

Research methodology module in distance education essay sample

[Education](#)



ABSTRACT:

Distance learning is an alternative mode in providing education to people. Distance learning, as the term implies, is bounded by different restraints and barriers. It may be geographically or financially. The distance learning program since it started at the break of the informational technology era had encompassed the limitations to bring education to students worldwide. This had helped the goal of providing education for all no matter what the set limitations are. The thesis will assess different aspects in the distance learning program. In the thesis, we will be exploring the concept of learning and how distance learning effectively uses its own communication model to effectively facilitate the learning processes of the students.

The thesis will focus specifically on the application of research methodology module through distance learning. We will evaluate the effectiveness of the distance learning technique in teaching research methodology. For us to be able to assess the efficacy of the distance learning system, student's perception regarding the system and its implications in their learning experience will be evaluated as part of the research methodology process. The distance learning system in order to give quality education to distance learners must analyze the critical factors that can contribute to its improvement and success in bringing quality education to students worldwide.

INTRODUCTION:

Distance education started at the break of the new millennium when the information technology era started. It is a result of the evolution in the <https://assignbuster.com/research-methodology-module-in-distance-education-essay-sample/>

education system that includes teaching techniques that is highly dependent on the use of technology and other media. Information carried in this type of education system is based on a virtually created educational system employed to its students. The definitions mentioned of distance education is given by Rogers (1995) and updated by Ludlow B. L (1994).

The presence of a student and instructor is still evident, although the interaction is not at a personal level. The interaction between students and instructors are through the Internet and other mediums are employed in facilitating learning.

“ Several advantages prove the efficacy of the distance learning system for a wide range of student at different locations”(2006b). The description of a distance education is contributed by several academes and their description of distance education is offered in their respective universities. Several factors also contribute to the system’s efficacy on students and this will be discussed in the thesis.

One specific subject taught in every learning center is research methods. The primary objectives of teaching research methods are to “ develop students’ critical and reflexive thinking about and practical skills in designing, implementing or managing empirical research...” (Barraket). Barraket (n. d.) mentions that effectively designing the research methods curriculum has several challenges.

The primary challenge in teaching research methods in a distance learning environment involves the students’ diversity. According to Barraket (n. d.),

the challenge in teaching research methods in such an environment lies in the way the subject must be taught such that it “ effectively accommodates the different educational and professional backgrounds” of each students especially because these students do not have common learning experiences. This issue is increasingly common for postgraduate educators particularly because in postgraduate coursework programmes, the degree of flexibility “ in the form of student choice in the pace, combination and order of subjects taken is encouraged”. In short, the primary challenge in teaching research methods to distance learning students is building a “ common experiential ground necessary to facilitate students’ engagement with substantive issues of the subject.

For the purpose of the thesis, the importance of research methodology for a student will be evaluated. The research methodology as an important field of study in different courses will be scrutinized as to which extent it lends itself to distance learning. As an agreement to OH (2005) in his research output on distance learning, many educational institutions had already adopted distance learning in their educational system, providing education to students in different locations worldwide.

There is an increasing need and demand for this type of educational system. Analysis regarding the efficacy of the system will be evaluated using the diffusion of innovation model designed by Everett Rogers in 1995. In the former study, he used this particular model as an experimental design to gather data regarding student’s perception of the distance education program. Rogers (1995) further stressed his model with analysis regarding

how the model can be used to gauge student's perception regarding the particular education system. This will help the research topic to have a background that will support the thesis statement.

Many factors had contributed to this arising need for distance learning as the society is continuously changing with the technological developments. Educational institutions had placed their commitment in providing quality education for everybody. Distance learning encompasses different kinds of barriers to meet this purpose. The thesis will provide explanations why distance learning is advantageous in instilling research methodology concepts and techniques in students.

PURPOSE/OBJECTIVES:

The purpose of this thesis is to analyze how distance learning can effectively teach students the important principles in research methodology. The distance learning system is an informal type of system in which the students are not confined in their traditional classroom environment. The use of the internet as a medium of instruction for the students to learn will be evaluated as to how the principle needed in learning will be able to be passed on to students and whether it is effective in teaching the students how to properly do an independent research. It will also analyze the use of technology, specifically computers in distance learning education system.

