CHAPTER 6 THE CASE STUDIES:
DISTANCE LEARNER'S STORIES (Part A)

Introduction

The three respondents who participated in the pilot study, the thirty one respondents who completed the survey questionnaire, and the researcher, share in depth their experiences as distance learners. Whilst each respondent's situation is unique (different life circumstances, different degrees, and different tertiary providers) it is interesting to note several parallel themes emerging throughout their responses.

Each respondent is categorised according to whether they fall into any of the equity groups or multiple equity groups. Equity groups are those which are recognised socially, economically and geographically disadvantaged groups, such as Indigenous people, people who live in rural or isolated locations, people with disabilities, people from a non-English-speaking-background, and women enrolled in non-traditional areas or post-graduate studies. The rationale behind this is to assess any common threads running throughout the feedback. As stated, these case studies can also be read as socio-historical artefacts, spanning (as some do) the transition between traditional print-format distance learning and the new online technologies.

The classifications are as follows:

- **Category 1 respondents** are distance education students who do not fall into any of the equity groups identified in this study. These are students who, by their profiles,
are not of Aboriginal or Torres Strait Islander descent. They live in the city or large regional centres with relative access to services such as tertiary institutions where they can study on-campus if they desire or are able to. This choice is affected by whether they can accommodate on-campus study with such existing personal responsibilities as work or family, if the local tertiary provider has their preferred course on offer, and/or if the student can gain a place on enrolment. By profile, these students do not have any disabilities. They come from English-speaking backgrounds, are either in full-time employment or are supported by a spouse on a satisfactory wage, are not female students enrolled in a non-traditional area of study or postgraduate study, and are younger than 55 years of age.

- **Category 2 respondents** are distance education students who fit the description of one equity group. The equity groups used in this study are: Indigenous students, rural and isolated students, students with disabilities, students from non-English speaking backgrounds, students with a low socio-economic status, female students enrolled in non-traditional areas of study or postgraduate study, and students who are over 55 years of age.

- **Category 3 respondents** are distance education students who fit the description of two of the listed equity groups above.

- **Category 4 respondents** are distance education students who fit the description of three or more of the equity groups listed above.

During the research process, participants were ascribed a number to protect their identities in addition to ease of reference. Here they are ascribed a pseudonym in the re-telling of their stories in order to maintain their anonymity. The direct quotes included have been taken from their responses in the survey questionnaires or the transcripts from the interviews. The remainder of the textual representation is paraphrased for brevity and stylistic licence.
The stories of the first three categories of respondents will be recounted in this chapter. Chapter 6 contains the stories of the final group of respondents, along with an overview of the responses on the values and challenges of CMC in distance education that are raised.

**Category 1 Respondents – Distance Learners who are Not Representatives of any Equity Group**

1.1 Christina’s Story.

Christina is a distance learner in her mid-forties. As the result of a marriage breakdown, she has been left with the personal responsibility of a large mortgage on the family home in the suburbs of Sydney. She has no dependants.

She originally trained as a nurse, and has been employed for almost ten years with a small consultancy located in the city CBD. Although she enjoys her work and the “family” feel of her employment, Christina has wanted a “sea change” for a number of years: to teach and to live in the country. She hopes that equipped with a teaching qualification, a move to the country and the subsequent establishment of a different life-style will be a possibility.

Living in the city, Christina does have access to a number of universities, but due to her need to maintain her full income, has opted to enrol as a DL through a large rural university. She believes that on the whole, studying by distance has worked out well for her: she completes her reading on the train as she commutes to and from work, and prepares for assignments in the evenings, and/or on the weekends, depending on her commitments.

Christina has rated work, finances and access to libraries as the greatest challenges to the successful completion of her studies, followed closely by support from the university and research skills. Computer equipment, Internet access, computer and writing skills were only moderate challenges to the successful completion of her studies.
Whilst Christina considers herself to be relatively computer-literate, owning her own computer, and also having access to one at work, she feels that she would have benefited from learning more skills prior to undertaking her course. She has access to the Internet at work, and had previous experience of e-mail by establishing her own Hotmail account. Her computer skills have been learnt in the workplace through mentoring by other staff members and by trial-and-error. She believes that her studies as a DL would have been enhanced if she had specialised training in computer literacy – especially in her university’s web-site – prior to commencing her graduate studies. All her subjects have had a computer forum component. Apart from one subject, these have not had a compulsory participation aspect. Christina feels that if the Internet was to be the primary vehicle for DL in specific courses, she would need to upgrade her personal computer, and that she would also have to buy a modem and connect to the Internet at home.

Christina is a very sociable person, and misses being able to meet and talk with other students and her lecturers. For this reason, she loves the compulsory residential schools, and also to communicate with other students on the forum.

1.2 Anita’s Story.

Anita is a mature-aged student, also enrolled to complete a teaching qualification via DL. Her choice to study via DE was due to a combination of distance from the tertiary institution of her choice, and also her continuing responsibilities to her home and family. Anita lives with her husband in a suburb of Melbourne. Her children have grown and left home and Anita believes that now “is the time to do something for myself”. Initially she enrolled full-time in her studies, being unaware of the difficulties of study as a distance learner, and has changed to a part-time enrolment. She says that the challenges of DL are great.

Anita could have enrolled in a similar course at a metropolitan university about a half hour’s drive from her home, but says that it is more “convenient” to enrol as a DL because she can study when she is able. The down side of this decision is that she believes that it is
more difficult to study via distance education because of the geographical and social isolation. Subsequently, Anita lists geographical isolation, the lack of minimal support from the university and poor academic writing skills to be the greatest barriers to the successful completion of her studies as a DL. For example, Anita being a sociable person, misses the face-to-face feedback from those she needs to communicate with. She also struggles with feeling that she does not fully understand the expectations upon her and finds it hard to get clarification. Access to library facilities and personal finances are also listed as additional constraints.

Anita has both the necessary computer hardware and software to complete her studies, and is connected to the Internet. Her computer competency – whilst rated “experienced” at the outset - has developed over time. Her training has come mainly in the form of trial-and-error, through specific courses (adult education and tertiary providers), and through friends and family spending the time with her.

Anita is angry about presuppositions which take place regarding existing student knowledge and describes one bad experience which left her feeling “stupid” rather than encouraged. Although being involved with computing to assist her husband’s business, Anita enrolled in “Introduction to computers” which she felt would not be too difficult. Instead, she has found it “damn hard”, for despite its title of “Introduction”, it presupposes a basis of knowledge that is far beyond her level of competency, and perhaps better suited to those who have a more thorough or recent grounding in computers, such as recent school leavers.

In terms of the online component of units, Anita says that she has not had too many challenges. Problems along the way have been in relation to hyperlinks not working, which has been both challenging in terms of time and finances to sort out. Anita says that every problem that occurs as distance learners costs money to solve, and she believes that her on-campus counterparts don’t have to face such issues. She believes that there should be compensation to DLs to help equalise the challenges of off-campus learning as compared to on-campus learning.
Anita comments that in order for CMC to enhance DL, resources (such as accessing journals and books online) should be much more accessible. She says that she has paid a huge fortune in purchasing text books that she has only used once and is having trouble selling, believing this to be an unnecessary financial burden on external students. Again in relation to library borrowing, Anita responds that she would like to see longer borrowing periods for DL students, subsidised photocopying and assistance in return postage of textbooks, again to even out the learning environment for distance learners: to make equity more of a possibility than it is at present.

She says: "Online learning can be very draining and costly: Internet access costs, printer costs to make hard copies, too many hours in front of the computer." She also states that in one subject that she had taken, no hard-copy material was provided, and that it was all found on-line, and comments that the down-loading and printing costs are expensive burdens on the distance learner. Perhaps total online learning may be "progress" to some degree, but Anita feels that it is not satisfactory for DL students to receive no hard copy material at all. Whilst she believes that CMC makes DL cheaper economically for the university to provide, this adds to the costs and challenges of the distance learner, for example, in downloading and printing coursework, reading and information. Thus, Anita would like to see universities provide a hard copy alternative for students, so that they "can take it with them to read anywhere, anytime".

**Category 2 Respondents – Distance Learners who fall into one Equity Group**

2.1 Indigenous students: Karen’s Story.

Karen is a bright young woman who lives and works in the city. With a degree in science that was completed on-campus, she has enrolled as an undergraduate to pursue a non-work-related passion in the field of arts. She has a strong Aboriginal heritage.
Karen’s computer skills were gained originally whilst studying for her first degree, and since then at work. Thus she rates herself as experienced in utilising computer technology. Her challenges however, have been in communicating with peers, and especially, with university staff. There are several issues that Karen raises.

The first area that she has experienced frustration with is in communicating with course lecturers. Any communication that has occurred “is all at my own instigation”, and is frustrated that this communication process is not two-way. It is also irregular. She feels that DLs would be more encouraged to persevere with their learning if lecturers/tutors would communicate regularly with their students so that they do not feel so isolated.

Secondly, as a DL, all her chosen subjects have had compulsory Residential school attendance, which she believes is a great idea, as long as it is administered well. Karen said that having gone to the expense and effort of arriving at the residential school, she found that her subjects were scheduled for the same time, and she was faced with the difficult decision between attending the subject that she liked or the subject she was struggling with. Karen feels that as DLs, students should have all information upfront when enrolling in subjects so that no clashes occur. This information should also be available online.

She also raises the point that it might be beneficial if DLs could gain Internet access at “sister universities” to gain additional support and access to online materials, such as lectures and resources that DLs at other universities might have. In this way, information dissemination could become a shared responsibility between institutions, enhancing the quality of tertiary education for distance learners.

Karen’s experiences as a distance learner have been frustrating, especially following her on-campus experiences. With ongoing frustrations relating to lack of communication and information, she has decided to withdraw from her course. She may continue this degree in years to come, but says that in order for her distance learning to be successful, she needs better support and communication from the university administration and teaching staff.
2.2 Rural and Isolated students: Marianne’s Story.

Marianne lives with her husband in a large rural town. They both have full-time careers. She is enrolled as a DL to complete a postgraduate teaching qualification as she believes it is a better long-term career prospect before she has children. As a DL, she can study out-of-hours without affecting her income.

Falling into the 19 – 24 year age range, Marianne is young in terms of other distance learners in this research. She has gained her computing skills though classes at high school, and then developed these skills during her on-campus undergraduate study in the city, and through work since then. However, at the outset of this course, Marianne did not have her own computer at home, and so had to purchase the necessary basic hardware and software prior to her first unit of study. She has also connected to the Internet via a local ISP.

A frustration for Marianne is the subject-related forums that she participates in. She feels that “they could be used more effectively”, with a more active presence on the part of the lecturers. She would also like to have key information more visibly identified on screen for all students, so that it does not get lost in long strings of other information and communication. She says that most DLs don’t have time to wade through lengthy strings of text to find key information. She is also concerned that when the lecturers do not have a presence on the forum, information generated by student discussions may in fact be erroneous.

She also suggests that: “tutorials, similar to online chat-rooms, could be useful for student discussions.” These would be small-group affairs where discussions around specific topies could be lead, rather on the main forum which tends to go everywhere. In addition to a greater presence on subject forums, Marianne would like to see lecturers trained in how to best utilise online learning strategies and how to best guide student on-line discussions. She believes that lecturers can play a role in enhancing student learning by knowing how to use the technology themselves.
2.3 Rural and Isolated students: Jon's Story.

Living rurally, Jon's decision to study via DL was due to his work-related responsibilities and to financially provide for his family, his need to upgrade qualifications for employment security, plus the geographical distance to his closest university.

Whilst he has developed computer skills over many years of teaching, purchasing the necessary computer software and hardware and connecting to the Internet over this time, Jon still lists online support from the university academics and supportive library help as the two main areas of challenge to his successful learning.

Another challenge that Jon faces is the phone-line being tied up when utilising the Internet at night whilst he is studying. He is considering putting in a second phone-line to overcome this dilemma, as people cannot get through when the computer is connected to the Internet. However, such things cost money and finances are already stretched.

2.4 Rural and Isolated students: Diane's Story.

Diane is a busy mother of three children, two of whom are at school. Choosing to study via DL is for Diane a necessity due to her requirements as a parent, in combination with the running of a household and supporting her husband in their business. She studies part-time.

Diane believes that there are many challenges to being a successful DL. During this interview, for example, she is caring for one of her children who is lying ill on the couch next to her. She also has an essay due and feels incredibly stretched, but wants to proceed with the interview so that others can understand what primary care-givers who are DLs experience. She would like a greater understanding and empathy from tertiary institutions.

Diane and her husband purchased a computer for their business, and through trial-and-error, she has learnt how to use one over the years. She also does business ordering and banking
over the Internet. Her challenges in online learning are not with the computer, but in navigating the web-sites – especially the university ones, and also in accessing reliable library support.

Diane believes that DLs should have more information available to them before they enrol in course and subjects. For example, she would have liked to have known more realistic time expectations of the different subjects. One subject that she enrolled in took her 30 hours per week to wade through, even though it suggested that she would need to allow 10 hours. Due to that experience, this semester she only took one subject, but found that it only needed 10 hours per week, so that she could have taken another which is frustrating when you are inching your way towards a degree.

Diane is also frustrated about the privacy laws preventing her access to names and contact numbers of others studying the same course at her university. She feels it would be far less isolating for distance learners to be able to contact others. She would also like to have the opportunity to ask all students enrolled in her course (not just the ones in her current subject) about who is taking what subjects in the next semester or year. This way, DLs can choose to take the same subjects ahead of time so that they can pre-plan online support through e-mails and forums, and in turn, maximise feedback and support. She would also like to see some type of compulsory on-line study groups for DLs.

Diane also has trouble sitting in front of a computer, both in terms of physical comfort and eye-strain. She prefers to have a hard-copy of material. With family responsibilities, it is important to have portable study notes. She does not have a lap-top, so accessing information in subjects where all components are on-line, has been a challenge, especially when having to travel for the business.

CMC has however enhanced Diane’s DL experience in being able to access resources – important for rural students with child-caring responsibilities. She also communicates with other students whenever possible. In contrast to the communication with her peers, Diane is frustrated because her lecturers do not communicate with her very regularly. Responses to
her questions have been slow coming back, if at all. She believes that there should be a maximum time-frame for lecturers and tutors to respond to the on-line requests of DLs, and that this should be no longer than a couple of days. On several occasions, Diane has had to wait over a week for responses to her e-mails, which has caused her to fall behind in her coursework as she has not been sure how to proceed. In the last situation, a very kind lecturer from an overseas university answered her question. She wonders why someone at the university where she pays tuition fees could not have replied to her question.

Diane wonders about the success rate of DL students. She says that “if you work in say a field of computing, and are doing a degree in IT, then you might be OK. There are colleagues around to ask questions or observe. But when you are doing a degree in an area that you know nothing about, then it is so hard. You have few people to ask for help, and rely on the support of lecturers and other students.”

Diane finished school at the end of Year 10, and has desperately wanted to complete a degree for many years. Due to the business and family responsibilities plus their rural living, DE has been the only possibility to make this dream a reality. However, Diane is planning to enrol on-campus in a few years time, once her youngest is at school as she cannot see herself completing unless she does so, because DE is so challenging. This would have to be part-time on-campus attendance as it would be a long commute. Diane’s final words are: “We need more support as DLs.”

2.5 Rural and Isolated students : Kathy’s Story.

Kathy is the only off-shore respondent in this research. She is an Australian citizen and currently resides in a third-world country where she teaches, but needs to formalise her teaching qualifications. She is enrolled as a DL with a large rurally-based Australian university to complete a graduate teaching qualification.

Whilst she is computer-literate and has all the hardware and software necessary to complete her studies, the uncertainty of the local power supply and phone-lines are huge challenges
to overcome. Indeed, it can take weeks for phone or power services to be repaired when 'down'. She would like more understanding from tertiary institutions for students who study online with such challenges, as not every student enrolled in distance education can access the Internet when and where they would like to. Indeed, allowances should be made for these students to help them successfully complete their tuition.

Accessing library resources remains a challenge to Kathy. One of the benefits that she attributes to CMC is being able to carry out research online, that is when she is able to work online. She cannot utilise on-campus library borrowing systems due to the high cost of postage overseas, the length of postal delivery times, and concerns for the safety of posted items. As a result, Kathy refrains from borrowing library resources in the traditional methods. However, she like other respondents in this study, finds it difficult to navigate online library catalogues and feels that her study could be more effective if she knew how to use them fully.

Like Dianne, Kathy also cites the rare communication from lecturers as a barrier to her successful learning, especially living such a long distance from the university. She is studying because she has to complete this qualification, but wonders if others would simply "drop out" if they weren't in such a situation as her: "having" to study or lose their livelihood.

2.6 Rural and Isolated students: Kris's Story.

Kris is a doctor working in general practice in a small town in rural Victoria. He has enrolled as a DL to test his aptitude for study in his graduate studies, as his tertiary institution is located offshore. He is considering moving overseas to enrol full-time on-campus should he find that his studies go well this year. Indeed, he is only allowed to complete one-third of his degree as a DL due to training requirements of the course. His lectures are available online or on tape, and he chooses the tape option as he can take them with him to listen to when able, for example in his car on the way to work.
Kris has his own computer equipment and Internet access both at work and home, but only uses his home PC for study purposes. He uses the Internet for research, using the hyperlinks noted by his lecturers. A difficulty however, has been that often the links suggested have not been correct, and the route that it has taken to try and track these resources down has been costly in terms of time and money (Internet hours and downloads). He would like to see public domain resources available for DLs which are ready for quick print-based downloading. However, he feels that it would be even better if support materials could also be available in print format to save DLs time and money, and so that they are easily portable.

Kris also uses the Internet to communicate with his lecturers. Two disadvantages of communicating by telephone with his lecturers overseas are that the phone-call costs would be prohibitive, and there are challenges communicating across different time-zones. The benefit of e-mail in its asynchronous format is that Kris can communicate with his lecturers without the concern of worrying about costs and time differences. On the other hand, the major challenge remaining for Kris is that his lecturers are not responding to his questions promptly. Kris feels that “slow returns hold up study and can cause the DL to become demoralised”.

2.7 Students with disabilities: Vicki’s Story.

Vicki lives and works in the outer fringes of Sydney and could study part-time at a near-by university campus. However, she has a chronic and debilitating illness which requires hospital stays from time to time. Being a DL affords Vicki the online capabilities and flexibility to be able to study when her health allows it, without missing out on important material when she is ill.

Whilst she is competent in her computer skills, gained over time through courses, mentoring at work and by trial-and-error, there are aspects to online learning that Vicki would like to see resolved. For example, whilst she has the opportunity to download and print material, colours and graphics make it a more costly enterprise. Vicki requests that if students need to print off material available online, that a print-view (text only) option be
also available to help reduce the costs born by distance learners that their on-campus counterparts don’t have to face.

Personally, Vicki also needs to upgrade her current computer system to one with more capabilities. However, she cannot afford that at this moment, so has to continue on as is. She would also like to change to a more reliable Internet connection, but this too is more costly, so will have to wait. Although Vicki and her husband both have full-time employment, their joint income is modest, and the cost of her long-term health care has a large drain on the family finances.

Vicki has received a lot of support from her peers on the subject-related forums, and through the forums, has been able to set up small study groups for others who live in her region, which she has found beneficial, especially in preparing for exams. Living in the suburbs has made such gatherings easier. Vicki loves to be with people and to talk. As a result, she enjoys being able to attend the compulsory residential school and put faces to names that she has seen contributing on the forums. She feels that through the forums, Residential schools and the small study groups that she has been able to feel a part of a learning “community” and therefore not feel so isolated.

