CHAPTER II

REVIEW OF RELATED LITERATURE
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2.0.0.0 Introduction

The review of related literature is a crucial element of a research project as this literature helps form the basis of the research being undertaken and as such is considered an invaluable resource.

The purpose of a literature review as Kumar, R. (1996) describes, is to source existing information and provide a focus for the research topic or problem. Review of related literature allows a preview of what methods others have used and derives strengths and weaknesses found in these methods that can be utilised to enhance the research project. Thus it is an exercise in which the student searches out all relevant literature and then evaluates it critically, so as to understand the current state of knowledge in that field.

The articles were researched using books, educational journals and electronic sources such as online books, online journals and newspaper articles. All the articles were researched keeping in mind the topic of the research, namely ‘Creating A Learning Society By Adapting The System To Match E-learners Profiles’.

2.1.0.0 Classification Of Related Literature

In this chapter, the central focus of the review of related literature has been on the E-learning System and the need to personalise it. With this theme in mind, the investigator has classified the review of studies as follows:
2.2.0.0 Studies Related To The E-learning System

This section deals with the review of research studies on the e-learning system and the use of ICT in e-learning.

2.3.0.0 Studies Related To Motivating and Communicating with E-learners

In this section the various methods used by online educators to motivate and communicate with the online students are researched and discussed.

2.4.0.0 Studies Related To Creating a Learning Society

This section focuses on studies related to creating a learning society and the need for a learning society.

2.5.0.0 Studies Related To Designing Effective E-learning Environments

This section deals with the review of research studies on the steps taken to design effective learning environments.

2.6.0.0 Studies Related to Challenges Faced by E-Learning Designers

This section discusses the various issues in designers e-learning courses and the challenges faced by the e-learning designers.
2.2.0.0 Studies Related To The E-learning System And Their Implications

Barajas. M (2002) in *Monitoring And Evaluation Of Research In Learning Innovations (MERLIN)* aimed to optimise the results of ICT-based learning projects by monitoring and reviewing the projects in order to identify key qualitative indicators of innovation and a new research agenda for future actions.

Some of the conclusions reached are that engagement of ICT in learning alters traditional teacher-student relationships, and, as a result, there are changes in the roles of the principle educational actors. Change of organisation in the classroom appears to be caused by the combined effect of the media being used and the teaching approach being applied that of placing emphasis on the learning processes rather than the outcomes, and on social learning rather than individual learning. Teachers' attitudes towards ICT are connected to socio-cultural, professional and technological barriers. Some recommendations have been made in terms of a need for in-depth study of people's information seeking strategies in ICT-based learning situations and its relation to the building of knowledge. Also there is need to address the lack of rich evidence on the issues of equity, exclusion and gender.

The conclusions derived from MERLIN have immense scope for further research as the concept of ICT evolves. They are useful in determining the need and how to create a learning society through the use of ICT based innovation, which is the background on which the research is based.

Hobokaen, N. (2007), in *Survey by eLearners .com Explore Myths About Online Learning* lists some of the common myths about online learning which focus around less time and effort required, easier work and that it is a less effective educational/learning format through results compiled from 75 student surveys.
Despite the workload, 90 percent of the online students surveyed indicated their experience was good or better, with more than 83 percent saying they would recommend online education to others. Among the respondents who chose to go online, the "best part" of their educational experience was "time/location flexibility" (56 percent), followed by the "format/style of instruction" (20 percent). They said the most challenging part of being an online student was "having the discipline" (32 percent) and "making the time" (25 percent). These answers were compared to a survey conducted on campus based students and found that relative to 90 percent of its happy and contented online colleagues; only 77 percent of those attending a campus-based program indicated their experience was good or better. Among the 48 percent who had not yet enrolled, 57 percent said they are still planning to enroll in online program, and 62 percent of that group planning to do so in the next year. Thus with the early-adopter phase of online post-secondary education behind us, schools offering online programs are going to have to work even harder to attract new prospects, convince the fence sitters and retain the converted.

The figures from the research offer a useful insight into user experiences of online education and those still choosing traditional means. The fact that online students were happier than on campus students with the overall course experience is encouraging to e-learning strategists as it proves that there is a need and demand for more flexible learning. The survey should be conducted on a larger sample and perhaps in future, in different cultural realms in order to compare results and obtain conclusions.

Mobbs, R. (2005), in *What is e-Learning and how to become an E-tutor* has designed a course focusing on e-learning, e-teaching and how to become an e-Tutor.
It states that e-learning will only succeed if there is a synergy between educators, instructional designers, curriculum developers, learning technologists, graphics designers, and publishers etc. to produce good quality learning materials adhering to recognised standards that can be delivered to the student in a timely way. The use of e-learning will also address some of the wider issues such as potential to overcome barriers, wider participation, ICT support tools and the ability of tailoring learning to individual needs. With the change in delivery methods for online courses, there is change in the delivery styles of e-tutors and some characteristics such as good subject knowledge, providing positive support and encouragement and being a mentor and counselor.

This course will be helpful for individuals who wish to become e-tutors in order to gain more knowledge about the field and e-learning in general. However, it should be noted that this course itself is not enough to be a fully qualified e-tutor and one must consider accredited courses to become qualified instructors.

Naqvi, S. (2006), in *Impact of WebCT on learning: An Oman Experience* investigated the impact of The World Wide Web Course Tool (WebCT) on students learning taking a course "Introduction to Computers in Business" offered at the College of Commerce and Economics, Sultan Qaboos University in the Sultanate of Oman. The survey results of student’s feedback on WebCT were obtained through a questionnaire of seventy-one students.

The finding showed that though the students have little exposure of WebCT at the beginning of the course, towards the end they have appreciated the importance and the use of WebCT as it is easily accessible from any Internet enabled location at any time. In addition it helps them in better understanding and learning the course material and
greater use of IT brought about more positive attitudes and hence greater confidence in the users.

The study may help the providers of traditional learning realise the benefits of moving some or all of the content of their courses online. One of the most apparent trends affecting education is the advancement of technology as computers are increasing in speed while decreasing in cost, and high-speed network connections continue to expand. The study can be extended to include a larger sample size and students that have advanced knowledge of IT to monitor if the results change.


E-learning can suffer from many of the same pitfalls as classroom training, such as boring slides, monotonous speech, and little opportunity for interaction. The beauty of e-learning, however, is that new software allows the creation of very effective learning environments that can engulf the learner in the material. E-learning falls into four categories which are knowledge databases, online support, asynchronous training and synchronous training. It also focuses on the psychology of e-learning and benefits that it has and states the importance of always combining e-learning with the more traditional methods designers are accustomed to.

This article on e-learning is useful for researchers interested in the topic in order to gain an overview on e-learning and its characteristics. The blended environment of combining traditional teaching with e-learning can be an effective way to provide training, and might have better initial acceptance. This area can be extended to further research in implementing blended learning environments.
Overton, L. (2007), in Towards Maturity conducts a study specifically aimed at a target audience who had some experience of e-learning. A survey was delivered online to both those responsible for implementing e-learning and to learners themselves. 209 organisations from a wide range of industry sectors and 730 learners participated in an employee survey.

From the education through the organisation survey, it was possible to determine the maturity in the form of sporadic learners, developing users, established users and embedded users with an increasing level of information about e-learning. One of the more significant factors was the link between maturity and the financial contribution that e-learning was able to provide to an organisation. Mature e-learning organisations were more likely to keep a better alignment with the business needs, implement e-learning programmes quickly, and they were more likely to agree that lessons learnt from e-learning are applied to the job more effectively. In terms of moving towards maturity, more mature organisations are more likely to deliver business benefits from their e-learning investments, offer a broad range of technology assisted learning to a wide range of potential audiences, support learners proactively (particularly through the use of coaches), provide closer alignment to business needs and take advantage of formal learning opportunities.

This research will be useful to those new to the field by providing support to inform appropriate decisions and create confidence in taking the first steps and for the more established users by providing benchmarking opportunities to encourage continuous improvement as e-learning is definitely set to continue to grow.
Stewart, M. (2006), in *Teaching Art at a Distance* describes the nationally accredited art and design courses offered online at the Studio Art School in the UK.

