into the context of the research, which is the tertiary education in New Zealand.

Chapter Three

Research Context

The focus of this research project is tertiary education in New Zealand. The research sample has been taken from tertiary institutions in Palmerston North, one of the cities in New Zealand. To provide a context for the reader, in order to understand the research topic better, I have examined the past and present of tertiary education in New Zealand.

I have looked into the origins of tertiary education in New Zealand to determine whether earlier educators in tertiary institutions considered moral development important. I have then given an overview of the changes that have taken place in recent years. When I conducted the research I assumed that moral development has an equal importance as intellectual development in tertiary education in New Zealand. To ensure my assumption was correct I have examined the goals, aims and objectives of tertiary education in New Zealand and the aims and objectives of some of the tertiary institutions as recorded in documents published in the year 2002. I have also looked at the place of cyber learning in tertiary education in New Zealand.

The origins of tertiary education in New Zealand

The origins of education in New Zealand can be better explained when looking at it from three phases in the history of education in New Zealand. The first period is between 1814-1839, before the Treaty of Waitangi in 1840. There were two main streams of settlers in New Zealand during this time. They were the Maori who belong to the Polynesian stream, and the European stream. Each stream came from regions with totally different histories, different gods and customs, and value systems. The

Polynesian stream was bonded by small-group loyalties to tribe and family. The European stream was neo-industrial (Baily, 1989). During this first phase New Zealanders had the influence of European education, which was brought by missionaries. Before the advent of the missions, Maori children were educated within the hapu and tribe, to their own necessary understanding of Maoritanga (Baily, 1989). The second phase is during the Crown Colony period from 1839 – 1852. During this period the Colonial Office laid down Instructions to Colonial Governors, the lines along which schooling was to be established for Maori and for European New Zealanders. The third phase is when New Zealand education experienced self government from 1852 onwards, "the self –determined educational development during the provincial period" (Baily, 1989, p. 4).

It was in the 1850s that the first few tertiary institutions were established in New Zealand. They were all colonial imitations. British traditions in education were brought to New Zealand by the first wave of British emigrants. All education systems were "the product of human aspirations, hopes and ambitions of people ... and they carried the benchmarks of the genus and character peculiar to each different tradition" (Baily, 1989, p. 1).

The university of New Zealand was based on the British tradition (Beeby, 1992). "The roots of university education in this Dominion are to be found in the civic life and university institutions of the British Isles as they existed in the first half of the nineteenth century" (Hunter, 1940, p. 8). By the importation of university teachers from Great Britain or the appointment to chairs and lectureships of men and women who have studied in British universities, New Zealand Universities were greatly influenced by British universities. This resulted in having a British "idea" of a university (Campbell, 1941). Campbell has explained this as, "...to give the highest and final stage of general education...partly with a view to preparing them for a specific profession ... a university fulfils this aim not only through the intellectual equipment it provides but also through the moral quality" (Campbell, 1941, pp. 150-151). Moral development was considered an important aspect of tertiary education according to the British tradition, and the same was established in New Zealand universities that followed this tradition.

The Scottish had a strong influence on the tertiary education system in the South Island of New Zealand. "The Scots who founded Otago were so familiar with universities that they felt them to be part and parcel of community life, and from the first had in mind the foundation of a university" (Hunter, 1940, p.8). The University of Otago followed the Scottish rather than the Oxford or Cambridge model (Morrell, 1969). "The predominantly Scottish settlers of the province of Otago brought with them the enthusiasm for education which was characteristic of their homeland..." (Parton, 1979, p. 16).

But even among Scottish traditions moral philosophy was given an important place and it was considered as a compulsory subject. The University of Otago wished to safeguard its standards by requiring all affiliated institutions to give systematic instructions in Classics, English, Mathematics and Natural Philosophy, Mental and Moral Philosophy, and one branch of Natural Science. Since intellectual development and moral development were considered equally important all university students were required to attend classes in these subjects (Morrell, 1969). These once again show that moral development was part of tertiary education curriculum in the origins of tertiary education in New Zealand.

The Christian Church was interested in inculcating Christian moral values in individuals and they were keen to develop educational institutions. The question of university education in New Zealand first came before parliament in 1867, as a result of a petition of a Christian priest Rev.F.C.Simmons, the rector of the Otago Boys' High School, and the parliament responded by passing the New Zealand University Act 1870 (Butchers, 1929). The early tertiary education in New Zealand always had a moral purpose and transmitted a moral message (Baily, 1989). The influence of the Christian church in the origins of the tertiary education in New Zealand also highlights the reason for moral values to be considered as an important aspect of tertiary education system.

The following excerpts also demonstrate the importance of moral development in the origins of tertiary education in New Zealand.

In 1940, celebrating 100 years of university education in New Zealand, Professor Sir Thomas Hunter delivered the centennial lecture, "The Place of the University in the First Hundred Years". In his lecture he said that the university should "... aim to develop among its students the Greek spirit that will enable them to distinguish between the false and the true and to follow truth wherever it may lead, ... training students to think clearly and honestly ..." (Hunter, 1940, p. 6).

Hunter (1940) has said that the main value of education should be to produce men and women of ability and character. Hunter believed that the justification of education lies in the fact that we are attempting to liberate the human spirit and to direct it in ways which will lead to its own self-development and growth. "A university is merely a device which society in its wisdom has created to provide for the human spirit the stimulation, which will enable it to attain under guidance and within the limits of its possibilities, its largest and most expansive expression. The life of the nation alone can be the test of this" (Hunter, 1940, p. 28).

The Vice Chancellor of the University of New Zealand Thomas Hunter voiced these valuable insights in 1940. They explain the aims and goals of tertiary education, and the attitude of tertiary educators towards the importance of moral development. As mentioned earlier, Lawrence Kohlberg's (1981) moral development theory has been used as the framework of this research project. But these statements were made many years before Lawrence Kohlberg's moral development theory came into existence. It shows the importance of moral development in the origins of tertiary education in New Zealand.

Although the University of New Zealand was based on the British tradition, it has strayed some distance towards the American practice (Beeby, 1992). He has said that we should face the fact that we have a hybrid type of university. Even in the American tradition moral development was considered as an important aspect of tertiary education. Derek Bok (1988, as cited in Mathiasen, 1998), while president of Harvard University of America, pointed out that in the first 200 years of American higher education, the concern for student character was as strong as the concern for student

intellectual development. Bok stressed that colleges and universities have a social responsibility to contribute in any way they can to the moral development of students.

Evidence we have in literature that documents the history of tertiary education in New Zealand leaves no room for doubt about the importance of moral development in the origins of tertiary education in New Zealand.

The changes

There was a remarkable transformation in tertiary education in New Zealand towards the latter part of the 20th century. The reason for this transformation was policies and practices of 'neoliberalism'. Australians call it 'economic rationalism' (Peters and Roberts, 1999). "Higher education has been reconfigured along market lines, with a heavy emphasis on 'student choice', competition between different 'providers', new 'accountability' mechanisms, and a flavouring of corporate models of governance and ownership" (Peters and Roberts, 1999, p. 11). Reconfiguration of education is also called the "New Right Revolution". These changes have been documented in many other studies (e.g. Peters & Marshall, 1996; Boston, 1995; Sharp, 1994; Boston *et al.*, 1991 as cited in Peters and Roberts, 1999).

In New Zealand every section of economic and political life has been dominated by a form of libertarianism, variously called 'the New Right' 'Monetarism' and 'Economic Rationalism' (Snook, 1997). He has said that libertarianism is undemocratic in theory, the New Right is utterly undemocratic in its practice, and much needs to be done about the values underpinning the curriculum.

In the New Right Revolution there has been a linguistic transformation. The old terminology of education has been replaced by a new set of words. Education has become a 'commodity' to be bought, sold, traded, and consumed in a competitive marketplace. Students are named as 'consumers'. They 'exercise their right' as individuals in choosing the course they wish to follow or they 'purchase' education in a tertiary institution. (Peters & Roberts, 1999, p. 16). In the new vocabulary of higher

education terms such as insight, understanding, reflection, wisdom, and critique, are neglected in favour of skill, competence, outcome, information, technique and flexibility. These changes in the language of learning are much more than a fashionable trend. They may signify fundamental changes in how we educate future generations and may indeed lead to a narrowing of human consciousness (Codd, 1997).

It is interesting to compare the notions of present tertiary education with the notions expressed in the centennial lecture delivered in 1940 by Professor Thomas Hunter. He has said that university must, in the first place, be a guardian of the truth. The university is the institution to which is entrusted the intellectual heritage of the community. It must endeavour to ensure that whatever is proved true is conserved and whatever is found to be based on error is exposed and eliminated. It should keep the torch of knowledge burning brightly and hand it on undimmed to the coming generation. "Persecution, bigotry, intolerance can be conquered and driven into permanent retreat only if we dedicate ourselves to the task of keeping the lamps of learning aflame and undimmed. To the university comes the injunction to prove all things" (Hunter, 1940, p.5).

But with present tertiary education this notion has changed. "All institutions in the New Zealand tertiary education system have been affected by the neoliberal reform process. Private training establishments have relished fresh opportunities for gaining government and student dollars" (Peters & Roberts, 1999, p.17). Tertiary education has become a private rather than a public good. Universities, colleges of education and polytechnics, as 'providers' of 'commodity' to 'consumers' are "expected to actively compete with each other in attempting to attract enrolments and research monies" (Peters & Roberts, 1999, p.15).

"The university has become less a place of broad educational and personal development, through an interactive process deemed valuable in itself, and more a place in which knowledge is viewed as a commodity, picked up by those who pass through in acquiring the latest technical competences and analytical capacities" (Barnett, 1994, as cited in Codd, 1997). "Modern Society" according to Barnett, "is calling on higher education to develop in all students the capacities to operate effectively in society" (Barnett, 1994, as cited in Codd, 1997). He calls this the ideology of operationalism. It

could also be called 'the ideology of instrumentalism' and as with all ideologies, it favours some forms of knowing and marginalizes others (Codd, 1997).

With the marketisation of tertiary education, a neoliberal political philosophy has been built in New Zealand. Human beings are viewed as self-interested, rational, autonomous individuals (Marshal, 1995). The notions that were evident with the origins of tertiary institutions have disappeared or are fast disappearing from tertiary institutions of today. In those early days human welfare was considered important. The bureaucrats among education "providers" now talk of "inputs", "outputs" and "throughputs" in the education system instead of a collective public good. Present tertiary education is looked upon as a form of private investment (Peters & Roberts, 1999, p.17). But in 1940, looking back at hundred years of university education in New Zealand Hunter has commented that that we must learn to know our environment and ourselves; we must strive to understand the nature and social forces; and it is in this quest that the most stable human happiness is to be found, from which human development arises, and it is only by understanding these forces that we can learn to control them and to direct them to the great end of human welfare. (Hunter, 1940)

Another significant change in New Zealand education has been that New Zealand tertiary education has moved away from colonial influences. "... There has been an upsurge of national spirit within New Zealand. We are becoming more conscious of ourselves as a nation...." (Wellington, 1985, p.156).

Codd (1997) thinks that New Zealand's educational institutions, including higher education, are a political struggle between two opposing views of teaching. On one side, a technocratic-reductionist view of teaching and on the other side, a more traditional view, which has been described as professional-contextualist view. The role model for the former is the skilled technician, whereas for the latter it is the reflective practitioner (Codd, 1997). He also says that an important distinction between the technocratic and the professional views of teaching relates to the main criteria of good practice. In the technocratic view, good practice can be reduced to a set of predefined skills or competences, with little or no acknowledgement given to the moral dimensions of teaching. In the professional view, on the other hand, the good practitioner is a well

rounded person who can integrate all aspects of their prior knowledge and act in a teaching situation with moral integrity. The technocratic model is epitomized by its insistence that all areas of the curriculum should be designed to produce the attainment of specific learning outcomes. A contextualist model however emphasizes process more than products and has a more open-ended approach to curriculum design, enabling the emergence of unanticipated outcomes and the development of diverse human capabilities such as creativity, imagination and critical thinking (Codd, 1997).

Aims and objectives of tertiary institutions

"Inspiring and enabling individuals to develop their capabilities to the highest potential levels throughout life, so that they develop intellectually, are well equipped to participate in the labour market, can contribute effectively to society and achieve personal fulfillment..." (Ministry of Education, 2000, p.4). The purpose of tertiary education only emphasizes intellectual development and moral development is not mentioned.

The excepts quoted below, taken from mission statements of some of the tertiary institutions in New Zealand spell out the aims and objectives of tertiary institutions in New Zealand. In these, the aims and objectives are listed as benefit of the wider community; students to attain knowledge, skills and intellectual independence; to enhance excellence in teaching; and to produce high quality graduates. Although these mission statements emphasises intellectual development, moral development of students is ignored.

Massey University: The University will advance, preserve and respect knowledge through research and scholarship to the benefit of the wider community; The University will provide educational opportunities ... students to attain knowledge, skills and intellectual independence and to develop the potential leadership ...(Massey University, 2002, p.1).

University of Auckland: To enhance the position of The University of Auckland as a university of high international standing, recognised for excellence in teaching ...

contribution to the advancement of knowledge, and service to its local, national and international communities (University of Auckland, 2002, p.1).

Waikato Institute of Technology: The prime purpose of the Waikato Institute of Technology is to provide quality vocational, skills-based and professional studies, primarily at undergraduate level (Waikato Institute of Technology, 2002, p.1).

University of Otago: The University of Otago is committed to scholarship through excellence in teaching ... to produce high quality graduates with the capacity to engage in lifelong learning (University of Otago, 2002, p.1).

Cyber learning in the New Zealand tertiary context

Cyber learning is becoming popular in tertiary education in New Zealand. Many tertiary education providers are making significant progress in advancing e-learning opportunities (Maharey, 2002). Although still in its early stages, and not yet fully developed to contribute its maximum capabilities, cyber learning is gaining momentum rapidly.

The Report of the E-Learning Advisory Group of March 2002, has recommended that each institution must see their work as part of a wider tertiary learning experience and enable their students to enhance their e-literacy while studying. Students must be able to access a range of e-learning options, whether it is at the institution or at home or in the workplace. The tertiary education system as a whole needs to have the technical and human capacity to support this range of e-learning options for students. This means having the capacity to provide students with web-based information about courses and services. It also means a full range of on-line support services particularly for non-campus-based students and learning venues. It also means the provision of web-based courses and an integrated online learning service such as enrolments and enquiries. The fundamental assumption is that wherever students are learning they will have access to an integrated quality e-learning system with appropriate connections and support (Maharey, 2002).

Tertiary institutions have become keen to invest in cyber learning as it helps the institutions to reach out to a wider and a diverse range of learners. It is also the global

trend of tertiary education in a modern 'cyber technological' era. New Zealand tertiary institutions face the threat of being left behind if they do not keep pace with the modern global trend. As a result of the competitive nature apparent with the marketisation of tertiary education, investing in cyber learning has become a main focus of tertiary institutions in New Zealand. Cyber learning has helped tertiary institutions to expand their courses; create an exciting and flexible learning environment; attend to the needs of lifelong learners and students of different learning styles, and be innovative in teaching. It opens courses to students with different schedules who wish to log on at a time convenient to them. Cyber learning is a great asset in distance learning and helps students who cannot or do not wish to be in a classroom environment. Students can log on from wherever they have access to a computer and modem. Since cyber learning does not require oral and listening skills it helps students with communication disabilities. Such students can take as long as they like to learn a lesson in cyber learning and then to compose their own responses at their pace (Ehrmann, 1994).

The E-learning Advisory Group Report has identified and discussed visions for cyber learning in tertiary institutions in New Zealand. They are as follows:
Learner-centered cyber learning opportunities that maximise choice and flexibility;
Cyber learning of world-class quality, that draws on the best offerings, from here and overseas;
Cyber learning that reflects New Zealand's unique cultures, Treaty-based responsibilities and the special strengths of its teachers and educators;
A cost-effective system that benefits from the involvement of both public education providers and private enterprise
(Maharey, 2002).