2.8 Students from a Non-English Speaking Background: Ursula’s Story.

Ursula migrated to Australia a several years ago from Europe. Her English – both written and spoken – is excellent, and she has little problems in communicating. Ursula now lives and works in Melbourne. Her employer is a company that specialises in IT. For her, workdays are spent working with computers and ordering and conversing online, and as such, has little difficulty with the online components of her degree. Indeed she prefers her materials that way. Her choice to study via distance learning is so that she can organise her study around her work times.

Despite having so many skills in the area of IT, Ursula has experienced some challenges in negotiating the university web-site and subject-pages. To overcome these difficulties, she
actually drove to the university campus and spent a day asking other students on-campus to show her how to navigate the web-pages. She says that without this help early on, she would have been “stuck”. She says that she does not know how other students who are not as familiar with IT as she is, and who do not have the opportunity of being able to go to the campus to be personally shown how to go about the online links, get through their courses successfully, as it is so confusing. She says that students need to have full access to all that is available – and know how to access these resources – for distance learning to be successful.

2.9 Students with a low socio-economic status: Ken’s Story.

Ken is a full-time higher degree DL student. Whilst the study load is ‘heavy’, he feels that enrolling in his studies full-time is the only way to successfully complete as a DL, as he knows of many ex-part-time DLs who have “not completed” due to it being such a “challenging way to gain an education”. He lives in a large regional centre that has its own university campus, but has enrolled as a DL through his chosen university due to course availability. He feels “deprived” not being able to study on campus, and to gain the opportunities that his on-campus counterparts have both socially and academically. Whilst living independently and is currently unemployed, he also has to care for an aging parent.

With little income, Ken has had to make his computer hardware and software purchases gradually over time as he could afford to do so. His skills were learnt firstly through a course and then by trial-and-error. At the commencement of his studies, he wrote everything by hand, and then would go to a local study centre and type up his work on the word processors there. Modern technology makes this whole process so much easier.

There have been some challenges along the way for Ken. One was when his hard-drive “crashed” on his computer, which required repairs. The problem was that not all his work was backed up to disc. This was a costly exercise both in terms of financial and emotional stress as Ken struggled to have his computer repaired and also retrieve lost information.
Ken enjoys several aspects of on-line learning: being able to have both the asynchronous (e-mail, online materials) and the synchronous (real-time) availabilities of CMC in distance learning, and also the research opportunities. However he comments that the research process can be very time consuming, and a student can easily “get lost” on the WWW, especially if they do not know what they are doing.

For Ken, some of the negative aspects of the use of CMC in DL involve the physical effects of sitting and looking at a computer screen. Ken suffers from serious eye-strain, stating that his eyes become “pixelated” by the end of a study session. He also has posture problems associated with sitting at the computer for lengthy periods. He also struggles with “metacognitive shifts” switching from different modes of analysis.

Ken’s university allows online assignment submissions which is a wonderful cost saving for low-income students such as himself who live long distances from the university. However this too can create problems, especially when the university’s system is “down”, for example during upgrades. In addition, the volume of work being transmitted can create challenges. For example, when Ken tried to submit his thesis draft online, the volume was too large to be opened at the university end.

Ken also feels that despite the few positives mentioned, on-line learning is an “impoverished form of learning”. This is for several reasons. Firstly, it transfers all responsibility and costs away from the university and onto the distance learner who is already disadvantaged. Secondly, when all material is available online, it raises the issue of portability, as Internet access is not always an option for DLs, plus lengthy sessions can be harmful to a student’s health. For portability when all material is only available online, students have to carry the burden of downloading and printing materials. Also, students may not have access to IT support, and their lecturers/tutors may have little skill in the area either. Thus “CMC in DL makes learning more complex” (Ken’s emphasis).

Ken strongly believes that DLs need a “physical presence” if their learning is to be successful.
2.10 Women in non-traditional / post-graduate study: Cindy’s Story.

Cindy is a mother of two young children who lives in Perth. She would have preferred to study on-campus, but “missed out on the cut” at the local universities, and is enrolled in an undergraduate degree to study as a distance learner. She is facing many challenges, and says that she will transfer into study on-campus as soon as she is able.

Apart from caring for a toddler, Cindy does not own her own computer, nor does she have Internet access. Her husband has access to a lap-top computer for his work and Cindy accesses this when he is at home. However with his employment, he travels around to different locations taking the lap-top with him, which means that Cindy has irregular access. Sometimes she can utilise a computer at a relative’s house, but the situation is becoming difficult.

Apart from the challenges accessing a computer to complete her subjects, some with online components, the other major challenge that Cindy feels is the social isolation. Although she lives in a city, the combination of studying and caring for a young child with limited options to socialise outside the home “makes it all harder”. She would like more contact and communication with lecturers and other students – both online and in the local area.

Category 3 Respondents – Distance Learners who fall into two Equity Groups

3.1 Rural and Isolated + Low SES students: Susan’s Story.

Susan is a mature-aged student, wife and mother of two. Although her household has a moderate income-base “on paper”, their finances are always tight. In addition to her family responsibilities, her decision to study via distance education is based on her geographical isolation. Living in a small coastal town, her nearest university is 3 hours drive away.
Her greatest challenges to completing her subjects (and whole course) via distance education are several. She lists finances, time, self-motivation and her mature-aged status (especially her time away from study, plus her lack of "know-how" in terms of study skills, computer literacy, and academic expectations) as challenges that she has to continually negotiate. Of this list, computer "know-how" or knowledge is a huge burden. After she enrolled, she undertook an Adult education course in a larger town nearby so that she could learn to use a computer. This has added an extra cost to her study in terms not only of the course itself, but also the commuting to and from the course, plus paying for child-care when necessary. Then immediately prior to commencing her degree, she took part in a pre-enrolment residential course in study and computer skills as she felt it was necessary. Again this was a huge cost, but as she had few existing computer skills, that she needed to undertake this option, otherwise her study would not be successful. She said that it was difficult to get to this on-campus training session, and although she had to "bust a gut" to get there, she still felt lost. It was too fast-paced for mature-aged students with little computer experience.

Prior to commencement, she has also had to connect to the Internet by purchasing a modem, appropriate software to install the hardware, and connect to the Internet via a local provider. However, with this all in place, Susan is still not sure of what to do. "How to ...?", "What to ...?" and "Why ...?" are frequently questions that she considers, and does not always get the answers.

Additionally, Susan says that she was really unprepared for her study. Indeed she describes it as "being in thrown in at the deep end", "almost dying" in surviving the first semester: it was such a shock for her. At the end of the first year, she still was not sure of how to log on to the university web-site. So with a window of opportunity over the Christmas break, she finally had the time to stop and read through her handbooks. She regrets the missed opportunities and support that may have been there, but she simply did not know how to gain access. Over that first summer break, Susan taught herself through trial-and-error to navigate around the university web-site.
In the first semester subject of the next year, Susan communicated on the subject-specific forum. After she realised that it was the same eight students who were regularly communicating on the forum, sharing assignment ideas, and so on, she suggested that they all exchange private e-mails, and “meet online privately”. It is at this point that Susan feels she had “real” contact or support in her tertiary learning. This support group began to communicate mainly off the forum to help each other, and not those who may have simply copied their ideas on the forum, but did not contribute.

This group then became the nucleus of academic life for Susan after she learnt that they were also enrolled in other compulsory subjects that she was. She says that this group supported each other even when lecturers were non-communicative or even “pathetic”. An example of the latter is as follows. One subject lecturer at the university was a first-year out student with no experience in the field. She was trying to direct the work of students with 20 years or more experience in the field, but without the necessary “bit of paper” to say that they could be recognised professionally. Susan says that at a compulsory residential for this subject, this lecturer began to write down everything that these experienced people suggested, then later attempted to pass them off as her own ideas on the forum.

Susan also feels frustrated by the lack of communication between DLs and university teaching staff. In relation to online forums that are linked to subjects, Susan recommends that lecturers actively and regularly communicate to guide students and to answer questions that are raised, so that DLs don’t feel further isolated.

Another challenge which Susan lists as a barrier to her successful learning is that her old computer does not have the memory capabilities, nor the “right” software (MS Word) so as to be able to take advantage of the electronic assignment submission system that the university offered distance learners. This has become a “Catch 22” for Susan. With her limited finances being used to pay for text books, ISP costs and HECS (which was paid up-front as it was the cheaper option to deferral of payment), there is no money extra finances to upgrade her computer hardware or software. This is frustrating for Susan as it has limited her opportunities and experiences in many areas.
In relation to CMC and DL, Susan would have liked the first course of any subject available to distance learners to have a compulsory forum component. For example, “You are required to contribute to the forum…” in a particular way, and perhaps be assessed on that. This was a requirement of one of Susan’s earlier subjects, and she feels that if it were not so, she would have never tried the forum option, and thus missed the wonderful support that she subsequently gained from it.

Susan says that despite the cost involved, she still prefers to use the telephone to contact her lecturers rather than using e-mail because it provides vocal feedback in “real time”, thus ensuring that she can get answers that she is seeking.

3.2 Rural and Isolated + Low SES students: Ed’s Story.

Ed’s days are long. He works as a secondary teacher during the day, and although on a third-year teacher’s salary, he supports a family of four. After hours he renovates the family home, and between those commitments, he is completing a Masters by coursework as all staff are encouraged by his employer to complete post-graduate study. Ed feels frustrated because it was suggested to him that his job security was dependent upon it. Ed “does what it takes to pass”. He spends hours on his tertiary work, and gets little sleep. He just looks forward to finishing.

Ed’s undergraduate degree was completed using “pens and paper”. He had purchased an Atari computer towards the end of that degree (which he says was hard to fund at the time) and is frustrated that the equipment was not compatible with the Microsoft requirements of his higher degree. He has purchased his current PC through a licensing agreement with his employer, which has the unforeseen problem in that he does not “own” the software thus should there ever be a challenge, he cannot re-load the software onto this or another PC. He has also connected to the Internet. At first he signed up with a provider close to his employer, not realising that it was in a different phone sector, and that every time he
wanted to log on, he would have to pay long-distance phone costs. It was costly to then change over to another ISP provider located in a town in the same telephone prefix area.

Other challenges that Ed faces as a rural student is the trouble he has getting connected and staying connected to the Internet in the evenings. Trying to log on to his ISP is a nightmare, as it is engaged for sometimes hours on-end as people try to log on after dinner. Also, blackouts are frequent, and cause other challenges, such as the computer crashing, and the possible loss of work. Another challenge is that Ed’s computer was infected by a virus which caused the whole system to crash, which posed challenges in having to take the computer back to work and for the technicians to attempt to retrieve lost information, plus reconfigure the whole system. This took weeks to complete, causing delays in assignment preparation and in the loss of e-mails, seriously affecting his study.

Ed shares his computer with his wife and two oldest children, who are in high school. Getting access to the technology is difficult and at times a roster system has been used. Ed’s studying on a low income base compounds any obstacle that arises as does his rural living environment. He says that it is the input from his supervisor, who regularly makes contact with him either via e-mail or the telephone, and gives Ed words of encouragement along the way, is the thing that is sustaining his study efforts. Ed says that this man is a blessing to him as a mentor, and remarks that it is no wonder that he has been given an award by students at the university. Ed says that he knows of others who do not get encouraging support along the way, and that this lack of support can be the cause of students dropping out of their studies.

3.3 Rural and Isolated + Low SES students: Jodie’s Story.

Jodie’s story perhaps highlights the challenges of low-socio economic students coupled with another equity grouping, in this case, students living in a rural and isolated setting. Over the two years that I have “known” Jodie, her distance learning experiences has faced many challenges. When she first made contact with me via e-mail to say that she wished to take part in the research study, she had just enrolled to complete a Graduate Diploma of
Education via DL. At that time, Jodie was under-employed labouring on remote properties whilst trying to put herself through her studies. Her choice of study is to complement her undergraduate studies, majoring in sport, as she wants to go into secondary teaching.

I actually met Jodie in person some months after her initial e-mail during a residential course at the university where she was enrolled in 2002. It gave us the opportunity to discuss in person some of her responses in the completed questionnaire. Subsequent conversations have taken place over the telephone and via e-mail. Whilst at the residential course, Jodie’s wallet was stolen. In it was the large sum of money that she had saved to attend the residential school. The money was to cover accommodation costs, food and meals, and fuel for the trip home. Jodie was distraught at the loss of her wallet for she had no other financial backups. The compassion of other DE students on the course was wonderful, and enough money was collected to cover her costs and to get her safely home. Many of the contributors said that they would be in dire straits if they had lost their wallet as they too had little or no cash reserves. Before the residential was completed, the local police found the empty wallet in a bin in the nearby township, devoid of cash.

Jodie deferred her studies during semester 2, 2002 due to several barriers that she could not overcome, the major one being the state of her finances. She continued to seek work throughout northern NSW, and finally gained a position at the start of 2003. With the promise of more regular income, she re-enrolled in her course. The move involved borrowing money and gaining the assistance of friends and family to move her hundreds of kilometres. The process took longer than expected, and when finally settled, the semester was well under way. Jodie felt stressed that she was already behind schedule. She ordered the recommended textbooks through the University bookshop for one of her subjects, and “kept plugging away” with the resources that she had in the subject study guide and coursework, and online, anticipating that the text would arrive “shortly”. The date for subject withdrawal passed, but Jodie did not think it necessary to withdraw as the text was supposedly “on its way”. By the time that the textbook finally arrived on 31 May, both assignment deadlines for the subject had passed. Jodie was awarded a “Withdraw / Fail” grade for the subject- something that she is very unhappy about.
To compound the difficulties, Jodie’s computer “crashed” recently. She drove it to the nearest regional centre and was quoted a $1500.00 bill to repair the hardware, plus was told that to get all the necessary parts she would have to wait one to two months. With a computer essential for the completion of the second of her two current subjects, one which necessitates the creation of a web-page, Jodie feels that she has no option left but to again borrow more money to buy replacement equipment. Additionally, all information pertaining to Jodie’s enrolment is delivered via e-mails, which “is a problem when you don’t have a working computer or access to another computer in the area”. She says that without borrowing money, she will have had to defer for another semester before being in a position to have the equipment necessary for undertaking the CMC components of her course. This in turn delays course completion and the possibility of financially secure long-term employment.

She is currently fighting to overturn her “fail” especially considering the circumstances, but has to communicate via e-mail, as the cost of long-distance calls during peak-time is prohibitive. To compound the situation, Jodie has been told that her enrolment in future subjects is questionable because of her existing withdraw/fail grading. She feels very alone, frustrated and hurt. And she is angry that the financial investment that she has made thus far to improve her education, and therefore job security, has been to little avail.

Jodie lists several positive aspects to the use of CMC in distance education. These include that “you can get other resources even if you cannot physically get to a library”, “it reduces the costs of communication with the university” and “it provides opportunities to communicate with other students on forums”, but she hastens to add that this is only beneficial when access is optimal.

Jodie lists many aspects (based on her experiences) which she considers the negative aspects of CMC in DE. One relates to power supply and slow access time living in the bush. The second is the huge costs of repairs for hardware, coupled with having long drives to take equipment in to be service (no support call-outs for isolated students), and lengthy
delays in having items repaired if needed. Also, there is often no opportunity to get a second quote or even second opinion, as you can only make decisions on what is available. A third aspect is that even though the Internet has made researching for assignment preparation easier than driving to the closest academic library, she is not sure about authenticity of information that she has read.

3.4 Rural and Isolated + Low SES students: Janette’s Story

Janette is a single mother of three young children who lives in a small town in eastern Victoria. When her husband left the family home, she struggled to meet the children's needs plus maintain the mortgage repayments. She has been forced to return to part-time work, which whilst a low income, does provide financial and social opportunities for her.

Janette has lived in crisis mode for a number of years, trying to keep up with basic needs. However, she is now looking at longer term job security for herself, working around the needs of her children, and has chosen to study to be a teacher.

Due to her situation, DL is the only possibility. She studies at home during the daytime when she is not working, and whilst the children are at school, which is a blessing as she says that it is very difficult to log on to the 'Net in the evenings through her local ISP. However, a down side is that she needs to be contactable for the children, and when she is online, her phoneline is tied up for too long. She says that this is a dilemma and wonders about the possibility of installing a second phone-line or switching to broadband connection, but quickly dismisses both options as not possible due to her lack of additional finances.

Another challenge is that as it had been so long since Janette had done any study, she could not remember how to write essays, and she still struggles with this. She wishes that like on-campus students, she could take a draft essay to a lecturer and ask if she is on the "right track". She has a lot of anxieties about submitting her assignments plus the length of time
that it takes to receive them back to get feedback. Janette feels that she “has to pass” due to her family situation, which adds pressure. She cannot afford to waste time or money.

Whilst Janette has purchased the necessary computer hardware and software for her study, she had to do so gradually over time. She also shares the computer with the children, and although this is not too great a challenge at the moment, Janette can foresee that this might become an issue soon, as their homework requirements increase.

3.5 Women in non-traditional areas of study + Rural and Isolated students: Liz’s Story.

Liz lives in a small coastal town on the north coast of NSW. She is in her early fifties. Her choice of DE was due to her work, family responsibilities and as she lives too far to commute her closest university campus. At the commencement of her DL she worked full-time in her professional career, and studied part-time. Since that first year, Liz has become a single parent due to a marital separation. She has tried to maintain her study load, but has had to drop one unit. She has also dropped back from full-time to part-time employment on which she manages to support the family.

One challenge for Liz is the competing demands on the use of the home computer. Liz has timetabled her use of it from 9.00pm to 11.00pm at night when the children have finished their homework and are in bed, however there are challenges on the weekends when both Liz and her family need to use it. Therefore, they have decided that on the weekends, any school projects will take precedence over Liz’s university requirements. This is difficult for Liz but she says that she will just have to complete tasks in the available time.

Liz is quite comfortable with the use of computer technology, but says that it has enhanced the children’s educational research rather than her own, especially for Science and English. Due to her specialised area of study, there is not a lot of related literature available as yet on-line. She is unable to get to an academic library, so attempts to use the online library catalogue, and requests book that way. She used to telephone, but now finds the costs prohibitive. However the challenge with ordering library books is the shortened borrowing
times, the costs of fines if books are overdue, and the cost of postage. She knows of many rural DLs who do not access library texts because of these factors. Liz suggests that there should be more empathy for DLs when borrowing from on-campus libraries.

A challenge for many DLs in this study who suffer great time pressure as they often are juggling multiple responsibilities, and Liz is no exception, is that the university’s server function is not guaranteed. This creates a dilemma for online subjects when time is limited. Download speed and guaranteed accessibility to all aspects of all university web-pages have also posed challenges at inconvenient times. Liz has also experienced some challenges submitting online when the university server is “down”.

Liz is grateful for the Internet's capacity in increasing her communication with others, especially peers with whom she interacts with on subject-specific forums. Liz also communicates to her lecturers through the forums and also through private e-mails, but gets frustrated about the lack of responses and the length of time that it can take to get those responses through to those e-mails, if at all. She argues that universities should realise that DLs need as much of a lecturer’s time as do on-campus students, if not more. She suggests that in order to facilitate support of DLs, lecturers should be allocated time to communicate and support their students who are DLs.

3.6 Women in non-traditional areas of study + Rural and Isolated students: Amanda’s Story.

Like Liz, Amanda is also enrolled in a non-traditional area of study, but lives on a rural property in western NSW. Married but without children, she helps her husband on the family property and has paid employment in a local town for three days per week. Together, they have a comfortable income. It is this combination of part-time work plus living on a rural property which necessitated Amanda’s enrolment as a DL.

Amanda is studying towards a degree in Information Technology. Whilst having little skill and no equipment on enrolment, the financial acquisition of the necessary computer
hardware and software became a challenge prior to the commencement of her course. The course itself helped to improve Amanda's computer skills that were developed by trial-and-error, plus through a community adult-education centre prior to commencing her course. Another challenge for Amanda has been in relation to the frequent power blackouts that are experienced in her district. This makes study an unpredictable challenge. They also have trouble with phone lines, which in turn effects Internet access.