The Web-based delivery system enables students to receive teaching materials and upload images of their work at each stage of development without the delays, transport costs, and security problems associated with traditional distance-learning courses. Thus the course uses new technology to facilitate the acquisition of traditional skills. Although some obvious disadvantages to working online were noted such as the lack of face-to-face contact between tutors and students and loss of the interaction between students that forms a vital part of any classroom-based experience, it was found that any potential disadvantages are far outweighed by the advantages. The new methodology does not involve tinkering with existing systems and models in education, but a more radical approach, and the will to create mutually supportive systems for the benefit of teachers and learners alike.

New methodologies and strategies for learning should always be explored with technology being embraced and applied accordingly. Teaching practical art courses by distance learning has always been a challenge for both teacher and student. However, the findings in this article will be useful to providers of other similar courses that are thinking about taking their course online. This new way of teaching helps broaden the number and types of courses taught online and now takes the course to the learner rather than the learner having to come to the course.

Twigg, C. (1996), in *Is Technology a Silver Bullet?* attempts to answer the question of whether technology can help serve more students at lower costs in the future with the introduction of more online learning rather than traditional universities.
It was found that it would be extremely difficult to perform cost-benefit studies between traditional and online institutions, as the data is not readily available. Second, the costs of existing courses and programs merely indicate the choices that have been made, not the choices that are possible and third; it is difficult to compare costs of mediated programs even if focusing the inquiry to one type of technology. Thus what is needed is a combination of pre-prepared, multimedia materials that reduce the contact time between students and teachers and some interactive time where the faculty member can concentrate on handling interaction with and among the learners. Instead of just trying to answer the question of which is more cost effective, the author suggests studies should be focused more on designing and implementing new program models that will help us get to that answer.

The idea of program models should be researched further in order to derive the answer as to which method of education is more cost beneficial. As more students take to e-learning in the future and currently, finding cost-effective ways of maintaining this education would be of interest to organisations in order to make both learning and offering learning a mutually cost-effective program.

West. R., Waddoups, G., Kennedy, M., & Graham, C. (2007), in Evaluating the Impact on Users from Implementing a Course Management System investigate through a survey of 124 instructors and 163 students the implementation of a CMS (Blackboard) and its impact on students and faculty at the university, the benefits and challenges from supporting this tool on an institution-wide basis.

It was found that most instructors only used a few features of Blackboard and were found to be moderately satisfied with the course management tool, but only if it is stable. However Blackboard was found to increase efficiency in the course by reducing time taken in updating and
distributing course material. It also helped pace the instructor and student and keep the course organised.

The dimensions outlined, including student and faculty satisfaction, knowledge, usage, efficiency, and stability are important vital signs of CMS implementation that could guide similar large-scale evaluations. Course management systems make learning accessible and efficient for anywhere-anytime learning. With the proper technology and support, online learning and course management systems allow universities to grow when classrooms and faculty office space is impacted.

2.3.0.0 Studies Related To Motivating and Communicating with E-learners And Their Implications

Akridge, J., DeMay, L., Braunlich, L., Collura, M. & Sheahan, M. (2002) in their article Retaining Adult Learners in a High-Stress Distance Education Learning Environment: The Purdue University Executive MBS in Agribusiness” discuss the three broad strategies that have been developed and implemented on a class of 41 students in view of the problem of online student retention in The Purdue University Executive MBA in Agribusiness Program. The strategies involve preparing a qualified group of learners to be successful in the program, implementing a delivery philosophy that is highly learner focused, and addressing the engagement of the learners at a much more personal level. These strategies and results of employing them showed that student retention rate had increased with only 7 students dropping out and mostly due to unavoidable circumstances rather than loss of motivation.

This article is useful in pointing out the ways of motivating and communicating with e-learners and to learn the current techniques in e-learning. By employing these techniques, hopefully in the future with better technology, the retention rate of students is also set to improve. There is also no mention of the program taking into consideration individual's profiles, which leaves a vast scope for research in the area.
Creanor, L. et al (2006) in *The Learner's Voice: A Focus On The E-learner Experience* outlines work in progress on a national research project on the learner experience of e-learning in a project named LEX (Learner's experience of e-learning) based on three case studies which illustrate how learners describe their approaches to fitting learning into their lives, to accomplishing e-learning tasks, their strategies to overcome problems and their expectations and experiences. They found that learners were positive about their experiences for a variety of reasons which included flexible learning options, ability to keep the learners anonymous which would reduce discrimination otherwise caused due to disabilities and the option of being able to work individually and at one's own pace which was important for novice learners who were still trying to familiarise themselves with the system. The opinions of the learners expressed in the articles helps open the door for future research and studies on each area of the case studies mentioned as the paper does not present any findings or research outcomes. The opinions are a good starting point to realise that people are interested in e-learning and would consider using the opportunity to learn a course online if they were presented with the option which is handy for strategists to gauge student interest and motivational factors.

Desmarais, L. (2002), in *Persistence in Distance Education: a Case Study* examines the persistence phenomenon based on a case study of the implementation of a distance training writing program in foreign languages mainly Spanish and German and isolates factors related to persistence in this specific context and shares some of the interventions that have reduced the dropout rate. It finds that there are special factors related to attitude and work habits that could influence a participant's decision to abandon a course. These include keyboarding skills and attitudes toward the usefulness of a computer for writing, communicating
by email and usefulness of the computer and email for learning. Tutors also play a major role in motivating non-captive audiences who do not possess persistence.

The study can be used as a method of stressing to tutors the importance of engaging the students by capturing their attention and reducing the dropout rate by seeing that the course meets the needs of the clients. It also is useful to understand the important role that tutors play in the students learning process which directly influences their ability to motivate themselves and be persistent.

Gibbons, H., & Wentworth, G. (2002), in *Processes for Motivating Online Learners from Recruitment Through Degree Completion* discuss the main goals institutions have concerning students; recruitment and retention and how to understand student's needs when recruiting them in order to keep them motivated and thus increase retention.

The online education market plays an important role in attracting an increasing number of students who seek non traditional methods to further their formal education while beginning and advancing their careers. However in order to successfully meet the recruitment and long-term retention goals, students’ motivation and satisfaction should be maintained. A well-trained faculty is always important in sustaining student motivation by facilitating classes employing tools and techniques specific to nontraditional student styles. Other concerns such as attendance, performance and use of online delivery method should also be addressed in promotional material as students will be more attracted to institutions they perceive are in tune with their motivations.

The study is helpful in highlighting to institutions the need to address the differences between traditional and non-traditional students at all levels of the student/institution relationship, which will ensure high levels of student enrolment and retention. Online student enrollment is growing at
an alarming rate of 8% per annum (Finnegan D, 2004) and refusing to acknowledge these differences, clinging to traditional recruiting and retention strategies will be ineffective and result in the eventual failure of an institution’s online efforts.

Hricko, M. (2002), in Student Retention in Distance Education examined the effects of institutional and epistemological barriers and suggested ways to improve student retention in distance education courses.

Situational and dispositional barriers are the main reasons for students to withdraw from online course education. Institutions should be proactive in determining which areas in their course need improvement. Institutional challenges such as lack of support from the institution is also another reason for students dropping out of online courses. Support staff, instructors, and students should know how to deal with technological challenges. Also instructors should realise that DE courses require instruction and communication techniques that overcome the physical separation between the instructor and the students. Thus along with the investments made in DE, time should also be invested in researching the courses and evaluating and training the participants in order to gain better results.

The barriers presented in this article can be studied further among a wide audience in order to reduce the effect of these factors on attrition rates. Support services for distance education students ensure the most successful programming. Hence only by understanding the causes of student attrition, can research be done into reducing the occurrences of these causes and help retain students in online courses.

Jackson, S. (2001), in Online Distance Education and Undergraduate Student Retention and Recruitment examines the different ways in which
online education can benefit the existing student population base of universities within both, the traditional and non-traditional age group of students and help increase online retention rates.