The third report of the Tertiary Education Advisory Commission (Ministry of Education, 2001) has stated that a paradigm shift is required in New Zealand tertiary education. The tertiary education system will no longer be solely driven by the choices of consumers as it was during the 1990s, when it was too narrowly focused on student demand as the primary determinant of resource allocation. Rather, the focus of the tertiary education system will now be to produce the skills, knowledge and innovation

that New Zealand needs to transform its economy and promote social and cultural development.

In this chapter I have examined the attitudes of educators towards moral development in the origins of tertiary education in New Zealand, and the changes that occurred later. It is evident that the changes have made moral development unimportant in the present tertiary education system in New Zealand. The next chapter explains the theoretical basis of this research project and provides a description of the research process.

Chapter Four

Theory and Research Method

Moral development theory

I have used the Moral Development Theory of Lawrence Kohlberg (1981) as the theoretical framework for my research topic. A moral development theory explains how individuals develop morally. Cyber learning opens a way for tertiary students to become involved in cyberspace technologies such as email, Internet, and virtual reality. As a result of being involved in these, could the cognitive development of students be affected in any way? To find out what tertiary educators think on these issues and to interpret their perceptions, the research study required a background theory to explain how individuals develop morally. Lawrence Kohlberg's moral development theory was the most suitable theory for this purpose.

Kohlberg was an American psychologist who conducted a research study at Harvard's Center for Moral Education when he was a professor at Harvard University. As a result of this research he became famous in the early 1970s for his theory of moral development, which depended on the thinking of the Swiss psychologist Jean Piaget and the American philosopher John Dewey. They believed that human beings develop philosophically and psychologically in a progressive fashion.

Lawrence Kohlberg: cognitive moral development theory

Kohlberg's theory focused on the structure of moral development and dealt with moral cognition and the thinking process. He believed that people progressed in their moral reasoning through a series of stages, and he was able to demonstrate this through his studies. He identified six stages of moral reasoning and divided them into three levels,

each consisting of two stages. According to Kohlberg, 'level of moral reasoning' means the principle for classifying stages, based on the individual's understanding of conventions, for maintaining social relationships as the reason for rules. These levels are preconventional, conventional and postconventional. These three levels are further divided into stages:

Preconventional:

The preconventional level, which is the level of most children, is prior to a person achieving a full understanding of what is expected or required socially.

Stage One: 'Obedience and punishment'- goodness and badness are determined by physical consequences of an act. This is Kohlberg's most basic stage where moral rules are seen as absolute edicts of authorities.

Stage Two: 'Instrumental relativism' – moral rules can be adjusted to the mutual satisfaction of the interacting parties. Right action consists of that which satisfies one's own needs and flexibility is introduced into moral decision-making.

Conventional:

The conventional level, which is the level of most adolescents and adults, includes Kohlberg's stages three and four of moral reasoning, based on maintenance of social relationships.

Stage Three: 'Conformity' – individuals have developed the cognitive ability to see and evaluate their behaviour from the perspective of third parties, who are not present at the time of a moral decision. The approval of peers becomes important. Moral rules are understood as based on their necessity for maintaining close relationships

Stage Four: 'Social system' or 'law and order' - moral rules are judged by their impact upon remote and complex social relationships such as social institutions or national interest.

Post conventional:

Postconventional level includes the highest stages, five and six, where moral rules are adjusted based on their usefulness and principles of justice. Postconventional levels are reached only by a minority of adults who understand and accept the social rules and

expectations but who recognize that these have been established for the larger purpose of serving universal moral principles.
Stage Five: 'Utilitarian' – involves an appreciation that society's rules must be useful in serving to promote the life, liberty, and happiness of many.
Stage Six: 'Principled conscience' – involves transcending the greatest good principle in arriving at a standard of justice under which an equality of right and respect for the dignity of every individual is preserved (Kohlberg, 1981).

The procedure Kohlberg used to assess moral judgment was to present individuals with hypothetical dilemmas that would require them to make a moral choice. Individuals' answers to questions surrounding that dilemma would determine the stage at which the individuals are at, in their moral reasoning.

Moral dilemmas would encourage individuals to progress to the next stage. When individuals reach the maximum capacity of reasoning in one stage they accommodate the next stage of cognitive reasoning. This development, which occurs through a process, is based upon the way an individual copes with a problem and the way an individual thinks about it in a moral dilemma. The logic at each successive stage is more comprehensive in scope and more adequate than the logic of the preceding stage. Kohlberg believed that participation in moral discussion develops the growth in moral reasoning. He saw this as one of the ways in which moral development can be promoted through education. He also believed that moral development occurs through social interaction.

Tertiary students are at the "conventional level', according to Kohlberg (1981). At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. This level comprises stage three which is called the "conformity stage" and stage four which has been described as the "social system" or "law and order" orientation.

One of the main concepts of Kohlberg's theory, is that "moral development is socialization" (Kohlberg, 1969). This concept helped in understanding the effects of

alienation from socialization in cyber learning. Adolescents and adults construct their framework of moral reasoning and decision making by interacting with others. Their level of cognitive development shapes these interactions. This concept makes Kohlberg's theory more appropriate for this research because it shows the need to find out how tertiary students are affected by interactions on cyberspace as they are in the process of constructing their moral reasoning and decision-making framework.

Using Kohlberg's theory as a framework for this research project has helped me as the researcher to gain insight into factors that make cyber learning a challenge to moral development, when tertiary level students interact in cyberspace. This theory also helped to understand the difficulties an individual has to face when engaging in moral reasoning and decision-making, where cyber learning could offer conflicts in values and interests, due to the nature of cyber environment.

Qualitative Research

This is a qualitative research project. Defining qualitative research Denzin & Lincoln (2000) says that qualitative research involves an interpretive, naturalistic approach to the world. This means, that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret phenomena in terms of the meanings people bring to them. As the researcher I have made an attempt to interpret data that I gathered from tertiary level educators as they view a particular issue regarding cyber learning. This research study deals with ideas, explanations and meanings as expressed by participants.

"The word 'qualitative' implies an emphasis on the qualities of entities, and on processes and meanings that are not experimentally examined or measured in terms of quantity, amount, intensity or frequency" (Denzin & Lincoln, 2000, p.8). No attempt has been made to measure or examine the moral development of tertiary students or deal with or explain data in terms of quantity or amount. What it does is to find out; inquire what participants think on a particular issue and to interpret it.

Thus, this research project fits into a qualitative paradigm. A paradigm is defined as "a basic set of beliefs that guide action." (Guba, 1990, p.17). Denzin & Lincoln, (2000) think that all research is interpretive and is guided by a set of beliefs and feelings about the world and how it should be understood and studied. According to them, four major interpretive paradigms structure research. They are: 1) positivist and post positivist, 2) constructivist-interpretive, 3) critical, 4) feminist-poststructural. From these four, it is the constructivist- interpretive paradigm that has influenced and made particular demands on this research project, including the questions that are asked and the interpretations that are brought to them. Denzin & Lincoln (2000) has explained the constructivist paradigm and says it "assumes relativist ontology. (There are multiple realities), a subjectivist epistemology (knower and subject create understandings), and a naturalistic (in the natural world) set of methodological procedures" (Denzin & Lincoln, 2000, p. 21).

There are different methods of qualitative inquiry that are used in research projects. These methods are used for different purposes, asking different questions and interpreting the results from different frameworks (Patton, 1990). The following table shows the theoretical perspectives in qualitative inquiry methods.

Variety in Qualitative Inquiry: Theoretical traditions

Perspective	Disciplinary Roots	Central Question
1.Ethnography	Anthropology	What is the culture of this group of people?
2.Phenomenology	Philosophy	What is the structure and essence of experience of this phenomenon for these people?
3. Heuristics	Humanistic psychology	What is my experience of this phenomenon and the essential experience of others who also experience this phenomenon intensely?

4. Ethno methodology	Sociology	How do people make sense of their everyday activities so as to behave in socially acceptable ways?
5. Symbolic interactionism	Social psychology	What common set of symbols and understandings have emerged to give meanings to people's interactions?
6. Ecological psychology	Ecology, psychology	How do individuals attempt to accomplish their goals through specific behaviors in specific environments?
7. Systems theory	Interdisciplinary	How and why does this system function as a whole?
8. Chaos theory: nonlinear dynamics	Theoretical physics, natural sciences	What is the underlying order, if any, of disorderly phenomenon?
9. Hermeneutics	Theology, philosophy, literary criticism	What are the conditions under which a human act took place or a product was produced that make it possible to interpret its meanings?
10. Orientation, qualitative	Ideologies, political economy	How is x ideological perspective manifest in this phenomenon?

Patton (1990, p.88)

The qualitative inquiry of my research project did not fit in to any of these theoretical perspectives. But Patton (1990, p.89) has said "practical questions ... can be addressed without placing the study in one of the theoretical frameworks.... there is a very practical side to qualitative methods that simply involves asking open-ended questions of people in order to solve problems, improve programs or develop policies". That is exactly what I have done in my research.

Research Methods

Depending on the goals of research, there are different paths of research methods that researchers are able to pursue. Dane (1990, p.5) has listed some of these different paths. They are: exploration, description, prediction, explanation and action. These paths provide us with a strategy for figuring out which questions to ask and which answers to seek.

Descriptive research involves examining a phenomenon, to define it or to differentiate it from other phenomena. Sometimes the goal of research is prediction or to identify relationships that enable the researcher to speculate about one thing by knowing about the other thing. Explanatory research involves examining a cause – effect relationship between two or more phenomena. But these were not the goal of my research project. Research could also be used to attempt to do something about a particular phenomenon. This could be termed as action research. It refers to research conducted to solve a social problem. I did not intend to solve a social problem in my research project.

This research project is exploratory research, because it has dealt with a novel problem about which little is known. The aim of my research was to find out the impact of cyber learning on moral development, and to understand whether cyber learning is a challenge to the moral development of tertiary students in New Zealand.

A literature review revealed that most of the research conducted on moral development involved students, either to measure their level of moral development or to inquire into their views on topics of moral issues. But for this research study I did not want to interview tertiary students because most of the research done on moral development has used students as participants, and I wanted to get a different perspective. Therefore I invited tertiary level educators to inquire into what they think of the impact of cyber learning on moral development.

There are four methods that are commonly used by qualitative researchers for gathering information. They are: participation in the setting, direct observation, in-depth interviewing, and document review (Marshall & Rossman, 1995). In participation in the setting or participant observation method, the researcher hears, sees, and begins to experience reality as the participants do, by spending a considerable amount of time in the setting and learning about daily life. In direct observation method, the researcher takes systematic noting or recording of events, behaviours and objects in the social setting chosen for study. These two methods were not suitable for this research project because information regarding the impact of cyber learning on moral development cannot be gathered by observation or participation in the setting. These would not have served the purpose of my research project, as I needed a method that would assist its

exploratory nature. In document review method, which is also called content analysis, the researcher gathers and analyses documents. This method was not suitable for this project because the purpose of the project is to gather information from tertiary educators and not from documents.

The qualitative in-depth interviews are much more like conversations than formal events with predetermined response categories. "The researcher explores a few general topics to help uncover the participant's meaning perspective, but otherwise respects how the participant frames and structures the responses" (Marshall & Rossman, 1995, p. 80). For this research project interviews suited better than questionnaires and surveys. In questionnaires, due to the use of pre-specified questions and answers, participant's ideas would be trapped within a limited framework. Participants are not allowed to express themselves freely. Questionnaires may also tend to give biased responses by choice of questions. Due to these weaknesses I did not use a questionnaire. Survey research is good to obtain a small amount of information from a large number of subjects (Marshall, 1994). This would not have served the purpose of my research project. I needed a method to explore in-depth, which gives participants an opportunity to explain, and express their ideas in their own words.

Therefore I considered, face-to-face in depth interview was the best method for a spontaneous and a more natural way of expressing participants' innermost feelings, ideas and views. In face-to-face interviews participants could be reflective but at the same time be spontaneous. But in written form of a questionnaire the reflectiveness could reach a limit that it may not have the spontaneity of a face-to-face interview. When reviewing the type of interview that is most suitable for this research project I preferred to avoid a structured type of interview. This type of interview does not allow the interviewee to explore an issue in his/her own terms. Due to the nature of my research project I needed in-depth, broad, exploratory type of information from the interviewees. "An exploratory interview is open and has little structure. The interviewer in this case introduces an issue an area to be charted or a problem complex to be uncovered...The interviewer follows up on the subject's answers and seeks new information about new angles on the topic" (Kvale, 1996, p. 97).

I used a combination of semi-structured and open-ended interviews. A semi-structured interview has a 'core' of standard questions or topics and the other questions are generated from the interviewee's responses. The advantage of this method is that all responses from participants can be compared on the 'core' questions while other issues spontaneously raised by the interviewee can be taken into account as unique, important information.

The other type of method I used for interviews is open-ended interviews. In this type the interviewer raises the issues to be discussed and interviewee talks about it in his/her own way. Sometimes this method appeared time consuming and difficult when analysing a volume of variable data. But open-ended interview is the most suitable way of data collection for an exploratory research project. In this type, the interviewer's own concepts do not predetermine the interviewee's explanations and he/she is able to express his/her own views more freely and fully.

The use of an audiotape is useful in an interview in order to include in the research data all the words expressed by the interviewee. It also avoids distraction that may have caused if note taking was used to record what participants said. Note taking could have forced the participants to slow down in their expression of ideas in order to help with the speed of note taking. This could have been a disturbance. Audiotape is able to capture the intonations and forceful expressions participants make which gives an idea of the level of importance they give to those ideas. These nuances would have been lost if interviews were not audio taped. Without eye contact and an expression of interest from the interviewer, participant's spontaneity of expression would be diminished. The interviewer may not have been able to maintain an interest in the participant if note taking had to be done at the same time.

The audio taped information was later transcribed by me. To analyse the data I used the computer programme QSR NUD*IST revision 4. NUD*IST stand for Non-numerical Unstructured Data. This program offers tools to assist interpretation and coding, or indexing, searching text and theorizing about what is seen and understood as the patterns become clearer. All data that was transcribed were first saved in a word documents and then exported in to the QSR NUD*IST 4 programme. QSR NUD*IST 4

creates an environment in which you can create, manage and explore ideas. The document system contains information about every document. By exploring and coding documents, the researcher links them to categories made in the index system. The index system is made up of nodes. Nodes store the index categories constructed by the user. With the category is stored information such as the title and definition of the category, a memo of ideas about it and references to the parts of documents coded at the node. The search procedures allow the researcher to search either document text or coding at nodes to discover and explore patterns and themes, and construct and test theories.

Evaluation of research methods

Although I selected the methods that I considered most suitable for my research project, when evaluating these methods I realized that even among these methods limitations were inevitable.

I considered face-to-face in-depth interviews as the best method for this project. But the success of this method depended on the quality of interview. "Criteria for evaluating the quality of a research interview are related to characteristics of the interviewees and the interviewers" (Kvale, 1996, p.144). As mentioned earlier, the participants of this research project are experienced tertiary educators. So I was able to gather spontaneous, rich, specific, and relevant answers from most of the interviewees. Kvale (1996) believes that shorter the interviewer's questions, subjects' answers would be longer and better. But my questions did not meet this criterion. Due to the exploratory nature of my research project I had to make my questions long in order to ensure they were clear to the participants. It may seem a difficult task to maintain quality criteria through out each interview. Many other factors such as differences in personality and attitude, interviewer's rapport with the participant, the time and place of interview can also have an effect upon the quality of the interview.

Talking about interviews Kvale (1996) says it demands craftsmanship and expertise and presupposes that the interviewer knows what he or she is interviewing about, as well as why and how. It was a challenging task for me as the interviewer to conduct a semi-

structured or unstructured interview. It needs expertise and experience to construct new questions while at the same time listening to responses. I had to continually make quick choices about what to ask, how to ask which aspect of a participant's answer to follow up. These could become a limitation of this research method depending on the ability, experience, knowledge of the subject matter and communicative skills of the interviewer and interviewee.