Amanda believes that there are many barriers placed in front of DLs enrolled in Information Technology. Enrolling to learn, there is an assumption that students have access to a costly array of equipment, resources and software. Being an online course, for example, Amanda's old bubblejet printer struggles to print out the online material. Another example that Amanda gives is that in one subject she was expected to download and open a huge file. She did not have the resources to open it. She says: "Just because universities have the technology available for students to complete these requirements, you cannot assume that all students will have the same capability to do so. People setting up such courses should consider the circumstances of the enrolling learners so as to consider what obstacles may exist for distance learners before setting up the course structure. Finances and living rurally do make access to (and acquisition of) the necessary technology not always possible despite the best attempts."

Amanda also suffers from frequent eye-strain from reading online materials, and requests that DLs still receive hard-copy mail-outs as they are portable, and easier on both the eyes and the purse-strings. In addition to her previous comments, Amanda believes that if subjects are to be delivered online, students should still be able to maintain human contact for support and encouragement.

3.7 Women in non-traditional areas of study: Rural and Isolated students: Kate's Story.

Kate resides in rural Victoria, having recently returned from several year's of living in England. Prior to that, she resided in rural Queensland. She has three children and lives
with her husband. She works part-time. Kate’s choice to take on undergraduate study with a major in Mathematics via DE was due to her family responsibilities, her need to bring additional income into the household, and the likelihood of geographical relocation. Her tertiary provider is located in Western Australia. She is also enrolled as a DL in a course in the United Kingdom, but has placed these studies on hold this year.

Kate says that she has struggled with getting help in her subject area, and despite her self-confidence in the strengths of her mathematical talents, she still finds the task overwhelming at times. She notes the ability to ask questions as a key skill for a successful DL, but is frustrated at the lack of, or infrequency, of the return communication from lecturers.

Kate enjoys the opportunity to conduct information searches on the WWW, especially with not being able to access academic libraries at all frequently. Despite having Internet access, however, and being quite competent with e-mails, she prefers to contact her lecturer in person over the telephone. She believes that whilst “computers definitely have a place, I would feel uncomfortable with completing all my study online. It goes against my neo-Luddite tendencies.”

3.8 Students with disabilities + Students over 55 years of age: Margaret’s Story.

Margaret is an amazing lady who inspires many around her. At the age of 67, in a time of post-retirement and having supported and educated her four children, Margaret has decided that it is time to do something “for herself”. She also sees study as “an opportunity to keep up with the children”. She has enrolled in an undergraduate degree majoring in languages (French) because she has always wanted to learn the language. It also has a “practical” application as she would like to travel. As she has had to wait so long for the opportunity to study, she wants “the real thing” – the university experience rather than enrolling in a language course through an adult education provider.
Having had no experience with study (let alone distance learning) since she completed secondary schooling decades earlier, Margaret has had many hurdles to overcome in order to achieve successful learning outcomes. One of these hurdles is that she is debilitated by rheumatoid-arthritis which causes mobility and fine-motor impairments. For these reasons, plus fearing that she might be the oldest student on campus, Margaret selected distance learning as her preferred mode of study. She resides in a Brisbane suburb, but is enrolled with a tertiary institution in New South Wales.

Prior to commencing studies, Margaret had purchased computer hardware and software. Fortunately, Margaret says, that with the superannuation that she and her husband had accrued, the purchase of the computer and associated software has not been a financial problem. She has also connected to the Internet via a local ISP. Margaret feels that there is enough to learn and master in the “new technology” on top of the course itself. She rates trial-and error, an introductory computer course and mentoring by her children as the means by which she has become computer literate. She does find it much easier to use the computer keyboard than to write due to her disability. However, sitting for any length of time causes arthritic challenges to the rest of her body, and she needs frequent breaks.

Of concern to Margaret is that once a student has purchased the basic computer equipment and software, there is the constant need (and therefore cost) of upgrading software and hardware. She is concerned as a retired person that even though she had afforded the initial outlay for her computer equipment, that subsequent and necessary purchases could be more difficult to fund. Margaret states that as a novice to technology, she had no knowledge of what she really needed, and was guided by sales assistants who may or may not have her interests at heart. Whilst word processing makes the task of writing up essays possible, Margaret’s children have told her about “voice-recognition” software which Margaret feels might be beneficial to her in the years ahead as her condition progressively deteriorates.

Margaret communicates to her lecturer via letter and the telephone, preferring more traditional methods of contact. The benefit of the telephone is that she gets a quick responses and can hear her lecturer’s voice, which is also especially important in the study
of languages. Other requirements that Margaret has had to purchase for her course are a video camera and a tape recorder. She still needs to purchase a microphone, but manages at the moment with one that is borrowed. Another hurdle for Margaret in the pursuit of her learning is that she did not previously have the basic knowledge and skills to be able to write essays or do research which necessitated a number of pre-enrolment courses. She is still unsure of herself in this area.

Margaret loves the compulsory Residential School component of her course. Here she has come to feel part of a student body, giving her the “Uni experience” that she has craved. She has also realised through the residential school experience that although she is the “oldest”, there are other students of a similar age attending and that they can support each other and share stories.

Whilst Margaret has her own transport, she has found parking at residential schools a challenge, and comments that there are “not enough disabled parking options on campus. Additionally, tutorials at residential schools have been timetabled all over the campus, and often in rooms accessible by stairs only – both difficult tasks when suffering from a condition which affects mobility”. Margaret would like more consideration in the programming of Residential schools of people with physical disabilities.

3.9 Students from Non-English Speaking Backgrounds + Low SES students: Hans’s Story.

Hans is one of the few male respondents in the study. His choice to study via distance education is both locational (residing in a remote corner of Tasmania) and due to his business commitments. Distance learning fits in around the “down times” of the day and night, in an office above the business that he runs with his wife. Hans is an immigrant from Europe who arrived in Australia six years ago. He is completing a post-graduate diploma.

For Hans, one of the first challenges to the successful completion of his study has been in knowing how to write an essay in English. Indeed, with a career in fine arts, he has not had
much experience even as an undergraduate in his homeland with written expression as the majority of his assessments were of a practical nature. He would like prompt feedback on his academic writing. He says that he once asked a lecturer if he could send him his draft essay as an attachment to an e-mail to gain feedback and to see if he was tackling the task successfully (not simply in terms of linguistic competence, but also in terms of the construction of this stylised form of writing), but was encouraged not to do so. Thus, writing assignments has proved a double challenge for Hans, but he says that he is proud of his progress from the “Pass” marks in his first subject to his current “Distinctions”.

Hans makes the point that universities assume that every student has the same base knowledge or can acquire it easily, and that this needs to be considered when designing courses for DLs and also in their assessment tasks. For example, whilst most recent-school leavers or students who have come from the corporate world have learnt how to use computer technology, and have access to all the necessary hard-ware and soft-ware, not all students have (or can have) these same opportunities. He asks if this means “that DLs who do not have access to computer technology or the pre-required computer skills are less likely to successfully complete their DL”?

In terms of computer technology, Hans had purchased a PC for the business one year prior to commencing his study. He has not had the opportunity (“luxury”) of taking a course in learning how to use the technology, and so has had to be self-taught, and has also been mentored by friends and customers. The same too is to be said for his Internet usage. As he has used it more, he has become more familiar, being guided by others. Indeed, I initially “met” Hans in a subject-related forum where we were paired together for an assignment submission. We agreed to do most of our discussions and preparation via e-mail, and only post when we had prepared the various components of the submission. We were both novices and peer-support was the way that we negotiated our way through that first introduction to online forums.

Hans believes that online learning is at its best when a student is encouraged and mentored. Whilst he now regularly participates in subject-related online forums, he feels that not
having someone to actually talk with in person or on the telephone has made any other problem being experienced seem more challenging. He continues to struggle with these feelings of isolation, and suggests that one way that this could be overcome is through the prompt responses of lecturers to his requests for help. He feels that these responses should be within a day. He also asks why distance learners have to pay student-service fees when they do not access any aspect of the physical university, unlike their on-campus counterparts. He feels that DLs should get better provision of services and a greater commitment to regular communication from lecturers in return for their money (fees).

3.10 Students from Non-English Speaking Backgrounds + Low SES students: Angelina’s Story.

Angelina lives on a rural property in western Victoria, which she shares with her husband and two children. Apart from being the major care-giver to her children, assisting with the running of the farm and the business-side of the concern, Angelina also teaches LOTE in a local high and primary school part-time. She was born in Asia, and migrated to Australia to marry almost a decade ago. Prior to enrolment, Angelina and her husband had purchased computer equipment and software, plus had connected to the Internet for the purposes of managing their farm. She has taken one Adult education course to learn about basic computing, and since then, has learnt the majority of her skills through trial-and-error learning.

Whilst Angelina’s spoken English is excellent, she, like Hans, struggles with the completion of assignment tasks in English as this requires writing in two ‘foreign’ languages: English and academic essay structuring. This indeed has been the basis of a recent set-back in her studies. To date, she says that she has done quite well, with sound passes. However in one subject this semester, whilst she gained “Credits” on the first two of three equally-weighted assessment tasks she was stunned to receive a “Fail” on the third. The rationale was apparently that she did not write her submission in the expected format. She has now been told that she will fail the unit, and will have to repeat it again next year. Angelina is upset about this outcome for two reasons. Firstly, she received no prior
indication that her work is not of the expected standard, and given that she had submitted the assignment task early, would have liked the opportunity to re-submit if it was recognised that she had not completed in the "correct" format. Indeed, there has been no feedback from the lecturer during the unit with the exception of the comments on her assignments that her work was not of standard. In this last assignment, the lecturer has commented that she needs help from a tutor who could assist her in putting together assignments in the expected manner. Angelina asks why it has become an issue in the third assignment, and was not brought to her attention in the previous assessment submissions, if indeed it really is an issue. Angelina says that she cannot work out the maths on receiving credits on the other papers: surely she still should have passed the unit? She is also cross about the additional HECS that will have to be paid on having to re-sit the unit, plus the time that completing the unit takes away from her family. She feels that this is an unnecessary burden. The cruel irony for Angelina is that the unit is a LOTE subject, taught by a non-native speaker. Angelina is a native speaker. Angelina feels disadvantaged and powerless. She is not appealing the outcome, and feels totally demoralised over the whole situation.

In relation to CMC in distance education, Angelina lists a number of personal benefits. She believes that the Internet is an essential aspect for the successful completion of DL. She loves the asynchronous aspect of the communication. She says that if she is studying at 2.00am when the house is quiet, she can still "leave messages" or "talk to people" via e-mails and the various subject-specific forums of her course. She says that if she was relying on telephone access, she may not be able to ring and leave messages for people in the middle of the night. This 24-hour availability is the positive aspect for Angelina. She also loves to read the communications on the forums, and thinks it is wonderful how students can support each other with information online.

However, Angelina shares concerns about some negative aspects of CMC in DL. She says that despite the forum, she still feels isolated from other students, as she has no other way of contacting these students. She also says that DLs should receive extra support from universities to make their learning a positive and successful experience. She would like
students to have all requirements of units and general information available online and up-front to help in the choice of subjects, etc. In this way, DLs have the opportunity to make informed decisions about their study, and can save up for requirements before they are needed. Living a distance from any regional centre, this would also allow DLs who live in rural and isolated settings a chance to plan ahead for purchases. She also adds that this information should be continually updated. Another issue that Angelina deals with is her phone-line not being reliable, creating challenges with online units. A concern for her is that students “who live in rural areas and have difficulties with their phone lines (and therefore their Internet connections) may resign and quit from their course”. A final challenge for Angelina is in finding resources for study, and whilst she predominantly uses the Internet for this, cannot always find what she is looking for.

3.11 Students over 55 years of age + Women Studying in Non-Traditional Fields of study: Joy’s Story.

Joy is in her late fifties and teaches four days per week. She is completing a Masters by research in a historical event which involved her family. Her study is not a work-related necessity, but rather, a passion which has also helped to document a previously little-known period in early twentieth century history. She lives part-time in Melbourne, and part-time in a large regional centre which has a university in town. She has access to a computer, printer and Internet in her office at work, but only uses it for work purposes. Her home PC is located in her city flat, which she accesses on weekends. She does not have a computer at her other residence, and so can only complete her research on weekends, which is a challenge time-wise.

A challenge for Joy has been lack of communication from her supervisor. Although he “is nice” and “very busy”, the only contact she has had is when she has e-mailed him questions. She would like spontaneous communication to flow to her as well, as she believes that this would encourage DLs. She also phones her supervisor for conversations about her work, but comments that the burden of cost as a DL remains on the student’s shoulders.
In addition to e-mails, Joy also uses the Internet for chapter submissions and to use the library catalogue. In relation to the hope that the Internet would make researching much easier for DLs, Joy did not find it as helpful as she had anticipated for her specific area of study.

Financially, although Joy is “comfortable”, she has born the costs of her research and field trips mainly by herself. She comments on the personal costs of field work without university backing and how these costs can make private research prohibitive. If it was not a process of documenting a previously little-known event in history, she might not have been quite so willing to persevere.

Joy feels that DLs need regular personal contact from lecturers or tutors for them to have successful learning outcomes. She therefore believes that courses that relied totally on CMC would not be beneficial for distance learners. An example is that whilst communication with peers is possible on the university forums or in chat rooms, it is not the same as promoting intellectual stimulation, debate and knowledge. Often people just take what is typed in verbatim without checking the information. This is especially so when the lecturer does not guide the forum, or has little or no presence online.

3.12 Rural and Isolated students + Women Studying in Non-Traditional Fields of study: Linda’s Story.

Linda lives in a small town in western NSW. She is a busy student/Mum/colleague/wife who juggles part-time work, part-time DL and a full-time family. Two of her children attend primary school. Initially she used childcare for her third child only on the days that she was working. Now she sees that to be successful in her learning, she has to treat the days that she studies as “workdays” as it is almost impossible to complete her study whilst the youngest is at home. She also tries to study a little at night and also on the weekends. In a general sense, Linda believes that it is much easier for men than women to successfully
complete study as DLs. For Linda, she has food, clothing, household chores and kids to think about before she even gets around to study. Apart from the two days that she devotes solely to study, she typically commences her study session at 9.00pm in the evenings, if she hasn’t already fallen asleep. Linda’s mother has recently passed away, and without the additional support that her mother was giving in terms of additional childcare to assist Linda in her studies, she is finding the demands of being the main care-giver to both her children and also her aging father particularly demanding, and foresees this a potential barrier in her ability to keep up with her studies.

Financially, her study is a burden on the family. Apart from the cost of childcare, there is the HECS and “very, very expensive text books which I have to get because there are not many others who have done this course out there, so I cannot buy second-hand texts.” Yet Linda sees her education as a way to improve the lifestyle of her family in the longer term by providing her with better work prospects. Her undergraduate degree is in plant biotechnology which she hopes will be sought after in their rural location, and therefore assist the financial security of the family.

Linda feels comfortable in utilising computer hardware and software, and has all the basic requirements in her home PC set-up. However, a frustration is that whilst her husband works in the field of IT, Linda says that her computer is not always working, and likens this to living with a mechanic but having a broken-down car. This is a challenge, but the purchase of new technology is not an option at the moment.

The benefits of using the Internet for Linda is that with research, she has the facilities at her fingertips, and can quickly travel to many sites on the WWW. Indeed, she says that she would not have been able to contemplate study without the Internet being an option. Another benefit is in being able to send e-mails whenever she needs to, cutting the cost of long-distance phone calls. She also checks her subject-related forums daily – not so much to read the contributions of other students, but to see if her lecturer has given some guidance in any way.
However, she does experience a number of challenges. The first of these is in using the university's library catalogue, over which she and her husband have spent hours trying to decode, but Linda still cannot log on to. Whilst there are subject-related forums, Linda does not like to participate, doing so only when absolutely necessary. She fears risking being seen as a "bloody idiot", and so would rather privately e-mail her lecturer than have her question displayed publicly. Another challenge is in the length of time that Linda has to wait for her e-mails to be responded to. In some cases, they are not even responded to despite repeated requests. She strongly believes that DLs should receive prompt correspondence from their lecturers.

Living rurally has challenges in terms of electricity and telephone supplies, and these can be huge challenges in completing work online. Blackouts are frequent. In addition, power surges can pose problems for the electrical equipment.

Linda would like universities to put together comprehensive beginner's manuals for all students to be sent out months before a student commences their study. She feels that universities make assumptions about baseline knowledge of students: not all students are fresh from high school, and even completing high school in the recent past is not a guarantee that a student will have baseline IT skills and knowledge. She would also like the university's interface much more easier to read. Again there are presumptions here. Not everyone has the know-how of what should be clicked on, or where to go. In addition, she believes that all students should have one single password to log on to different sectors of the same university site.

3.13 Rural and Isolated students + Women Studying in Non-Traditional Fields of study: Andrea's Story.

Andrea is a post-graduate student studying as a DL due to the rural location of her home. Her undergraduate degree was also completed as a DL over a duration of 6 years, something which she has great pride in, as she says that DL was a huge challenge. What helped her through her undergraduate course, was that there were compulsory residential
schools through which she enjoyed face-to-face interaction with the lecturers and other students. There have been no residential schools for subjects in Andrea’s post graduate diploma, and she feels isolated. She works full-time, and studies after hours so does not have a lot of time for socialising. Although her family and her work colleagues are supportive, Andrea would like to have social contact with others in her course that are in the same area.

Andrea has to submit assignments online, and has had a few challenges when the university’s system is “down”. Andrea says that this is especially difficult for DLs when you are trying to submit by a deadline and cannot. Arguing a case for late submission when the assignment-submission system is down has been difficult on occasion.

Other challenges to successfully completing DL with CMC has been navigation of her university’s web-site. She says that even though she’s been studying at this degree for two years, she still does not know how to fully access all sectors, despite following the given instructions, which is frustrating because it prevents her accessing resources that others are able to. To sort this out would involve time that she does not have.

An unexpected challenge that she was not anticipating is the huge amount of ‘spam’ from ancillary associations with websites that she is now receiving and is overwhelmed by the type and amount of unwanted and unsolicited mail.

Living rurally, Andrea’s local ISP connection cannot cope well with high-volume usage, which is difficult when she is trying to log on after work and dinner, when it seems that everyone else in the district is trying to. She would like to change to a broadband connection but at the moment cannot because of the cost. Additionally, due to the Internet access crashing due to problems with the ISP and/or as the result of blackouts, Andrea’s local telephone costs are high. She says that up to 90 local calls per month are simply due to re-dial-ups for the Internet, which she finds unnecessarily expensive. Andrea believes that these challenges are neither experienced by students studying on-campus, nor are anticipated by those who structure the online learning environment.
3.14 Rural and Isolated students + Women Studying in Non-Traditional Fields of study:

Jenny’s Story.

Jenny is a mother of two and a DL who lives in a rural location in southern New South Wales. She assists her husband in their small business in a nearby town. She also teaches part-time. Her undergraduate degree, commenced in 1983, was completed entirely through DE. Today, Jenny’s graduate science-based studies are only available via DE, for which Jenny is grateful as she can not enrol in any other mode of study.

The first family PC was purchased in 1987, and has since been upgraded. This was acquired primarily for the business, but is now used as well by Jenny for her studies, and by her two teenage children. This creates challenges in relation to access which has to be negotiated at times.

Initially she completed her hand-written assessments and then posted them off. These days she can submit her work via electronic submission which is a huge cost-saving measure for DLs in terms of resources, time and postage. It also means that like on-campus learners, DLs can submit their papers up to the last minute, rather than having to complete week’s earlier depending on the distance that posted material has to traverse.