It is seen that distance education has the potential for helping retain students who have personal commitments or have to stop university for financial or lifestyle reasons. There have been seven factors identified by the US department of Education, which mainly are responsible for non-completion of degrees. Some of these are delayed college enrolment, being financially independent, having children, being a single parent and working full time to name a few. However, it is noted that some of these issues can be addressed through the method of asynchronous learning that is a key feature of distance education. Thus is can be seen that distance education has the means for maintaining the sense of involvement, connection and progress for students who cannot attend classes for various reasons.

The factors identified in this article are helpful in understanding the non-completion of degrees by students who undertake online courses. However, these factors relate to the circumstances of students in America, which could be different to those in a different country. Further research can be carried out on students in other countries who undertake online study.

Kishore. J., & Ngoh Lee Bee (2003), in their research article Motivating Factors in E-learning – A Case Study of UNITAR (University Tun Abdul Razak), discuss the survey results obtained through a questionnaire from a sample of 71 students pursuing masters’ level courses in management and IT (MBA, MITM, and MIMT).

They found that majority of the e-Learners are working adults. These learners who wish to have higher education, are generally self-
disciplined, self directed and highly motivated. The study also reveals that the top motivating factors in choosing an e-learning course by these e-Learners are – flexibility in timings, geographical independence, web-based interactive and collaborative environment, and suitability of subject content.

The study may help the providers of online courses design their strategies and position their courses in line with the above. Learning at your own time, pace, and space seems to be the most appropriate positioning for such courses.

Kawachi, P. (2002), in How to Initiate Intrinsic Motivation in the On-Line Student in Theory and Practice presents the three major categories of personal intrinsic motivations to learn, making the case for the existence of social intrinsic motivation in on-line distance education (DE) and ways to sustain them.

It is found that personal intrinsic challenge requires pre-task presentation of fixed learning objectives or the early negotiation of these with each student or close tutor moderating. Personal intrinsic fantasy requires the course designer to convey explicitly the rationale for any course group activity and personal intrinsic curiosity can be initiated through the senses by using audio and video multimedia technology, or cognitively through receiving measured feedback by the tutor to reveal deeper complexity previously unforeseen by the student and to facilitate how the student might proceed to deeper understanding. Intrinsic motivation can also be sustained through constant tutor feedback in order to retain the student and converting their negative motivations to learning.

With the intrinsic motivations identified, online tutors can use these ideas to sustain these intrinsic motivations thus improving current practice. This will help motivate students to stay in the course as the tutors relate
directly to what intrinsically motivates these students thus reducing the anonymity created by online courses and enabling tutors to understand their students better.

Sciuto, G. (2002), in *Setting Students Up for Success: The Instructor's Role in Creating a Positive, Asynchronous, Distance Education Experience* examines four instructional activities that lead to a successful, Web-based, asynchronous, DE experience. A typical DE learner is usually older than the traditional graduate, works either full time or part time, requires online accessibility due to work/personal commitments, is able to manage time and work and is motivated to complete the course. The instructional activities that lead to a successful, Web-based, asynchronous, DE experience are encouraging ongoing, interpersonal dialogue between the instructor and learner, learner and instructor, and learner and learner; providing prompt feedback; offering on-line orientation and establishing clear instructions and learning objectives such as clear course dates and objectives summarised and made available to the students. The instructional activities discussed are useful for institutions and instructors to design and execute more successful web courses with a higher completion rate of students. These activities can be validated through a survey of students involved in an online course at an institution or university.

Smith, T. (2005), in *Fifty-One Competencies for Online Instruction* reviews 51 instructor competencies that are deemed necessary for an effective online learning program and outlines key components of a training program to enable a traditional brick-and-mortar college to transition to a university that has a significant online component.
Smith states that 18 competencies are required prior to the start of the course, which focus mainly around the tutor’s ability to create and plan the layout and syllabus of the course while considering the technology available. During the course, the instructor needs to move into the role of facilitator, focusing not only on course content but also on development of the online community by using best practices to promote participation and learning. After the course has completed, the instructor should be able to export the grades for transmittal to the university registrar and also be able to evaluate students and be evaluated in order to make progress in the following semester. However, the author suggests that the focus should be on mastering all the competencies in complex combinations and instructor training in providing online courses should also be given equal importance.

In the future, with these competencies, it can be determined which are best acquired via on the job training or formal training, collaborative reflection and discussion to make online educators more skilled which in turn will increase the effectiveness and success of online education.

Siccama, C. (2007), in *Work Activities of Faculty Support Staff in Online Education Programs* conducted an instrumental and collective case study to explore the work activities of four professionals who occupy the role of faculty support staff in online education programs using four institutions to determine faculty and staff roles in developing and implementing online programs.

Courses that are delivered in online environments require different types of design and development support than do traditional face-to-face courses and it is highly recommended that faculty consult with professionals who are knowledgeable in the technology and pedagogy of teaching online. New and emerging roles of service and/or staff positions have been explored from various angles. The analysis of job announcements of instructional technology service positions and educational developers is one way that has been used to identify the types
of jobs available and the associated responsibilities and qualifications. It was found that there was significant collaboration between faculty and staff in course design, production, implementation and evaluation. The case study helps realise that although the roles of faculty staff are regarded as marginal, they should also be regarded as being powerful, in they can be associated with institutional change and long term institutional strategy. The study can be extended to include a larger sample population in order to validate the findings.

Sammons, M. & Ruth, S. (2007), in *The Invisible Professor and the Future of Virtual Faculty* focuses on the stages of transition of lecturers online and identifies unsolved problems related to faculty. Researchers categorise resistance factors as *intrinsic* (challenge, keeping up with technology, acceptance, etc.) and *extrinsic* (time, money, scheduling, flexibility, etc.) in motivating faculty to move courses online. Although the online teaching continues to grow in popularity, it places greater demands on faculty than traditional courses. Compensation in the form of salary, promotion and tenure are usually related to workload. Technology changes faculty roles because it redefines the scope of faculty workload and responsibilities. There is conflicting opinion about the workload for online course teaching compared to face-to-face. The time needed to teach online courses may vary according to factors such as content area; type and level of course, course design, and a variety of student factors such as graduate and undergraduate levels. New models for course development and quality have resulted in new definitions for what is the ideal virtual faculty member. Program accreditation relies on both course quality and faculty credentials, yet it is increasingly evident that not all full-time faculty are suited for distance learning “spaces.”

As distance education is increasing and evolving, so are the roles of the faculty, demographics and positions of online tutors. Further research
should be conducted to determine the attitudes of professors and tutors and their perception of change in terms of teaching online. In order for online courses to succeed, constant mentoring and feedback is required from the faculty and staff which enforces the fact that staff play an important role in the overall creation on online classrooms and their continuing success so it is necessary to consider their role once the courses are online and packaged.

In the article *How to motivate your students*, the author Sull (2008) outlines tips on how to motivate students in an online course and help them gain interest in the course and more importantly stay equally interested in the online course being studied.

The author stresses on personalising as much of the teaching and course as possible in order to keep the students motivated. An example of this would be to get the students involved by asking them to send in examples or situations where their lives or others’ were or could be affected by the subject. This activity helps with student ownership and tells the instructor how each student can relate to the subject, which in turn personalises the experience for everyone.

These tips outlined in the article can be researched further in order to concentrate more on the subject of personalisation of courses, which is the future of sustainable e-learning. Authors in online course design methodologies have stressed the importance of making the courses more learner-centered in order to motivate students to learn and make e-learning an effective means of course delivery and knowledge acquisition.
2.4.0.0 Studies Related To Creating a Learning Society And Their Implications


A learning organisation is an organisation that prioritises learning and is characterised by teamwork, cooperation, creativity, empowerment and quality. The organisation’s attitude goes a long way in encouraging individual learning by investing the time, providing space for learning and including learning in the culture and values of the organisation. In each organisation it is necessary to determine what type of learning is needed to move the organisation most efficiently to the desired outcomes. These include beginner’s learning, incremental learning, unlearning and transformational learning. However, it is also the individual’s responsibility to learn by being open to learning and transforming from reluctant and leisurely learners to those who are truly lifelong learners.