Another area where weaknesses could creep in is during the time of data analysis. It was the most important as well as difficult task for me. The success of the research method depends upon the skills of interviewer to understand, interpret and analyse data correctly. I have attempted this task to the best of my capabilities.

Ethical considerations

The research study was reviewed and approved by the College of Education, Massey University, Wellington Campus. Before the interview, participants were informed about their rights of participating in this study. They were given full explanations of the nature of this study, and all their questions were answered to their satisfaction. They were given an understanding that they are able to ask further questions at any time.

Participants understood clearly that they had the right to withdraw from the study at any time and they could decline to answer any questions. If they withdrew from the study at any time, any information contributed by that participant would not be used in the research.

Participants were assured that their name would be kept anonymous and would not be disclosed in any of the research material or research publications. The information gathered would be used only for this research and publication arising from this research project.

Before the interview was audio taped participant's consent was obtained. They were also given the understanding that they have the right to ask for the audiotape to be

turned off at any time during the interview. Participants were also assured that the information that they provide would be strictly confidential. The only people who have access to data would be my supervisors. The audio taped interviews, all computer disks pertaining to the research and my research notes would be kept safely in my home during the research. Participants were informed that the audiotape of their interview would be destroyed at the conclusion of the project or participants could request the audio tape to be returned to them.

Research process

The interviews were conducted during a period of six months. To gather data, I selected educators/lecturers of tertiary institutions in Palmerston North. These participants are experts in cyber learning. They are lecturers who teach information technology or tertiary educators who have a passion for issues of cyber learning. The sample I selected was capable of viewing the topic from a New Zealand perspective because they are experienced educators of recognised New Zealand tertiary institutions. I selected the city Palmerston North for two reasons. Firstly, it is a city with many tertiary institutions that have advanced cyber learning/computer facilities. Secondly, it was convenient for me to carry out the research successfully, as I live in Palmerson North.

The participants did not get involved in the research as representatives of their respective tertiary institutions. They participated on a voluntary, personal level. Therefore it was not required to get permission from the Heads of tertiary institutions where they work. But since I did not know their personal addresses all correspondence regarding the research was sent to their official address. As these participants are 'experts' on the topic I limited the number of sample to ten participants. The volume and quality of data gathered from a sample of ten was extremely satisfactory and sufficient for the research project.

Each participant was initially contacted individually. At this first meeting I gave them a general idea of the research project. Then a formal letter was sent on a Massey University letterhead (Appendix 1: Invitation to Participate). An information sheet

regarding the research project, (Appendix 2: Information Sheet) and a participant's consent form (Appendix 3: Participant Consent Form) were also enclosed. Participants were requested to return the participant's consent form if they agreed to participate in the research project. All participants responded to this formal letter via e-mail or by phone call. A suitable time and place was arranged. Participants preferred to be interviewed at their own official premises. I informed all participants that the interview would last for about 60 minutes and the interviews would be audio taped. I contacted twelve participants altogether because although two people initially agreed to participate in the research project, when the information sheet was sent with more detailed information about the topic they declined. Both said they felt they were not competent enough to talk on that topic. I received consent forms from ten participants.

I intended the interview to be of about 60 minutes duration. But two participants felt they had said all they wanted to say within 30 minutes. Three participants inquired whether they could carry on. They were greatly interested in the topic and the interview lasted for about 1hour and 15 minutes. With one participant, more clarification was done at a subsequent meeting.

As I used a combination of semi-structured and open-ended types of interview, participants were able to express their views clearly. The latter part of the interview consisted of claims made by different authors on cyber technology/computer technology. Participants had the opportunity of expressing their opinions on these claims. These became effective triggers to help participants to voice their views. Some spoke against the claims while others agreed. These claims encouraged participants to talk more on the topic. These claims were as follows:

- "Computer technology is shaping who we are as individuals and as a society, It is determining for us, largely without our being aware of it, what our values are or should be, and the direction our future should take. Along with this unquestioning acceptance, is the belief that technology has gotten out of hand, there is nothing we can do about it except to acquiesce" (Brien, 2000, p.1).
- "Cyberspace allows people to construct their self-presentation much more carefully, and to play with their on-line identity, adopting roles that they would not usually undertake" (Lee, 1996, p.).

- "We have abdicated consciousness, unawares as we are. We seem not to care about the effect they are having on us and will do nothing about it. Offering no or little resistance to its advance into our lives, we have adopted a passive, even fatalistic view of this technology in which we are embedded and upon which we are increasingly dependent. Today the needful work is to distinguish ourselves from our machines. It is to rediscover, for example, that all knowledge is knowledge of man, and that nothing worth calling an ideal can be found in an engineered world, but only in ourselves" (Talbott, 1995, p. 2).
- "The computer is behind the proliferation of random information, all of which is at the disposal of the individual user. This fosters a cynical worldview that information is random and exists to be exploited...it turns us into consumers of information that fragments the personality and makes moral responsibility increasingly difficult. It allows for anonymous discourse and substitutes information for judgment" (Stivers, 1999, p. 99).
- "Cyberspace technology has acquired enormous power over our lives. We know what technology does for us, but do we know what it is doing to us? Can we afford to be indifferent to it, or at best neutral? Can we take it or leave it as it serves our purposes? Or on the contrary, are we naïve about its control over us? As a result of willed ignorance, are we giving up certain personal and societal values to what is perceived as technological progress?" (Brien, 2000, p. 1).

During the interview and afterwards, I followed up and clarified the meanings of the relevant aspects of the answers. To a large extent data was interpreted throughout the interview and, an attempt was made to verify my interpretations of the participant's answers in the course of the interview. The interview was "self-communicating"-and as Kvale (1996, p. 145) has said, "A story contained in itself that hardly requires much extra descriptions and explanations".

Each interview was audio taped. Except in one interview, the voices were recorded well. During this instance, the participant and I were seated in armchairs and since there was no table closer to the plug point the tape recorder was kept on the floor. Although it was kept very close to the participant, because it was not kept at the same level the sound

was very faint. It became a painstaking task to transcribe this interview. Other than this experience, all interviews were conducted without any problems.

Audiotapes helped me to gather data successfully. It was also advantageous because I could replay many times and listen to it until I became extremely familiar with the information. This made it easy for me during the analysis stage.

Then the tapes were transcribed in full. I did the transcription myself. Although it was a time consuming, tedious task, I preferred to do it myself as I wanted to be sure that nothing be missed out. After the transcription was done, I asked the participants whether they would like me to send it to them so that they could go through it to ensure whether everything in the transcription was what they have said. They could correct or add to its contents if they were not fully satisfied with the contents of the transcription. This was done to ensure that the ideas expressed by participants were transcribed correctly. The nature of ideas expressed by one participant made it easy to identify him. For ethical considerations he was contacted again and requested for his consent to include this data in the thesis. He agreed.

The QSR NUD*IST 4 computer programme that I used to analyse data appeared quite complicated at first. It took me some time to understand and get used to it. I had to do several practice tutorials on it before I used it to analyse my research data. It was time consuming and required a considerable amount of patience to sit at the computer and be competent in the programme before I used it. But the results were rewarding.

First I gave pseudonyms to participants and saved the transcribed data under pseudonyms in word processor as plain text (ASCII). This was my raw file, the plaintext file of "raw" data prepared for importing to QSR NUD*IST 4. Then I created a new project called 'thesis' in the QSR NUD*IST 4 programme. The data in the word document saved as "Text Only" was exported into the QSR NUD*IST 4 programme.

In QSR NUD*IST 4, I was able to do coding by creating nodes. Nodes can be created in different ways in this programme. I chose the menu bar, index system, and create nodes. Each node was given a title, address, description and a memo. Using node explorer I

was able to view all nodes I have created, and saved in the project. The index system is also made up of nodes. This has five areas. Free nodes and index tree are two that included nodes created by me whenever a new category was required. Text searches and index searches are two areas of nodes created by QSR NUD*IST 4 whenever I did searches of documents or of coding at nodes. The fifth area of the index system is document annotations. When I made annotations to documents they were coded at this node.

To analyse data I used the index search tools, which allowed me to ask questions, and did the search for me. I also used text search for this purpose. I was able to do coding "automatically" by a text search because QSR NUD*IST 4 would code at the node when I specified text units. This method I used for data analysis was quite helpful and successful.

In this chapter I have described the theoretical basis of the research project and the research methods which I selected and decided as best for the project. I have also explained reasons for my choice. Another specialty of this chapter is a step-by-step explanation of the research process that gives the reader an opportunity to understand how I conducted the research and my experiences. The next chapter leads the reader to one of the most interesting chapters in the project, the data I gathered from participants.

Chapter Five

Data Analysis

Introduction

In the previous four chapters I explained the research project and the research topic. Chapter Two examined other literature, and the arguments of others. Chapter Three concentrated on the theoretical basis of this research project and how the research has been undertaken, while chapter four looked at the research context. These four chapters have helped me to spell out the basis of my research. In this chapter I have recorded the data I gathered from participants.

I was keen to find out what tertiary level educators think about the ways tertiary level students are affected by interactions in cyberspace, in cyber learning. As tertiary level students go through a process of constructing their moral reasoning and decision-making framework, has cyber learning affected this process in any way? There were many claims that I found in literature, which emphasized the fact that cyberspace technology impacted on human beings in different ways. I have used five of these claims related to my research topic, have found out what participants think of these claims and whether these claims are true when talking about the 'impact of cyber learning on moral development'. I have first recorded the views of participants on moral development. Then what they thought about the importance of human interaction in moral development, and the necessity of moral development in tertiary education. Next, I have recorded the impact of cyber learning on moral development, and what participants thought about the claims found in the literature. Finally, I have recorded the suggestions expressed by participants. The format I have used to record data is to

italicize the comments made by participants within inverted commas with references to line numbers in the NU*DIST data base, where they are stored.

Ideas about moral development

To research the impact of cyber learning on moral development, it was important to find out whether participants had a clear understanding of the meaning of moral development. Therefore, at the beginning of the interview participants were asked to express their ideas about moral development, and how they thought it occurred in human beings.

All participants implied that they had an understanding of moral development but only a few were able to give a clear definition on moral development. These definitions were, *"knowing the difference between right and wrong"* [J1: 2019-2020] and *"your life has to be governed by certain set of principles whether you see that from a philosophical point of view or from a religious point of view ..."* [R1: 443-445].

Some tried to express their understanding of it in phrases such as *"It's a dynamic thing"* [S1: 990-994] and *"it is something that has to happen."* [J2: 1614-1615]. Although these are not clear statements of the meaning of moral development, they imply the significance of moral development.

There seemed to be a consensus on the stage of life in a human being that moral development starts to occur. Although some were more specific and stated that it occurred at the age of eight or at the age of ten years, all agreed that moral development starts to occur at a very early age. Sue added to this and said that during teens an individual might examine certain ideas that they have grown up with, but moral development in the teens actually happens in relation to what an individual has already learnt as a very young child. Many agreed that moral development continues to occur in tertiary students. Some even said *"It is challenged until the day we die by different situations and by interactions with different people you know"* [S1: 1010-1012]. Therefore moral development is a continuous process.

When participants shared their views as to ways in which moral development occurs in human beings, three main ideas emerged. They were:

1) Moral development is something that has to be taught - Jane said, *"I believe moral development occurs by learning ...I don't think it is instinctual"* [J1: 2039-2041]. Cathy thought moral development occurs by example.

2) It occurs with human interaction - Alex said *"I think morality is something between people. Unless you interact with people at some level then you probably will not know how you're thinking and how your decisions will affect others."* [A2: 1446-1448] Jane's views were similar to those of Alex. She said that when interaction occurs with children, they learn by trial and error which behaviour is acceptable. This pattern continues through education, and interaction through clubs, organizations church and various extra curricular activities, so that gradually a child builds up a wealth of knowledge about the codes of behaviour involving right and wrong, the laws which apply to the society and culture they live in, and what is acceptable and what is not.

3) It is community-based and occurs within a community - Fred believed that the most important are the family, spiritual and educational environment, the society and the moral value systems. Most of those revolved around the community.

Most of the participants discussed in detail the importance of human interaction for moral development. Therefore I have categorized their ideas under a separate subheading.

The importance of human interaction for moral development

Participants thought human interaction was important for moral development. Sue said that moral development could only occur when interacting with other people. She thought that individuals could *"all come up with good little theories in their own little rooms on their own"* [S1: 1065-1067] but they are not going to be developed in an effective way unless individuals come in contact with other people. Josh agreed with Sue saying that moral development is absolutely dependent on the relationship with other people, and to exclude a person from other people makes moral development of that individual *"a weak point. Because* (there is) *no one to be moral with"* [J2: 1659-

1660]. Alex said that unless you interact with other people you would not know how your decisions affect them. Fred believed human interaction is important to make morally mature people, although he did not clearly express what he meant by 'morally mature'.

Jane thought differently. She did not believe that human interaction is necessary for moral development. Her argument was that throughout the ages there were people who chose to live totally alone, but were morally developed. She thought that perhaps their interactions might not have been with humans, but with nature, with the elements and with animals. So she said, *"This depends on the context in which the human being lives"* [J1: 2052-2053].

Robert's thoughts were similar to Jane's. He did not stress the importance of human interaction for moral development. He looked at it from an angle beyond human beings. *"I would say that most religious sects would think that the interaction with the divine is the correct way for moral development...* (Laughs)*.... I think that it is essential that we have some sort of discourse"* [R1: 470-472].

Although Robert laughed at the idea of interaction with the divine, Bob looked at it as the most important thing in a human being's life for moral development." *We exist to develop moral character of students based on the person of Jesus Christ. ... Our vision is to inspire people towards life-long learning as they grow in the knowledge, character, and service of Christ within the context of a diverse learning community ..."* [B2: 959-965].

While Robert thought that some kind of discourse is essential for moral development, Jane thought it depended on who or what the human interacts with. Cathy believed that interaction is essential for moral development but she didn't specifically mention human interaction.

Alex expressed his views regarding the importance of human interaction for moral development and the situation of cyber learning *"Even cyber learning can cause closer interaction. It depends on students, how they use cyber learning ... but definitely it is*

not social interaction that you have, but more intense kind of interaction." [A2: 1461-1464].

The isolation factor in cyber learning affects students' moral development

Another idea that emerged from the interviews was that lack of human interaction, or as some participants called it, 'the isolation factor in cyber learning' could effect moral development. Many participants assumed that there is an isolation factor in cyber learning.

Fred believed that community is a very strong part of our moral development and there is a possible danger of taking away the sense of community, in which moral development is most effectively undertaken.

But Bev stated that the isolation factor depended upon what students did in front of the computer. She was doubtful as to whether there really was an isolation factor in cyber learning with the possibility of virtual interaction with people around the globe. Expressing a similar idea as Bev, Sue said that the isolation factor in cyber learning depended on the context in which cyber learning was happening. She thought that cyber learning is only a tool, much like the library. It would affect moral development only if the tool is elevated to the position of a master. She didn't see anything inherent in cyber learning that's going to stop students' moral development. However, she agreed that if sitting in front of a computer is the only thing they do, then it may encourage isolation, due to lack of interaction with people. *".... We can become or we feel very self-sufficient just the computer and I together"* [S1: 1077-1078].

Another participant who thought that the isolation in cyber learning depended on the context was Alex. He said that it depended on the design of the course, how technology was used within the course, and on how educators used cyber-learning. Currently, cyber learning is the use of materials such as the Internet, virtual classrooms, asynchronous chat, asynchronous bulletin boards and web pages. He believed that the isolation factor

and its effect on moral development take place in different ways depending on what we use.

Ann agreed with Sue and Alex, and stated that it all depended on how an individual deals with cyber learning and how isolated an individual was considered to be.