Another aspect of online learning that Jenny finds fantastic is the access that she can access up-to-date information from overseas which is crucial for her course. She has the world at her fingertips. This also decreases the need for costly texts, but does not eliminate the need for them.

The challenges that Jenny faces in relation to CMC in distance education is that often her Internet connection drops out whilst she is online, requiring her to redial, wasting time and money. Blackouts are another frustration to her as a DL, as too are the slow speed of downloads through her local ISP, especially in the early evening.
Jenny also participates online through subject forums. She enjoys this contact, saying that it helps to narrow the distance, but says that without the active involvement of lecturers, this “falls in a heap”. She believes that some lecturers may not participate because they might not feel comfortable or have the skills, but suggests that they should be trained as communication is vital to the success of DLs. Rather than using the forums, she prefers to e-mail her lecturers to communicate one-on-one, but again says that the success of this depends on the lecturer concerned. She is aware of their time commitments, but says that DLs need to feel that they too have access to their lecturers.

Jenny’s final comments relate to the fees that DLs pay in return for the services received, and feels that there is a “class structure” between on-campus learners and DLs. She feels that any increase in the cost of education would further disadvantage some DLs especially, further creating class divisions between tertiary students across the board.

**Conclusion**

This chapter has retold the stories of distance learners from Category 1 (do not fit the criteria of any equity group) through to Category 3 (fit the criteria of two equity groups). The stories of these distance learners are powerful. Most recount positive aspects to the use of CMC in distance education, but for these same respondents, the number of barriers and challenges to using the technology outweighs the positive experiences, despite the possibilities of the technology.

The experiences of students who fall into three or more equity groups will be recounted in the next chapter.
CHAPTER 7 THE CASE STUDIES: DISTANCE LEARNER’S STORIES (Part B)

Introduction

Chapter 6 examined the lived experience of distance learners who utilise CMC as part of their tertiary distance learning. Themes emerge from these stories, but before analysis, the stories and experiences of a fourth group of distance learners is to be explored. These are respondents whose distance learner profiles fit the criteria for three or more of the equity groups. Their stories are retold to give further insight into the effects of equity group membership in distance education.

Category 4 Respondents – Distance Learners who fall into three or more Equity Groups

4.1 Indigenous students + Rural and isolated students + students with a low SES background: Denise’s Story.

Denise has had to overcome many challenges simply to get to the metaphoric “hallowed halls” of tertiary education. Denise is an Indigenous student and lives in a rural town in western NSW. She left school at the completion of Year 10 and has worked for many years before deciding to try gaining entry to university as a mature-aged student for a Diploma level course in a health-related field. Her profile fits identically with the claim that Indigenous tertiary students on the whole are older, more likely to be female, enrolled in part-time, external courses that are concentrated in sectors such as health, and have an over-
representation in diploma level courses (JCFAISER & WAEC, 1997, p. 3). However, Denise is justifiably proud of her achievements because she is the only person in her extended family and group of friends to have attempted any form of higher education. Her initial successes may encourage further adventures in academia, and have certainly provoked interest amongst extended family and friends. Denise says that when she applied for higher education, she was not expecting to get in, and was astounded to learn that her enrolment had been accepted. Although a mature-age applicant, she had not expected to gain entry due to her existing minimal educational background.

Denise is working part-time self-funding her studies. With this comes two challenges. Firstly, her hourly rate of pay is already low and being able to only work reduced hours per week equates to less money available to go around. The other challenge of this has been the isolation, both academically and socially. On the days when she is not working, and friends or family drop in to visit, she says that they do not understand that she has to study because they see that she is “at home”.

Denise’s distance education has involved the use of CMC for participation in forums, Library searches, research, the receipt of materials, assignment submissions and general communications. She comments however, that a number of assumptions are made about a DL’s ability to access the required skills, hardware and software in order to successfully complete their courses. She lists several examples of this.

An initial and major immediate challenge for Denise is that whilst she had set up a Hotmail account previously, she did not own a computer, nor did she know much about them. Without knowledge of study skills, typing and very little computer skills (apart from rudimentary skills gleaned through work and her Hotmail account), Denise enrolled in some Adult Education courses in a nearby town, so as to better prepare herself. This self-instigated pre-learning was a costly exercise in itself for Denise, as it involved not only payment for the classes, but also the expense of driving long distances to get to the nearest large town with Adult Education facilities. She comments about her surprise during the
course when she became a mentor to other beginning students, by instructing and demonstrating the procedures that she had learned.

Prior to the commencement of study, she did not have a computer, nor the money to purchase new technology. So she had bought a second-hand computer from the local shire offices. It came with a small capacity of memory, and only a limited number of software packages. Fortunately, they have been sufficient to cover the minimum required standard of hardware and software as suggested by her tertiary provider. However, over the course of her degree, Denise has had difficulties in downloading particular resources. An example she gives is that her computer has no sound card, and so if any resource contains sound, she cannot benefit from it. She also says that the combination of living rurally, and also having very little income, makes purchases of anything beyond basic study needs impossible (for example, additional software). She comments that people who are “well off” do not understand what it is like to have neither a disposable income nor the financial reserves to purchase necessary equipment. Denise also gives the example that her final subject had a compulsory forum component to it. She was only able to complete it at the time because she was on a work-placement, the employer had the required equipment, and they allowed her to utilise this out-of-hours. However, some of her peers had great difficulties with this aspect of the subject because they did not have the compatible hardware or software to complete the requirement, nor had access to complete it elsewhere.

Whilst the forums have been a great bonus to her online learning, providing opportunities to follow the questions and answers of other students, they have also been a huge hurdle to overcome. Denise says that the best thing for her learning in how to use CMC effectively was the compulsory forum participation in her first subject. This pushed her as she had to contribute to the online communication to pass the subject. Still, Denise recognises that others did not fare so well, as they could not acquire the necessary computer hardware and/or software or skills to fully participate, which further disadvantaged them.

Denise also notes that some university web pages are too complex, and that students don’t know how to navigate them. She feels strongly that webpages also should be kept simple so
that everyone can use them. She says that engaging in distance education is daunting enough without being overwhelmed or confused by complex websites. She says that she still does not know all the functions and possibilities of her webpage, but has learnt enough to get by. She says that DL is daunting enough. If faced with overwhelmingly difficult webpages – or if information on these is too difficult to find – then successful learning is questionable.

This philosophy is also born out by her experience with computer skills. She admits to only knowing the basic IT requirements to complete her studies. Whilst she says that she would love to know more, she has not had the skills or time. She says that one student suggested that she would save a lot of time by learning to ‘cut and paste’. Whilst simple to learn, Denise did not have additional time to experiment such aspects of word processing once she was into the academic year. She also wonders if, when she completes her studies, she will have much need for the computer, despite going to the expense of acquiring one and basically learning how to use it because she cannot see it being a part of her daily life at home. She will probably need to use one when she graduates and finds employment in her field, but the technology will be provided by work.

Denise comments that over the course of her study, her tertiary provider has put together a package to help DLs gain skills to use CMC in distance education. She wonders, however, if students will have the time or opportunity to work through this without additional support if they have little skills to start with. Denise believes that most mature-aged DLs who live rurally will face similar disadvantages to her. Many will not have an extensive educational background. Most will not be able to access support easily. There may not be peers or mentors in the community for support or encouragement, and that disadvantage is compounded if there is little or no support and communication from lecturers online. Additionally, there may not be many around who have even had experience with further studies. Not having finances is also a challenge, and Denise reminds universities to keep online documents available in basic software format (for example, Word) as other programs which require additional software to run it are, in turn, expensive. Even if these programs can be purchased, the student may not have enough memory capacity on their computer to
install it. Denise believes that the costs of higher education are compounded by studying from a distance.

Overall, Denise is pleased with her experiences as a distance learner. She states that living rurally, if it wasn’t for the possibility of Distance Education, she would not have even attempted post-secondary study.

Denise’s final comment is to reiterate that students living ‘in the bush’ experience similar disadvantages, irrespective of their courses. This is because rural students cannot access support easily, their community’s may not have a history of post-secondary education, and their costs are compounded by distance, for example, the need to drive distances to get requirements, or the large cost of postage.

4.2 Rural and Isolated + Low Socio-economic background + students with Disabilities: Katharine’s Story.

Katharine lives in rural Victoria. She has a disability and receives a small wage for her part-time employment. Katharine is a DL, an undergraduate. She says that she had well-anticipated the requirements of study as a DL prior to enrolment, but says that there are challenges that she had not even expected. For example, Katharine had no computer to start with, and initially rented one before purchasing one second-hand. This equipment did not have all the software that she needed so had to “beg, borrow and steal” just so that she could complete the basic requirements. She laughs when she says that even her mouse-mat was acquired as a promotional give-away. Katharine did not even know how to switch on the computer, and had to immerse herself in a quick trial-and-error exploration so that she could get by. She says that she has taught herself “out of necessity”, not having the financial resources to learn via a course.

This lack of knowledge has proven costly to Katharine when combined with another challenge that rural and isolated students face: power blackouts. An example that Katharine gives relates to her lack of knowledge in how to properly save and back-up work on her
computer. She had completed her first assignment and was in the process of submitting it online when a power failure occurred, and she lost the lot. Similar, but not so costly, experiences have taught her the hard way about the importance of saving work regularly onto the computer's hard-drive and then backing it up onto floppy discs.

Challenges along the way have been many. Katharine had to connect to the Internet for the online aspects of the course. Although she connected to an ISP in a nearby town, she did not realise until well into her first semester that she was being charged long-distance phone rates each time that she connected to the Internet. She had been told by the salesperson that she would be charged the cost of a local phone-call. She has now changed providers to one that charges her local phone-call costs, but it still took her a while to pay off the bill to the initial provider. Whilst this was "a learning experience", it is one that she would have preferred to have done without. Katharine says that people take advantage of those who do not have existing knowledge. Perhaps universities can organise packages for students to access in a rent/buy (or even free-loan, depending on the circumstances) program which has all the necessary (and compatible) hardware and software required to successfully compete the course.

Due to her disability, Katharine has periods of time when she is too sick to study and would like greater understanding from some lecturers about the challenges which students with chronic illness face. For example, Katharine says that illness has no regard for steering clear of exams or assessment due-dates. She also struggles with the length of time that she can spend at her computer due to her disability, and needs frequent breaks. This results in not being able to put in as much study as she would like to.

Finding resources has been a challenge. Whilst she can locate resources fairly easily on-line through web-searches and in the online academic library catalogue, borrowing text books has become a huge issue for her and she has had hefty overdue library fines to pay over the years. For example, one textbook that she ordered was so thick and heavy that when she took it to the post office to mail back, she did not have enough funds to post it. When Katharine initially ordered the library book off the Internet, she had no idea that it would be
so heavy and therefore would cost so much to return. She says that she would have never selected it in the first place. She says that “it is demoralising standing in a busy public area and having to say that you don’t have enough cash to pay for your post”. That particular book accrued $33.00 in fines. She says that the cruel thing is that if she had the finances, she would have rather bought the book herself in the first place. The total of such a big fine was almost the cost of the book. She feels that library fines are just ways to disadvantage already disadvantaged learners. In another situation, Katharine recounts a flare-up of her chronic illness. Living on her own she had no-one to return the library texts for her, and again hefty fines accrued. She would like to see more grace given to DLs on library text borrowing, and perhaps subsidised postal returns to encourage DLs who aren’t financially well-off to actually use library resources. Alternatively, such material could be available online.

Another change that Katharine would like to see is the shortening in the length of time it takes for DLs to receive their assessments back after marking. In one situation, she did not receive back comments on one task that she was not “on the right track” but by this time had already submitted her second assessment, which was frustrating. She wonders why she could not have been contacted earlier and via e-mail or phone if she was so obviously not meeting the requirements. DLs need prompt communication from universities so that they know how they are going. Katharine says that although she is in her mid-forties, this is her first tertiary experience, and she would have loved greater support and feedback to boost her skills and self-confidence.

Katharine often contacts her lecturers via e-mail, but says that getting feedback from them can be a “nightmare”. She also communicates with other students and on the subject forums. However, she says that lecturers contribute infrequently which is frustrating and half the time don’t help the DLs anyway. To overcome this, Katharine has set up a group of study pals that she met online. All have been regular and helpful contributors on the subject forums. They now communicate mainly off the forum and mentor each other in the absence of assistance from their lecturer. When the study group was in its infancy, they would ring each other on Sunday evenings, but as this group lives all over Australia and the cost of the
long-distance phone calls was too expensive for some of the members (including Katharine), they now e-mail each other regularly. Katharine says that her group would prefer a secure chat room on the university web-site where they can support each other and also honestly communicate about difficulties with their lecturers without having to guard what they say. She says that her group feel that they cannot do this currently on the subject forum without risking their grades. She says that some lecturers have no idea about how to teach, communicate or even encourage their students. Katharine feels that without the support of her study pals, she would have simply been a “statistic”.

Katharine’s final comment is that “everything costs money. You have to spend it to become educated. And there are assumptions that everyone can access what is needed when it is needed. But if you don’t have money to start with, you either miss out or learn other ways to survive.”

4.3 Rural and Isolated + Low Socio-economic background + students with Disabilities: Tracey’s Story.

Tracey lives in a town in rural Victoria. Whilst she does have a university campus in a regional centre nearby, Tracey does have a debilitating illness which would require a carer to be with her if she attended classes on-campus. She is on a disability pension.

Unlike some of the older respondents in this research, Tracey finished school only three years ago, and so has learnt computer skills through high school. However, without an income base, Tracey cannot afford her own computer equipment. She lives in a share-house which has a communal computer located in the living room. This is not the best arrangement for all concerned, and so Tracey is in the process of trying to purchase a second-hand lap-top computer that she can use in her room.

Much of her current subject assessment is to be submitted online. However, the assessment questions are only available in the hard copy, making it tedious typing out the questions prior to answering them. She would like the material available in both formats. If questions
were available online, or even in CD Rom or disc format, then can be cut-and-pasted into Word format. She would like those who design online components in distance education to understand that many DLs are time-pressured.

Tracey does not communicate frequently on her subject forums. She does however e-mail her lecturer, but is frustrated by the regular lack of responses to her enquiries. In one situation, she did not receive the normal confirmation that her assignment submission had been received, and e-mailed her lecturer for confirmation. At this interview is taking place, she is still waiting for a reply some two weeks. This silence is making her “feel very nervous”. She says that she had expected at least “a little contact” and feels that universities should encourage greater communication from lecturers to DLs, and between DLs.

4.4 Rural and Isolated + Women Studying in Non-Traditional Fields of study + students with Disabilities : Sharon’s Story.

Sharon is a mature-aged student with two children. She lives in a coastal village in New South Wales. In addition to her rural residence, Sharon is both visually-impaired and has rheumatoid arthritis, both of which pose challenges to the successful completion of her study. Both prevent lengthy study sessions. She also has difficulty reading off the computer screen and overcomes this by downloading material, increasing the font size, then printing off. This is both costly and time-consuming. As an alternative to her study materials only being available online for download, Sharon would like to receive a hard-copy of her study materials as well.

In addition to her disabilities and geographical location, her choice of tertiary institutions was limited, as her degree is not common. Fortunately, Sharon was able to find an institution that enabled her to study via DE.

Whilst her husband and children have been frequent users of the home computer, Sharon has had a lot to learn. Through trial-and-error and through the mentoring of her two children, Sharon developed the skills for online learning just prior to the commencement of
her studies. She also travelled a long distance to the university campus and asked an on­campus library technician to show her how to navigate around the university web-site and library data-base. Now, several years on, Sharon says that they have four computers in-house. She still however finds the library data-base difficult to use.

In terms of enhancing her DL, Sharon says that she does all her research online. She also uses CMC to communicate via e-mail with her lecturer. She says that the benefit is that she can communicate as regularly as she likes. On the flip side is not getting a response back as often as she would like. Whilst e-mail contact with her lecturers has been generally good, she has found it more challenging getting responses through from administration.

Sharon would like to see a more effective use of forums. They are available in her subjects and feels that this says something about the lecturers and the students rather than the system. She suggests that the forums would be better utilised if there were a more consistent presence of the lecturers online. She feels that a once-a-fortnight real-time chat could also be useful for DL. This could help with the working through of difficult concepts, guiding students in what is expected, and also helping to overcome feelings of isolation, especially for rural and isolated students.

Sharon also has had some challenges because she “does not use a Microsoft base browser so does have some hassles there, especially with electronic assignment submissions”, so uses the postal option instead. She also says that “it would be good if the platform were a little broader. Microsoft is the target for a lot of the viruses and one misses a lot of them by avoiding the software.” However, in terms of system support, Sharon reports that at her tertiary provider, it has been “excellent”. Indeed, she has been e-mailed about problems that she didn’t bother to report. They were detected at the IT department and attended to.

Sharon’s tertiary provider does have an online assignment submission facility which she finds simple to use, plus it provides a record of when assignments are submitted. She says though that a relative of hers enrolled through a different tertiary provider has had a different experience, wherein the university’s IT system apparently crashed, taking with it
submitted assignments and assessment postings on the online forums. The tragedy says Sharon is that there were no back up copies made. A lot of work was lost which was traumatic for all concerned. Sharon believes that other providers should take heed of such calamities so that they are not repeated.

4.5 Low Socio-economic background + Women Studying in Non-Traditional Fields of study + students with Disabilities: Sarah's Story.

Sarah is a DL who has had breaks from the work-force due to a chronic illness. Her initial decision to study via distance education was a combination of the tertiary provider offering the course she wanted, plus the need to fit in study around bouts of illness. During this process, she also moved from the capital city where she lived to another city where the cost of living was substantially less, and where she had some family support. With the move, she lost her part-time job. She thought that due to the lower cost of living plus the family support that she might be able to study full-time, this has not been possible. She now has a part-time study-load due to an increase in the bouts of illness over the past few semesters.

A concern for Sarah is that as a Distance Education student, she is not aware of options that are available to students experiencing difficulties, and also the processes of appeals. She says that DLs don’t often know “the system” enough to be able to use any support services or options. She feels it demoralising when she approaches lecturers to request for extensions following bouts of illness. One lecturer (a male) that she approached told her that her request was denied as she should had asked ahead of time! Sarah's comment was that indeed she would have applied for an extension in advance if she had known that she would be sick in hospital for several weeks, but unfortunately did not know that she would. She expected a little more sympathy from the female lecturer who she approached at the same time, and was dismayed to learn that she would be only given an extension for a few more days, after which time she would receive a 50% penalty. Sarah says that she knew that she wouldn’t be able to complete in time. She feels that students in hardship should be able to have flexibility in their courses. She is distressed that her academic transcript appears “patchy” bearing two passes and two fails in the four subjects that she has
completed this year. She would like to see lecturers of DLs to have a greater understanding of students with chronic illness, or at least more compassion.

Sarah uses the Internet for many purposes: for research, to search Library catalogues, and to reserve resources in one of the University libraries in her city (thus saving time and expense), and for communication purposes such as e-mail and participating on the general and subject-specific forums of her tertiary institution. Prior to taking up study, Sarah’s computer skills were good as she had gained training in the workforce, plus her brother works in the field of Information Technology. Indeed, her brother gave her his old computer system when he upgraded, overcoming a possible disadvantage for Sarah – the provision of computer hardware and software.