The step-by-step guide to transforming the organisation into a learning organisation gives the reader useful ideas through the use of checklists, quizzes and case studies. The systematic methods can be applied to any organisation and help in changing these organisations. It also brings in an important point that the change in an organisation is dependent both on the organisation and the individual. Thus it is important to understand that making organisations lifelong learning centres requires the dedication from both the entire organisation and each individual member. The book is helpful in this research as it is concentrated on creating learning organisations for lifelong learning.

Day, A., Peters, J. & Race, P. (2004) in 500 Tips For Developing A Learning Organisation focuses on different aspects of learning theory in practice mainly focusing on the adaptable nature of flexible learning. The authors also cover group learning and other factors of collaborative learning with tips on breaking the barriers and becoming closer by
getting to know each other and understanding the individual and shared
goals.
The view of systems learning and knowledge management given is useful
in understanding knowledge management and applying it to the creation
of learning societies. In terms of knowledge management it is important
to audit its existence, identify gaps, make plans and take action. Using
competencies is an ideal way for an organisation to be clearer about what
is needed for work and how it should be rewarded.

Consider* discusses the new possibilities for individuals, learning
communities, and an emerging global learning society.
It is found that as a global learning society is coming into being,
community learning centres are beginning to collaborate with each other
within countries as well as interlinking through the Internet with those in
other countries and this has been made possible through the creative use
of technology. Thus it is essential for schools to collaborate with other
schools, colleges and universities in order to bring about a positive,
fundamental change in education and create an enriched environment.
However for community learning centres to be successful, it is necessary
to implement shared leadership, which creates an open system essential
for the evolution of learning communities and a true learning society.
This article helps explain the concept of an enriched learning society and
the need for it in order to ensure learning in the future at all levels and for
people of all ages. It stresses the importance for schools to understand the
need for coordinating support systems for educating people of all ages
and combining older styles of learning and teaching with the latest
technology which is the direction in which learning of the future is
heading to.
Dunn, K., Scileppi, J., Averna, L., Zerillo, V., & Skelding, M. (2007) in *The Contemporary Applications Of A Systems Approach To Education* introduces the systems approach to enable the understanding of factors that affect learning in order to create meaningful reform. It focuses on the increasing use of technology in schools and the increase in flexibility in education through the use of distance learning programs. The authors also cover how to create school communities and the importance that they hold in a child’s education and development.

The ideas and views presented in this book are useful in understanding education from a systems view and the changes that are required in educational reform. The ideas on community learning and involving the parents are useful when referring to the creation of learning societies and the need to involve the whole community as when for the betterment of the school and the progress of the entire system.

Liu, Y. (2005) in *Effects of Online Instruction Vs Traditional Instruction on Student’s Learning* discusses results based on an experimental study designed to compare the effects of online vs. traditional instruction on 43 students’ learning in two different sections (online 22 students vs. traditional section 21 students) of a graduate course for K-12 school teachers. The results were measured as performance of both groups in quizzes and final grades.

It was found that the group that studied online significantly outperformed the group that studied in the traditional classroom form which indicates that online instruction can be a viable alternative for higher education since it can achieve better student learning or at least as well as the traditional instruction.

This study has significant practical implications for higher education since many institutions are offering more online courses/programs. However the scope of this study is limited and hence the results should not be generalised to other environments. Further research should be conducted to include more varied environments in order to test the authenticity of these findings.
Meyer, K. (2006), in Technology-Driven Change: Moving from Theory to Assertion to Evaluation explores the ramifications of two opposing views on the positive and negative effects of technology and the Internet on high school education and develops a transactional view that focuses on a mutual relationship.

In the negative view it states that technology is taking over the future of high school education leaving faculty with little or no control over the outcome of using technology. While on the more positive side, the author is of the view that technology can increase access to higher education discussions through the use of weblogs. The transactional recognises that technology does not probably "drive" or determine a particular change, although some changes are more likely to occur as a result of human needs and desires. It is a more balanced view of the interaction of technology and higher education, and more fruitful for developing thoughtful identification of problems and solutions. Technology should be appreciated as an entity, which if utilised to its maximum benefit can provide individuals with meaning and power.

The framework described in this article can be researched on a larger scale at a university or school to determine the change in technology and its resulting effect on humans. Since learning in the future will comprise the use of technology, we should not be afraid to incorporate it into the new changing face of education.

Moyer, L. (2002), in Is Digital Learning Effective in the Workplace? reviews existing research literature concerning digital learning effectiveness in academic contexts when compared to traditional classroom events. Additional objectives are to point to strategies that enhance the effectiveness of digital learning in the workplace and suggest recommendations for incorporating digital learning in corporate training
strategies.
Moyer discussed and compared effectiveness of digital and traditional learning in survey courses and competency courses. It is found that when students are motivated and preferences for authority, lectures, speeches are unimportant, then digital learning is a better alternative to traditional classroom learning. Thus digital learning is as effective as any other learning method when the organisation's expectations are clearly identified, the learner's needs and readiness are properly considered and business objectives merge with reason and sound pedagogical thought to guide the course design and decision-making processes.

The ideas presented may be useful for decision makers in the workplace to decide the benefits of implementing effectiveness in the workplace. However, it should be noted that the sample population were already motivated learners. The study can be extended to different workplaces that include a mix of different people.

Preece, J. & Maloney- Krichmar, D. (2005), in *Online Communities: Design, Theory and Practice* discuss online communities with an aim to extend knowledge of these communities in learning.

Researchers consider the strength and nature of relationships between individuals to be a more useful basis for defining community than physical proximity. Pioneers of online community development and research used the term 'online community' to connote the intense feelings of camaraderie, empathy and support that they observed among people in the online spaces they studied. Other researchers have attempted to operationalise the term so that it is useful in the analysis, design, and evaluation of community software platforms and management practices. The research on online communities is extremely diverse, and typically the communities being studied communicate via different modalities that include blending online and offline interaction.

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Further research on online communities should be carried out as it is an area of growing interest among course providers. Sutton, B (2007) also reiterated the importance of blended learning as an option in providing online courses. It is necessary for tutors and course designers to put in considerable effort into forming and maintaining online communities as they act as motivational factor for students in those communities.

Reddy, V. & Srivastava, M. (2002), in *From Face-to-Face to Virtual Tutoring: Exploring the Potential of E-Learning Support* emphasise the provisions of learner support services by all OE (Open education) and DE (Distant education) learning institutions. They discuss the survey results obtained through a questionnaire from a sample of 387 students pursuing a BIT (Bachelors of Information Technology) and ADIT (Advanced Diploma in IT) through a collaborative venture of IGNOU (Indira Gandhi National Open University) and Edexcel Foundation in the United Kingdom.

The objectives of this study were to analyze learners' attitudes toward resource-based learning, to critically examine the utilisation of the resources provided by the university and to suggest measures for improving the effectiveness of resource-based learning.

It was found that many aspects of resource-based learning appeal to IGNOU's DE learners, who support a multitude of new learning styles and methods of delivery. A minority of DE learners were able to adjust to the new high-tech method of delivery using new ICTs. However, the majority of the learners have adapted their study patterns to the demands of resource- based study, despite their resorting to making hard copies of the course material for greater flexibility.

It should be noted that this was IGNOU's first attempt to provide e-support to its DE learners. This dynamic initiative of IGNOU to create a virtual campus will be a helpful case study for other universities
planning on doing the same. The ideas can be extended to different
training programs at other universities to compare the findings.

Senge, P., Cambron McCabe, N., Lucas, T., Smith, B., Dutton, J., &
Klener, A. (2000) in *Schools That Learn* focus on introducing systems
thinking in the classroom. It is known that systems thinking in
classrooms are still a relatively new phenomenon that requires a lot of
experimentation along with a great sense of enthusiasm and creativity on
the part of the teacher.