The thesis had these objectives:

1. to define distance learning and research methodologies
2. to discern the advantages and disadvantages of distance learning

3. to analyze the efficacy of distance learning with research methodologies
4. to assess student's perception regarding distance education and research methodologies
5. to determine the scope and limitations of technology in distance learning

In accordance to the review of literature for the thesis and the designed conceptual framework, the concept of a research methodology module will also be evaluated. The specified topic of the efficacy of the distance education is concerned with research methodologies. The thesis aim to evaluate the research methodology module as a subject matter, how does it lend itself to the system and to what extent. The set objectives for this part of the thesis are:

1. to define research methodology
2. to review a research methodology module
3. to evaluate the limitations and parameter of the student's learning experience in research methodology
4. to discern the factors that contributes to the efficacy of teaching research methodology to student's in a distance learning system

The research will comprise of the following:

PRIMARY RESEARCH

- Graphs for instructional faculty and staff in a distance learning system
- Questionnaires for post graduate students who experienced distance learning in the past.

SECONDARY RESEARCH

- Sample research methodology module
- Books, articles, journals, articles in magazines and newspapers, and internet data

SIGNIFICANCE OF THE STUDY

Why study research methodology module for distance learning?

Research is an important tool in understanding things. It helps people acquire knowledge based on actual facts. An important tool in research is the research methodology, a systematic and purposeful way of collecting and analyzing data. Generally, methodology, as Mills defined, “ refers to a design whereby the researcher selects data collection and analysis procedures to investigate a research problem” (Mills, 2003). However, it is not always possible that some certain research methods will provide relevant, reliable and valid data for some research problems. Thus, it is necessary that the researcher knows what type of research method to use that will supply the necessary data; hence, the importance of learning research methodologies comes to light.

Today, more and more individuals have enrolled in a distance learning system. However, some are concerned that distance learning system does not provide an effective contribution in teaching research methodology. Thus, this study aims to determine if distance learning is effective in teaching research methodology as compared to the traditional classroom setting.

REVIEW OF LITERATURE

Education is considered to be one of the primary factors in achieving success (2006a). Education can be attained either through formal education or informal education. As explained by Smith (1990), formal education is defined as learning in a normal classroom setting. The information is passed on from the teachers and textbooks and other references complements the teaching technique applied in this learning environment.

Informal education is characterized by different barriers between the student and the educational institution that facilitates the learning activities. It lacks the typical environment in the formal educational setting (Smith, 1999). The students are not situated in a classroom, there is no teacher that supplements the information and explanations for concepts and theories in the subjects are given in less verbal interactions.

Learning

Learning is the process where the students acquire information in different subject matters and areas. In the early 1960's and 1970's, the process of learning is defined in psychology references as a change in behavior (2002). Learning is characterized by the outcome of the process and can be evaluated or seen.

Smith (1999) defined learning as a quantitative increase in knowledge and requires acquisition of information; learning is storing and reproduction of information; learning is acquiring facts and skills, and methods that can be retained and used as deemed by the student or as necessity calls for it;

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learning is making sense of abstract meanings and relation of parts of the subject matter to each other in the real world context, and learning is interpreting, understanding and application of knowledge in reality through different ways.

According to Smith, the key concept in defining learning processes is change. Over the years, this had been challenged, as some changes in behavior do not include learning. He also mentioned that experience resulted to relative permanent changes in behavior of potential for changes in behavior. Conditioning of an individual may result in change in behavior but not necessarily involve learning in which new knowledge is gained (Smith, 1999).

The thesis will deal mainly on the effects of distance learning in the learning behavior of students in terms of gauging their knowledge at the end of the program. Several parts regarding this area in the thesis will include evaluations of student's performances in the distance learning program and what changes are characterized in their learning process. The definition of learning that will be used in this thesis is based on the five categories described by Smith (1999) and the discussions in *Distance education: Defining Concept and Terms* (2000).

Four Learning Orientations

Smith (1999) mentions in his article the four learning orientations — the behaviorist, the cognitive, the humanist, and the social and situational philosophy. The purpose in education within these four different types of

learning approach is manifested in the student's abilities in the learning process.

The behaviorist orientation is promoted by several psychologists like Thorndike, Pavlov, Watson, Guthrie, Hull, Tolman, and Skinner. This orientation views learning process as a change in behavior (Smith, 1999). The behaviorists believe that the purpose of education is to change the behavior of learners in its desired direction.

The cognitive orientation views learning process as internal mental processes such as insight, information processing, memory and perception (Smith, 1999). These internal processes include insight, information processing, memory and perception. The proponents of this philosophy are Koffka, Kohler, Lewin, Piaget, Ausubel, Bruner and Gagne. For cognitivists, the purpose of education is to develop the capacity and skills of learners to learn better.