However, despite her brother’s gift of computer hardware and software, Sarah has still had to overcome a number of computer-related hardships. Whilst she had the required basic computer equipment and software for her degree, she has begun to experience growing challenges in accessing required online resources for various subjects. She argues that there are no fore-warnings that software and/or hardware requirements for these subjects are different. In one situation, it wasn’t until several weeks into the subject that she realised that her computer did not have the capacity to download the huge 1 to 2 MB files. After posting several pleas for help on the particular subject forum, another student made some suggestions about finding a CD burner to transfer the large files onto CD. This in turn created challenges. Sarah says that it was difficult to find access to a CD burner. Whilst her tertiary provider has established a public access facility in the city in where Sarah lives, they too do not have a CD burner. Eventually, a CD burner was sourced, but Sarah says that the file was too great to fit onto one CD, and so she needed to split the file over two. Sarah says that if a print format of the file was available to students, then it would circumvent already disadvantaged students from having to go through such a costly exercise, both in terms of time, money and adverse effects on her already fragile health.

This experience is tied to another experience of Sarah’s, and that is that whilst some lecturer’s regularly place messages on their subject forum’s, and guide student’s in their
queries, whereas others do not participate regularly, if at all. This leads to situations where students mentor each other, which is wonderful as long as they are guiding others in the right direction!

CMC in distance education has been beneficial to Sarah in many respects. Without the option of the online aspects that have worked, Sarah says that she may have dropped out of study long ago, and simply become a statistic. Another positive for Sarah has been the attendance of compulsory Residential schools which have helped give her a sense of community: a chance to put faces to names that she reads on the various subject forums.

On the flip side, however, Sarah argues that studying via distance education would be more equitable if students are given the option of how study materials are received. For example, although CMC has provided the opportunity for students to down-load files online it can disadvantage some students if they don’t have the right equipment. Some students may prefer receiving their materials in print format or in a CD. In addition, students should be forewarned in their subject selections, if certain subjects require more than basic computer equipment. In this manner, students can make choices based on access, rather than getting into a subject, only to find that they are disadvantaged because they cannot access or complete necessary requirements because of equipment or cost inhibitions.

Sarah’s final comment relates to Distance Education students not having access to knowledge about the procedural running of tertiary institutions. Due to distance, isolation, or other factors, distance education students can be further disadvantaged if they are not aware of “the rules” of the tertiary provider, for example, appeals regarding extensions and grades.

4.6 Rural and Isolated + Low Socio-economic background + Women Studying in Non-Traditional Fields of Study + students with Disabilities: Carolyn’s Story.

Carolyn is a single parent. Her road through tertiary education has been difficult. Although she is on a pension, she has funded herself through her studies, which have been, by the
majority, part-time and external. Her current enrolment requires the use of CMC through online components.

There are many hurdles that Carolyn has had to circumvent. Being a single parent has meant that there have been child-care issues and her study has to be completed whilst her son is at school. As a single parent, attending compulsory Residential Schools has proved to be a significant dilemma for Carolyn. The first consideration is the cost of getting to the university, plus the purchase of food and accommodation for both herself and her son, as she has no option but to take her son with her. She also has to find things for her son to do whilst she is in classes. She says that child-care options for school-aged children during Residential schools is often not considered. Any childcare that may be organised by an institution is usually for infants, toddlers and preschoolers. Whilst such facilities, when they do occur, are supportive of some women, single-parents can be disadvantaged in relation to child-care needs especially if they don’t have extensive support networks. Carolyn makes the point that the challenges of childcare are compounded by lack of finances and need to be considered so that DL can be more equitable for students in a similar situation as herself.

Carolyn says that she would love to reside in the city. Yet due to her survival on a pension and in order to purchase a home for her son (rather than be perpetually caught in a rental cycle), she has had to move to the country where homes (and associated costs such as rates) are more than half that of their city counterparts. The financial reality behind their choice of habitat has led Carolyn to a situation where she has to enrol as a distance learner rather than be an on-campus student.

The low socio-economic status further hampers Carolyn's ability to successfully complete her studies. After paying for housing and food, she has little left over. It is a struggle to pay for fees. She cannot buy many of the subject texts, and as she does not have a credit card, making purchases possible over the phone or Internet. Carolyn has the option of ordering books through the University library, but as she is faced with the cost of posting back the books, plus the brevity of the loan period, she chooses to do so rarely. Her other option is to drive to the nearest University library – a 100km round trip – in order to borrow texts. As
Carolyn has found most of the required subject texts on the shelves at this university, she has opted for this approach. The cruel thing, she says, is that because she does not have the money up front to purchase texts, she has had to borrow them. Yet with the cost of petrol and parking to borrow on campus, or the postage for the few that she borrows from the university library at which she is enrolled, she could have purchased the text many times over if she had the equivalent amount of money up front.

Acquisition of necessary computer hardware and software has been another challenge. In addition to a computer with large enough memory, a printer, a modem and the necessary word processing package, Microsoft Word (for the electronic submission of assessment task), Carolyn is required to purchase specialist IT software for her studies in the Bachelor of Information Technology. This software is relatively expensive and Carolyn cannot afford to buy it. Yet she cannot complete her subjects without the necessary software. Her solution is one that she feels ashamed of, but she asks that it be shared so that course conveners may become aware of the disadvantages of some students. Carolyn has to illegally down-load software off the Internet or buy pirated copies. She is quite passionate when she says that she would rather buy licensed copies, but cannot without financial backing. And as with the situation Carolyn has faced with text books, without the required software, she cannot complete her required coursework.

Other incidences have occurred along the way. Computer and equipment breakdowns have created many difficulties for Carolyn and again have been exacerbated by her lack of financial reserves, living as she does from one pension day to the next. This was highlighted only recently, when her computer “died” which led to her being off-line for several weeks whilst repairs took place. Carolyn fell behind during this time and also missed important information on the electronic forum for her subject.

The common denominator in all Carolyn’s experiences has been finances. Being on a pension, with no credit facilities, and no supplementary income from a spouse, has compounded all the other areas of disadvantage. Such experiences clearly indicate that
Carolyn falls not only into several equity groups, but sub-groups as well (Watson & Pope, 2000).

4.7 Rural and Isolated + Low Socio-economic background + Women Studying in Non-Traditional Fields of Study: Anne’s story.

Anne is a single mother of three and lives in northern Queensland. Her choice of tertiary provider was due to the many factors that prevent her from studying on-campus. These factors: being a stay-at-home Mum with three children (two of which have disabilities), subsisting on a pension, not sure if she was going to remain in their new locale for long, and not able to find the course that she wished to enrol in at the university located in her closest regional centre.

Anne faces many challenges simply to complete each day of study. Whilst all three children are now at school, she spends most days going to and from the classroom to help her children. Anne says that there are many times that she has been ready to “give up her studies” and that this moment of interview is one of them.

The greatest challenge to Anne is the lack of social contact. She doesn’t necessarily want contact with students doing the same course as her. She knows that there are other DLs in her area, and would like to set up a mutual support group, but the frustrating thing is that due to the current privacy laws, her university will not release these details to her. Anne has approached the student union for help with this. She says that students on-campus have opportunity to meet, but DLs are disadvantaged in this way. She feels that surviving the process of being a DL would be much easier if students could gain support.

She also has a maths background and is not good at academic writing. She would like to see students who are not strong linguistically be given more support to enhance their skills along the way. She argues that her gifts are in developing and writing computer programs, not essays.
Whilst Anne uses the subject forums and "newsgroups" to communicate with other students and share ideas, she still says that it does not replace meeting with people "in the flesh". Again this lack of the "human factor" has made her struggle to continue on as a DL. She uses e-mail to contact some students off the forum. She contacts her lecturers through the newsgroups and also via e-mail. She submits her assignments online and finds this a wonderful saving for students with low disposable incomes such as herself. It saves her time and financially (paper, post and printing).

Her children’s medical costs are high, causing financial challenges for her study. Most of her computer requirements are found on e-bay, the local pawn shop, opportunity shops and the local classified advertisements. Occasionally says that she can also pick up cheap requirements at the local computer shop when they do “upgrades” for other clients. The down side with this is that she needs to put the time into being constantly on the lookout for opportunities, unlike people who can order what they want over the counter and pay for it.

Whilst not having a disability herself, Anne does find reading off-screen a challenge. It is harder, slower, and she suffers a great deal from eye-strain. She attributes this to “staring” for too long at the screen and “not blinking enough”.

4.8 Rural and Isolated + Low Socio-economic background + Women Studying in Non-Traditional Fields of Study + students with Disabilities: Mary’s story.

Mary lives in northern New South Wales in a small coastal town. She is basically home-based, living on a disability pension as the aftermath of a horrific car accident. Her choice to study was born out of trying to find some direction in the life ahead of her, to focus on something other than her injuries and pain. As a DL, CMC has made this study a possibility, but due to her disabilities, she cannot sit at the computer for too long without ramifications. For this purpose, she sets a timer, especially when she is researching on the Internet, so that she has to get up and move around frequently.
Mary’s first computer was a desktop, bought from the proceeds of selling her mother’s car. The irony is that it was Mary’s mother who has been her biggest mentor in showing Mary how to use the computer and communicate online. Since then, Mary has upgraded to a laptop computer and sold the desk-top PC.

The Internet has enhanced her learning in several main ways, but these also have drawbacks. She communicates with other students through online study groups, which she feels is a brilliant idea. However she feels that this is not regular enough. She would also like her lecturers to be more involved in the online forum to guide discussions, especially when the discussions “go wrong”.

She also uses the Internet as her primary research medium. Her local provider is satisfactory, but because Mary is on a tight budget, she pays an hourly rate and watches how much she spends online. As down-load response times are slow in her area in the evenings, Mary chooses to do her study at night when it is easier to log on, and relatively faster to access and download information.

Due to her injuries, she does suffer from eyestrain. She prints off a lot of information and tries not to work online for too long as she gets headaches reading off the computer screen. This also affects her editing of assessment, and she prints off copies to edit in hardcopy. She regrets having to use so much paper, but cannot manage any other way. Indeed, it is the “only way” that she can achieve her goals.

Mary feels isolated despite the forum communication, and suggests that tertiary providers supply photos of lecturers and tutors so that DLs can feel some personal association, and feel that they are part of a larger learning community. On-campus students can easily put faces to names, but for DLs communicating online, there is no voice or face to humanise the interaction. She would also like better communication from lecturers and tutors for DLs, as well as prompt feedback on assessments, plus the provision of results to assist learning and reduce learner stress.
Mary would like to see universities give new DLs “greater support”, bringing this mode of study more in line with on-campus students, so that both receive the same level of service from their tertiary education provider. This is especially necessary, she feels, for low-income rural students.

4.9 Rural and Isolated + Low Socio-economic background + Women Studying in Non-Traditional Fields of Study + students with Disabilities : A post-modernist twist : The Researcher’s story.

At the outset of this research I had wondered if my own experiences were unusual, that is to say, not what other distance learners experience during their tertiary studies as DLs. In a follow-up telephone conversation with one of the respondents, I was encouraged to share my own experiences as they have many parallels to those of others recounted in this text in addition to unique insights, having been a distance learner with four Australian tertiary providers, and an on-campus learner at another, over a span of twenty-one years (eighteen years as a DL). The last two years have brought the undesirable necessity of concurrent enrolments at two universities, due to the necessity of upgrading my teaching qualifications for state registration board requirements in the midst of the completion of this thesis during the timeframe of my candidature.

Originally trained as a registered nurse in the hospital system, I commenced my undergraduate degree as a mature-aged student. I had the luxury of studying 1 year full-time on-campus at a metropolitan university during 1982. To support myself, I worked night shift in a nursing home, studied by day and slept little. Assignments were researched in the solitude the on-campus library, and assessment tasks were hand-written. At the completion of that first year I accepted a scholarship to study abroad, and this decision established the pattern of distance learning which was to follow.

During 1984, I wanted to continue my studies, and applied to a Dutch university to continue on-campus study. I was not able to gain entry and so looked to studying through the British Open University system. A friend living in Singapore who was successfully
studying off-shore through an Australian tertiary provider suggested that I consider enrolment at that institution. I commenced my first subject as a distance learner in 1985. In contrast to the “freedom of youth”, by this stage I was married and had a young baby.

At this time, coursework arrived in print format. Living off-shore, communication was via letter and assignments, which were typed with an old typewriter onto air-mail paper to help keep the cost of postage down. One quickly-learnt reality at the time was that assignments had to be ready and posted two to three weeks prior to the due date in order to arrive back in Australia in time to avoid marking penalties. Occasionally phone calls were made to sort out any major problems, but the cost on a low-income family made such occurrences a rarity. Living in a large city in The Netherlands, I did have a wonderful library that I could access for supplementary material. Yet with no transport, a baby and no child-care options, it was difficult to get to. Apart from the printed resources that arrived with the study materials, most resources were in the form of the set text books, purchased via the university bookshop and posted, or ordered through the English bookshop in the city. A challenge was that at times books had to be freighted in or were on back-order, leading to situations where key texts did not arrive until well into the semester. In today’s technology-assisted society, such arrangements can be made online without the necessity of lengthy postal delays.

Like many other distance learners with young children, study was undertaken whilst the children took naps, but mainly in the middle of the night when the household was quiet. This posed energy demands during the daytime, and led to a situation of being physically run-down and susceptible to every illness going around.

On return to Australian shores in 1986, whilst happy with my tertiary provider, I explored the possibility of transferring to an on-campus degree, first in 1987 in one capital city, then in 1988 when we moved to another. The decision to remain a DL was complex. Firstly, with another child and again no child-care support, nor the ability to afford this, attendance on-campus would have been impossible. Secondly, both universities did not recognise all my completed subject units, and each had their own prerequisite units to complete which
would necessitate “backtracking”. During this period, the old typewriter was replaced by my husband’s business-related purchase of a computer. Although compatible with absolutely nothing, it still had word-processing capabilities and a printer, which meant the completion of assignments was less laborious than the hand-written or type-written final drafts of previous years. Still the cost of postage was a factor of consideration. Textbooks were still purchased. Borrowing from the off-campus library was preferable but in turn had to be limited due to the cost of return postage and the possibility of being fined for overdue items. What eventually equated to a four-year double-major undergraduate degree was finally completed in 1992, coinciding with a family employment-related move to the country.

In 1993, to assist family resources, I re-entered full-time work. My employer supported me in attaining several training qualifications and a Certificate of Teaching (again as a distance learner with a different tertiary provider) over a two-year period. Then in 1996, following the birth of my fourth child and again out of the employed labour force, I began graduate study at a third Australian university specialising in Distance Education, which aims to culminate in the degree of Masters of Education (Honours). The choice of enrolment as a DL in this phase of my life-long learning was influenced by my rural residency, family commitments (including children’s long-term health issues), and financial challenges all contributed to this position.

At this time, a computer was purchased that had Microsoft capabilities. It was in part acquired for both my study needs, for those of my two older children, as well as to my husband’s work-related needs. This computer has limped along with its limited memory. It has been overhauled after two virus-related “wipe-outs”. It has been argued over, and has had timetables imposed. It has had memory upgrades to enable the utilisation of additional software.

A return to part-time employment during 1999 brought with it a necessity to upgrade my teaching qualifications as my state’s teaching registration board did not “recognise” my teaching qualification, despite experience and letters of commendation. The challenge then
was to find a tertiary provider who would recognise either of my undergraduate majors as a curriculum methods. Despite a desire to attend on-campus if only it was possible, life circumstances generated only one opportunity: a fourth Australian tertiary institution that specialised in distance education as a mode of learning. This situation, however, provided additional opportunities to experience online learning through CMC. It has also provided opportunity to “meet” other DLs online, encouraging them on their journey where possible.

I have to say that the last two years have been tough. In addition to concurrent enrolments and also part-time work, my children and extended family have experienced illness, accidents and operations eroding time, financial and emotional abilities to study. Whilst just “hanging on”, one of the most demoralising things that has ever been said to me as a distance learner was uttered during this period. The conversation suggested that if several males that this well-meaning person and I both knew could successfully complete their Masters studies by coursework during a given timeframe, then why couldn’t I complete? I was stunned by this statement as it highlights the lack of understanding of the pressures on female students who are also primary care-givers for extended family networks, and I have puzzled over the answer. The others referred to in this statement have all been supported in their studies by wives so that they could successfully complete their studies, which were undertaken for the purposes of job security, promotion prospects and/or desire. Whilst my study towards a Masters by research has been undertaken for the same purposes, my experiences are greatly different. Unlike some of my male counterparts, I have not had an employer who has partially or fully funded the costs of tuition. Nor have I had the luxury of having everything done for me outside work hours so that my sole focus could be study, as some of these men have had. To quote one of the older female respondents in this study, she “takes her hat off” to every tertiary female student who successfully completes study whilst caring for children.

With the time pressures on the home PC plus its limitations, I have been able to borrow a lap-top from another family member in order to complete my study. This has a far superior memory to our desk-top, but has limited software. Internet access remains a challenge in
the evenings, download speeds are slow and their can be frequent “drop-outs”. These all affect the cost of connection.

Technological upgrades would be wonderful if only acquisition was a real possibility, but it is not an option at times. Compromise must constantly be made. For example, the purchase of software to analyse the data in this research would have been beneficial, if only one had the funds and the existing technological hardware and software to accommodate it. Thus data has had to be analysed with the limited tools that I have on hand in association with the limited knowledge that I have accumulated over the years.

Overcoming long-term health challenges can also hinder successful learning outcomes. Having arthritis in the spine creates challenges in sitting for any lengthy study sessions. Eyesight difficulties are exacerbated when reading off-screen. And nerve damage to hands creates challenges in typing and other repetitive movements. Consideration for alternative assessment tasks should be available to students who cannot complete general assessment tasks so as not to be disadvantaged, so that the education process is more equitable. So often DLs are graded alongside students from very different backgrounds, with little knowledge of the obstacles that they face, or compensation for the level of disadvantage.

Distance education can be an isolating experience, both socially and academically, even with access to the Internet. Like other respondents, communication has not been the two-way experience that I had anticipated as a DL. Despite the advances in technology, there are times when I feel as much isolated today in 2003 as when I commenced my first year of study as a DL back in 1985. And after eighteen years compromised income and sleep, of combining study and work and family responsibilities, it is clear to me why some DLs consider life-long learning as a “life sentence” (Danaher, et al., 2002, p. 1).

I have lacked the social and cultural capital to provide easy attainment of higher education. Lack of finances, combined with rural living, have not made the experience easy. Like others in this study, every step has been hard won. In addition to the times of “normal” complexities, there have been the times when the lack of transport, ill health (both self and
others), and the care of young children have made continuance of study almost impossible. What I have lacked, however, has been countered by the wonderful support of my husband and family.

My personal experiences of DE have included many remarkable aspects, especially providing the opportunity to undertake tertiary study when there has been no other possibilities. The greatest personal blessing along my own pathway to higher learning goes beyond the anticipation of employment security. It lies in the humbling experience of encouraging others along the way, and those challenges experienced in my own learning, those barriers to be overcome, are not wasted experiences. In a rural community, my studying as an adult female has offered an example to others around of alternative educational and also career possibilities, especially to my own daughters. I have also been able to offer guidance where sought, words of encouragement, or even to offer a hand up out of murky water when necessary, and in some encouragement not to bow to the pressures surrounding them. A little bit of encourage can go a long way. Indeed, it can “make or break” a distance learner. And from unexpected quarters have come the words of personal encouragement from the voices of the distance learners who are represented in this study. They want their stories heard so that those who make decisions regarding online learning, and those who teach it, can consider the multiple realities faced by distance learners, especially those who are the most marginalised. To my family, my friends and the respondents in this study, I say “thank you”.

**Final Summary: CMC and Learning in Third-Generation Distance Education**

Adults enroll in tertiary distance education for different reasons. There is a need to recognise the disparity in terms of existing knowledge, skills and finances within this broad group of individuals. Some students enroll to enhance workplace skills and are encouraged to do so from their employers. Others enroll for a career change, or to have a career. Tertiary education is seen as a means to a vocational end. Or enrolment may be for leisure or interest activities. They are not a homogenous group.
There is a discrepancy between the view of CMC in providing ‘cheap’ tertiary education (in the eyes of many distance learners) and it being costly to provide (in the eyes of institutions). Much of the literature still describes the provision of CMC in distance learning as a high cost item in university budgets. Yet from the perspective of many of the respondents in this study, CMC is viewed as ‘cheap’ education in relation to on-campus education, especially amongst those students who receive little tangibly in terms of hard-copy items.