Josh could not recall any situation where there was an isolation factor in cyber learning. "*I would say that it really depends on whether the individual is shut up from contact with other people but if you think that they are, then it would be quite significant but I don't know anybody in that scenario*" [J2:1653-1656].

Robert argued that moral development could occur even in isolation. He gave the example of a hermit, who is in a cave meditating and praying to develop morally, locking himself away from society. He believed that a similar thing could happen with someone who locks himself with a computer. Robert said the isolation we are talking about in cyber learning is similar to being locked away with a book. He could not see how it would affect moral development. According to him it was just another parallel media. Cathy didn't believe that an isolation factor in cyber learning affects moral development. She said it was moral decline in society brought in by humans themselves that affects moral development.

Moral development in tertiary education

Participants were asked what their views were about moral development in tertiary education. Many important ideas emerged.

Some looked at tertiary education as a transition period where an individual leaves one era of his/her life and moves into another. 'In the gap' students experience challenges from new ideas, and they need to have a situation that encourages moral development. Moral development is therefore important in tertiary education. Sue said, "... *There is a new level of moral thinking that has to happen in the gap between... there is a certain level of moral thinking and decision making that has to happen there. ...and I think at*

each level we need to be consciously equipping people to make sound moral decisions about the things that they are learning about" [S1:1028-1038].

Another idea was that, at tertiary level, students should learn to face moral issues. Sue said that moral development was not age specific. Anybody engaged in tertiary education is thinking constantly about moral issues and it is important in tertiary education.

Fred stressed the importance of moral development in tertiary education and said that it was different to the moral development that occurred in early childhood. He believed that the moral development that occurs at tertiary level was not regarding 'the core values', but how those values are going to be worked out in the adult life. *"...how those values are going to be fleshed out of your life and applied in daily living as they go through life"* [F1:29-30].

Some participants thought moral development was important in tertiary education because that is a period that students could encounter adverse influences. Cathy said with the decline of moral values in society and with introduction of cyber learning in tertiary education *"something's really got to be done. Students are in a vulnerable age, and they are at an age where they can be influenced adversely. But I don't think that there is much done in that line..."* [C1: 1825-1829].

Another idea that emerged was that to maintain a balance in life without succumbing to technology, moral development was important in tertiary education. Fred stated that in an age of cyber learning, students might become more dependent upon technology lose touch with human beings and ignore the importance of human relationships. He said moral development helps students to find the right balance with technology.

Some said moral development is important in tertiary education in order to help students to make decisions. Sue thought that the moral issue is a critical thing. She stated that in every thing we learn there is a moral component and there are implications because people are quite unsure how to make decisions. There seem to be a lot of people who do not have a foundation for making decisions and when confronted with a decision there

is no basis on which to make that decision. Sue believed that everybody needs a foundation. "*Otherwise what do you base your moral judgment on?*" [S1: 1054-1055]. She said if we do not consider the importance of moral development in tertiary education there could be serious implications. "*Now what we are confronting is a group of people having to make major ethical decisions around issues of bio-ethics and bio-engineering without a philosophical basis to it and I believe that there is a huge gap, not only in our tertiary system, but particularly in our school system*" [S1: 1059-1062].

Cathy agreed with Sue and said that moral development should be part of an educational curriculum and that there should be something taught in morality and teachings on right and wrong. "*I think like those earlier days of education ... If we do not like Christian ethics anymore, then in our society there needs to be something else that should take its place for moral development*" [C1: 1951-1954].

Sue said that we should understand the importance of critical thinking and apply it in tertiary education. At the moment in tertiary institutions "*...we are just turning out stuff that the government wants us to turn out that gets us the funding and we are not challenging anything much*" [S1: 1403-1404]. She believed that tertiary students should always be asking hard questions, rather than been told what answers to give from another source. It could also become so inward looking and contrived she said. She also believed that tertiary institutions should be the conscience of a nation, and that could only happen if tertiary institutions are actually turning out critical thinkers. She said that she would like to think of tertiary institutions as being on the cutting edge of society. Sue thought the real problem in tertiary education is that tertiary students are not trained to think critically. She said that the main problem is not cyber learning, but that the students are not equipped well to handle it.

Sue explained the current situation of tertiary institutions in New Zealand and said that it would be very easy for the education system to lose its way "*if we have to cow tow to the Ministry of Education in order to get our funding ...*" [S1: 1406-1414]. Tertiary institutions in New Zealand are fast becoming a process that provides a product to the consumer. "*So we tailor a product for the consumer, which is a real downward style ...*" [S1: 1406-1414]. Sue tried to point out what the role of a university should be and

stated, *"Tertiary education should be challenging the government more; challenging our societal values"* [S1: 1416-1417].

Cathy felt due to the current situation of tertiary education in New Zealand, cyber learning could have a negative impact upon New Zealand students. She felt that students would not get proper moral guidance. *"So they get confused... We don't seem to stand up to what we think wrong"* [C1:1993-1997]. She said the young people watch the older generation. Cathy is a senior lecturer, who has lived to see the changes that have happened in New Zealand society and in education. So she compared the present situation with the earlier days. She said that in those days there weren't as many dysfunctional families as now. *"Children were raised to respect their elders, they had to work hard and they had a moral goal in life"* [C1: 1800-1802]. She said in schools *"we had religious education and we learnt the Bible and the Ten Commandments"* [C1:1955-1959]. She said if education institutions do not want to teach Christian ethics they should decide to teach something. *"Otherwise we are just going to have mayhem..."* [C1:1951-1960]. She felt today's generation is turning out to be selfish, getting only what they want without any thought for others and are only concerned about themselves.

Fred, like Sue and Cathy tried to explain the present situation of tertiary education in New Zealand. He said it didn't seem to him that moral development is high on the agenda of tertiary educational institutions in New Zealand. Many of the tertiary educational institutions would have assumed that moral development is something that had occurred prior to entering tertiary education, or that by the time students get to the tertiary education sector they are not looking for moral development, but for professional or intellectual development. Fred believed that at all levels we should include a moral component in our teaching.

Bob thought that moral development is extremely important in tertiary education. He said the tertiary institution where he teaches, values Christian faith, partnership, community, justice and integrity, and the focus is on the scriptures. Students are encouraged to apply those teachings to their lives. Bob said that the tertiary education system has always been a moral educator. Though not explicitly teaching a moral

program, implicitly tertiary education always teaches morality. He said he totally agreed that moral development should be a part of tertiary education.

Some said moral development was not important in tertiary education. Ann said that there could be problems if moral issues or a moral reasoning framework was introduced in tertiary education. *"The problem is, if you are going to bring in a topic like that, you are going to bring in the lecturer's, the trainer's, or the teacher's personal view point, and unless they have the ability to look at an issue from many different sides and its effect on other people's morals and values, then you are going to be promoting only one particular aspect ...".*[A1: 777-781]. She thought that people should be given the choice to make their own decisions.

Robert did not directly say that moral development is important in tertiary education, but he thought tertiary students should be given the opportunity to engage themselves in moral issues. However he said it should be optional and it should not be forced upon tertiary students.

Josh was also not sure whether moral development is important in tertiary education. Like Ann, he saw a problem in it. He expressed it as a warning. *"I think that we need to be very careful when we start tinkering around with people's moral choices and those sorts of things..."* [J2: 1752-1758]. He thought of moral development as something that just happens "*.... it just happens rather than something that you actually maneuver and manipulate...*" [J2: 1759-1760].

Sue, addressing this argument, said that with some people moral development will happen naturally, but others need some kind of encouragement. She said that there is a huge number of people who go through their tertiary education and come out of it with a whole lot of questions, and not having had the opportunity to really work through some of those moral issues. She thought that we are in an education system where nothing has been done to address students' needs on moral issues and that some action must be taken because moral development is important in tertiary education. She said that students go through a system that is impoverished in moral values and critical thinking. Then they make a "*jump into university. The university is not ready to cope with*

students coming through who are not ready to do that level of thinking" [S1: 1340-1342]. She thought that there is a need at tertiary level to bring it up and not to be so frightened of *"tossing some of these issues around"* [S1: 1345-1346].

However Ann said that in a tertiary education setting, *"you have people from all sorts of backgrounds, and you have to be neutral. I think that is probably the hardest part..."* [A1:781-792] She said particularly if the society has become more varied with more cultures coming in, it becomes harder to say this one view is the way it should be, particularly when some people's morals and views are so opposite to others. *"It can be very difficult even for the most neutral person to actually see where they are coming from"* [A1: 788-789]. She thought it would be better if people were allowed to develop in their own way rather than to have something that is included in the tertiary education setting.

Robert said the secular nature of New Zealand education is one of its strengths. He thought moral development is not an important issue in tertiary education. It should be made available if a student needs, but not something to be included in the curriculum

Sue said that only a limited number of students in the whole of student population at tertiary level in New Zealand get some kind of opportunity in moral development due to their religious beliefs. As an example, she pointed out that Christian students get an opportunity for moral development through the Christian students associations. What about the others, she questioned.

Sue also said that students have been told constantly *"that they have a world of choices at their fingertips. ... The danger I see in it is that students need to be taught to think critically before they engage in it"* [S1: 1235`-1239]. She was not convinced that students get a training to think critically. She strongly emphasized the importance of moral development and critical thinking in tertiary education.

The impact of cyber learning on moral development

Participants expressed their views as to why they thought cyber learning impacts on moral development.

Fred looked at the issue from an educator's point of view and felt that its impact is negative. He said that a major reason was the element of temptation. Access to the Internet provides a wide range of activities that students can get involved in, which could be detrimental to them from a moral point of view. There was a tendency to create an artificial environment. The idea of virtual reality made it easy for a student to create an unreal world that seemed to be real to them but in actual fact was very much removed from the reality of what life is really about.

Fred agreed that it was hard to quantify and said what he thought was just based on very subjective evaluation. He suggested that it would be good to do some quantitative research and to ask students about their ideas.

Robert agreed that cyber learning affects moral development negatively. He mentioned pornography as an example and said that although the Internet is a learning tool, material that is harmful to moral development could easily be accessed on the Internet. "*More easily into a personal bedroom ... It would be more difficult to get from a shop* [R1: 497-504]. He also said communicating with people who may have negative destructive thoughts could harm the moral development of students as such communication could be so influential and perverse.

Alex looked at the positive side of it. He said that asynchronous bulletin boards have a great potential for moral development because students can interact with one another and reflect on what another is saying without interruption. He said that it affects moral development because it enables students to disclose their thinking in more structured and timelier way rather than being put on the spot to say what they felt. He also said that it is a tool that can be facilitated in a really good way. He suggested that students could take moral issues and debate them on line. He gave abortion and the Treaty of Waitangi

as examples and said that the arguments both sides make could be set up in an asynchronous bulletin board and in a mature way it could be carefully monitored. He believed that one could get very interesting thoughts for a debate, and good explanation of the issue. He said that we have not heard what a lot of people think about these issues.

Josh too thought that cyber learning helps moral development, and said, *"I just think of my own children. How it effects. I think it brings about a certain amount of sophistication in their lives that I didn't have when I was a kid ... I think there is a motivation to push people through the moral development cycle. ..."* [J2: 1619-1629].

Ann thought the impact cyber learning has on moral development was due to *"not looking at the bigger picture"* [A1: 759-760]. She said that some students tend to look at the world from their own standpoint. Such students are more likely to be detached. She thought that it depended on how students deal with in cyber learning, whether it is just getting information, using technology, or interacting with classmates located in different areas. Students use technology to communicate, and the moral development that occurs for those who are engaged in cyber learning could be similar to students based in a class interacting with many classmates. But if students don't interact with others, then it would affect their moral development.

Bev pointed to the positive side of this impact. She said it opened students to more advantages. *"It opens their eyes to see more things and they can become instantly aware of the things of the rest of the world and be aware of more opinions and values"* [B1: 856-858].

Sue agreed with Bev and considered cyber learning as something good. She said that it exposes students to lot of ideas and to a lot of people outside their context. A student can enter into a discussion with someone a whole world away and could have a good discussion with him/her. However Sue understood the affect it could have on moral development because such communication would be happening outside a student's real life context. Sue was aware of its dangers but she brought forth an argument to show that it was not something to be frightened of. She said that it is like saying that there is

danger attached to driving a motor vehicle. It is dangerous only if it is wrongly used, as there could be a car crash and it could cause injuries. She said the car is not dangerous but how we use it and it's the same with cyber learning.

Ann related the impact of cyber learning to stress. Due to stress people are less likely to consider others. *"People are more likely to take shortcuts, which could result in something negative to somebody else. So I think increasingly the stress has had the biggest impact on peoples' morals and in what they believe as right and wrong"* [A1: 653-655]. She went on to explain how cyber learning is connected to this stress. She believed it was due to easy access to excess information.

Josh, talking about the positive impact of cyber learning on moral development said that cyber learning brings a level of sophistication that helps people to start thinking about what moral judgment means and how they should be applied. He said it "…. *helps to make people consider their options"* [J2: 1675-1676].

Fred believed that this impact could be observed in different levels of its intensity. He called those who are immersed in this impact as 'geeks'. They become removed from a well-balanced moral development. But Fred was not sure whether it is the computer that has made them socially withdrawn or because they are socially withdrawn computer has obsessed them.

Cathy also commented on the problem of having a balanced lifestyle. *"Some of them have become real nerds and they are opposite the computers all the time…I think they need a balance life* [C1: 1893-1895].

Bev believed that although there is a strong impact of cyber learning on moral development, the problem of moral development in tertiary education is not cyber learning. She said the problem is that our society doesn't actually have accepted moral, ethical standards. She also said cyber learning is just reflecting what is already happening in society. It is just another tool that society is using and it hasn't created the situation. But it could help to develop it more quickly. It could affect individuals negatively as well as positively and depended on what students are exposed to. She

didn't believe the computer has something that could cause a moral decline of society. She said that society is already declining and we see evidence of that in cyber learning.

Fred expressed his concern because nobody is responsible for whatever is happening on Internet. *"I don't think anybody in the computer industry has either the authority or the power or the inclination to say "Hey, let's put this on hold for a while and evaluate what the impact is going to be""* [F1: 380-383]. He looked at cyber learning as something that could become harmful to students than being good *"... Since we are talking primarily about education I should say that cyber learning does have significant dangers"* [F1: 384-388].

Fred said that cyber learning is still in its '*infancy*' in New Zealand. Although distance-learning courses offer cyber learning, most tertiary institutions in New Zealand still teach fairly traditional classroom type presentation methods. Yet, it has made a strong impact on the tertiary sector of New Zealand education, he said.

Participant's views on claims found in literature on cyberspace technology

Participants were presented with five claims found in literature that commented on the impact of cyberspace technology on human beings. Participants were then asked to express their views as to whether cyber learning could have a similar impact on moral development of tertiary students.

1. "Computer technology is shaping who we are as individuals and as a society. It is determining for us, largely without our being aware of it, what our values are or should be, and the direction our future should take. Along with this unquestioning acceptance, is the belief that technology has gotten out of hand, there is nothing we can do about it except to acquiesce" (Brien, 2000, p.1).

Fred agreed with this statement and said cyber learning could have a similar impact. He gave an example and said that for the last twenty to thirty years the television has shaped us as a race of people, particularly in the Western world. Now it is a much greater impact with computers. He called this 'cyber revolution' and believed that the impact will continue to increase.

Ann looked at it from a more positive angle and said that to a certain extent this statement is true, because computer technology has allowed us to do new things and to do things faster. She believed that computer technology is deciding for us, planning for us and shaping who we are as individuals and as a society. She also said that it could be true to say that technology has got out of hand when we consider the amount of emails we get and we have no choice in it. Our time is unnecessarily spent reading through the emails.