The humanists believe that learning process is a personal act to fulfill personal one's potential (Smith, 1999). Learning theorists Maslow and Rogers suggests that the individual undergoes the learning process to achieve his goals and as personal fulfillment. For the humanists, the purpose of education is to make the individual independent and self-actualized (Smith, 1999).

The social and situational philosophy views learning process as an interaction or observation of the individual in social contexts. As suggested by theorists Bandura, Lave and Wenger, and Salomon, it is the movement

from the periphery to the center of a community practice (Smith, 1999). To the social and situational philosophers, the aim of education is to encourage learners to fully participate in communities of practice and utilize resources.

These learning philosophies serve as the basis for this thesis to evaluate the efficacy of distance learning in educating students.

Distance Learning System

Distance education is a field in education that focuses on *pedagogy* or *andragogy*, technology and instructional system design integrated in the system of education to students who are bounded by geographical barriers. Pedagogy defined in the Merriam Webster online dictionary is the art and science of being a teacher. It is a modern interpretation that came from a Greek term *paidagogos* or slaves who supervise education of slave children (Webster, 2003). This term is used with respect to andragogy or teaching adults. The terms also refer to the correct use of teaching strategies. These terms will be used interchangeably as discussion in the thesis progress.

Distance learning is a term used to describe a broad range of teaching and learning activities in which the student is at a distance from his instructor and other fellow learners (Adler, 2006). This system employs technology in educating the individual. Video and audio technologies allow the student to learn different subject matter and this system is highly media-based.

Distance learning system allows the student to attend his classes through the Internet, interactive videoconferencing and satellite (Adler, 2006).

Distance learning is highly dependent on the use of technology to reach the

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students that are at remote locations. Adler also stressed that the system is highly interactive and a highly-valuable tool in facilitating training and education to a widely-dispersed set of student in a different area away from the teacher.

The term also overlaps other functions of concepts such as open learning, flexible learning, self-study and resource-based learning. It must be noted that though distant learning encompasses different media-based resources and outputs, the communication process defined for this purpose is through the Internet.

Distance learning system allows communication to happen between the instructor and student asynchronously (at their preferred time) or synchronously (in real time) with the help of technology (Smith, 1999) Smith mentioned that the courses in the distance learning system that requires the presence of the student during examinations or other requirements are considered to be a hybrid or blended course or program. Although the system of education in distance learning does not require the presence of the student, it creates a virtual learning environment for the students to learn.

Distance education is mainly media-based since it uses all forms of technology from print to media (2000). This includes radio, television, audio video conferencing, computer aided instruction, e-learning or online learning and other means of information technology. Also cited by the Internet reference is the distinction between open education and distance learning.

Although both allow the student to choose his own time and place in learning, distance education is a teaching methodology used for the teacher and students who are separated by time and place. Thus it must be noted that several institutions that offer open learning may not be distance learning and not all institutions that uses distance learning are open learning institutions.

Distance education programs are also called correspondence courses that originated as a term in the early nineteenth century vocational education programs that were conducted through postal mail. This was replaced with the term distance education and encompassed more sophisticated technologies in facilitating learning.

Distance learning creates a virtual environment to facilitate learning (2000)
Distance learning is an open-learning institution that uses the Internet in which students; faculty and staff can communicate directly and share information regardless of place and time.

Distance learning as a system will be evaluated to relate if research methodologies can be taught effectively in this type of system. I discovered that amidst of the advantages of the distance learning system, it is also important to know its limitations in teaching research methodologies effectively. We can not just assess the system because there is a need to evaluate how effectively the system teaches research methodologies. The paper aims to clarify the point mentioned.

Methods Used in Distance Learning

The different methods used in distance education had evolved as time passed by. This is due to new advances in technology. Adler (2006) mentions print, audio or video broadcasting; audio or video teleconferencing, computer-aided instruction, electronic or online learning, computer broadcasting and other methods had been used in distance education.

In other models of distance education, regular mail, videos, audiotapes and CD-ROMS are sent to students. In some countries, the radio is still an effective medium in distance learning. This is a realization that although there is a broad range in technologies used in distance education, its technological appropriateness and connectivity is highly regarded in employing specific technologies in this type of learning.

In modern times, distance education courses makes use of the readily available E-mail, internet and video conferencing on broadband network connections for both wired physical locations and wireless mobile learning. Abbott, Dallat, Livingston and Robinson (2006) mentioned that there are several other supplementary methods employed by different institutions facilitating distance education.