It is important for students and teachers to recognize the different
subjects in school learning as that being interrelated to one another and
not stand alone topics. This is illustrated through the use of behaviour-
over-time graphs used to explain and plot changes in an English lesson.
Other examples are the use of Causal Loop as a schematic way to identify
circular feedback, which can be used to increase reading comprehension.
In this way, learning in classrooms needs to change to be part of a bigger
system rather than considering each subject as different. It is only when
we link our learning and teach students to recognise these patterns will
we be able to help them understand what they have learnt to an extent
where they are comfortable applying that knowledge.

the Australasian computing Education Community* explore the
importance of an online community and present an online environment
that will facilitate the development of the Australasian Computing
Education (ACE) Community to provide ongoing support for scholarship
and research.

The ACE website provides communication facilities and resources for
the ACE Community. It has been designed with engagement of
community members in order to create virtual presence as its main aim. It is the access point for ACE conferences which will create an awareness of the website and help expand the community. The designers have also helped encourage usage of the site by providing a range of resources useful to ICT educators and researchers. It is stated that the true evaluation of the site should give insights into how online communities function and what features contribute to their success or otherwise. This will inform future developments and enhancements to the site and provide a model for establishment of other online communities.

With the emergence of online communities, this article may be useful to similar associations that are thinking about developing online communities and what they need to consider from a design perspective in order to benefit from these virtual communities. Many researchers have proven interaction among members is important in guaranteeing the success of a course as this collaboration among members helps provide a sense of virtual presence and community. Thus the design considerations discussed in this article are extremely useful in the step towards forming online communities.

Taylor, J. (1998), in Flexible Delivery: The Globalisation of lifelong learning discusses the USQ (University of Southern Queensland) AT&T project which provides an appropriate prototype for the flexible delivery of continuing professional education and training on a global scale. It was found that the approach has the flexibility to meet the needs of busy professionals in full-time employment, irrespective of their geographical location. Further, it has the interactivity to engender efficacious learning outcomes in a time efficient manner. The immediate access to current materials and associated professional discussion with colleagues from around the world creates a socio-cognitive learning environment from which all who participate will surely benefit. Distance
educators have also recognised the need to provide opportunities for social interaction to support effective learning. They have therefore tried to simulate face-to-face communication through the development of instructional systems based on technologies such as audio-teleconferencing, audiographic communication systems, videoconferencing and computer mediated communication (CMC). Flexible delivery of distance education technologies and methodologies is the key to the future of education and training. The analyses of the ideas presented in this article can be extended further to learn about the instructional design and technology used to create the prototype in order to enhance it in the future and make more flexibly learning alternatives available for students.

Beller, M. & Or, E. (1998), *The Crossroads between Lifelong Learning and Information Technology* analyses two realms (a) the inner realm of on-campus instruction, and (b) the outer realm, which reaches new target populations through distance teaching in order to enable leading universities to adapt to changing needs while preserving their status. It is noted that with limitations on existing teaching frameworks and traditional distance learning; Technology-Mediated Learning and Distance Learning (TML/TMDL), and particularly asynchronous learning through the Internet, are becoming major vehicles for fulfilling the needs of Lifelong Learning (LLL). The challenge for universities is to try improve the quality of teaching in the inner realm by the integration of technologies effectively and in the outer realm to integrate synchronous and asynchronous means of delivery along with strategic collaboration. The article is useful for universities that are considering introducing TML in their course delivery. The increasing competition, need to keep up-to-date professionally, along with a rising standard of living and more leisure time, have combined to make studying a lifelong process and the
future will involve a lifetime of learning in order to work which relates to the background of the thesis in researching the need for learning societies.

Zibit, M. (2004), in *The Peaks and Valleys of Online Professional Development* draws on two online professional development (PD) projects to discuss what is valuable about online PD, identify some successes, some problems, and provide tips for those doing online PD. It was found that there is tremendous potential and value for teachers to be connected to a community of peers in an online community as a place to connect, share challenges and resources, and gain support for trying something new. However it is important to match members in terms of their motivation, desire to contribute, and technology access in order to promote healthy discussions. Overall it was found that the key to productive discussions is a mix of teachers, an active moderator, the content and format, as well as the online courseware.

The study may help provide useful tips for teachers in order to assist their development and professional growth. Text-based computer-mediated professional development eliminates the chance for teachers to physically meet and form a community of people that they know which in turn inspires commitment. By creating these learning communities, teachers are able to achieve a sense of presence of belonging to a community of professionals where they can exchange resources and ideas.
2.5.0.0 Studies Related To Designing Effective E-learning Environments And Their Implications

Boettcher, J. (2007), in Ten Core Principles for Designing Effective Learning Environments: Insights from Brain Research and Pedagogical Theory illustrates through the use of ten learning principles, how recent research integrated with traditional principles of pedagogy and instructional design can enrich our understanding of thinking and learning processes.

Firstly a fourfold framework is presented that delineates the respective roles of the learner, the faculty-mentor, the knowledge and content of instruction and the environment in which learning occurs. The subsequent principles then provide more focused treatment of these four elements while highlighting further pedagogical concepts that should inform course design, teaching practice, and assessment measures.

These principles discussed in the article can be used to redesign the environments in which learning processes occur, ensuring that the design and tools selected support the unique growth of learners as done in campus environments. More emphasis should be placed on pedagogy that emphasises community, culture, and ethics as well as the acquisition of knowledge, content, and skills as each individual remembers events and simulates ideas slightly differently. These principles provide good guidance around the research of creating e-learning systems to suit individual needs and personalities.

Bonnel, W. (2007), in Qualitative Assignments to Enhance Online Learning shares strategies and benefits in using qualitative tools to develop online learning assignments using sample assignments from an online nurse educator certificate program.

The study found that qualitative tools such as interviews and observation provide a beginning toolkit to help students become familiar with course
content and to develop an online learning community. When the above tools were used in online nurse educator courses, 108 graduate nursing students who completed it noted increased expertise, experience and confidence.

Using qualitative tools as described in the articles as components of applied learning assignments can be timely, efficient approaches to enhance web-based teaching and online learning. The ideas in the article will be useful in considering the requirements needed to create successful online learning communities where students benefit from shared knowledge and meaningful active learning.

Brigitte, D. (2003), in *A Conceptual Framework to Design and Support Self-directed Learning in a Blended Learning Programme*, presented different strategies to support the learning process. These strategies are meant to support the learning process in blended learning programmes for adults from different backgrounds who are interested in the use of ICT-Technologies for Education.

The experiences and results from the study showed that there is an importance in offering a flexible curriculum that matches the learners’ need and a necessity to provide pre-training to learners entering blended programmes. The article underlined that a learner-centered perspective and the principles of socio-constructivism are good approaches in order to support the learning process.

The framework presented in this article could be extended to other adult training programmes that use the blended learning approach. Most students sign up for online courses without a proper understanding of what is expected of them and the amount of effort and level of competency that is required to undertake and be successful in a particular course. By using pre-course learning training and a flexible syllabus that
is focused around the individual, the course designers will be able to set themselves up for success and achieve success in terms of motivating students and retaining them through to course completion.

Bruning, K. (2005), in the paper *The Role of Critical Thinking in the Online Learning Environment* addresses the issue of critical thinking and how it is applied in the actual online environment through an interactive exercise created by the instructor in which students interact and share ideas thus creating a learning community.

It was found that the course provided a means for fostering student interaction as well as critical thinking. Students cited (in course evaluations) the ability to interact with other students, getting a new partner every week, and the freedom to create story problems that they can relate to as key assets of the course. They also stated that the critical thinking exercises prepared them to solve the story problems that comprise the majority of the exams in business math.

This study is useful in highlighting the fact that critical thinking in online courses is important to stimulate the student’s analytical and problem solving skills. Hence it is important for course designers to develop assignments and projects that foster growth. This study was only, however conducted on one particular subject and further studies should be carried out to cover critical thinking in other subjects besides math to validate the importance of designing courses that focus on critical thinking.

Carliner, S. (2003) in the article *Designing and Developing E-learning Projects: A Three-Tiered Approach* proposes a classification method of e-learning projects into one of the three tiers bronze, silver, or platinum that have been outlined according to effort and investment which would
help address the one-size-fits-all solution and tailor the work plan accordingly.