Fred did not think that it is such an unstoppable type of thing as to change humanity. He said that he had faith in himself, in the human race, and in a creator. He believed that human beings would always have their own identity, and would never reach a point where they would live in a virtual world. However Fred said that technology would change an enormous amount of our society, our social interactions and the way we live and work. He thought that to a certain extent this statement was exaggerated. He said that although people prophesied about ten or twelve years ago that the computer generation and the availability of computer networking would change the face of the workplace, nothing happened. He felt it could be the same with cyber learning. He also talked about his faith in human beings and said that human beings would not allow technology to completely obliterate the view of reality and to completely change the fabric of the way people do business and the way they live.

Bob said that obvious dangers that are apparent should be avoided, so that the advantages of cyber learning do not have such dire relationship and personal dysfunctional side effects.

Bev was not sure whether this statement is true of cyber learning in tertiary education. "*...May be if you are just locked into that world of cyber learning it would happen. But I think most people probably are not all that affected by it. I don't think it's happening in tertiary education. Not in my experience. I'm sure there are pockets of society that is happening. Not in this institution where I am teaching*" [B1: 876-880]. Josh also thought this statement would not apply to cyber learning.

However, Fred expressed his fears, and said that his real fear was that, at a more subtle level, computers will change our values, rather than the way we live. He said that it has happened with media, the television movies and the screen. These have not changed the way we live but they have changed our values and our sense of right and wrong significantly. *"People will think, well, in my virtual identity I can get away with murder almost literally. In my real life I've still got to be accountable to the law"* [F1: 341-344]. He said the danger would be *"when the line between who I really am and what my virtual identity has made me, becomes blurred. So at the same time, a sense of moral responsibility or accountability may also become blurred"* [F1: 345-348]. Sue also agreed with this statement and said our values are being shaped by something that we do not necessarily identify clearly as having an influence on our values.

2. "Cyberspace allows people to construct their self-presentation much more carefully, and to play with their on-line identity, adopting roles that they would not usually undertake" (Kitchin, 1998, p.)

Fred thought that online identity is a good thing because without the availability of cyber technology we would never have been able to play other genders, gender-neutral roles or other personalities. He said it opens up *'a whole new forum of experience'* [F1: 178]. In the virtual reality environment it allows students to play a role that they would not otherwise be able to play. Although Fred thought it is good, on second thoughts, he also tends to question how helpful it would be for human beings. He said there could be some helpful aspects, but to make the assumption is *"a huge leap forward in education or moral development or personal development. I think it is going too far. My worldview and my own sense of moral values are behind that judgment"* [F1:183-188].

Bev didn't think that it is such a good thing for students to play with online identity. She thought *"people can get into trouble by meeting predators.... It could be being deceptive or maybe even it could be living in a kind of fantasy"* [B1:866-868].

Ann commenting on online identity said that she doesn't see that as an advantage in cyber learning. Fred however thought it was advantageous because it allows some people to feel a sense of worth. Some people would get a sense of value in an online

world and in the new social space. Fred continued to affirm positively about its advantages and tried to look at it from a different angle. He said it could be used as powerfully as a therapeutic tool. But Bev thought it could be dangerous because online identity could cross into reality and become dangerous psychologically if they were immersed in it too much.

Cathy said that New Zealand is the "*most PC* (personal computer) *country on earth and PC culture comes out because we don't have a strong identity. I think the education system is critical trying to find our identity* [C1: 1392-1396].

Sue also commented on the situation in New Zealand regarding identity. She too felt that online identity is taking precedence because people in New Zealand are still searching for an identity. She said that Maori people are in the process of rediscovering their culture, roots, and values that belonged to Maoridom. "*In New Zealand we have got a wide range of cultures other than the Maori people, and also Pakeha, who have been in New Zealand for generations. There is an identity issue here, who are we?*" [S1: 1360-1362]. She added, "*The Christian value system that was there has been rejected, but there has been nothing to replace it"* [S1: 1363-1364]. She thought it is important that New Zealand Maori and Pakeha work through a plan to recognise what it means to be a New Zealander. Commenting on the reasons why she thinks cyber learning could have a negative impact on New Zealand students, Sue said "*At the moment we are not secure in our identity, to discuss things that may actually threaten that identity that is still not formed*" [S1: 1371-1373].

Fred said, "*The ability to play different roles could actually lead to a lot of confusion"* [F1:189-190]. He said that online interactions are not healthy interactions and that there is a great danger. He didn't believe that one could ever have a full and a satisfying relationship with a person on Internet like a person face-to-face where one could interact with in other ways. He said there is a danger of losing ones identity and developing a false sense of security and an identity that is actually very artificial.

Jane considered it as a valuable learning experience for those people who wanted to develop communication skills and said that it could be very useful for a person who

may feel very shy or who may wish to develop people skills using verbal communication.

Josh said that this statement does not relate to cyber learning. *"In my mind that statement is quite inappropriate. It doesn't make much sense to me* [J2: 1677-1678]. His argument was that in cyber learning a student could sit at a computer with a CD and participate in learning and training, and in that particular scenario the student would not have any online identity. Therefore Josh refused to agree with the statement that students could play with their on line identity in cyber learning.

Ann thought this statement was true of cyber learning, but was exaggerated to a large extent.

Bev said that students would not be able to differentiate reality from virtual reality.
Jane thought that it would help students to learn about themselves and develop insight into the lives of other people. It could develop intuitive skills of understanding and empathy about other people.

3. "We have 'abdicated consciousness', unawares as we are. We seem not to care about the effect they are having on us and will do nothing about it. Offering no or little resistance to its advance into our lives, we have adopted a passive, even fatalistic view of this technology in which we are embedded and upon which we are increasingly dependent. Today the needful work is to distinguish ourselves from our machines. It is to rediscover, for example, that all knowledge is knowledge of man, and that nothing worth calling an ideal can be found in an engineered world, but only in ourselves" (Talbott, 1995, p. 2).

Some of the participants did not comment on this. They read it and preferred to move on to the next statement because they thought they had commented on something similar earlier, although the earlier statement is different to this. Fred agreed with this statement and said the computer could dominate our lives. Some people are soaked in the cyber environment and their lives seem to revolve around technology and computers. He said there is a real loss of touch with reality. He thought that was the reason why people were so involved in computer technology almost to the point of obsession and they often lose touch with normal social relationships and appear to be socially maladjusted. He thought it was dangerous, that people could see the self they have created in

cyberspace as the real self and they could exchange the real world we live in for Cyber Reality and that becomes a real distortion of humanity and human life.

Jane thought these types of comments were common in every era with new technological progress. She said that Talbolt has made this comment so that we would not let our consciousness be succumbed by technological progress; or let our ability to think clearly, to be influenced by 'our machines'. Jane thought the imminent danger of the situation has been expressed in this statement and felt that more research should be done in this area.

Fred agreed with Jane and said that we have to make sure that we do not allow the assignment of technology to become a dominant factor in our lives. For some people it could be a risk more than for others he said. He also believed that we have to keep computer technology in its correct place without allowing it to have control over our consciousness. He did not agree that we have abdicated consciousness.

Fred thought moderation is the key to keep cyber technology in the right place and to keep a balance. But for some people this advice of moderation may not apply because they have become so immersed in the computer technology. 'An abdicated consciousness' occurs with such people. This could be a danger when considering the impact of cyber learning on moral development in tertiary students, he said.

4. "The computer is behind the proliferation of random information, all of which is at the disposal of the individual user. This fosters a cynical worldview that information is random and exists to be exploited, it turns us into consumers of information that fragments the personality and makes moral responsibility increasingly difficult. It allows for anonymous discourse and substitutes information for judgment" (Stivers, 1999, p.99).

Robert totally agreed saying that we have so much information and so little wisdom and the computer is behind the proliferation of random information. Sue commented that information has become a commodity and something to be traded, something that we could buy and sell. However she did not like the idea of buying and selling that information without critical thinking or moral judgment. Even though there is a huge

proliferation of information she thought that we also had the choice to decide whether to let that information affect us or not.

Cathy agreed with Sue, Robert, and Ann saying that what is said in this statement is true. However she did not agree with the whole statement but said that it does not turn us into consumers of information that fragments the personality and makes moral responsibility increasingly difficult.

Josh said this statement only applies to computer technology and not to cyber learning. Ann did not agree with this statement. She believed that we have the ability to make judgments on the information we get, and opportunity to discuss without accepting everything.

Bev said that it is true that people are becoming a lot more superficial. They do not make an effort to find out in depth what something is really about. Instead people tend to go "*quick, quick, quick and get some superficial facts that may not even be true* [B1: 884-885]. She said although students have more information, they know fewer values and may probably be less morally and ethically developed. Although they may be intellectually developed she said they could be "pretty superficial" [B1: 886].

Trying to find a reason for this problem Sue said that our society is not equipped to handle that information wisely because we are very individualistic and we are increasingly working longer hours and being less connected to other people. We are traveling a lot more and are living away from our families. Our families were the seedbeds of our value systems we have now moved away from that, and have not replaced that with anything else. All of a sudden we have a huge amount of information at our fingertips but nothing with which to actually interpret it, or to apply to our context.

Commenting on this literature claim, Bob said that he is unconvinced that information or knowledge in itself can have such a detrimental effect. However, objectivity can be affected because of the ability to reinforce one's point of view by only selecting

information to support it. Although this is not new, he said cyber learning could enhance it.

Ann related it to students' learning styles and said reflective learners take some time to absorb the information before making decisions or making judgments. She said computer technology has made people more reflective because there is so much more information to absorb and judgments have to be made before making decisions about it.

But Sue said the reason for such a claim is due to a lack of training in moral reasoning and decision-making. It was wonderful to think that the Internet could be used for an assignment question. But there maybe a large amount of information, which put students in a situation where they have to decide what framework to use to define which ones are actually going to be valid input.

Cathy commented on the statement about proliferation of random information and said that "*Good work comes from the ability to work things out in their heads and not someone telling you something. That's what the computer is doing*" [C1: 1907-1916]. She said that one of the problems is sifting out what is good or what is useful and what is not useful. "*...and I don't think the students have the ability to do that*" [C1:1912]. She thought it was a fair statement when you look at it from that angle.

5. "Cyberspace technology has acquired enormous power over our lives. We know what technology does for us, but do we know what it is doing to us? Can we afford to be indifferent to it, or at best neutral? Can we take it or leave it as it serves our purposes? Or on the contrary, are we naïve about its control over us? As a result of willed ignorance, are we giving up certain personal and societal values to what is perceived as technological progress?" (Brien, 2000, p.1).

Ann agreed with this statement and said what has been said is true. She believed that if we don't question what we are using, and accept everything; it does have the ability to take over us. She gave email as an example to explain this and said email is a wonderful tool, but it is now causing a lot of problems for a lot of people creating a lot of management issues. She said that technology has brought in so much information that we do not have the ability to process it with the speed with which it is being produced.

Josh was not sure whether to agree or disagree with this statement. He felt that it was not relevant to cyber learning. But Sue said that she was "inclined to agree" with part of that statement because that statement comes back to the whole question of whether cyberspace technology is a tool or a master; whether it is going to be used to facilitate learning or dictate to the user what should be done. Josh also said that it is the family that mainly shapes moral development and if a person exchanges normal social interaction for a cyber learning experience then it would be bad for the individual and bad for the society. But he said that is not what is happening, in his view. He said people do not change in their moral judgments and in their moral perceptions just as a result of sitting in front of the computer.

Sue explained this and said that this statement could become true in the lives of students because students are not given adequate tools to "*evaluate their dreams*". They are not given the critical thinking aids to know "*on what basis they should make decisions when it comes down to values*" [S1: 1228-1229].

Bev said although cyber learning gives access to more information, students could be more superficial and less thoughtful. She said that culture has been trivialized and a trivial consumer society has been developed where all things that traditionally were considered to be of value, such as great literature, philosophy or art, do not seem to exist any more and everything has to be instant. She said, *"It's all haphazard and everything at random*" [B1: 852-896]. Bev also said that the situation regarding this issue is quite serious as a generation who are not even literate have been produced, who may be much more computer literate but not deep, morally profound and literate and who would only want everything to be instant.

Jane argued the issue and said that her answer would be that many people are naïve about the affects of technology. One of its roles in tertiary education being to produce graduates who could analyse and think critically, all tertiary students would not be complacent about the affects of computer technology. Jane also said that there was resistance especially from elderly people about the affects of technology, and often there are articles in the press, making people aware of these affects. She said that technological advancement could be inevitable and non-stoppable but there are ways of

monitoring these affects and also opportunities to raise serious issues with the government representatives and get these issues attended to. Jane believed that there are steps that we could take to control technology rather than just accepting it and acquiescing. Although technology has acquired enormous power over our lives, some of that power could be negative while other aspects of that power could be positive, especially in the area of medical research and medical expertise.

Fred also thought that we are naive about its control over us. He said, *"One of the issues about cyber learning is that it does not provide any context in which to relate and in which to be real. So if cyber learning is done in a social space or a space that is separate from the real world in which I live that is a space without context that is just virtual and not real"* [F1: 292-296].

Participants' suggestions

Participants expressed their views as to what should be done to improve the positive impact of cyber learning on moral development.

Fred said that cyber learning needs to be carefully managed and more research has to be done on the impact of cyber learning. Bev commented that students should be exposed to arguments on all sides of an issue that helps to make decisions.

Bob talked about providing a 'bench mark' from the teachings of a spiritual leader or from a set of moral principles, and said *"we encourage students to encourage themselves and measure themselves against the teachings of a particular spiritual teacher"*. [B2: 976-977]. He gave an example and said *"I guess that is very much like saying, "Here's the bench mark for morality from the life of Jesus", and students are now encouraged to live up to that"* [B2: 977-979].

Sue thought we shouldn't force any views on students' lives but provide them with tools to evaluate. Josh said we must not try to do any thing regarding moral development in

tertiary education even though cyber learning could have an impact on moral development. He felt it could be dangerous and he warned against it.

Ann said, "*I think it is important that we question before we jump straight in and use technology and we make a decision about whether it is actually going to help us. I think that's a big issue* [A1:722-724]. She said we should give people the opportunity to choose before drilling them into any particular tool of technological progress.

Fred said that there should be checks and balances or some mechanism to find out whether any aspect of cyber learning is impacting on a student's moral reasoning and decision-making.

Sue believed that it is important that we find our own identity. She said the education system is critical trying to find our identity. "*I think we need to give people the tools to discover what their identities are going to be rather than saying this is what it's going to look like, be like that"* [S1: 1400-1402].

Most of the participants said that a framework of moral reasoning should be developed in the tertiary curriculum. Fred believed that this was a useful thing, but he was not sure what foundation of morality should be used as the basis. He questioned, "*...Is it a social thing? Is it a spiritual thing? There are many worldviews out there and there are different views as to what's going to be a good foundation for a morality so the typical would be finding a balanced perspective of some of those issues... but again it is part of the practicality but it is one of the difficult things*" [F1: 435-440].

Sue also strongly believed that some kind of training in moral reasoning should be included in tertiary education, and she looked at the problem of 'what foundation?' brought forth by Fred and said that it was the "*primary reason why in tertiary education we've hands off and every body is bleated about 'ah that's religious', ' ah that's socialist'. But I think there are universal human values, that are common to any culture and I think in order to equip somebody to make good moral judgment it doesn't mean that we tell them what to do we give them tools to evaluate*" [S1: 1182-1187].

Sue said that in tertiary education we should only equip students to make good moral judgment by providing them with necessary tools. If we can give them an understanding of the underlying philosophy of things then we are equipping them to think through. So that students could ask for themselves where they fit in." ... *What's the framework that I'm going to use to disseminate this new information?"* [S1: 1197-1198]. She thought it is a tragedy that we have taken our hands off on issues regarding moral development in tertiary education.

Yet Ann was sceptical. She believed that it is a good thing to develop a framework of moral reasoning in tertiary education. But she warned about the problems it would cause. She said there would be a lot of opposition because if the values are changing, then you would be introducing something which was going against the attitudes that were developing. This doesn't mean it shouldn't be done, but she thought it was going to be extremely difficult, to bring it in.