In distance education, full-time or part-time studying is possible. But most students turn to distance learning as part-time students to accommodate their other priorities like their working schedules. As I have researched in the website of universities and colleges offering distance education courses, it is offered to all levels but is most frequent for university-level studies.

Learning materials are sent as modules in print or in e-mail to students. The students will then be able to study the materials and do online researches to enhance their knowledge of the subject. Assignments and exercises may be sent by the instructor to their students via the internet. Online discussions are part of the distance learning program and students can freely ask their instructors' questions without the limitation of place and time.

Distance learning as a system takes on different ways and forms. It highly uses media as a source of information for both teachers and the student. Since we now live in a highly-technology based society, technology greatly had become a part of our everyday living and activities. Distance learning is characterized as virtual learning (Oh, 2005). All information is media-based and interaction uses the Internet, satellites and video-conferencing and this manner is employed in the teaching techniques used in distance learning.

Advantages of Distance Learning System

The fast-paced changes in information technology had also affected the education sector in the modern times. Technology nowadays has given great importance by the society. Since the system breaks the geographical barrier and reaches a broad range of students worldwide, it has many advantages in every individual.

Perhaps the most evident of which is that education can be achieved without living the premises of your own home. This system allows students to have accessibility to training centers and educational institutions that they are enrolled at. Oh (2005) mentioned in his research that accessibility can also

be categorized for greater access of people with physical disabilities and those with for example, family responsibilities that would not grant convenient location and time for the student.

This system is also beneficial for those who already have jobs for they can adjust their study period and hours devoted to the course with their work schedules. Flexibility to study in a convenient location is one advantage of having the distance learning system media-based.

The learning process in this type of system is self-paced. Students learn the materials included in the course's module at their own rate and intensity. They can master the subjects at their own time and give effort to those areas with new information.

This type of system also allows self-directed learning of the students. The students learn to be responsible, self-disciplined and motivated as computer conferencing requires such attributes. The student can also have more opportunities to learn current materials and review past materials to master the subjects in the system. The students can utilize the wide resources found in the internet to search for more information and sources for their subjects. The internet had served as one tool in presenting options for the students to get information and access an unlimited source of information in the internet.

Flexibility is also evident as the student can communicate with the instructor through the system's bulletin boards any time and anywhere the student may be. It creates equity as the anonymity in computer communication

generates voice to those students who are reluctant to speak personally in the regular classroom.

Being media-based, it also allows students to correspond with other students and sources of information. This creates an interactive teamwork between groups. Since the communication process takes place through the internet, other experts from any country and online databases is accessible to the student.

Financially, the student will lessen his educational cost as the system does not require the individual to travel to another state to enroll in a university. He would not have transportation, housing and food expenses that are given in the regular formal educational system. These advantages are synthesized with the different journals regarding distance education (Abbott et al., 1994, Burnt and Bugbee, 1993, Sherry, 1996, Smith, 1999).

Learning Process in the Education System

Distance learning includes many different types of learning, but the main point is that majority of the learning process comes from your effort, at your own rate and time (Burnt and Bugbee, 1993). Many students who are eager to study abroad have turned to distance learning as an alternative, relatively because a student does not have to travel to get his desired degree. He does not have to feel homesick, nor adjust to a different environment. However, this becomes one disadvantage of the system because it limits the socialization experience of the student. But this is replaced with interactive socialization processes the students involve themselves through the internet.

The distance learning system employed by different educational institutions differs from one to another. Courses offered by institutions utilize different teaching methods to their students. For example, some institutions send all the necessary learning modules and details of the instructor but will require the student to travel to the institution to take the examination. There are others which require week-long residential, or to take an exam in the country the student resides in. This allows the student to have options in his curriculum for his learning benefit.

Although distance education has numerous advantages in facilitating learning process to a wide range of students, it also sets limitations and drawbacks as a system. One disadvantage that can be discerned is that the learning environment is different from the formal and normal type of teaching environment (Rogers, 1995). The student is in the virtual university studying materials that is only passed on to him. The socialization process of the individual is replaced with interactive interactions with the instructor and with fellow students. The credibility of the evaluation of the student's performance is also questioned as tests and exams are not taken with strict and present supervision of the instructor.