The bronze tier has the most basic e-learning projects which have a limited impact on the organisation and a limited number of learners and therefore require the least instructional design effort. Silver projects are ones that have either a high impact on the organisation or a high volume of learners and, as a result, require a more significant investment of resources than bronze projects. The top tier of instructional design projects are those that have both a high impact on the organisation and a high volume of learners like high volume, off-the-shelf e-learning courses.

This study based on the three-tier approach to instructional design projects helps illuminate the fact that the approach to designing e-learning courses should be altered according to the need of the project in order to avoid disappointment and waste of resources. This article is useful in realising that not all projects should be approached the same way and helps in gaining knowledge on the design of e-learning projects.


They state that Information Age training is the new form of teaching which has replaced classroom teaching. E-learning courses reach a national and global workforce which result in increased sales for the organisation, reduced training costs and saving on time. The article also reveals some common myths related to e-learning and the reasons why some projects fail. Keeping this in mind, the authors discuss whether e-learning is the right solution based on the organisation of choice and
ways to find the right eLearning vendor based on the individual's organisation.

This article helps offer tips and insights into choosing the right fit when considering the switch to online learning. It also helps decide the e-learning levels of interactivity, which are important factors to consider when introducing e-courses. Thus it is a handy guide for all organisations considering eLearning options and is a good reference guide with tips to consider when designing the e-learning system.

Dupin-Bryant, P. & DuCharme-Hansen, B. (2005), in Assessing Student Needs in Web-Based Distance Education provide direction for evaluating the student needs assessment process from five essential areas: computer skills, learning styles, available resources, learning outcomes, and prior learning experiences in web-based distance education courses in order to match student's needs with the learning environment.

Instructors need to gain an idea of students' computer skills, their availability of resources and access to the internet, understand the learner's desired outcomes from the course, their prior learning experiences and their learning styles in order to be able to plan course activities that complement student learning needs. The needs assessment plan should have a defined purpose, chosen assessment method and a developed timeline before conducting the needs assessment and analysing the data. Only then can the students needs be individually focused on and matched with the instructional strategies.

The study may be researched further in order to gain more insight into students' needs and how courses can be better designed to meet these changing needs. Since the thesis is based on personalisation of the e-learning system, this method of needs assessment provides a good starting point with making the system more individualistic according to the different needs of different students.
Garrison, S. & Onken, M. (2002), in Practical Considerations on the Use of Message Boards to Enhance Learning in a University Setting discuss the significant role that message boards play in online learning environments along with their shortcomings and the possible inappropriate applications of these message boards in university settings.

The authors appreciate the role message boards can play in enhancing learning. However, they also stress the fact that there are a number of shortcomings in the form of inappropriate messages, censorship, and messy message threads. Message boards require constant monitoring to avoid these drawbacks and thus require weeding. Students also cannot be left alone in a message board and it might be a better consideration to use FAQ instead of message boards. Thus before having message boards, tutors should take into consideration why they need and want one, if the environment will support the message board, the framework for it and the pedagogical considerations of the decision.

Although Dereshiwsky, M. (2002) states that student interaction should be encouraged in order to increase motivation, this interaction through message boards can sometime prove ineffective when used inappropriately and hence should be monitored. These considerations will be useful for tutors in deciding whether they need to include message boards for discussion and if they do, then what needs to be done in terms of maintaining the authenticity of these message boards and their effectiveness with relation to the course.

The study showed that majority of the students indicated that they had access to a computer and had access to and regularly used the Internet. In terms of gender, more females than males had access to a computer off campus but showed that on the whole, students were generally favourable towards ICT. Males were also more favourable towards the use of computers as replacements to other teaching activities and older students were more favourable to computer use only as a supplement to other teaching activities compared to younger students.

The results may help academics and course administrators address gender and age differences regarding the use of ICT resources as a major component to classroom teaching as well as develop strategies to maintain positive student attitudes and high usage of ICT. This article is also useful when considering the hypotheses of the thesis that strives to research if a difference exists in learning styles of students according to factors such as age, gender, etc.

Gundry, J. (2003), bases the article *How Flexible is E-Learning* on a workshop on maintaining quality of e-learning courses run for e-learning course designers and tutors at Western Australia's Training Forum 2003 in Perth.

The main selling point of e-learning is the convenience of anyplace-anytime learning and statements such as these are the core of e-courses selling strategies but quality, blended e-learning requires interactivity amongst learners and the tutor. This in turn restricts e-learning to certain set time periods which forces training institutions into difficult flexibility/quality trade-offs. Thus flexible learning is entirely possible only if one does not mind learning by themselves.

The ideas presented at this workshop can be used for future study around trying to maintain quality of online courses while still maintaining
flexibility so that future online students can undertake courses without having to learn all by themselves. E-learning course strategy needs to be designed keeping in mind the core principle of anytime anyplace learning and time flexibility without discounting the quality of the course in order to retain students till completion.

Kim, K., Bonk, C. & Zeng, T. (2005), in Surveying the Future of Workplace E-learning: The Rise of Blending, Interactivity, and Authentic Learning conducted a survey of 239 training professionals with regards to their thoughts on the current status and future trends of e-learning. A large majority of respondents of this survey study indicated that they had a positive outlook on the future of e-learning. In terms of future growth, more than 30 percent of the respondents predicted that their organisations would focus most on the creation of e-learning content in the next few years as opposed to using traditional methods of training. However in order to increase quality of e-learning in the future, those surveyed thought that e-learners' achievement and satisfaction needed to be evaluated better, followed by clearer reward systems and incentives for e-learning completion, and training that helps learners self-regulate their learning. When asked about instructional approaches or strategies for e-learning in training settings, respondents answered that authentic cases and scenario learning, simulations or gaming, virtual team collaboration and problem solving, and problem-based learning would be used more widely in the coming decade.

The results of the survey may assist organisations in choosing better methods of delivering learning according to what the students want based on their need for more engaging learning experiences, just-in-time learning, and performance support.
Lobel, M., Neubauer, M. & Swedburg, R. (2005), in *Comparing How Students Collaborate to Learn About the Self and Relationships in a Real-Time Non-Turn-Taking Online and Turn-Taking Face-to-Face Environment* presented the preliminary findings of a matched study conducted to investigate similarities and differences between two teaching environments: the traditional face-to-face (turn-taking) environment and an online (non-turn-taking) environment called the LBD eClassroom. Two sections of the same course were compared with the course objectives, content, and the teaching pedagogy (experiential learning) were the same, as were the teaching team, the time frames and duration, the assignments, and grading criteria.

It was noted that in the LBD eclassroom a greater amount of interaction was possible in a lesser amount of time than in a traditional class. Everyone can generate and send data when they are ready, and get as much data as they want at any given time. Once a message is posted into the LBD eClassroom, it becomes transparent and remains available to everyone; eliminating repetition. In contrast, in the face-to-face class session, all words, statements, and interactions disappear and are held only in an individual's memory. Greater levels of interaction were also noted between students themselves leading to the creation of an online group identity that is missing in the traditional classroom setting.

Hence these findings suggest that emphasis should be put on more online discussion where everyone can participate and improve the richness of the discussion. This study will be useful for online course planners to think about encouraging and including more online discussions in turn helping to improve student interactivity.

Malik, T. (2006), in *A Pilot Study Comparing MA Education through Distance Education in a Developed Country (USA) and a Less Developed Country (Pakistan)* conducted a pilot study as a comparative study of
MA (Education) through distance education in a developed nation (USA) and a less developed nation (Pakistan). The purpose of the study was to see if there were differences and similarities existing between distance education systems of both the countries. Seven hypotheses were formulated for testing based on difference in age, effect on performance with marriage, children and jobs, residency, use of modern technology, flexibility of time and space, student satisfaction and teaching methodologies.

The results from 450 questionnaires proved that there was no age difference between the ages of the students in both countries and marriage, jobs and children had no affect on performance. In the same vein, residency status also did not affect performance levels of students. In terms of use of modern technology, USA students earned better grades and were more satisfied with distance education. They also had fewer difficulties in getting materials and communicating with their university. Flexibility of time and space were seen to be the major factors of choosing online learning and satisfaction of students was important as it was determined that it leads to better course results.