Sue said, introducing moral reasoning into tertiary education does not mean that we are trying to force students to think in one belief system. She said, *"I think the reason we've shied away from it in tertiary and in any level of education is because we tend to think that we have to get to make people in a certain way of looking at the world if we are going to teach good moral judgments. I actually disagree with that. I think that what we need to do is make our younger people particularly literate in different philosophy so that they can understand that if you hold to this philosophy then you are going to make these heights of value judgments or these types of moral judgments"* [S1: 1188-1194].

Ann saw yet another problem. She felt introducing a framework of moral reasoning into tertiary curriculum would be adding to students workload. But Sue said one of the ways in which we could help develop moral reasoning in tertiary students is by bringing in moral issues into everything that we teach. At times it could appear to be forced, she said. But there are values underpinning most of what we are teaching and making students aware of those values are important, so that students can set them into their own value systems.

Sue said that as teachers we teach from our own value positions. We have to function that way. But she questions what tools we are giving to students to actually filter through our value system and talk of the information that we are giving them that fits their value systems. She thought the way in which we could bring this type of moral reasoning into the tertiary level was to acknowledge that *"this is not the end of the discussion or absolute truth that we are offering here"* [S1: 1250-1251]. She feels that we should make students understand that the information we provide is based on the value systems of the teacher. We should alert them to the fact that there are other possibilities that they would like to explore rather than accepting unquestioningly whatever everybody is teaching whether it be through cyber learning or face-to-face teaching.

Sue believed that it is very important to introduce moral reasoning into tertiary education because of the impact of cyber learning. She said that if students take everything unquestioningly, then they are going to end up confused because every teacher no matter whether they are using cyber learning techniques or face-to-face techniques will be coming from their philosophical approach. So if students are exposed to "*cyber-fixing*" [S1: 1261] by different teachers they are going to need the tools to define what is coming to them. Otherwise, she said, they would end up with conflicting ideas.

Bev voiced her concerns and said that our learning society doesn't actually have accepted moral ethical standards. There are students who come from all kinds of backgrounds and all kinds of belief systems or lack of belief system. *"What our society tells people is what ever <u>you think</u> (highly stressed) and <u>you believe</u> (highly stressed) and <u>you feel</u> (highly stressed) is the right thing"* [B1: 928-936]. Bev said there is no accepted standard across society or across university or education. So it was very difficult to come in at that point and tell students to adopt their moral viewpoint.

But Ann said that although adding subjects and topics to introduce moral reasoning to tertiary students could affect people in long term, in the short term it is going to make the current stress of tuition worse.

Sue further explained what she meant by critical thinking tools. *"Critical tools mean the ability to ask what is behind this, all the time. Not peeling the layers of an onion, to not to be content with the brown skin of the outside and just accept that but what's behind that and keep going behind things until you find the nub. Is it something I can give a true value to or is that a actually a skewed presupposition that I need to question deeply before I take on board?"* [S1: 1266-1273].

In this chapter I presented the data gathered from participants. I recorded them under the categories of: ideas about moral development; The importance of human interaction for moral development; the isolation factor in cyber learning affects students' moral development; moral development in tertiary education; the impact of cyber learning on moral development; and claims found in literature on cyberspace technology. In the next chapter I discuss the propositions that emerged for me from this data analysis.

Chapter Six

Discussion

I have analysed and recorded the data from my research in the previous chapter. Although I recorded the views of participants, I did not comment on them. In this chapter I evaluate and spell out the significant contribution the analysis of research data has made to my thesis. The discussion constantly shifts to what other authors have said on this topic which is explained in the literature review chapter, and the participant's views recorded in the data analysis chapter. This method of constantly shifting between the literature and participant's views has enabled me to argue the position of my thesis more explicitly. Several themes emerged from the data analysis. They fall into the categories of:

1. The negative impact of cyber learning
2. The positive impact of cyber learning
3. Cyber learning and moral development in tertiary education in New Zealand

The Negative Impact of Cyber Learning

There were five propositions related to the negative impact of cyber learning. They are:

1. Cyber learning has resulted in the birth of a Cyber Identity.
2. Cyber Choice, in cyber learning overrules moral reasoning.
3. Cyber learning encourages alienation from human Interaction into Cyber Isolation.
4. Cyber learning has resulted in Cyber Freedom.
5. Cyber learning introduces students into Cyber Illusion in Virtual Reality.

Cyber learning has resulted in the birth of a Cyber Identity

A major factor that has made cyber learning a challenge to moral development is, it has created an environment that gives birth to a new identity, which I refer to as 'Cyber Identity'. Some refer to this as online identity.

Erikson (1968) says identity is a composite of one's sexuality, physical makeup, vocation, and belief system. But Cyber Identity means who an individual is in cyberspace. It is an identity which is different from real life, physical identity. In the physical world an individual may have a single or multiple identities. Cyber Identity is not one of such multiple identities or an extension or another dimension to an individual's existing identity or identities. It is not a decentered self with many shifting identities. Cyber Identity in my view, as discussed in this thesis means, a birth of a new identity in cyberspace environment. Talamo & Ligorio (2001), who conducted a research on identity in cyberspace, have said that identity construction in cyberspace is directly related to the nature of interactions and opportunities offered within a cyberspace environment. I believe that Cyber learning offers tertiary students the opportunity and creates an environment to birth Cyber Identity.

In Cyber Identity an individual can be anybody, or anything. There is no limit to one's imagination in creating a Cyber Identity. Most of the tertiary educators who participated in this research project saw Cyber Identity as a danger. Psychologically it could have a negative effect upon an individual's real identity. If an individual is too immersed in cyberspace the individual could be mentally transformed to accept Cyber Identity as his/her own identity. It could become very artificial and develop a false sense of security. Due to the deceptive nature of activities an individual could perform in cyberspace, Cyber Identity may lack integrity.

Participants thought that Cyber Identity could lead students to a lot of confusion in cyberspace. Literature comments that identity in cyberspace becomes fluid, ephemeral and empowering because people can choose how they are represented. Users become

the authors of their lives (Kitchin, 1998). To be confused and not to be able to focus clearly could become harmful to cognitive development of tertiary students, and I think it is this fluid, ephemeral and empowering nature of Cyber Identity which causes this situation.

According to Lawrence Kohlberg's theory, at tertiary level, students are at the conformity stage, and social system orientation stage. Both these stages belong to the conventional level of the moral development theory. At these stages, moral rules are understood as based on their necessity for maintaining close relationships, and moral rules are judged by their impact upon remote and complex social relationships such as social institutions or national interest (Kohlberg, 1981). None of these may be significant any more in cyberspace with Cyber Identity because social relationships may not be the same without person to person close relationships. Therefore the activities individuals become involved in Cyber Identity may not help individuals to go through the cognitive development processes of stages three and four. But participants believed that if tertiary students in New Zealand were equipped with tools of critical thinking and moral reasoning and had a moral identity, Cyber Identity would not take priority in a student's life.

"Moral identity" means, the importance of moral concerns to a person's sense of self (Blasi, 1984). Moral identity encourages an individual to maintain a moral commitment, be morally motivated, and use moral reasoning and moral judgments. Without a moral identity an individual may not have a moral goal. Only when people conceive themselves and their life goals in moral terms do they acquire a strong propensity to act according to their moral judgments (Dammon & Gregory, 1997). But Cyber Identity may be a threat to moral identity because the negative effects of Cyber Identity may oppose the moral identity of an individual.

Marcia (1980) has explained identity, as a self-structure composed of one's personal history, belief system, and competencies. One participant thought that in New Zealand "PC culture (culture of personal computers) comes out because we do not have a strong identity" [C1: 1395]. Another participant commented that there is an identity issue. "who are we?" [S1: 1361]. In New Zealand there is Maori part of partnership

rediscovering the values that Maoridom had; their culture, roots and values, while Pakeha and everybody else in the country are confronted with their different value systems and "increasingly defining for what we are not" [S1: 1351-1356]. According to this participant it was important that New Zealand Maori, Pakeha and other cultures work through a plan to recognise what it means to be a New Zealander. "At the moment we are not secure in our identity, to discuss things that may actually threaten that identity that is still not formed." [S1: 1371-1373].

I believe that tertiary education could play an important part in assisting students to understand and recognize their moral identity, and provide them with moral reasoning and decision making tools. Durkheim (1961) believes that it is possible to consciously create or at least to discover the kind of shared beliefs that are essential for community and for the moral identities of students. He has also said that in order to build common community values in modern times, we need procedures that draw upon the unique qualities and virtues of a democratic society rather than reacting against them.

Participants expressed a range of concerns relating to moral identity. Firstly, they thought where moral values and critical thinking are concerned New Zealand education system is impoverished. Education system does not provide students proper moral guidance. In the past there were not so many dysfunctional families in New Zealand. Children were raised to respect their elders. Students had a moral goal. They had Christian ethics as the background and learnt the Bible and the Ten Commandments. But then the Christian value system was rejected but there has been nothing to replace it. "If they do not want to teach Christian ethics in today's education they should decide to teach something" [C1: 1952-1954]. Another concern was that "we don't seem to stand up to what we think wrong" [C1: 1997-1998]. Participants also commented "Students have no philosophical underpinning for their lives. What they have is a consumer mentality" [C1: 1206-1208]. These comments imply the absence of moral identity.

Secondly, participants pointed out that at tertiary level moral issues are ignored and students are not given an opportunity to understand and recognize a moral identity. Only a limited number of students in the whole of student population at tertiary level in New

Zealand get an opportunity for moral development due to their religious or cultural beliefs. Christian Students' Association was named as an example that caters to the needs of students on moral issues. But, "what about the others?" [S1: 1052].

Thirdly, at tertiary level students are expected to make major decisions. But, "what we are confronting is a group of people making major ethical decisions around issues of bio-ethics and bio-engineering without a philosophical basis to it ... there is a huge gap, in our tertiary system" [S1: 1059-1062].

Tertiary educators were concerned about the absence of moral identity because it could permit the birth of a Cyber Identity in cyberspace. But the complexity of the situation regarding moral identity, and tertiary education was evident by the arguments presented by participants. Some believed the reason why we have "shied away from moral issues in tertiary education" [S1: 1188] is because we tend to think that we have to make people look at the world in a particular way if we are going to teach good moral judgment. Another comment made was that we need to make students literate in different philosophy. While some participants were concerned about tertiary students maintaining a moral commitment others commented that "we need to be very careful when we start tinkering around with moral issues" [J2: 1752-1754]. Another problem pointed out was that if a moral reasoning framework was introduced in tertiary education it could bring in the lecturer's, the trainer's, or the teacher's personal view point, and unless students are given the opportunity to look at an issue from many different sides and its effect on other people's morals and values, it could promote only one particular aspect. A further suggestion made was that students should be given the choice to make their own decisions regarding moral issues rather than including it in the tertiary education setting. Others commented that there are students from all kinds of backgrounds and it is a hard task to maintain a neutral view particularly when some people's morals and views are so opposite to others. All these comments emphasise the difficulty of introducing moral issues into tertiary education. But I think the absence of moral identity could make an individual vulnerable to Cyber Identity.

Durkheim (1961) also commented that since so many communities have become polarized around matters of belief, it is not easy in modern times to educate students

with philosophical underpinning necessary for moral reasoning. But he believed that in order to accomplish moral education in times of society-wide discord, communities must make special efforts to identify their common values, at least with respect to their hopes and expectations for their young. I think if this special effort is not recognized by tertiary education system, students will not be able to understand and recognize moral identity, and it could result in the birth of a Cyber Identity when engaged in cyberspace.

"Nobody will know your race, disability or gender. Your body is irrelevant and invisible. Unlike real world meetings, individual representation on the Net is not based upon biology, birth or social circumstance" Kitchin (1998, p.80). Cyber Identity could be dangerous getting people into trouble in their real identity by creating situations where they meet predators and becoming emotionally involved with an "identity" in cyberspace rather than a person. Such identities could become highly manipulable, completely disembodied, intellectual fabrication (Mitchelle, 1995). It could also make students live in fantasy. Cyberspace promotes the individual as an unstable identity and alters the conditions under which self-identity is constructed (Poster, 1995). These comments are trying to spell out characteristics of Cyber Identity.

Cyberspace technologies are changing who we are and there is a search for identity (Castells, 1996). By saying that there is a search for identity Castells implies that he has recognised the loss of real identity in cyberspace. He realises that cyberspace has changed who we are. But he has failed to see that this mental transformation in cyberspace has already birthed a Cyber Identity.

Kitchin (1998) draws our attention to two emerging theories concerning the relationship between cyberspace and identity. He says that in the first, cyberspace is seen as a disembodying experience with transcendental and liberating effects. The second, as helping the merging of nature with technology as humans and computers coalesce through a process of cyborging. Both theories argue that cyberspace technologies have significant implications concerning identity and how individuals come to understand identity. Here again we see how the theorists try to identify the transformations in cyberspace. This is the birth of Cyber Identity, and it is one of the factors that could make cyber learning a challenge to moral development in tertiary education.

Cyber Choice in cyber learning overrules moral reasoning

A choice an individual makes in cyberspace has been termed in this thesis as 'Cyber Choice'. This could be different from choices that one makes in a day-to-day life situation. Cyber Choice is not controlled by any feedback, punishment or reward. This has no boundaries or limitations made by moral values and standards or societal rules and regulations.

Cyber Choice could affect an individual to an extent that it could almost change the way the individual thinks, his/her interest, and even the character of his/her symbols, with which he/she thinks. Brien (2000, p.1) has said "Computer technology is shaping who we are as individuals and as a society. It is determining for us, largely without our being aware of it, what our values are or should be, and the direction our future should take". We may argue that such a situation could only occur in an individual's life due to Cyber Choice, which overrules moral reasoning. I believe that moral reasoning is helpful in guiding Cyber Choice when encountering different scenarios in cyberspace. But at the same time without the training and the ability to think critically, students could allow Cyber Choice to overrule moral reasoning.

Participants who commented on the literature claim by Brien (2000) pointed out that individuals would not encounter a situation of making a Cyber Choice if individuals were participating only in activities out of cyberspace context. They believed that obvious dangers that are apparent in cyberspace should be avoided, so that the advantages of cyber learning could be enjoyed, not affected by dire relationship and personal dysfunctional side effects. Due to choices individuals make in cyberspace, or due to Cyber Choice, some individuals may allow themselves to be overpowered by technology and it would become a challenging task for students to maintain boundaries between Cyber Choice and moral reasoning. But I think Cyber Choice could have power over moral reasoning only if students are not equipped to think critically. According to participants' comments, tertiary students in New Zealand could become easy prey to 'abdicated consciousness' (Talbott, 1995). Abdicated consciousness means to give up the state of being able to use one's senses and mental powers to understand

what is happening. Abdicated consciousness may influence students to give priority to Cyber Choice over moral reasoning. Brien (2000, p.1) has questioned, "As a result of willed ignorance, are we giving up certain personal and societal values to what is perceived as technological progress?"

Some participants commented that tertiary students should be asking hard questions always, rather than been told what answers to give from another source. I think, if the importance of critical thinking and moral reasoning is not recognised by any education system, in such a system Cyber Choice may overrule moral reasoning when students are engaged in cyber learning. Participants considered tertiary institutions as the conscience of the nation that turn out critical thinkers. But in New Zealand "We are just turning out stuff that the government wants us to, and we are not challenging anything much" [S1: 1403-1404]. They commented that it would be very easy for an education system to lose its way if the system had to cow tow to the Ministry of Education in order to get funding and tertiary institutions in New Zealand are fast becoming a process that provides a product to the consumer. "So we tailor product for the consumer, which is a real downward style. The role of university should be to have cutting edge thinkers"" [S1: 1406-1414]. These comments explain participants' views about critical thinking and moral reasoning and the situation in tertiary education in New Zealand.

Another issue raised was that computers do not give the opportunity for students to think, because students have got so used to turning to the computer for every thing allowing it to dominate all their thinking. I do not totally agree with this comment because cyber learning gives the opportunity for students to think about complex issues. It is Cyber Choice, which allows computers to control an individual's thinking and dictate what they should be doing.