The portability of hard-copy items was also highly valued amongst the respondents in this research. In one sense a tangible hard-copy of course notes and readers that the DL had received and could carry with them, represented the receipt of something in return for the student fees and educational costs paid in for their education. In a society where “there is no such thing as a ‘free’ lunch”, DLs who often know where every cent of their income is going, want to get something in return. When all study materials are located in cyberspace, there is no physical presence: it is esoteric. Combined with the lack of physical presence, total online education can appear to some sections of the DL community (especially those who are shut-ins, rural and remote, or the caretakers of young children) as an impoverished form of education. Optimal learning is then compromised: socially disadvantaged students may feel that they are learning with lower quality educational products, even when this may not be the case from the institution’s perspective. Apart from what is provided online, these DLs can view not receiving hard-copies of learning resources in terms of deprivation. The additional costs of downloading material, buying stationary and printing off copies were considered to further distance DLs from an equitable higher education. This is an interesting outcome. Willis (1995) argues that it takes more motivation to read a book or work through a written exercise than it does to participate in an online multi-media program. Perhaps this can be attributed to the perception of education as a commodity. In other words, students feel that they are feeding the technical-rationality machine. They are supporting a system which is not supporting them.

A number of respondents express benefits to online components of tertiary distance education, and several respondents report that without CMC, they could not have
completed their studies. An interesting correlation is that in two of these cases, the respondents reported that their experiences as a distance learner were successful on the whole. These were also the respondents who managed to construct around them a supportive virtual small group. Other respondents, particularly ones who did not have access to technology, skills, resources or adequate information and communication tell a different story.

**Final Summary: Access to Computer Hardware and Software**

Access to appropriate and compatible university software remains an issue for distance learners (Spender, 1995, p. 28), and distance education providers need to be aware of this and provided strategies for those who struggle to simply climb the hill to the assumed level playing field for distance learners. The notion of CMC as provider of a level learning field may assume that all enrolling students have access to computer hardware and software. Access assumes a disposable income to afford the technology. Not every respondent in this study had access to computers. Some who have computers did not have compatible software or the required computer programs to complete the necessary learning outcomes, placing them in compromising situations. Some respondents develop elaborate strategies simply to complete various subject requirements, begging to borrowing to obtaining pirated software.

During interviews, students who did not have their own computer technology prior to commencing their studies shared their frustration. One-third of the respondents did not initially have computer technology before commencing their studies, which was solved either by an outlay of a great deal of money computer initially, or by having to gradually build up the technology as able. Two respondents did not have access to their own computer in their place of study at all at the time of their interviews, despite being well into their studies. One relies on her husband bringing his work’s lap-top home when he was able, but as he is in a mobile position of employment, necessitating him being away from home for up to two weeks at a time, she cannot predict access. For her, the online components of her course are huge challenges to complete, and she cannot see herself
remaining a distance learner. Another student who has disabilities accesses a “communal”
computer in the living area of her student house, but this is far from ideal as both
timetabling, privacy and noise are issues. Thus it is too simplistic to think that all students
can get access to a computer. Lack of disposable finances to purchase necessary equipment
is an ongoing impediment to these learners.

Some respondents (again all female) who did have access to technology at the
commencement of studies report challenges that have occurred along the way, such as
computer failure due to equipment malfunction or electrical surges, and software failure
due to virus infection transmitted to their home PC from their link with academia: the
Internet. A common thread for these respondents is the compounding influences of the lack
of finances to have repairs attended, plus living in rural and isolated situations, where repair
knowledge can be non-existent, in turn necessitating equipment having to be sent to the city
for repairs, but all of which cost in terms of transportation and time factors to simply get
equipment to the place of repair.

Four participants express that they did not know before selecting particular units of study
that additional software and/or hardware components were required for this particular
course. Two unemployed respondents – both women enrolled in a Bachelor of IT course at
two different institutions – feel that there is an assumption that if you do not have it, then it
is easy to acquire in terms of local availability and the time and financial resources. These
are not the only respondents frustrated by the lack of information up-front in relation to
course pre-requisites (technology and skills alike).

**Final Summary: Internet Access**

5.71% of the study (2 respondents) do not have Internet access in their place of study.
These respondents spoke of the challenges they had in finding locations where they could
access study materials, submit necessary assessment tasks, and communicate online. For
some, it CMC is low-cost communication, paying the cost of a local phone call to send the
e-mail, depending upon the type of plan that they were utilising with their ISP. For others it
is not. Several respondents living in isolated communities, report that they have to pay the cost of long-distance phone calls (charged by the minute online) to connect to the Internet via their ISP, and of the fright that they had received on receiving their first phone bill. As distance learners, access to the Internet is not easy for all respondents. Some cited public libraries, their place of work, or the homes of friends and relatives as their only means of completing online requirements of their courses. They note this as problematic. Other respondents have to access online via their workplace computers. Some employers are unaware that they were doing so, but it is for them, their only alternative. Depending on the respondent’s situation, such sessions have to be brief, or conducted during lunch-breaks or after-hours.

A number of respondents report that whilst accessing the Internet was a benefit to the completion of their study, an unexpected and unwanted side is the picking up of viruses on their home PC after Internet searches or the receiving of e-mails. Whilst most had purchased computer detection/protection software, these are quickly superseded, requiring the purchase of updates which in turn are costly. One student said that their on-campus counterparts working in a university computer laboratory or online in the library would have greater protection from such system crashes. Two students of the study report having lost everything on their computer due to a computer virus. One received a virus through an attachment to an e-mail sent through an on-line study-buddy’s address book.

**Final Summary: Baseline Skills and Literacy with CMC**

Similarly, baseline computing skills vary vastly. In the study for example, there seems to be three distinct groups: those who have gained experience in previous educational or employment settings, those who have little or no prior experience, and those who work in field of Information Technology.

The provision of technology does not necessarily equate to equal ability or opportunity to use the medium to its fullest potential, just as there are still those in our society who are still unable to read despite printing now being a centuries-old technology. As the Internet is
still used predominantly as a written medium, basic literacy skills are assumed. This poses challenges for distinct groups of DLs who cannot regularly access on-campus support of staff and peers, which would help build both skills and confidence to students who do need support.

**Final Summary: Access to Resources**

All 35 of the respondents use the Internet for research purposes. On the whole this is seen as a benefit, with respondents being able to access information 'at their fingertips' to quote one respondent, when and where they need to. Indeed, this is one of the most reported benefits of CMC in distance education by study respondents. It offers access to a vast range of resources which would normally be beyond the reach of many distance learners. This is especially so for those who are home-based (disabilities or carer responsibilities) and those who live in rural or isolated environments. Indeed for many respondents in this study, the ability to access information online to assist their studies and research was one of the key differences in being able to study successfully from a distance.

Yet here too there are challenges. Researching online is still costly in terms of time (there are so many resources to access) and finances (many respondents pay per Internet download). It can also be confusing as to what opinions expressed in cyberspace are 'right' especially when the student has no learning community to discuss those views within. Hyperlinked sites are listed by a number of respondents as advantageous in their studies, as they feel confident that they are accessing information that is appropriate. However, several areas of challenges related to hyperlinks are that sometimes the 'link' itself does not exist (perhaps due to changes of the URL) or that the site is too great (in terms of volume) to download, save, copy or print. This leads to times of great frustrations for distance learners: so close yet so far! Additionally, in terms of the 'level learning field' analogy, some respondents pointed out that whilst the opportunity to study online has broadened the horizons of DLs, that on-campus learners also have access to the same opportunities on campus, where both computers and Internet access are provided, and the necessity does not exist.
Whilst many rural and isolated students in the study reported the WWW to be one of their main research resources during their DL, the disadvantages listed range from the costly downloads and the huge task of searching the WWW for relevant information. Difficulty verifying authenticity of works is another disadvantage, as is the exclusion from sites of interest due to non-member status of that site. Some express concern in regard to cost in terms of time and money that it takes to conduct searches, to down-load and to print. In relation to accessing online library catalogs, the majority of respondents find them confusing, difficult to navigate around, and often give up in frustration, relying instead on any set-texts, alternative sources such as friends, and through information down-loaded from the WWW.

**Final Summary: Internet as a medium to facilitate communication between distance learners**

CMC offers vast opportunities to communicate with others online, and most respondents in the study (80.00%) stated that they used the Internet for communication, 88.57% on a regular if not daily basis. Communication (whether two-way or one-to-many) requires a second party as the receiver of the message. DLs represented in this study anticipate a reasonably prompt reply when e-mailing their lecturers/tutors. However, this expectation is not always met, leading to great frustration on the part of students already marginalised. Secondly, the written word carries greater weighting than the spoken conversational word. In on-line communication, ‘conversations’ in written format are public and permanent records. A number of DLs feel quite anxious about online communication, especially on forums where they are concerned about showing their lack of knowledge or that they will be compared with others already knowledgeable in the field.

The Internet was considered by all respondents to be a wonderful tool. However, all agreed that they felt that it can never replace face-to-face or telephone dialogues. The array of experiences of the respondents included using e-mail, forums and chat-rooms to communicate with others. Each will be examined.
Forums exist at most of the tertiary institutions represented in this study. In some situations, the forums exist simply as an avenue for enrolled students to dialogue with others enrolled in that subject, so as to assist the feeling of 'community'. Other participants have compulsory forum participation for certain subjects, through which their learning was officially assessed. Students report feeling pressured about such components on several aspects. Others report feeling overwhelmed by the input on some on the forums, feeling that their contributions (often restricted by other commitments such as work, family responsibilities, access to computer hardware or software, or even access to the Internet) are little in comparison to others and their obstacles not considered in the marking. Others were frustrated that they were one of the regular contributors of a small number of active contributors on their subject forum and were concerned that group work might not isolate 'free-loaders'. As a result, some respondents use the forums to established links, then form peer-support groups off the forum, preferring to communicate by private e-mails, by telephone calls if this is an affordable option, or even meet in person.

Some respondents feel daunted by the notion of participation on the forum. They are concerned about the compulsory aspect of the forum which can assume a pre-existing knowledge of the medium of communication by all students, or that they will be easily able to learn how. Of these respondents, the majority have had no prior experience with the use of forums or chat rooms. One student feels concerned that her feelings of 'uncomfortableness' with the medium will be misread, and that she will be penalised without an understanding by those assessing her capabilities. Perhaps such situations make mockery of 'flexible' learning options for distance education students, and certainly create a barrier for equal outcomes of students who lack the skills, confidence or even desire to communicate in this way. In this context, silence does not necessarily equate to lack of learning, but also it might.

Most respondents feel that lecturers or tutors should have a greater presence on the forum, in terms of guiding discussions, especially if they are going off-track. They would like important information highlighted. Associated with this request is that many respondents do not have the time or opportunity to be able to go online daily to check forum postings, or
find it can be overwhelming in terms of contributions when they do. One respondent suggests that a forum supervisor could set up relevant ‘files’ in the forum, so that discussions could take place under relevant headings, to prevent confusion, or ensure that threads were adequately maintained. One respondent shares that she wrote a request on the forum, only to find her lecturer respond to her like a “naughty child” because the information had already been given on the forum some week’s earlier. These comments were buried under many intervening postings, and were lost in text.

Final Summary: Asynchronous and Synchronous Learning

The majority of respondents in the study report a major benefit of CMC to their distance learning is the ability to communicate asynchronously when they were able or need to, and despite time-zone differences. On the flip side, is not being able to get a response in a reasonable length of time, if they can get a response at all, which is described as a major disadvantage. This comment is directed to the online lecturer/tutor/teacher. DLs do not have the many added benefits of being on-campus – of being able to drop in to a tutors office to get some guidance or feedback on the draft of an assignment, and so on. For many DLs, prompt replies to communication from lecturers - and particularly, the lack thereof – has become a huge stumbling block. Few of the respondents in the study have discussed involvement with synchronous options of CMC. One that did mention her awkwardness in the placing of postings, and felt “frozen” and could not comfortably “chat” to people that she did not know, in front of a limitless audience, where she could neither “test the water first” nor see how others were responding to what she was saying.

Final Summary: Physical Challenges in the Utilisation of CMC

The greatest reported difficulties experienced by DLs in attending to their study online was in relation to eye-strain and headaches. In addition to visual challenges, many describe frustration with visibility of material limited by the ‘small window’ effect, wherein only limited amounts of text can be viewed and read at the one time. To overcome this, many
DLs will print out material just so that they can read it. Posture-related problems are also common.

**Final Summary: CMC as a Cost-Effective Means of Distance Learning**

17 respondents in the study (48.57%) rated finances in the top three of the greatest challenges to the successful completion of their studies as distance learners. Apart from the equipment costs and Internet (including download-loading) costs already mentioned, respondents also reported the huge costs of download-loading and printing off online material for various courses. They feel that this aspect of their enrolment was hidden from them on enrolment, and most were unprepared. As a result of these experiences, some of respondents feel that CMC is a way to further impoverish their distance learning experiences, by placing the burden of tuition squarely on the shoulders of the distance learner, in contrast to their on-campus counterparts.

**Final Summary: CMC versus traditional print-based materials in Distance Learning**

Whilst it was wonderful to have all course material available online, most respondents stated that they also wanted to continue receiving a print-based edition of their materials from their university for a number of reasons. Firstly, a reliance of placing all course materials online for DLs to download assumes that students have the necessary hardware or software to print the material being sent. For example, some students do not have compatible systems on their computer to download this information, nor the memory capacity on their PC to load the required program, even if they are able to acquire it. Secondly, the material to be downloaded may be greater than the student’s PCs ability to receive the information. Thirdly, the downloading and printing does place the burden of cost onto DLs, and this is of impact when their disposable income is not high. Fourthly, it assumes that DLs will have access at all times to the required equipment. The respondents who raise this issue believe that there is a benefit for DLs to receive both an online and hard-copy of materials. The portability (“Take anywhere, any place”) of print-based materials is especially considered an advantage by these flexible learners.
Final Summary: CMC Creating Community and Increasing Social and Cultural Capital.

Additionally, the lack of communication highlighted the feeling of isolation for quite a number of respondents in this research. For CMC to attain some of the attributed possibilities in providing equal outcomes for DLs, it needs to promote the establishment of groups of DLs to foster support and the sharing of resources.

Whilst this was not actively recognised or promoted as a wonderful resource in CMC courses, some respondents constructed a community about themselves to service their needs. Ways in which respondents in this study have attempted this has been through the establishment of study-buddy groups in their region, community, or in the case of geographically-removed peers, on-line via telephone or through the facility of private e-mail. Others met some ‘nice people’ during compulsory Residential schools for particular course, and have perpetuated those links during the rest of the semester. One respondent who does not currently feel she was part of a learning community, but simply a number in the system, would like to view a list of subjects that other peers had selected prior to choosing her next subjects so that she can align her own study with theirs, and build a group of on-line mentors.

Final Summary: Adequately Trained Teaching Staff In CMC

The comments by respondents in relation to their online lecturers/tutors ranged. A few report fantastic support and guidance, claiming that their lecturer cut a fine balance between allowing students to communicate and develop ideas without being too domineering, but stepping in regularly so that discussions either stayed on track or were summarised or pointed in new directions. The success of the lecturer’s skills was also rated in how they communicated with their students, and whether they were empowered and encouraged by them. Alternatively, some respondents comment on how discouraged they have felt due to
the lack of "presence" online (often interpreted as a lack of caring or respect towards DLs) by their lecturer.

**Final Summary: Equity Groups And Sub-Groups**

Distance learners can experience common problems. They can also experience equity-specific challenges that respondents in this study have highlighted. Students who are distance learners and fall into the equity groups are challenged in various ways which, as mentioned, have a great effect on their ability to enter, participate in, and successfully complete higher education. It is quite significant that 9 respondents of the sample (25.71%) had membership in three or more equity groups. Moreover, ample evidence in the stories of the distance learners in this research suggests that sub-groups occur within each equity group which affect their access to or completion of distance learning via CMC to differing extents. The combination of low-SES and rurality with any other equity group pushes students to often extreme methods of coping in order to avert becoming a statistic of the grueling rigors of distance learning. Moreover, other sub-groups identified in this study include students who have low skills, are unemployed, have low self-esteem, suffer from chronic ill-health, are social isolates, and those who are the primary care-givers of others (for example, mothers with young children, sole parents, and parents whose child/ren has a disability).

**Final Summary: Indigenous Distance Learners**

Throughout the study, concern was held by the researcher that all equity groups would be represented in this study, especially Indigenous students enrolled in DE because they represent such a small minority of students enrolled in higher education. Two indigenous learners are represented in this study (5.71%). They are from divergent backgrounds, live in two different states, in completely different social contexts, and are enrolled in different fields in different universities. The first lives and works in a professional position in a capital city. Many of her friends (mixed ethnicity) have tertiary qualifications. She completed one undergraduate degree on-campus, and has gained employment as a result.
She is enrolled in her second undergraduate degree for pleasure, to pursue an interest. The other student lives in a rural township. She did not complete high school, and is the only one of her family and peers to have attempted a tertiary qualification. Income is tight as she works part-time to support herself, and studies in her spare time. Her challenges are financially-based (cost of computer hardware and software, still scraping together finances to pay for her next bit of software), geographically-based (access to resources, disruptions to Internet service), and socially-based (lack of peer support and knowledge). However, she is rightfully proud of her achievements to date.

This suggests sub-groups existing within equity groups. For Indigenous students, perhaps once the barrier of tertiary entry has been transcended, and initial undergraduate study has been completed, challenges are similar for other tertiary DLs in general. But for those whose personal life circumstances have not placed them within communities whose members have needed, valued and/or pursued higher learning, then the results are vastly different. Add to this the compounding effect of categorisation within other equity groups, and the specific challenges associated with each of these in relation to CMC in distance education, the effect is a conglomeration of issues to be overcome.

**Final Summary: Rural And Isolated Distance Learners**

25 students (71.43%) of this study live in rural (small townships or small properties close to towns) or isolated regions. There are several specific problems relating to CMC in distance education that are reported by this group. Power failure and telephone line difficulties for the telephone are major obstacles, both of which not only inhibit the production, completion and transmission of work, but are also unpredictable in terms of when they will strike, the duration of the episode, and the length of time it will take service to be restored. Some of this group report disruptions in supply for over two weeks at a time, seriously affecting their ability to complete work reliant on down-loading or transmitting information or word-processing assessments. Most reported understanding lecturers under these circumstances, but of concern is the ones who report being penalised for such. Another related set of problems relates to local ISPs. For example, slow (or even almost-impossible)
log-on are reported in the early evening through to 9.00pm to 10.00pm, hampering study. Down-load times can similarly be painfully slow, correlating to higher costs. Students also report high incidences of “drop-out” for no apparent reason, necessitating them to log back on to their ISP for Internet connection, requiring the cost of another phone-call. Indeed, some students state that they are being charged long-distance phone-call rates for logging onto their service provider. All make online learning an expensive and frustrating exercise.

A second challenge for rural learners is the distances to be travelled to access resources (such as computer equipment), the cost of postage on library text returns, the extra time-lag in receiving and sending through the postal network, the cost of long-distance phone calls, and the lack of local knowledge (equipment and resources).

Of this group, 21 (84.00%) have membership in at least one other equity group or sub-group, and report the compounding effects of these on the successful completion of their studies. Students in the combined rural and isolated plus low SES groupings, for example, seem to find the challenges of distance learning utilising CMC especially difficult.