The study may help the providers of distance education design courses with better technology as it is proven that students with better technology earn better grades and were more satisfied with the program. The hypotheses in this study can be extended to comparing different countries or two countries with similar economies in order to evaluate the results.

Mann, B. (2006), in Making Your Own Materials, Part 2: Multimedia Design for Learning describes how students control their attention as they read and listen to multimedia. It draws upon an extensive body of research in learning from images and sounds to develop a cognitive structure and design model called the Sound Structured Function or SSF
model. This model is based on learning mechanism for sound and images and differentiates between learning in children and adults.

It is likely that haptic events such as field experience or hands-on simulation, hand-sensing gloves or simulated reach-in-and-grab technologies that can be downloaded into content, computer applications for user interface navigation will soon be incorporated into the SSF model. As evolving hardware and software attributes permit more adaptive and non-linear interactions and a higher capacity for differentiating sound from visual and haptic events, the SSF model will continue to be used as a heuristic by teachers and students to control attention, develop coherent episodes, and build the schema in long-term memory.

This article is helpful for e-learning course designers to consider the use of SSF as a job aid in their educational courses that will help students or adults focus and gain more from the multimedia component of the course, if any. Further research should be done on the SSF Model using a large sample size.

Richards, C. (2005), in The Design of Effective ICT-Supported Learning Activities: Exemplary Models, Changing Requirements, and New Possibilities investigates the changing requirements and new possibilities represented by the challenge of integrating ICTs in education. Through a three stage enquiry, ICT-supported learning activity suggests the need for teachers to approach this increasing challenge more as "designers" of effective and integrated learning rather than mere "transmitters" of skills or information through an add-on use of ICTs.

It was found that despite an often instinctive skepticism, many teachers have a general awareness that the Internet offers a rich source of potential learning resources, that multimedia tools and design can make interesting, impressive, and interactive tools of learning, and that many of
their colleagues are finding ways of harnessing the learning possibilities of ICTs in unique contexts digital resources, Internet communications, and interactive multimedia to engage the interest, interaction, and knowledge construction of young learners. It also indicated the generic structure of an effective ICT-supported learning activity.

The growing notion of an effective ICT-supported learning activity encourages educators to approach the challenge of ICT integration more as designers of applied learning. Since this is an emergent field, the area of teacher’s roles in ICT can be researched further.

Shepherd, C. (2007), in *Blended Learning is the Bridge* examines the criticism behind blended learning and provides solutions on how to effectively blend ways of informal learning into more structured learning.

Blended learning can incorporate methods and media normally associated with non-formal learning in order to establish a sustainable learning culture. Non-formal elements like weblogs and wikis will encourage reflection and allow learners to work together to build a body of knowledge for future learners. The concept of podcasting was used in a course that the author was teaching, which saw learners researching a certain topic and then creating a podcast on the topic to share with fellow students. This proved immensely popular with the students and lead to a great contribution in learning and the sharing of new knowledge. In this way, blended learning not only becomes more relevant, more embedded in real-work behaviour and therefore more powerful; it also acts as an important bridge from formal to informal learning and encourages independent learning.

This article is useful for course designers and tutors in order to make decisions about the chosen learning methods for their students and the benefits of choosing blended learning. Using tools like weblogs and wikis help seamlessly shift the teaching paradigm and the learning
paradigm and actively allow students to engage the materials in ways impossible with traditional pages (Konieczny, 2007). Further study can be carried out between organisations and universities that follow casual methods of learning with those that adopt blended learning and the results tallied to validate the findings.

Sutton, B. (2007) in *Tips for building successful blended learning programmes* covers 10 practical steps on design and development of programs and their implementation in order to increase success. These include adopting a broad business perspective, being clear about the learning culture of the organisation, understanding the nature of learner's roles and taking a holistic approach to design and maintenance. Others include thinking big and smart about the solution to be implemented, gaining full support of learners' line managers, designing programme assessment to reflect the desired outcomes of the programme and rigorously evaluating the solution to see if it is delivering the required results. Thus by systematically addressing the design and implementation phases of the project the likelihood of developing a successful solution will be enhanced.

The topic of blended learning is definitely one of growing interest to organisations involved in e-learning as pointed out by Shepherd, C (2007). The steps outlined in this article on the design and implementation are helpful to organisations and they should be put into practice to validate the recommendations.

Wang, T. (2006), in *The Experiment of Tertiary online Education in China: An Overview* gives an overview of the pilot development of tertiary online education in China since 1998 and the challenges it is facing along with the achievements it has made. It reports the scale of
development, the infrastructure, the macro environment at the governmental, the social and the financial levels and the micro environment for development.

It was found that the piloting online education institutes are geographically dispersed all across the Chinese Mainland. Since its introduction, the online universities experienced student admission demands which were six times larger than from the first year of inception, which lead for a call to slow down tertiary online education by the government. Ten challenges that concern the Chinese Government with regard to tertiary online education and the piloting universities are: strategic national vision of e-learning, government policies, relationship between short-term financial gains and long-term educational objectives, administration structure, relationship between cost and revenue, technology, standards for resources development and sharing, interaction, quality, and learner support. The study reports that since 1998 China has made big leaps in the development of online education.

Having considered its scale, social and educational prospects and international influence, the China Experience in tertiary online education is worth researching both domestically and internationally.

Witmer, D. (1998), in Staying Connected: A Case Study of Distance Learning for Student Interns reports findings from a case study of a pilot distance learning course that was launched in response to a number of concerns regarding an existing internship program at a Midwestern university.

The results showed that most of the students (63.5%) out of 44 students highly recommended or recommended without qualification that communication technologies be used for summer internships. Another 20.5% of the students recommended the use of communication
technology with suggestions for improvement. A major improvement in
the general quality of student report writing also was noted.
The data indicates that a distance learning approach to internships has
great potential to enhance synthesis and integration of classroom learning
with on-the-job experiences. The results in this study are helpful in
gauging the benefits of having online internships which greatly benefit
the students both academically and professionally.

of Online Instruction on Teachers' Concerns about Technology
Integration conduct a study based on a Graduate Methods course taught
online. The study measured concerns about technology integration of 23
K-12 teachers as they progressed through the course.
Significant changes were measured in awareness, informal, personal,
management, consequence, collaboration, and refocusing as a result of
this semester long experience. Significant changes in all seven
dimensions were found after the teachers' participation in a graduate
online course.
Based on the results of this study, more online instruction should be
proposed for educational programs. Thus, embedded online courses may
be used in place of more lengthy/costly training. However, the same
study can be further researched based on a larger sample size to
determine if the benefits of training online are still visible.
Studied Related to Challenges Faced by E-Learning Designers And Their Implications

Maeda, M. (2007) in *Problems of Distance Education Materials from the Perspectives of Japanese Learners* through self-reflection, identifies and discusses two aspects of difficulties for Japanese students learning from distance education materials from the UK, which are mainly language construction and learning style, and suggests ways to reduce and eliminate these difficulties.

It was found that as opposed to the traditional classroom, online learning gave the author an opportunity to learn and understand the materials at her own pace as opposed to the stress of having to voice an opinion in class which can be a daunting task for a non-native English speaker. The author also expressed that long paragraphs, complex sentences and conversational style writing sometimes affected the way Japanese students learnt and made it more difficult for them to comprehend. Thus reading guides and materials by UK authors with guidelines on how to learn the material would be extremely helpful for Japanese students.

This study is important to understand the differences that exist in learning due to differences in cultural backgrounds. Thus it stresses the need for online course authors to consider different aspects and cultures when trying to design online courses as not all of their target audience maybe used to studying in the same way. However, it must be noted that this study was relatively small in scope and future research should be carried out which encompasses more cultures and their methods of learning and difficulties encountered which would help designers gain an overall understanding on the relation between culture and e-learning.

Mansour, B. (2006), in *Challenges and Solutions in Offering Distance Education Programs* explores some challenges and solutions faced by the
distance education Human Resource Development (HRD) program at Indiana State University (USA).