A further point about Cyber Choice was that Cyber Choice could be a challenge because it would be difficult for students to evaluate and determine the quality and reliability of online information due to the quantity and source of such information. Students could choose to download information or not to download. Such choices require critical thinking, moral reasoning and decision-making. But tertiary education in New Zealand does not prepare students to face the challenge by making choices in cyberspace.

Students have been told constantly that they have "a world of choices at their fingertips. But, students need to be taught to think critically before they engage in it" [S1: 1235`-1237].

If students have been given critical thinking tools and philosophical underpinning for moral reasoning, they will have the ability to go behind something, "not peeling the layers of an onion and be contended with the brown skin of the outside and just accept that, but keep going behind things until they find the nub". [S1: 1267-1269]. Rather than actually finding out in depth what something is about, students "tend to go quick, quick, quick" [B1: 884-885] and get some superficial facts that might not even be true. Although students may be intellectually developed, they may not be developed morally and Cyber Choice may overrule moral reasoning when they are engaged in cyber learning.

In cyber learning students continuously have to make choices due to proliferation of information. Strivers (1999, p.99) thought "The computer is behind the proliferation of random information and it turns us into consumers of information that fragments the personality and makes moral responsibility increasingly difficult. A comment made was that students may not be in a situation to handle proliferation of random information wisely because of lack of critical thinking and moral reasoning.

Another comment was that people have moved away from their families; which were the seedbeds of moral values, as a result of being individualistic, working longer hours, less connected to other people, and traveling. While the absence of core structure of family had not been replaced with anything else, individuals may encounter in cyber learning a sudden influx of information. Without knowledge, training, experience and ability for critical thinking or moral reasoning to evaluate and interpret these, individuals may become stressful. This could result in many effects harmful to self and others. Another comment was that if students took everything unquestioningly they would end up confused and would be"exposed to cyber fixing" [S1: 1261] by different teachers. Therefore students would need the tools to define what is coming to them.

A further concern was that there are no accepted moral ethical standards in our learning society. "What our society tells people is what ever you think (highly stressed) and you believe (highly stressed) and you feel (highly stressed) is the right thing" [B1: 928-936]. In such a situation it would be difficult to ask students to adopt a moral viewpoint. Here again, Cyber Choice may take precedence over moral reasoning.

I believe that all these comments try to surface the importance of critical thinking and moral reasoning in tertiary education, and in its absence, if engaged in cyber learning Cyber Choice could overrule moral reasoning.

Cyber learning encourages alienation from human interaction into Cyber Isolation

A student could experience Cyber Isolation when he/she spends more time immersed in the computer. This could alienate students from human interaction. In Chapter Five I recorded the ideas expressed by participants as to how moral development occurs in a human being. Participants believed that Cyber Isolation could take away the sense of community, in which moral development is most effectively undertaken.

During pre-modern times, issues regarding moral development of an individual were shared between the community, home, the neighborhood, the religious institutions and educational institutions. In a whole community it was possible to find many people who introduced young people into the positive, inspirational possibilities of moral commitment. "An entire community affords many opportunities for authentic service activities, such as helping those in need, that can provide young people with a chance to experience the psychological rewards of moral commitment" (Damon, 1997, p.123). The Aristotelian view was that all citizens, children and adults alike were educated into life of virtue through their active participation in the laws and mores of their communities.

Participants believed that social interaction within the community is very important. They recognized family, spiritual and educational environment, the society, and also the

moral value systems as the most important areas that revolve around our community and most of the areas in which moral development occurs are community based.

Lawrence Kohlberg (1981), in his moral development theory believed that moral development occurs through social interaction. Rich (1994) commenting on moral development, has emphasized the importance of human interaction and socialization. "Socialization is the process by which the individuals becomes inculcated with societal values and acquires appropriate social roles. It involves the internalization of social norms as individuals guide their own actions to comply with the expectations of others" (Rich, 1994, p.7). He has also said that socialization contributes to empathy. Empathy is connected with cognitive development, as humans gain greater abilities to perceive the perspectives of another (Hoffman, 1991). If as a result of Cyber Isolation students are alienated from human interaction and socialization it will not only affect students' moral development but as one participant commented, they would "... less likely to consider about others" [A1: 652].

Another comment made was, that isolation factor depended on what students are doing in front of the computer. Some were doubtful whether there really was an isolation factor in cyber learning with the possibility of virtual interaction with people around the globe. Kitchin (1988) thinks that just as in real world communities, in cyberspace communities there are behavioural norms, differing personalities, shared significance and allegiances. But an argument that could be raised against this comment is that although there is interaction, and relationships are formed in cyberspace, such relationships are not "full and satisfying relationships like a person face-to-face, where you can interact with, in other ways" [F1: 292-296].

Kitchin (1988) has also said that cyberspace is facilitating a deep restructuring of society at the individual and collective levels, and traditional notions of identity and community are challenged. Some participants commented that if a person can adequately differentiate between attaining knowledge and developing personal relationships in cyber learning, and largely avoid such relationships, then there might not be a risk of moral development declension.

Another point that surfaced from the research was that moral development and judgment could only be developed when interacting with other people. But related to this different ideas were expressed. One comment was that moral development can also occur as a result of a person's conscience, that is, an intuitive sense of right or wrong, that is often directly linked to a higher power. Another similar comment was that most religious sects would think that the interaction with the divine is the correct way for moral development and some tertiary institutions existed to develop moral character of students based on a particular belief system. Although it was interesting to note the different comments, the fact that was important to the thesis was the belief in the importance of social interaction.

Another issue raised was that it is the context in which cyber learning is happening that is going to effect students. Cyber learning could encourage isolation if it becomes "very self-sufficient just the computer and I together" [S1: 1077-1078]. It depended on whether the individual is shut up from contact with other people. Some argued that they did not know any body in that scenario and it depended on the design of the actual course and the way tertiary educators use cyber-learning. But many agreed that cyber learning takes away the environment in which students traditionally learnt moral development.

Another comment was that computers could also be harmful to a normal and balanced life style. Students may spend many hours before a computer seated and straining their eyes and may not spend time in the open air interacting with others doing activities good for their health and well being. This way of life, being hooked up to a computer, could make students computer geeks and nerds. Participants were trying to imply that alienation from human interaction could encourage students into Cyber Isolation.

McKenna & Bargh (2000) have said that popular reaction to the Internet has been largely negative saying that it causes depression and social isolation. But McKenna & Bargh thinks differently. They have said that Internet by itself is not a main cause or effect of anything. "We must move beyond this notion to an informed analysis of how social identity, social interaction, and relationship formation may be different on the Internet than in real life" (McKenna & Bargh, 2000, p. 57). McKenna & Bargh have

identified four major differences and their implications for self and identity, social interaction, and relationships. They are: "One's greater anonymity, the greatly reduced importance of physical appearance, physical distance to relationship development, and one's greater control over the time and pace of interactions" (McKenna & Bargh, 2000, p. 57).

As McKenna & Bargh (2000) have said it would be interesting to move beyond, to an informed analysis to find what is different on the Internet than in real life. But regardless whatever is different, we cannot ignore the comments made by participants that computer technology could encourage alienation from human interaction and alienation from human interaction could result in Cyber Isolation. This is another factor that could be a challenge to moral development of tertiary students.

Cyber learning has resulted in Cyber Freedom

Cyber Freedom means the absolute freedom an individual may enjoy by being able to do anything in cyberspace. There is no sense of responsibility or accountability connected with this type of freedom. There is no fear of being found out or being punished. Cyber learning could open the way to Cyber Freedom for students. This is yet another factor that makes it a challenge to moral development.

Participant commented that students could live in two worlds, and cyber world could be the world students would want to live because of the sense of freedom they could enjoy in it, and just tolerate the other. I think that this sense of Cyber Freedom without a responsibility and accountability is not a healthy environment for moral development. Kohlberg's moral development theory shows an individual's place of responsibility, accountability and integrity within different stages of moral development. But in Cyber Freedom these do not need to exist anymore.

It is Cyber Freedom that allows individuals to move about freely in a cyber social space. It enables an individual to be a member of a cyber society and experience cyber culture. Individuals who enjoy Cyber Freedom could "...use words on screens to exchange

pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, create a little high art and a lot of idle talk" (Rheingold, 1994, p. 3). Although these take place in a physical, real life face- to-face situation also, they would be different from experiences in cyberspace because a cyberspace situation would be free from any strings attached to rules and regulations, obligations, social norms or any kind of obstruction on absolute Cyber Freedom.

Cyber Freedom could influence students to dislike real human relationships, society and culture. Heim, (1991) has said that Cyberspace technologies provide unrestricted freedom of expression that is far less hierarchical and formal than the real world interaction. I believe this unrestricted freedom could become a threat to moral development.

A further point made was that being involved in cyber learning could encourage disengagement of moral control. Participants saw the dangers it could introduce such as dysfunctional moral and relational development, possible computer addiction, and deterioration of personal values as a result of mind-pollution. Another comment was that participants have seen relationships adversely affected or destroyed through these problems and although cyber learning in itself may not necessarily be bad, it depended on how a person uses or abuses it, just like money, food, and sex. But many participants thought that Cyber Freedom could become harmful to students because they could get addicted and would always want to live within cyber communities. Some voiced their concerns of students being involved in the computer technology almost to the point of obsession, and lose touch with normal social relationships and become socially maladjusted. Rheingold (1994, p. 3) has also expressed a similar comment. "To the millions who have been drawn into it, the richness and vitality of computer-linked cultures is attractive, even addictive".

Cyber Freedom could enslave students in many ways. A comment made was that it depends on the way students allow cyber learning to influence their lives, whether they would use it as a tool or as a master. "Am I going to use it to facilitate my learning or am I going to allow it to dictate to me what I should be learning?" [S1: 1213-1214].

Due to Cyber Freedom, students may get a feeling of admiration, and eagerness of being involved in cyber learning. This kind of enthusiasm could affect a student in a subtle way, in changing a student's sense of right and wrong and his/her values. There were many comments that expressed apprehension of Cyber Freedom. Some commented that a similar thing happened with media the television and movies but it has not changed the way we live but it has changed our values significantly. In a subtle way, computers could change the value system.

Although cyber learning is only a tool used in an education environment, Cyber Freedom introduces students in to a world wide web, making it easy for students to move into areas that could be harmful for moral development. It could be influential, perverse, and harmful because of its availability and easy access. Since students have to face temptations that wouldn't have been there in any other learning situation, I think cyber learning could encourage and be a threat to moral development.

Another point made was that the computer industry has neither the authority nor the power to do anything regarding the impact of cyber learning on moral development. This explains the extent of danger in Cyber Freedom. Online anonymity would make it easier for an individual to experience Cyber Freedom. Lee (1996) has commented that the "information highway" has made possible unprecedented forms of mediated communications, and millions of individuals are able to engage in instantaneous, interactive communications with a broad and diverse public and form mutual bonds, whom they have never met or will ever meet face-to-face. A characteristic of these new interactive encounters is the potential for anonymity. In cyber learning students may not have the fear of being found out due to anonymity.

McKenna & Bargh (2000) have said that anonymity is a condition that has been shown to encourage, and often produce, deindividuation. Due to deindividuation an individual will be less likely to care what others think of his or her behaviour and may even have a reduced awareness of what others have said or done. I believe that this is quite the opposite to what Lawrence Kohlberg (1981) has said in the conventional level, stage three of his moral development theory. In the stage which he calls as 'conformity', he has said that individuals developed the cognitive ability to see and evaluate their

behaviour from the perspective of third parties. Thus deindividuation, encouraged by anonymity could make Cyber Freedom a great threat to moral development of tertiary students.

Escapism like anonymity could become a characteristic of Cyber Freedom that is enjoyed in cyberspace technologies. Cyberspace appeals to the young because it provides an opportunity to escape from a world that does not, and does not want to, understand or provide for them. On-line they can explore their feelings and identity, and communicate with like-minded individuals. Cyberspace carries less responsibility. "Cyberspace acts as an emotional escape" (Kitchin , 1998, p. 78). To escape or runaway from moral dilemmas will not help in the moral development of a person. Kohlberg's moral development theory states that the logic used by individuals in solving moral dilemmas progress through a series of stages. I believe that such moral dilemmas are important in the lives of individuals because they would encourage individuals to progress to the next stage. When individuals reach the maximum capacity of reasoning in one stage they accommodate the next stage of cognitive reasoning. But in Cyber Freedom an individual may not encounter a situation of moral dilemmas, and this would not help an individual's moral development.

Cyber learning introduces students into Cyber Illusion in Virtual Reality

Virtual reality is a computer-simulated environment in which an individual can interact, being connected to a computer. But this is not real; it does not exist as a fact or occur as a thing, but is imaginary, and an imitation, which is not genuine. It is only a simulation; a reproduction or taken the appearance of or pretend to see and feel of something which is real. What I mean in this thesis as real, is something non-imaginary, actual, and existing. To believe virtual reality as something real could be called as Cyber Illusion. Cyber Illusion is the idea an individual has that everything in cyberspace and everything that happens in cyberspace is real. Illusion is a false idea or a misinterpretation. Virtual reality is an illusion that occurs in cyberspace. Hence, Cyber Illusion could be another factor that makes cyber learning a challenge to moral development.

Participant commented that it is easy for a student to create an unreal world that seems to be real to them, but is very much removed from the reality of what life is really about. Although literature on cyberspace has made many references to the effects of virtual reality, this effect, which I have termed as Cyber Illusion, has been previously termed differently. Baudrillard has termed Cyber Illusion as 'hyperreality'; more 'real' than reality (Poster, 1988). Virilo has called Cyber Illusion 'substitution' (Kitchin, 1998). Castells (1996) suggests that there has always been a separation of reality and symbolic representation because we always interpret everything we encounter through some system of meaning. He contends that we are constructing a real virtuality where reality is entirely captured by the medium of communication so that our everyday lives are increasingly structured around what we have read, seen or heard. Castells argues that 'virtual reality' is a misleading term. But I prefer to call it as "Cyber Illusion" because it is an illusion in cyberspace.

I agree with the comment made by participants that living in a virtual world could change our sense of right and wrong. In an environment of virtual reality in cyberspace moral development may not occur. Moral development theory refers to growth of the individual's ability to distinguish right from wrong, to develop a system of ethical values, and to learn to act morally. But people will start to think that in their virtual identity they could get away with anything. Being involved in activities of Cyberspace could also increase the blurring of reality and virtuality. For many, cyberspaces form a new social space where reality and virtuality merge, where the physical and material are transcended and arguments center on the ideas of disembodiment and transcendence (Kitchin, 1998). I would like to point out here that moral development as explained by Lawrence Kohlberg (1981), occurs in human beings in the reality of a physical universe that is directly or indirectly measurable (Reber, 1995) and not in fantasy. But if, as theorists such as Haraway (1991) and Plant (1993) argue, the boundaries between people, their bodies and the outside world are reconfigured in cyberspace, cyberspace technologies could become a great threat to moral development.

To explain Cyber Illusion further one participant said that living in Cyber Illusion could be one of the reasons for increased crime in the society. Those who are engaged in virtual reality could be involved in a shooting activity in the virtual world, walk away

from the computer and then put it in to practice not realizing they are not living in virtual reality anymore, but in the real world.

Another participant said that cyber learning has the tendency to create an artificial environment. Most of the participants thought that Cyber Illusion could affect moral development because individuals may not be able to differentiate the reality from virtual reality. Some said students could shift into different modes of thinking or live on the dividing line between the two. I think in such a scenario, Cyber Illusion could become a challenge to moral development.