Final Summary: Distance Learners Who Have Disabilities

9 respondents in this study (25.71%) report to have disabilities, and these disabilities range from physical to psychological, indicating the vast potential of specific needs within this grouping. Many DLs with disabilities report that it is because of CMC in distance education that they are able to pursue a tertiary education. However, this group as a whole also report common challenges which relate to problems in utilising the technology and the disruptions to the study schedule due to their respective illnesses. Most said that they felt that their lecturers are supportive on the whole, but a number of incidences that have been shared reflect the total insensitivity of some lecturers to the already disadvantaged student. 5 of these respondents (55.55%) report that their disability is the major challenge in the successful completion of their studies.
Sub-groupings within this equity category are obvious, relating not only to sub-categories which exist in other equity groups, but also to the various disability groups (for example, mobility, hearing, sight, and psychiatric disabilities) which require specific solutions to enable optimal learning. Further, it goes without saying that students suffering from multiple disabilities may experience a compounding effect of overcoming challenges to DE.

Students with physical disabilities such as skeletal conditions report that if they could afford assistive technology it would assist them in the completion of tasks. One example suggested by several was voice-recognition software. The second challenge of this sub-group is that they need to have frequent breaks to prevent “seizing of joints”, for example. Sight-impaired respondents speak of the need to cut-and-paste down-loaded information to enable the increase of font-size for ease of reading. The act of downloading and enlarging font-sizes through to the final print-out is costly to these students both in terms of finances and time.

**Final Summary: Distance Learners From Non-English Speaking Backgrounds**

3 students in this research (8.57%) came from non-English speaking backgrounds, all having lived in Australia for less than ten years. One student lives in the city, works full-time and is completing a higher degree in the area of her employment. Whilst her Masters level study places this respondent in two equity groups, with the nature of the study being in her area of expertise, this is the reason, as she suggests, why DL via CMC is not a difficulty for her.

The other two participants from a NESB both live in rural hamlets in two different states (placing both into a second equity grouping) and are both completing graduate teaching qualifications. One respondent’s primary language is an Asian language, whilst the other’s is European. Both these respondents report challenges in putting together not only academic assessment tasks, such as essays, but also having to do so in English. Both respondents also feel that they would have gained benefit from being able to submit drafts
to their lecturers along the way in a fashion similar to on-campus students dropping into their lecturers office and asking for assistance in order to gain advice (especially language and content). If this is not a possibility, both have separately requested online assistance to help them through such procedural barriers.

The experiences above highlights that membership in two equity groups is not necessarily equally weighted. The experience of the female NESB student who is technologically contented in her work-related non-traditional area of study, is quite different compared to the two rural and isolated NESB students, who both cite the lack of skills or resources to complete as an impediment to their studies.

Final Summary: Distance Learners with a Low Socio-Economic Status'

13 respondents (37.14% of the research sample) recorded a low SES on the survey questionnaire. They feel as a group that the lack of financial capital thwarts them at every turn. In the course of the Interview, two respondents have expressed shame at purchasing pirated copies of software, but argued that they simply could not complete their studies without them. One, a single parent with dependent children, says that in an ideal world, she would not have to resort to such things in order to ensure a better financial future for her children. Of this group, 12 respondents (92.31%) had membership in at least one other equity group.

Additionally, as reflected by the opinions of respondents in this study, where low SES is combined with any other equity group, the experiences of the distance learners are compounded. However, other respondents want to argue for a different classification of low-SES, arguing that the amount of disposable income plus the number of dependents to be supported on this should be factored into the equation.
Final Summary: Distance Learners Who Are Female And Enrolled In Non-Traditional Areas Of Study Or Post-Graduate Studies

14 respondents (40.00%) of this study are enrolled in post-graduate and/or non-traditional areas of study. Some of this group are commencing in undergraduate study. Some of these women have no existing experience in the area of study, nor may they have a social network to discuss ideas and concepts. These form a separate sub-group to those gaining qualifications in a work-related area where they can gain collegial support in the workplace.

Final Summary: Distance Learners Who Are Over 55 Years Of Age

Whilst not traditionally recognised as an equity grouping, DLs who are in this small but growing population in higher education circles are represented in this study because of the challenges that they may have to completing their online studies through CMC, especially if they have not had any or have had only limited access to computer technology. In this research, 2 students (5.71% of the sample) - one undergraduate and one post-graduate - fell into this age bracket. Whilst both had other challenges to overcome, age, or the ability for “an old dog to learn new tricks” was not an issue, given time, the necessary finances and equipment, and a supportive network of mentors to assist along the way.

Final Summary: Students Who Are Primary Care-Givers

An unexpected finding of this research was the expressed compounding effects of caring for others whilst attempting to complete study as a distance learner. Even in this assumed modern world of female emancipation, the reality of most female students with children or aging relatives is that they are still the primary care-givers. 12 (34.28%) of female respondents in the study are mothers (and the primary care-givers) of young and/or school-aged children. They report the added constraints that even online learning could not help to overcome. Their studies regularly took a back-seat to the needs of their children. Study sessions are often compromised either by the direct or indirect (for example, fatigue) of nurturing others, despite fore-planning and anticipation. During the interviews, most
women with children reported feeling fatigue was a challenge as they juggled the "many hats" that they wore during the day and night: children, household, work and study. Some women found it best to study during the day-time when children were at school, and for those living rurally, when Internet connection was possible. Rural women who studied at night also reported it almost impossible to log onto the Internet in the late afternoon or early evening, and were challenged to having to go online late at night.

Additionally, three (8.82%) of this group of respondents have aging parents to care for in addition to their own children’s responsibilities. The pressures of being “on call” from both ends of the age spectrum are particularly difficult due to the uncertainty of time availability. One participant has expressed frustration that she never knows when she can “get a run at study”: her study sessions are so frequently disrupted by the plethora of needs of others, giving rise to loss of ability to complete even minor tasks, and also loss of concentration. She speaks for others when she says that often lecturers misinterpret the intelligence or abilities of caregivers due to their circumstances.

One male respondent also spoke about being in the roll of primary care-giver to an aged parent, but not enough information was gained to understand if his experiences were similar to the female respondents.

**Final Summary: Social and Cultural Capital**

With often little or no access to the key skills, knowledge, communication or equipment, required to successfully complete tertiary education through CMC distance learners can be marginalised on the fringes of academia, relegated to ‘looking from the outside in’. There are many factors which attribute to this situation.

Of note in this research is that those students who report that CMC has enhanced their distance learning have formed small networks to support and mentor each other, thus sharing knowledge and skills. This in turn boosts their communal social capital, in turn improving not only their self-esteem, but also improving their chances of successful
outcomes. These support groups, meeting originally in subject forums (bulleting boards) have become not only supportive of each other, but protective of the information that they have as opposed to those that did not actively participate in the forums (lurkers). In some situations, the lurkers are described in the same way that one would describe thieves of intellectual property.

Lurking, however, may not be simply due to a free-rider effect. In this research, respondents who did not actively participate in the forums expressed variously an awkwardness with the communication medium (technical know-how); difficulties in overcoming the lack of face-to-face, synchronous communication; little time to actively participate; a disgust at the lack of presence or guidance from their lecturer/tutor in the forum; and also due to doubts in their own abilities to be articulate or ‘correct’ in their postings. There was a relationship in the research between respondents who did not network, and the feelings of frustration that these respondents had in relation to positive outcomes.

Conclusion

Distance learners range in abilities. Their social, cultural and economic backgrounds differ. Their experiences with distance learning are unique. However throughout these experiences run common threads. For the respondents in this study, these details need to be given attention by online lecturers, tertiary institutions, technology providers and governments alike for CMC to become the emancipatory vehicle for educational opportunity that it has hoped to be. If the lived realities of the distance learners in this study are anything to go by, then the very technology which has the potential to provide a medium of higher education for all to learn through, can become the very barrier to block access to and participation to all but few, thus perpetuating existing cultural, societal and economic division in our world.

The final chapter concludes with research recommendations and recommendations for future research.
CHAPTER 8 DISCUSSION AND CONCLUSIONS

Discussion

What picture then do the case study respondents present in relation to their experiences with CMC in off-campus tertiary education? Has CMC been the great equaliser in terms of student access and equitable outcomes (Moran, 1990)? Or has any lack of social and cultural capital created hindrances to the successful completion of study (Bourdieu, 1973)? And what ramifications, if any, does membership of equity groups and sub-groups (Watson & Pope, 2000) have on this learning?

Six research questions were posed at the outset of this paper concerning themes that are related to equity challenges in distance learning (learning, communication, technology and societal factors). The six themes asked:

1. To what extent can computer-mediated communication be considered a level learning arena for all students?

2. What benefits to the facilitation of learning does CMC offer the same students?

3. What barriers are perceived by students enrolled as distance learners in tertiary institutions towards accessing CMC?

4. How does membership in one or more of the equity groupings affect the perceived learning experience?
5. Of the barriers identified, what suggestions do respondents have for tertiary institutions and educators to ensure inclusive distance education in the new millennium?

6. What strategies might be required by universities to enhance CMC learning for all students?

Given the parallels in experience for groups of distance learners, despite being enrolled at different institutions, some tentative conclusions can be made in relation to these themes. Indeed, on the basis of the responses to the survey questionnaire and interviews, the responses to the themes are interwoven.

**Computer-Mediated Communication as a Level Learning Arena in Distance Education**

The rise of CMC in distance education has brought with it many hopes for levelling of the learning arena of groups of students who have been previously disadvantaged in accessing and sustaining positive learning outcomes in tertiary study. The positive aspects of utilising CMC in distance learning that the case study respondents list include being able to attempt tertiary study despite barriers such as distance, commitments to work and family obligations, or challenges brought about by disabilities; peer communication on the subject forums; and the asynchronous nature of the technology: being able to study and communicate where and when they are able without consideration of time zones or office hours.

However, whilst most participating respondents note both positive benefits and negative obstacles in the use of CMC in distance learning, the number of negative responses outweigh the positives, with a ratio of four to one. Hopes for CMC to level the playing field for disadvantaged groups in tertiary education are thus compromised in this way.

For a level academic playing field to truly exist, then all students must start on equal footings. This, however, is not the case at the moment. For this to occur, groups of
disadvantaged distance learners need to be given extra attention through additional assistance and provisions that their academic peers may already have.

Care must be taken not to discredit the potential of the technology, yet at the same time, the responses in this research indicate that there is still a long way to go for institutions to ensure that the new technology does not simply replicate the existing divisions in higher education.

**Research Recommendations**

Recommendations that have arisen from the responses in this research are numerous and relate broadly to governments, to universities and more specifically to staff involved in the delivery of online learning in distance education. These recommendations should be heeded to enhance the possibilities of CMC becoming a more democratic deliverer of higher education.

1. Distance learners should not be seen as a homogeneous mass. Adults enrol in tertiary distance education for different reasons. There is a need to recognise the disparity in terms of existing knowledge, skills and finances within this broad group of individuals. Some students enrol to enhance workplace skills and are encouraged to do so from their employers. Others enrol for a career change, or to have a career. Tertiary education is seen as a means to an end. Or enrolment may be for leisure or interest activities. The social and cultural experiences of this group of students vary, as do their learning environments and their personal learning styles. Therefore, their differential needs must be acknowledged and adequately catered for.

2. Within the general population tertiary students, there are recognised groups of students who have been disadvantaged in terms of access to, and successful outcomes in, higher education. However, equity groups are not discrete or homogenous categories. There are six recognised equity groups in education within the Commonwealth of Australia, and these are Indigenous students, rural and isolated students, students with a disability,
students from a non-English speaking background, students with a low socio-economic status and females in non-traditional areas of study. Distance learner experience is compounded when DLs fall into multiple equity groups, and indeed 67.41% of the respondents in this study fall into 2 or more equity groupings. Findings suggest that additional categories exist, including students aged 55 years and over as an equity group in its own right. These need to be acknowledged.

3. Moreover, there are gradients within each equity group, as this study has demonstrated. Watson & Cope (2000) have identified three existing sub-categories in equity groups of low socio-economic status (identified as an equity category in its own right in this study), existing low skills, and unemployment. I have also identified additional categories to the equity sub-groups. These are DLs with chronic illness, those with low self-esteem, those who are isolated socially, and those who are responsible as the primary care-givers of others. Each of these sub-categories further compounds any existing challenges to a student’s enrolment, retention and successful outcomes in tertiary education. As such, this represents another factor that needs to be taken into account by DE providers and online educators.

Tertiary education providers need to carefully assess their enrolling distance learners by identifying those who fall into equity groups and subgroups. Such a practice would lead to a better statistical landscape of distance learner profiles nationally and internationally. Tertiary education providers also need to ensure that these students have not only the provision of resources to assist their learning process, but that they are informed of the existence of any services which can assist them in their learning. It cannot be assumed that any resource and support available, which may be listed on websites and in booklets, is read and understood by the DLs that they are meant to benefit.

4. Whilst low SES is an acknowledged equity group, the reliance on the DEST classification of residential postcodes falling within the lowest financial quartile of the population does not adequately address students need of genuine equity assistance
(Watson and Pope, 2002, p. 7). The existing classification can hide true low-income groups. There are respondents in this study who are in desperate need of financial assistance to complete their studies so that they can create a better way of life for themselves and their families. The amount of household disposable income may be a better indicator, as some respondents, whilst looking good on paper, struggle to put food on the table for their families, let alone have the additional finances required to purchase texts and computer hardware and software.

5. Providers of higher education by distance learning must not make assumptions as to the availability or accessibility of up-to-date technology for DLs. Many DLs have baseline models and software. As a result, CMC must be available in formats that can be accessed by these students. Subjects or units that require additional software further distance some groups of learners from the ability to participate fully in higher education, and so should be avoided where possible. Where additional computer hardware or software is required for the completion of any given subject, students should be made aware of this at the enrolment phase. It is both demoralising and wastes precious resources and time for disadvantaged distance learners to get into a subject only to realise that they cannot successfully complete. The overturning of ‘Fail’ grades in such cases should be considered on the part of the respective institutions.

For those students who do not have their own computers, access did exist for most students in this study outside the home, but this solution is far from satisfactory. For example, ‘free Internet access’ does exist at community libraries, but it dependent on booking availability, for small blocks of discontinuous time, and also whether the library’s network is up and running. Additionally, print-outs are reasonably expensive, and at some libraries, if the user accesses any other software application other than the Internet (for example, MS Word), extra charges are incurred. Some local libraries have locks over the floppy disc drive, creating frustrations for those wanting to save to disc. Add to this student stress and the pressure of deadlines, and the whole assumption of DL’s ease of access to technology is undermined, and ‘free’ is not so ‘free’ after all. Again, this highlights the necessity for access to technology for equity in distance
education. Disadvantaged students may need additional support through rent/buy programs or even free loans. Whilst running against the grain of market-driven economic-rationalist policies for higher education, such practices would put a public face on higher education.

6. The base-line assumptions pertaining to DLs’ technological skills and literacy need to be questioned and assessed. Whilst CMC has enhanced many opportunities for DLs to actively participate in their tertiary learning, it also compounds it. The level playing field analogy, of equality between on-campus and off-campus learners, and between the various marginalised learners and their counterparts, has been questioned. Baseline assumptions however, can go beyond the institution to the student themselves. Building online self-testing can help students assess their own capabilities. However, as self-esteem can be a huge barrier to some DLs, responses which encourage (as opposed to discourage) should be built in to any self-testing possibilities, for example: hyperlinks with sites that can help students gain further insights in their areas of scholastic weakness.

7. From this research, three categories posing common frustrations across all groups of distance learners, whether representatives of equity groups and subgroups or not, came to light. These are poor communication despite the possibilities of the technology; difficulty in negotiating webpages and difficulty in accessing online and off-campus library resources. The ‘communication’ aspect of CMC in distance education seems to be taking a back-seat to computer-mediated instruction, at least in the eyes of distance learners themselves, and despite optimism that CMC could overcome existing communication barriers for DLs (Hsu & Bruce, 1998, p. 48). Such concerns highlight the blurring of what computer technology can actually do with what the technology is assumed to provide. Computers do not automatically offer DLs and their lecturers the opportunity to communicate. Rather, CMC connects computers together (Ania, 2000). For communication to occur, all parties must actively participate.
Further, DLs make a distinction between mass communication and personalised communication. Many of the respondents in this study express disappointment as to the level of contact that they have with their lecturers/tutors, and in the majority of cases, feel that any response received is only as a result of their initial enquiry. Many crave unsolicited yet encouraging individual feedback from the lecturers. This is so even when DLs have communication from their lecturers directed to all students enrolled in a subject. A general greeting to the unseen masses does not hold the same value to the respondents as would a short personal greeting. Additionally, respondents argue that there should be a time limit on lecturer/tutor responses to their personal e-mails, as it is noted that some academics do not respond at all.

A challenge for some university lecturers/tutors involved in online programs is that whilst they may be ‘resource rich’ they are often ‘time impoverished’. However this has as much to do with the metamorphosis of teaching in CMC. In situations where the new technology has “paved over old cow paths” (Berge & Collins, 1995) the old ways of doing are not compatible. New technologies require new ways of doing. With CMC, the establishment of online learning is especially time and labour intensive in both the set-up phase (Gratton, 1999, p. 23) and the first few weeks of semester (CEA, 2001g), and this should be factored in to promote quality education. Whilst there may be practical reasons why this occurs from the academic’s point of view, to DLs such lengthy delays and silences in receiving responses can make the difference between success and failure.

As Gottschalk (1995d, p. 3) notes, regardless of the delivery system utilised for distance education, without feedback and interaction, instruction suffers. Academic staff need additional time allowances to be able to respond to their student’s enquiries. If this is not possible, an alternative solution which would to promote learning for DLs is the employment by faculties/institutions of a culturally-appropriate mentors to assist students in their construction of knowledge. They would also provide encouragement and support, to draw the student into the learning community (both into small study
groups and the student body of the subject). Individual personalised communication desired by the respondents in this study could then be assured.

8. University, subject and library webpages were also reported across all student groups to be difficult to negotiate. Of concern is that skilled IT employees who are also DLs, working in the industry and on the web on a daily basis, also find navigation challenging. As one Indigenous respondent stated, webpages need to be simple so all that students despite their socio-cultural backgrounds are not ostracised from the site of higher learning. Another respondent also asked for a universal log-in number to access all an institution’s webpages as she finds it difficult to remember multiple log-in numbers and passwords.

9. Whilst online research opportunities for DLs have increase substantially with the advent of CMC, there is still much confusion as to what to look for and where. Again across all categories, DLs express frustrations in accessing online library catalogs, reported to be confusing and difficult to use. Respondents would like them to be simple to both read and navigate, which in turn would encourage greater usage by DLs. If despite all attempts, a student cannot gain access or find what they are looking for, they will not use the system. Generally, DLs are frustrated in relation to the limited borrowing periods on loans from on-campus libraries. In relation to library loans, respondents who have a low income report of the challenges that they have to meet in posting back library books. One respondent says that when you order a library book, there is no idea of how heavy your text is. Weight of books correlates to the cost of postal returns, and when there is little cash reserves, books cannot be returned. This leads to situations of accruing fines (which again this group of DLs struggle to pay) and a reluctance to borrow texts, perhaps narrowing the possible knowledge base of these DLs.

Several solutions to this issue from the respondents include the provision of a given number of redeemable coupons for disadvantaged DLs per semester of academic year in the form of photocopying and return postage vouchers; and the wiping of any accrued library fines for disadvantaged DLs who are struggling to find money to return texts.
The provision of hyperlinks to additional resources that lecturers consider advantageous is also beneficial to DLs using CMC. However, constructors of online DL need to ensure that hyperlinks on webpages are both current, and if downloading and printing is necessary, that these are in small enough chunks for those who are technologically marginalised to still gain access to. It is one thing to provide links, but there is no point if those that are to be the beneficiaries cannot gain access to.