Computer Applications in Distance Education

The use of computers and technology in distance learning had become the advantage point in bringing distance education to many students worldwide. Educators grabbed this opportunity to provide learning assistance to students who wish to pursue their education without geography as limitation. Willis (1993) describes the different categories in computer application used

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in distance education. These applications can be subjected to differences with different universities offering distance education courses. There are four broad categories computer applications are in:

Computer Assisted Instruction (CAI) - the computer, being the primary technology used in distance learning is self-contained and has lessons with limited educational objectives. Tutorials and simulation exercises are just few of the CAI modes.

Computer Managed Instruction (CMI) - organizes instructions and keeps track of student performance with the use of computer ability to branch, store and retrieve information regarding the lessons and student. The particular information carried by this particular mode is often combined with CAI.

Computer Mediated Communication (CMC) - computer applications enables student and instructor to communicate efficiently. E-mail, video-conferencing and electronic bulletin boards that provide interactive communication within the distance learning systems are examples of this type of computer applications.

Computer- Based Multimedia - the goal of this type of computer application focuses on the use of available sophisticated and still-developing technologies to facilitate the learning experience of the students. This application includes integration of voice, video and other computer technologies to a single and accessible delivery system.

Computers are very advantageous in the distance learning system as it breaks the barriers set in this specified type of educational system (Willis, 1993). Students are able to self-pace their learning mode through the facilitation of computers and applications. It is a multimedia tool that effectively links various technologies beneficial to students.

Computers provide an interactive environment for students to communicate with their instructors and other students. It involves the use of software packages that are flexible and maximize learner's control over the technologies. The use of technology and computers had also become cost efficient as advancement in technology is seen over the years. Also mentioned in the site is that computers had also increased access to other resources viable for a student's learning experience. This enhances his knowledge and develops his instinctive quest to find more information.

Although the prominence of the use of computers is realized by the distance education system, there are also limitations with this technology. Networks provided by the computer and used by university and students in distance learning is expensive to develop (Adler, 2006). Instructional networks and purchase of this system is relatively expensive compared to the acquisition of computer units.

Since technology is rampantly changing, educators face the great challenge of being knowledgeable with regards to changes with technology. Thus, they focus on innovations in technology and how to keep up with the pace. The society also has a problem with computer illiteracy also as mentioned by the institution. Although many have been using computers for many years, there

are still a growing number of people who are computer illiterate and can not have the technology to help them in their needs. Lastly, students need to familiarize with computers first before they can successfully function in a computer-based distance learning environment.

Challenges of the Distance Education System

Distance education had faced several challenges since it started. The use of technology in the learning process is questioned with credibility and quality issues. Some educators prefer the traditional education setting rather than the impersonal nature of the system. The credibility regarding the evaluation procedures done in the distance education system had also raised issues regarding its credibility. Discriminations against students in the distance learning system also are evident up today's time. Some say students who graduated with distance education are not at par with students in the traditional education system. However, this can be disproved by statistics (Schuemer, 1993).

Several researches had been made to determine the competitiveness of distance learning students to traditional learning students (Adler, 2006, Angelo and Cross, 1993). Generally, the use of media-related resources in educating students has little effect on students learning processes. The amount of its effect is not that significant compared to face-to-face interactions in a traditional classroom environment. But it must be noted that its effectiveness greatly relies on the delivery of resource materials with the use of technology and the content of which can and will be offered to participants who have access to the technology (Adler, 2006).

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Other conclusions considered for this thesis is a study conducted by Souder (1993) who concludes that the achievement tests done by distance learning students in different subject matters tends to be relatively higher compared to traditional students. Although there is no particular positive attitudes towards course materials between the two types of education system (Martin and Rainey, 1993).

There is also a challenge with organization and presentation of study materials with distance education. This challenge is pursued by teachers and instructors to effectively teach students. Whittington (1987) suggests in his study that future research must focus in critical analysis of the factors that can contribute to the improvement of instruction in the distance learning system. Research suggests that several students in the distance education program had characteristics that contribute to their ability to be successful with this type of system. The students in this type of system are generally seeking further education as they voluntarily carry the system's instructions (Whittington, 1987).

According to Schlosser and Anderson (1994), they have significant evidence to say that students in the distance education system have certain achievable goals set with expectations for higher grades. Since these students are older, they are highly-motivated and disciplined (Schlosser and Anderson, 1994).

Similarities between the distance learning students and traditional students also contribute to their success in which ever field they are into. Several factors mentioned in studies are their willingness to initiate calls for

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instructors for assistance and they possess a more serious attitude towards the course (Ludlow, 1994).