Slouka (1996) has also commented on the danger of Cyber Illusion. For Slouka the danger is that many of us are now willing to accept the copy as original, and put our trust in those that re-represent the world to us, and to accept simulation as substitution. He thinks that these are self-indulgent technologies that will make it increasingly difficult to separate real life from virtual existence. For many of the people that Slouka met, cyberspace interactions on chat and MOO facilities were a reality. The new identities they had formed had blended with their former persona: the virtual was blurring with the real. Slouka's fear was that we could be increasingly 'seeing' and understanding the world staring through a computer screen. This is the Cyber Illusion that could become a challenge to moral development in students who are engaged in cyber learning.

The Positive Impact of Cyber Learning

The following proposition emerged from the data analysis as a positive impact of cyber learning.

Cyber learning is a gateway to new dimensions of learning, and a paradigm shift in learning could permeate tertiary education as a result of cyber learning.

There were positive comments made on the impact of cyber learning as it opens up a whole new forum of experiences to students. Online identity would allow students to play other genders, gender-neutral roles or other personalities that students would have never been able experience without the availability of cyberspace technology. Online identity could open a way for shy, self conscious and backward students to create a persona that they enjoy and are comfortable with. Effective learning could occur as a result of the confidence gained in a different persona and in a completely new environment, which could be adventurous with novel experiences.

I would like to draw the attention of the reader to the fact that benefits of online identity could lead to an ego development that has been mentioned by Kohlberg (1976). Ego development is a field that covers personality development (Loevinger, 1966) that could occur among tertiary students. Therefore, it could be argued that cyber learning could lead to a positive impact on moral development in the process of acquiring ego development within a moral development framework.

Some tertiary educators thought cyber learning is an improved means of course delivery rather than a new approach to education, and as with any educational technology, cyber learning tools need to be applied in such a way that they add appropriate value to teaching and learning process. But I would wish to say here that cyber learning is not just another improved means of course delivery but a gateway to new dimensions of learning, and due to cyber learning, a paradigm shift could occur in every area of tertiary education. This is what has been expressed as, 'it could permeate tertiary education'.

Another comment made was that bulletin boards have a great potential for moral development. Students can interact with one another and reflect on what another person is saying without interruption. It enables students to disclose their thinking, in a more structured and timelier way rather than being put on the spot to say what they feel. It is a tool that can be facilitated in a good way to debate moral issues online. Although I agree with this, I don't think merely the availability of a learning tool to be used in discussions of moral issues could make an individual who uses that tool develop morally. What is lacking in tertiary education in New Zealand is the proper application of this valuable tool. I think that if the potential of cyber learning is not recognized in relation to moral development of tertiary students, the disastrous effects of this learning tool could impact negatively.

Participants also commented that using a different identity, Cyber Identity, assists in communication with a wider range of people. Students could communicate with people who are many years their senior and many more years experienced, and they could learn so much from them. On face-to-face, they would not have been able to communicate like that. Cyber Identity could also be used powerfully as a therapeutic tool, a tool to develop communication skills and a valuable learning experience. Although such positive comments were made participants did not express any strong comments to show that cyber learning has a positive impact on moral development.

Cyber learning also provides a motivation to develop because it gives a "technological sophistication" [J2: 1622], which was not available for the earlier generations. A comment made was that sophistication experienced in cyber learning could help an individual to develop upwards through various stages of moral development. Kohlberg's (1981) moral development theory states that an individual's level of moral thought could be designated by posing problems and asking the individual to solve the problems, then probing into the cognitive process the individual used to solve the problem (Rest, 1994). Kohlberg has termed this as a 'moral dilemma'. Kohlberg's assumption was that development and moral judgment takes place through a process of cognitive accommodation. Change in an individual's cognition comes from examining experiences that do not fit that individual's earlier and simpler conceptions. This

development is characterized by increasing complexity and integration in form of thought, and form of coping with problems. Individuals outgrow one stage of development as they see it being too simplistic and inadequate, and a high stage of thinking is preferred until that stage in turn becomes replaced by a newly comprehended stage (Rest, 1986). Therefore, it is difficult to agree to the comment that use of cyber learning creates in an individual a technological sophistication and as a result, moral development occurs. Unless cyber learning is properly geared as a learning tool in the development and transformation of student's way of reasoning, and expanding student's perspective to include criteria for judgment (Rest, 1994), cyber learning will not have a positive impact on moral development.

Cyber learning and moral development in tertiary education in New Zealand

When participants expressed their ideas about the impact of cyber learning on moral development, they also suggested what should be done to face the challenges that could have a negative impact on tertiary students in New Zealand. The following proposition emerged from the data analysis.

To enable tertiary students to face the challenges of cyber learning successfully, it is important to equip them with tools of moral reasoning and decision-making skills.

Participants recognized the importance of a tertiary education that helps students to move toward more complex, principled ethical reasoning, which fosters moral judgment and decision-making. Although this research project was not intended to look for solutions for the impact of cyber learning, the concerns voiced by participants brought forth the above proposition that implied the change that is required in tertiary education in New Zealand to prepare students to face the challenges of the impact of cyber learning.

An issue that surfaced in this research was the place of importance for moral development in tertiary education system in New Zealand. Many believed that it is not

considered as important. Some commented that moral development is something that had occurred in a student's development pocess prior to entering tertiary education or, by the time students get to the tertiary level of education they do not look for moral development, but for professional development or intellectual development. But others believed that it is important in tertiary education in order to help students to make decisions and some commented that in every thing that we learn there is a moral component and there could be serious implications if we do not consider the importance of moral development in tertiary education.

Kohlberg's moral development theory emphasizes the importance of education to promote moral development in students. Educators during the origins of tertiary education in New Zealand realized the importance of moral development in tertiary education (see Chapter Three). Some of the educators who participated in this research project also thought similarly, but expressed their disappointment, that tertiary education providers in New Zealand do not see the disastrous effects which could influence the future New Zealand society by ignoring moral issues.

I favour this proposition. I believe that to enable tertiary students to face the challenges of cyber learning successfully, it is important to foster moral development. The procedure Kohlberg has recommended to foster moral development is moral dilemmas (explained in Chapter Four). Moral dilemmas encourage students to progress to a higher stage of moral reasoning and decision making. Gardiner (2002) has said that a student's experiences during tertiary education can have a significant impact on that student's moral reasoning.

A clear message from participants was that students could become more vulnerable to the negative impact of cyber learning in an education system that does not foster moral development. Although the aim of my thesis is only to examine the factors that have become a challenge to moral development in tertiary education, I agree with the above comment and would wish to consider the suggestions brought forth by participants as solutions to the problem of negative impact on cyber learning. Some of these are as follows :

- An awareness of the obvious dangers and pitfalls of cyber learning should be made available to tertiary students.
- More studies should be undertaken on negative impact of cyber learning.
- Recommendations should be made as to numbers of hours of safe use of computers, and the effects of adverse materials such as pornography and violence.
- More human interaction and development of a moral reasoning framework that is based on principles of justice, rights and welfare should be introduced into tertiary education.
- Students should be exposed to arguments on all sides of an issue, which helps to make decisions.
- Students should be provided with tools to critically evaluate information, and discover their identities.
- Students should be equipped with philosophical underpinning in order to learn to engage themselves in critical thinking, moral reasoning and decision-making.

Although these suggestions appear valuable, the propositions that emerged from the data analysis suggested that a transformation of student's way of reasoning at a deeper level is required in order to enable students to face the challenges of cyber learning. "Reasoning process by which a person arrives at a moral judgment of what is the moral thing to do in a moral dilemma" (Rest, 1987, p.18). I do not wish to discuss more on these suggestions because the aim of my thesis is not to find solutions or to solve problems, but to crystallize an issue of importance, which is "The impact of cyber learning on moral development".

The propositions I have discussed in this chapter raise a number of issues in relation to the impact of cyber learning on moral development in tertiary education. Participants' voices have been heard as they viewed cyber learning and moral development in tertiary education in New Zealand. Lawrence Kohlberg's moral development theory has been most appropriate as a framework to understand the importance of moral development in tertiary education in an era of learning in cyberspace. As my research project has reached its conclusion, in the next chapter, which is the final chapter, I have summarized the thesis and considered further research study for the future.

Chapter Seven

Conclusion

Tertiary education is the stage in a student's life, in which he/she goes through the 'conventional' level of cognitive development, according to Lawrence Kohlberg's moral development theory. My thesis is that many factors in cyber learning threaten moral reasoning and decision-making that occurs in conventional level of cognitive development of tertiary students.

Data for the research project was collected from tertiary educators in Palmerston North in New Zealand. The results revealed that cyber learning has an impact on moral development. Several themes emerged from the data analysis. These were categorized as :

1. The negative impact of cyber learning.
2. The positive impact of cyber learning.
3. Cyber learning and moral development in tertiary education in New Zealand.

The following propositions surfaced under the category of the negative impact of cyber learning, with five main characteristics identified as factors that make cyber learning a challenge to moral development. They were:

- Cyber learning has resulted in the Birth of a Cyber Identity.
- Cyber Choice in cyber learning overrules moral reasoning.
- Cyber learning encourages alienation from human Interaction into Cyber Isolation.
- Cyber learning has resulted in Cyber Freedom.
- Cyber learning introduces students into Cyber Illusion in Virtual Reality.

A proposition that surfaced in relation to the positive impact of cyber learning was:

- Cyber learning is a gateway to new dimensions of learning, and a paradigm shift in learning could permeate tertiary education as a result of cyber learning.

In the theme of cyber learning and moral development in tertiary education in New Zealand, the following proposition emerged :

- To enable tertiary students to face the challenges of cyber learning successfully, it is important to equip them with tools of moral reasoning and decision-making skills.

As I contemplated the final result of this research study, I could see that it has been successful in clarifying the vision of tertiary education and to see to the future beyond the immediate. I feel the five propositions that emerged as results of the negative impact of cyber learning present themselves as a wakeup call to us. Yet, the positive impact of cyber learning has surfaced a proposition that gives hope of new dimensions and a paradigm shift of learning. To move away from the old often creates an excitement and a sense of novelty. But the final theme, 'cyber learning and moral development in tertiary education in New Zealand' expresses what has to be attended to in tertiary education in order to enjoy the benefits of cyber learning without being affected by its negative impact.

At a time when tertiary providers are rushing to embrace everything in the name of profitable technological progress, I feel this research study serves the purpose of standing in the gap on behalf of New Zealand tertiary education.

"...To the task of keeping the lamp of learning aflame...and hand it on undimmed to the coming generation".

The Vice Chancellor of University of New Zealand, Professor Sir Thomas Hunter spoke those words regarding the aim of the tertiary of education in his centennial lecture delivered in 1940. "The Tertiary Education Manual of Wisdom", if any such written document existed, would explain that those words mean that it is the responsibility of tertiary education institutions to contribute in every possible way, to the moral development as well as the intellectual development of students.

Recommendations for further study

A literature review on this research topic revealed the lack of research undertaken in this area. Several participants also commented that sufficient research is not done on issues of moral development and cyber learning at tertiary level in New Zealand. Further study could involve the tertiary level student population in New Zealand, relating to their personal experiences of cyber learning.

My research study identified five factors that make cyber learning a challenge to moral development. Each of these factors by themselves could be used as separate field of study. For example to study how Cyber Identity, Cyber Choice, Cyber Isolation, Cyber Freedom, and Cyber Illusion has affected tertiary students and to consider more extensively the implications of each of these.

Participants have mentioned the importance of equipping students with tools of moral reasoning and decision-making skills, but participants have not mentioned clearly what they are. More comprehensive research could be done in this area to identify the most suitable way to let cognitive development occur among tertiary students in an era where moral development is challenged by the impact of cyber learning.

A critical study of new dimensions of learning that occurred as a result of cyber learning could be another important research to be undertaken in the future. In another decade or two, more avenues for further study would open up by examining the paradigm shift in tertiary education that has been mentioned in this thesis.

In conclusion, I would like to look back at the different stages of the research project that I had to go through to reach the completion of my task. Getting involved in a research with a topic that deals with 'cyber learning', 'moral development' and 'New Zealand tertiary education' was a challenging, enjoyable and a daunting experience for me. Although I started the research project with the idea of "only" exploring a specific topic attitude, it has led me to new vistas of knowledge. I could compare the process I went through with my research project to climbing a mountainous path. With each climb to the top of a mountain the "aha" moments with an exceptional view was a novelty in my learning experience. The impact of cyber learning, the vulnerability of New Zealand tertiary students to the challenges of this impact, and the importance of a

framework of moral development in tertiary education emerged more vividly to the surface as a result of this project. The thesis has influenced me to review my own ideas on these issues. I hope it would make an imprint on the minds of the readers too, and make a significant contribution to the knowledge of tertiary education in the era of cyber learning.

Appendix 1:

Invitation to Participate

[redacted]

DATE

Name
Address
*
*

Dear ***

A RESEARCH PROJECT

THE IMPACT OF CYBER LEARNING ON MORAL DEVELOPMENT

I am writing to invite you to participate in a research project I am currently undertaking.

I am Sureetha De Silva, a MEd. student at the Massey University, Wellington. I am completing a Master of Education (Adult Education) degree by undertaking research into the impact of cyber learning on moral development. I am interested specifically in tertiary education in New Zealand.

I would like to interview 10 – 12 tertiary level educators in Palmerston North. I have attached an information sheet, which outlines the details of the project more fully. Should you wish to ask any questions about the research please feel free to contact me.

If you would like to be involved in this research project please complete the enclosed consent form and return to me by [date].

Yours sincerely

Sureetha De Silva

Appendix 2:

Information Sheet

INFORMATION SHEET

What is the aim of this Research?

The main aim of this research is to investigate the following:

How has cyber learning affected moral development in tertiary education?

What factors have made cyber learning a challenge for moral development in tertiary education?

How will you be involved in this research?

If you decide to join this research I will invite you to take part in an interview. This interview will be audio taped. The interview will be arranged to take place at a venue and time convenient to you and will last for approximately 60 minutes.

Will you be able to be identified in the research?

To protect your privacy your name will not be used in the research. The information that you provide to me will be strictly confidential. The only people who have access to data will be my thesis supervisors Linda Leach, Ruwan Palapathwela and myself. The audio taped interviews, all computer disks pertaining to the research and my research notes will be kept safely in my home during the research. On completion of the study all research material will be destroyed.

Can you withdraw from the study at any time?

Yes. Your involvement in this research is voluntary. You are free to decline to take part or to withdraw your participation at any time. You are invited too, to ask for further information or explanations about the research at anytime before or during the research.

Can you contact me?

Yes. You are welcome to contact me at any time. My contact numbers are on the letter, which accompanies this information sheet. If you have further questions or any concerns about the research that you would rather not discuss with me you can contact my research supervisor Linda Leach at Massey University Wellington (04) 8012794 ext. 6947

You have the right to decline to participate in this research.

Summary
If you agree to be involved in this research it is important that you are clear about the following points.

- The details of the study have been clearly explained to you. Your questions have been answered to your satisfaction and you know you can ask further questions at any time.
- You have the right at any time to withdraw from the study and any information you may have contributed will not be used in the research.
- As a participant you have the right to decline to answer any question; you have the right too, to ask for the audiotape to be turned off at any stage during the interview.
- What ever discussed at the interview will be confidential.
- Your name will be kept anonymous and will not be disclosed in any of the research material or research publications.
- The information you give will be used only for this research and for publications and presentations arising from it.
- You will have access to the research findings once the study is concluded.

Thank you for taking the time to read this.

Sureetha De Silva

Appendix 3:

Participant Consent Form

PARTICIPANT CONSENT FORM

1 I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

2 I understand I have the right to withdraw from the study at any time and to decline to answer any particular questions.

3 I agree to provide information to the researcher on the understanding that my name will not be used.

4 The information will be used only for this research and publications arising from this research project.

5 I agree/do not agree to the interview being audio taped.

6 I also understand that I have the right to ask for the audiotape to be turned off at any time during the interview.

7 I would like the audiotape of my interview returned to me/destroyed at the conclusion of the project.

8 I would/ would not like access to the final report.

9 I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: .....

Name: .....

Date: .....

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