10. The notion of community invokes an image of communicative peers, and many DLs reported a lack of contact with their peers as a major detractor, even when opportunities for contact are possible on subject or general forums. Such communities which tend to form automatically for on-campus students, are often taken-for-granted. As respondents have highlighted in this study, this feeling of community appears missed in distance learning, especially when there is no context for support and discussion within the learner’s own community. Respondents who are employed and studying in a work-related field do not seem to feel the need as greatly for an online community as do those who are not employed, and those who are isolated not only geographically but also socially.

Successful learning involves collaboration in social situations (CEA, 2001) and small group learning provides opportunities for learners to converse, think, socialise and acquire knowledge simultaneously (Reid, et al., 1989). It is recommended that course designers need to provide opportunities for DLs to work collaboratively in small groups, and simultaneously provide opportunities for active rather than passive learning (Behm, et al., 1989, p. 87). Students could be assigned randomly to small groups which ‘meet’ online, either by assigning students to groups or by encouraging DLs to form their own small groups. These small groups do need their own private and secure space to meet online as an important aspect of group work is the building of trust, and some DLs are reticent to share personal information with strangers. It is interesting to note that the few respondents in this study who managed to construct around them a small but supportive virtual group around them were the respondents reported that their experiences as a distance learner were positive on the whole.
11. Whilst Internet-based learning has the potential for many varied uses, providing the opportunity for communication to be delivered in many formats and for learners to find and develop their own style of learning (Berge & Collins, 1995), the reality is that the experiences with CMC described in this research are still predominately print-based technology, with its emphasis on the written word (Saunders, 1998). This serves to perpetuate existing barriers in tertiary education especially for those who have difficulties with the written word. In terms of linguistic strengths, two students from non-English speaking backgrounds understandably found the writing of essays a barrier to the successful completion of their tertiary learning as DLs. In addition, three other groups of DLs also listed formal academic written communication as a barrier to the successful completion of their studies: students who had very strong mathematical intelligence and were enrolled in courses in computer science, students who had not participated in formal education for many years, and students who have always struggled with expressing themselves in the written word.

However, lesser linguistic capabilities do not equate with lesser intelligence. Gardner's theory of Multiple Intelligences (1983) argues that those who have traditionally succeeded in education are those with strong linguistic or mathematical competencies. As such, intelligence has been narrowly defined as strong abilities in these areas. Gardner argues that other intelligences, such as musical or spatial intelligence, intrapersonal or interpersonal intelligence, kinesthetic or naturalist intelligence are just as valid. He argues that simply because a student is unable to write an excellent essay does not equate with them not being intelligent. With the capabilities of CMC, students should be allowed to learn through their dominant intelligence(s), and to be assessed in their dominant medium of communication, so that their learning can be meaningful and successful educational outcomes may be achieved. It is recommended that online educators incorporate the utilisation of CMC possibilities other than print. These in turn can give rise to various assessment options to demonstrate student competencies, such as video, multi-media, graphics, and so on, thus overcoming a stumbling block for some students.
12. Another recommendation is for tertiary providers to establish online academic mentors for DLs who are drawn from similar backgrounds to the DLs. By doing so, these students can be better equipped and sustained throughout their learning. Brookfield (1995) writes of two important insights that have been suggested in research into cross-cultural adult learning: that adult educators need to examine their assumptions and preferences about what constitutes ‘normal’ in adult learning, and secondly, that the practice of ‘teaching their own’ – where adults are taught by educators drawn from those with similar backgrounds – leads to greater success in terms of retention and positive outcomes. This notion of lecturer as mentor of individual students also provides an opportunity to model successful learning behaviour (Laudrillard, 2002), which is especially important for DLs who have had little or no previous contact with tertiary students or institutions, such as the lived experience of students like Denise, as reported in this study. As such, they act as cultural ambassadors, or ‘translators’, to those on the fringe who cannot participate first-hand in on-campus education.

To make such a vision a possibility, off-campus educators who are representatives of the various equity groups could be employed by tertiary providers, in a similar manner as major companies are now providing ‘telecommuting’ opportunities. As such they would be off-site, online lecturers. In such a scenario, a rural-based lecturer or tutor would be assigned students who fit the criteria of that particular equity group or multiple equity groups as the case may be, whilst an Indigenous student would be in the care of an Indigenous academic from a similar socio-cultural background, and so on. This would create many advantages. For example, assessment could then be on a comparable basis: common assessment criteria can disadvantage those already disadvantaged.

13. In addition to assisting DLs in the crossing of the academic divide, the online mentor/tutor could also assist the DL in make the shift across the technological divide, from possible beginnings in “survival stage” through to success in the “innovation stage” (Mandinach, 1992). As such, these facilitators would need more than a
rudimentary knowledge of the spectrum of CMC applications in online learning in order to assist their proteges. Such knowledge could be gained through intensive preliminary workshops, either online or on-campus.

14. The online tutor/mentor could also assist small group communication, by monitoring contributions and encouraging feedback from those participants who are reluctant. Where synchronous communication is desired by the group but not an available option, he/she could organise a day and time at which the majority of members could either post messages on the forum or e-mail the group as a whole, thus giving the "feel" of real-time discussion. In Harasim's study (1989) peak times of usage of DLs online dialogs suggest Sunday or Monday evenings from 10.00pm as an ideal time. This time-slot would be beneficial for those rural and isolated students who find it difficult to log-on through their ISP before 9.00pm at night.

15. So many respondents in this study were eager to find areas of commonality with the researcher. Being able to describe the traumas of a sick child and having no money in one's purse to someone who can not only empathise, but who has also experienced it, is as important to the long-term success of the student as the fostering of knowledge. A practice of establishing online mentor/tutors would thus personalise tertiary distance education by creating not only a learning environment, but also a social environment. It would encourage a greater understanding of DLs as both learners and as individuals.

New technologies give rise to new ways of doing and being, and in this case, new ways of teaching and learning from a distance. Such a scenario would not be resource-invasive for tertiary providers to employ off-campus, online educators. The provision of permanent faculty office space would not be necessary, only access to information and technology. This vision would simultaneously promote retention of 'at-risk' students plus provide employment opportunities for representatives of socially disadvantaged groups.
16. It can be argued that distance learning is like learning a second language by tape only, without the experiential aspect of living in the culture alongside native speakers. Distance learning is multicultural learning as it necessitates the learning of styles and conventions that may not be part of the lived experience of the distance learner. It requires social and cultural capital that a distance education student may not possess. Assisting these students to gain access to social and cultural capital, such as access to technical knowledge and equipment must be a priority for the playing field of higher learning to become level.

**Directions For Future Research**

A pilot study and trial of online tutors as mentors who are representative of various equity groups and sub-groups could be implemented, with a view to its full implementation as an ongoing support program to tertiary distance learners. Action research (Kemmis & McTaggart, 1988), a process involving a cycle of planning, acting, observation and reflection with the emancipatory aim of improving the experience of third-generation distance learners, would be an appropriate tool of research to implement the program. The effectiveness of the online mentor/tutor could then be evaluated according to criteria of successful retention and outcomes, as reported by the distance learners, associated faculty members and university statistics.

The online mentor/tutor's function would be many-fold. He/she would run small groups of students, similar to on-campus tutorials, but comprising of students from similar socio-cultural backgrounds as the mentor/tutor. They would supervise such small groups across various subject areas to assist DLs in their learning with CMC. They would act as translators, to enculturate and assimilate DLs into the virtual university. Such a program would be of benefit to both undergraduate and graduate distance learners. Even if some of these students have had previous distance education experience, chances are that this may not have involved the use of CMC, or if the learning experience had a component of CMC, the rapid changes in technology may have superceded their knowledge or skills.
The establishment of online mentor/tutors would incorporate various factors noted in this study as necessary for optimal participation and outcomes for third-generation distance learners. These employees would be key in listening to and sourcing the solutions to ensure the maximum participation for students in their group; mentoring the students in the acquisition of technological skills; providing personalised communication to the DL; fostering the development of a learning community within the small group; directing DLs to useful and relevant online resources; providing an environment to also meet the social needs of the DL; guiding online discussions where necessary and weaving together the main threads of online discussions in a style and manner that is understood by members of the group; and in encouraging DLs to learn according to their own learning styles and intelligence, allowing for individuality in the completion of assessment tasks, including alternatives to completion in written format. In this manner, a dynamic learning arena would be created for all distance learners.

The employment of online mentor/tutors from equity groups would assist tertiary providers economically by maintaining student enrolments, especially in distance learners who are representatives of equity groups, and therefore maintaining funding. Lecturers can disseminate educational programs to large numbers of distance learners, but they do not have time to encourage learners individually or check if they are having any difficulties or understand the content. As satellite workers themselves, they would not require ongoing outlays such as office space or furniture. Instead they would require mainly virtual space and the up-to-date technology to communicate online with their students and also with lectures, faculty heads and administration staff on-campus. They would also participate in faculty meetings and regular training sessions on technology updates, as should on-campus staff. This could be provided on-campus or online, for example through video conferencing.

Such an important support program should increase the success rates of distance learners in all equity groups. This increased success rate could be used as a public relations and marketing tool for the tertiary institution implementing the scheme, giving the institution an ‘edge’ in the increasingly public competition in attracting student numbers, as current pre-
academic year advertisements in the Australian media would attest. Perhaps initial funding of the pilot program could come out of the institution’s advertising budget.

The employment of online mentor/tutors would benefit the common good of our society by providing employment to marginalised groups in our society. For example, who better that to be an online mentor/tutor to Aboriginal students from rural and low SES backgrounds that a qualified mentor/tutor who is also representative of this group of distance learners? These unique individuals have already successfully bridged the barriers between their life circumstances and tertiary education. They know first-hand the difficulties. They have also had to come up with the solutions in order to successfully complete their own qualifications. Such experiences can help others. They are precious resources, and should not be lost.

**Concluding Comments**

Despite rhetoric that online learning is the great democratic equaliser in educational terms and the accompanying anticipation that CMC would overcome existing problems in distance-learning, such a viewpoint is not supported by the experiences of the respondents in this study. They report continuing barriers to their learning in spite of technological advances and variety of possible opportunities available.

In the survey questionnaire, the greatest perceived barriers to the successful completion of the respondent’s studies via distance learning using CMC are the responsibilities of employment and/or caring for family members, followed closely by financial concerns. Responses in the interviews indicate perceived obstacles for DLs to their successful completion of study are the lack of finances, lack of skills, lack of equipment (hardware and/or software), lack of communication, and most commonly, the absence of a supportive community for guidance and help throughout their study.

Whilst CMC has improved aspects of the distance learning arena, respondents say that the very difficulties that prevented them being able to study on-campus (finances, time,
geographical isolation, disabilities and illness) can further exacerbate their experiences with
CMC. Many feel that rather than closing the distance and isolation of distance learning,
technology can compound the isolation.

Until the voices of distance learners are heard, acknowledged, and heeded, then the
perpetuation of marginalised learners will remain despite the potential of the new
technologies. They will be relegated to the sidelines of not-so-level playing field, where
they will be able to see but not fully participate, left looking from the outside in.

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LETTER OF INTRODUCTION TO PARTICIPANTS.

2 July, 2000

Dear Student,

Thank you for your interest in this research project. The following details are provided for your background information.

RESEARCH FOCUS. I am a Research Masters student (Master of Education with Honours) in the School of Administration and Training at the University of New England. My thesis is entitled Looking From The Outside In: The Issue Of Equal Access To Computer-Mediated Learning By Distance Learners in Higher Education. It asks the question: What is the potential of new computer technologies for learners to overcome disadvantage so as to participate equally in meaningful learning in higher education as distance learners.

CONTACT DETAILS. My research supervisors are Dr. Kay Harman - (02) 6773 2089 or kharman@metz.une.edu.au - and Professor Lynn Meek - (02) 6773 2042 or vmeeek@metz.une.edu.au. I can be contacted on (03) 5625 3587 or willems@dcst.net.au

PARTICIPANTS. I am interested in contacting distance education students to participate in case study research - especially people who fall into any of the following equity groups:

* Indigenous students
* Rural / isolated students
* Students with disabilities
* Non-English Speaking Background
* Low socio-economic background
* Women enrolled in non-traditional / postgraduate studies
* Students who are aged 55+ years

RESEARCH - PART 1. The initial phase of the research would involve 10 minutes of your time during which you will be asked to complete a set survey questions which cover 3 areas:

1. your distance learner profile;
2. your experiences with distance education; and
3. your thoughts about, and experiences with, the use of computer-mediated communication in distance learning (on-line units, Internet communication).

The Survey Questionnaire is attached to this Letter of Introduction. The completed questionnaire can be returned via post, in-person or on-line, depending on your preference and situation. A stamped, self-addressed envelope is included with this letter for you to post your completed answers to me using conventional mail ('snail mail').
Each survey questionnaire is allocated a number to verify the authenticity of findings and to cross-reference those answers with your answers to the interview questions, should you wish to participate in the second phase of this research.

You do not have to answer any question you do not feel comfortable with, and have the option to discontinue your involvement at any time.

**RESEARCH - PART 2.** You would then have the option to participate in a subsequent interview (which should take a further 10 or 15 minutes of your time). This will give you the opportunity to provide more detailed information about your experiences, thoughts and suggestions from your perspective as a distance learner. As with Part 1, you do not have to answer any question you do not feel comfortable with, and have the option to discontinue your involvement at any time.

If you would like to participate in the Interview, please complete the box on the bottom of the second page of the Survey Questionnaire.

**ANONYMITY.** For the case study research, your name / contact details will only be used for the purpose of this research, and your privacy and anonymity will be protected by the use of a pseudonym in the reporting of the findings. It should be noted however that should you choose to respond on-line, anonymity cannot be guaranteed.

**FATE OF COLLECTED DATA.** The UNE Code of Conduct for Research requires that research data records be preserved for at least 5 years after the study has been completed, after which it will then be destroyed. During this time, the research data records will be stored in a locked filing cabinet.

**ETHICS COMMITTEE.** Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address: Research Services, University of New England, Armidale, NSW, 2351. Tel. (02) 6773 3449 / Fax (02) 6773 3543 / e-mail ethics@metz.une.edu.au

**THANK YOU.** Thank you for considering participation in this project.

Yours Faithfully,

Julie Willems.

10 Albert Road,
Drouin, VIC, 3818.
Australia.
(03) 5625 3587
willems@dcsi.net.au
QUESTIONNAIRE: Looking From The Outside In: The Issue of Equal Access to Computer-Mediated Learning by Distance Learners in Higher Education.
Please return to: Julie Willems, 10 Albert Road, Drouin, VIC, 3818, Australia.

SECTION 1: DISTANCE LEARNER PROFILE. (Please circle or complete your answers)

1. Gender: Male Female


3. Ethnicity: Indigenous-Australian Anglo/Celtic-Australian Other(specify) ___________

4. Country of residency: Australia Elsewhere (specify) ___________

5. Geographical Location: Capital City Regional City Town Rural Other ________

6. What is the main language you speak at home? _________________

7. Marital Status: Single Married/Defacto

8. Employment: Paid F/T Paid P/T Retired Unemployed Home Duties Other ________

9. Household Income p.a. ($,000): 0-20 20-35 35-50 50-75 75-100 100+

10. Do you support dependents on your income? How many? ______________

11. (a) Do you have any disabilities? Yes No (b) If yes, please specify:
   Visually-impaired Hearing-impaired Mobility-impaired Other: _________

12. Do you have your own transport? Yes No Share Public Transport
   (NB. These questions allow for comparison of findings with data collected in other recent studies.)

SECTION 2: CHOICE OF DISTANCE EDUCATION FOR HIGHER EDUCATION.

13. Are you an …? Undergraduate Post-graduate Other: _________________

14. Field of Study: Arts Science Education Business/Economics IT Law Other: ______

15. (a) What factors motivated you to choose distance education? Family Responsibilities Disability Distance from tertiary institution Work Responsibilities Other: ___________
   (b) Which of these was the greatest influence in your choice? _______________

16. What factors, if any, provide challenges to your successful completion of your distance learning? Rank your in order with 1 signifying the greatest challenge to the completion of your study, on up through your selection. If a listed factor is not applicable to your situation, simply leave blank.

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17. (a) How regular is your contact with the course coordinator/ tutors/ students in your course? _________
   (b) What is the most usual form of this communication? Letter Phone Call Fax E-Mail On-line Forum In Person Other: ___________
18. What skill do you think is the most important in order to be a successful distance learner?

19. What skills/equipment, if any, might enhance your own ability to complete your distance studies?

SECTION 3: DISTANCE LEARNERS AND COMPUTER TECHNOLOGY.

20. Personal level of Computer experience: novice some average experienced expert

21. Personal comfort level in using Computers: uncomfortable neutral comfortable

22. Do you own your own computer? Yes No Other

23. If you have a computer, is it connected to a modem? Yes No

24. Do you have access to a computer and a modem elsewhere? Yes No Sometimes

25. Location of computer access outside home (eg work, library):

26. How have you gained your computer skills? Course Trial-and-error Other

27. Have you ever accessed and used the Internet? Daily Regularly Occasionally Not yet

28. For what purpose do you use the Internet? Messages Information Games Education Other

29. What changes would you have to make if the Internet was to become the major mode of delivery in Distance Education?

Buy a computer Buy software Buy a modem Connect to Internet Take training courses Other

30. How could Distance Education subjects with compulsory on-line components be made easier for you?

31. Additional Comments (Please attach a separate sheet if space is insufficient here):

THANKYOU FOR YOUR VALUABLE ASSISTANCE IN COMPLETING THESE QUESTIONS.

Julie Willems.

If you would like to participate in further Case Study Research regarding Computer-Mediated Communication in Distance Education, based upon your responses above, please write in your name and contact details. These details are solely for use by the researcher for the purpose of the study, and will not be divulged. Thankyou.

NAME: __________________________________________ ADDRESS: __________________________________________

PHONE: __________________________________________ E-MAIL: __________________________________________
APPENDIX 3

INTERVIEW SCHEDULE

Looking From The Outside In: The Issue Of Equal Access To Computer-Mediated Learning By Distance Learners in Higher Education.

Julie Willems, 10 Albert Road, Drouin, VIC, 3818, Australia.

Thank you for your responses in Part 1 of this research on the issue of equal access to computer-mediated learning by distance learners in higher education.

1. You have indicated that you would be interested in being a case study participant in Part 2 of this research. Are you still willing to do so? Please note that as with the questions in Part 1 of this research, you do not have to answer any question you do not feel comfortable with, and have the option to discontinue your involvement at any time.

2. Please tell me more about your decision to study via distance education.

3. What has been the major challenges that you have had to face in order to successfully complete components of your distance learning?

4. What challenges, if any, have you had to overcome in becoming computer literate, and how did you achieve that?

5. What challenges, if any, have you had to overcome in accessing computer hardware and software, and how did you achieve that?

6. Has the Internet enhanced your distance learning? If so, in what ways?
7. In what ways do you use the Internet? Do you use the Internet for research? For general communication with other students (eg in forums)? Communication to tutors or lecturers? Communication to administration staff at the university? To complete distance learning modules? Any other ways?

8. What challenges, if any, have you had to overcome in order to communicate on the Internet?

9. What challenges, if any, have you had to overcome in order to take advantage of distance education components that have been delivered on-line?

10. What further comments or suggestions have you to make in relation to the use of computer-mediated communication (CMC) and distance learning. For example, what ways can access to CMC can be made easier to enhance distance learning?

11. Any further comments?

Thank you for your comments, and the time that you’ve given to this research. Julie Willems.