Mansour found that distance education can often create challenges that may impact the quality of the whole system. In the case of an HRD program there are at least three major groups of stakeholders – the administration, faculty, and students. The challenges include factors such as workload which can be solved by employing full-time administration advisors to remove that responsibility from faculty; developing online infrastructure which in turn reduces requirement for physical space allocation; student persistence and honesty that needs to be fostered through the constant feedback and motivation from tutors. Copyright material and intellectual property also pose a great challenge and should be correctly utilised in order to avoid plagiarism.

The study may help faculties and instructors of online courses by providing them with solutions to most of the common challenges faced by them. They also need to re-examine these challenges and analyse the solutions through further studies and practices as they are currently inconclusive.

McCarty, S. (2005), in Cultural, Disciplinary and Temporal Contexts of e-learning and English as a Foreign Language reviews Japanese and other Asian learning styles to illustrate the cultural context, particularly when utilizing e-learning with non-native users of English. The limitations of the Western e-learning paradigm when transplanted into a non-Western culture are also examined.

The study found that some Japanese researchers have concluded that technology-supported learning is not working in Japan. A number of cultural attitudes have inhibited the evolution of online learning, such as a tradition-bound institutional culture of instruction, and elaborate face-
to-face rituals essential to everyday communication. Japanese teachers tend to view the Internet as only useful for gathering information. There is also the problem of limitations of dictionaries and translation of definitions.

It should be noted that Japan is one of the most developed countries in the Asian world that continues to grow and evolve at an impressive rate. With the increase in the number of English speakers, this linguistic issue might be close to being solved. More studies should be carried out on the possibility of using multimedia to create a linked bilingual dictionary or encyclopedia.

Muirhead, B. (2004) in *Contemporary online education Challenges* discusses some of the educational concerns about the quality of today’s online degree programs and offers relevant instructional advice on how to enhance the teaching and learning process. The author recommends eight tasks which include community-building activities, helping the digitally challenged, acknowledging the diversity of participants’ backgrounds and interests, organising posts and discussions and balancing private email and public discussion. These activities reveal the need for instructors to take a comprehensive view of interaction by making it a major objective within their curriculum plans. Hence contemporary instructors play a vital role in shaping the intellectual depth of their online communities by helping their students become reflective and self-directed learners.

This study helps offer advice to online instructors on ways to make online learning into a rich learning environment through community building activities, shared responsibility, and vibrant interaction which is useful when considering ways to motivate online students. Further research should be carried out based on the ideas that are presented in this study.
Teo, C., Chang, S. & Leng, R. (2006), in Pedagogy Considerations for E-learning examine changes in pedagogy to increase effectiveness of e-learning and present a practical, novel content development methodology for crafting and assembling of e-learning content. It is noted that current e-learning systems fail the relevancy tests due to poor design and content use. The proposed content development methodology is based on the science of teaching to incorporate the correct use of teaching strategies right from analysing learners through to designing instruction, developing instruction, implementing instruction, and evaluating instruction. Through incorporation of such pedagogy considerations early in the content design, it is advocated that such enhanced content should have a positive effect on the learner's motivation and learning performance. It is also found that existing research work is extending content development methodology to include the concept of metacognition, which is able to provide new insights into the domain of cognitive functioning.

As highlighted by the article, e-learning and associated developments such as learning objects require review and even a revision of pedagogy to use these tools effectively. This can be considered in further teacher training courses where they can include information on metacognition and revision of pedagogy.

Virk, B. (2004), in A Balancing Act: improving Student Online Discussion Participation performed a study at Charles Stuart University, Australia from 2000-2003 to observe aspects of student involvement in terms of frequency and comfort level with online participation and it was stated to be influenced by time, organisation of threads and opportunity to practice different levels of discussion.

It found that although the online environment has been developed for "any time, any place" learning, the main use is still with the "traditional"
year (i.e. low during Christmas/New Year break), during session (i.e. low during session breaks and midsession breaks), “traditional” days (i.e. low on Saturdays and Sundays) and the “traditional” hours (i.e. peaks during 9 -5 office hours). The underlying reasons appear to be that students, while resource rich, are essentially time poor, juggling the demands of work, family and study. Where academics assume that holiday periods without scheduled classes and study workloads represent time-rich study opportunities, others may regard these as actually time-poor periods as out-of-school dependent children compete for time.

The data presented here, gathered over a four-year period, clearly demonstrates that the available technology does not influence study habits, but that work and study habits influence, when the technology is being accessed. This study is especially valuable for instructors and administrators for designing and scheduling online programs and support in their online courses in order to best cater it to students needs rather than the instructor’s perceptions of the students needs. As the results were collated over a 4 year period, they can be assumed to be valid and accurate.

Waller, V. (2006), in Are we all Learning Designers Now? focuses on instructional design of learning courses and the importance it plays in designing learning programmes.

Rapid content production tools now enable almost anyone, regardless of their experience to create a learning programme. What were once the inviolable domains of the subject matter expert, the instructional designer and the programmer are now coalescing to the point where just about anyone can say that they can create a learning programme. It is recommended that wherever possible a disproportionate amount of available budget should be spent on the design process. The overall quality of the learning intervention and its chances of success in
achieving its objectives will not lie in the programming or the target audience analysis in spite of their significant importance. The real make or break component of any learning intervention regardless of its delivery method will be the instructional design.

The article is helpful in enforcing to designers and e-learning strategists, the importance of design in the whole e-learning process. Since the design and its appropriateness will be the main deciding factor in gaining and retaining students, it is extremely important to spend considerable amount of time and effort on the design phase of any e-learning project where the learner is expected to learn for most part on their own.

Wambach, K. & Thurmond, V. (2004), in Understanding Interactions in Distance Education provides insights into the dynamics of interaction and suggests ways to enhance student participation and learning in a Web-based course.

The types of interaction discussed are learner-content interaction, continuous contact with content, clarity of content design, time and the level of content interaction. Learner-learner interaction is also mentioned and findings regarding learner-learner interaction indicated that students who interacted more in a Web-based course may perceive greater learning. Also, collaborative group interaction can help in learning the course content and easing feelings of isolation. Finally learner-interface interaction is discussed and the study shows that much of the learner-interface interaction seems to hinge on how students perceive the technology. Thus, students who are not experts in the use of the technology for learning may still report positive student outcomes in the course.

This information is useful for course designers to bear in mind when designing online studies. Since e-learners miss the traditional nature of
classroom interaction, it is important to create courses that encourage interaction in the online world thus creating a virtual classroom to give students a sense of belonging to a particular group. This creation of presence is known to help student motivation leading to better collaboration and interaction online.

The WUN e-learning Group (2003), in *Institution Issues- Change Management and Staff Development- A Position Paper* provides a current perspective on the issues arising in a number of areas, which are important to anyone within a Worldwide Universities Network (WUN) institution who is planning to develop an eLearning course.

The changes in the delivery of e-learning courses will require changes to the way academic and non academic matters are managed to cater for the e-learning students. It will require staff to learn new skills when developing, delivering and supporting these courses. Academic staff will have to focus on course development, assignment handling and communicating with students while non academic staff will have to focus on the university administration and university library. In order to make best use of resources available and to develop academic ability and transferable skills, students need training in how to find, appraise and use information.

Thus the development and delivery of e-learning courses will face institutions with a range of new challenges, which will require responses at institutional and individual levels. The paper highlights the fact that in developing courses online everyone involved in the course will need to undergo training and update their skills in order to ensure the success of the course.
2.7.0.0 Conclusion

The articles found by the author focused mainly on the areas of learning societies, e-learning, the challenges in e-learning and the future directions of e-learning. It can be concluded that although there is a great need for learning societies, not many efforts have been put into creating learning societies and this is the push for education in the future. A few attempts have been documented on creating global learning societies around the world but these too are limited. It is seen that there is a wide interest in e-learning due to its perceived benefits and admission rates in online courses are set to soar in the coming years. However the main issue in online courses is the alarmingly low retention rate of students in online courses. Thus a way of improving the retention rate through personalisation of online courses is a currently researched topic and is being given an increasing amount of importance. By finding ways of personalising courses along with the commitment of teachers, students and a learner-centred curriculum can we form a learning society of the future that is truly based on lifelong learning.