Students who are successful in their chosen fields also seen distance learning as an advantage point in working in fields that have career advances which uses distance learning as a source of learning experience (Burnt and Bugbee, 1993). The authors had also added that post-graduate students, having completed a former course, achieves further educational knowledge regarding their filed of expertise through distance education system.

The Role of Instructors in Distance Education

Distance learning education requires the participation of an instructor or the faculty staff to guide students in the desired learning processes. It does not mean that a student in a distance learning system learns alone, an instructor still maintains his participation in the teaching techniques he employs.

The National Education Association conducted a survey on traditional and distance learning higher education members in June 2000. This aims to provide statistical view and background of the faculty members that facilitates distance learning. Eighty-nine percent of NEA members teach distance learning. Seventy-three percent are tenured, 35% each are professors and lecturers, 48% holds Masteral degrees, and 31% have PhDs. Most of the faculties either in traditional educational institutions or in distance learning teach in statewide institutions rather than in district

universities or single campus institutions. Distance learning courses are also similarly spread in all various fields as well as with the traditional courses.

Efficacy of Distance Education

In order for distance education to be effective, Schlosser and Anderson (1994) proposed several techniques in which educators in this type of system can reach their goals in providing quality education to its students. Distance education must have pre-planning and formative evaluation if possible to effectively carry out the goals of quality distance education (Egan et al., 1991). Instructors must be prepared and organized to deliver to students a module and lesson plan which the students can understand.

The researchers had also concluded that a well-designed syllabus and outline greatly contributes to the efficiency of the distance education system. The presentation of materials should be appealing but must be customized to suit the needs of the students (Egan et al., 1991).

The researchers also suggested that the efficacy of the distance learning system relies on the teaching methods the instructors employs. When an instructor is comfortable with the technology employed in the teaching methodology, students also becomes comfortable using the technology (Egan et al., 1991). Instructors must keep in mind to maintain eye contact with their students while online discussing, must answer questions enthusiastically and must encourage students to ask more questions. Sense of humor also contributes to a student's comfortable level towards the learning experience.

Interaction plays a major factor in the success of distance education in students. Distance learners are more complex in their need of support and assistance in the learning experience of the distance education system (Threlkeld and Brzoska, 1994). This emphasizes the role of constant and efficient interaction between students and instructors, and students with fellow students. The need for interaction must be addressed by instructors to effectively carry out their goal in providing quality education for students under this particular system.

Distance education students were said to value more timely feedback regarding course assignments, exams and other requirements than traditional students (Egan et al., 1991). Coldeway, et al, (1980) concludes that learners are motivated significantly with constant communication with their instructors. Students are satisfied with their distance education courses with an efficient utilization of on-site facilitators who greatly help by assisting students with the equipments in the system and with the course materials (Coldeway et al., 1980).

In time, these on-site facilitators are able to develop rapport with the students as students place high regards to the guidance they give during the duration of the whole course-teaching period (Brundage et al., 1993).

Student's interaction with other students also provides support and a system with extra feedback and resources from different students. Interaction among students is also beneficial in an effective distance learning system. Thus, technology used for this kind of interaction greatly fosters support

amongst students and instructors and interaction opportunities that benefits both students and instructors (Burge and Howard, 1990).

Complexity of Distance Education

Schuemer (1993) determined the reasons why in a distance education learning environment, the student learning process in a distant education environment is more complex than that of the traditional classroom students. The research attributes these reasons:

- Many distance education students are of age, have jobs and some have families. They must synchronize their studying schedule with other schedules in their own lives.
- Distant students have an array of reasons for adapting at the particular system. Many students volunteer to study in another field to broaden their knowledge or to have a better job and better qualifications for that matter.
- There is the challenge in distance learner to enforce motivational factors by instructors. This is due to the fact that students in distance education are isolated and lacks immediate support of teacher and other students in his learning experience.
- There are also little similarities between the students and instructors in distance learning which makes rapport development between them longer and harder. As such, interactive communication takes part in this role.
- Both the student and the instructor should also feel comfortable with technology as it serves as the main communication channel for the

both of them. Unless this is done, efficacy of the process will not be achieved.

Brundage, Keane and Mackneson (1993) suggest several ways to improve the distance learning system. This process involves overcoming challenges in terms of responsibility issues, discerning strengths, desires and skills, maintaining self-esteem, relating to others, redefining knowledge and dealing with its contents.

Motivation is an essential trait to improve student's disposition with this system. A student's motivation will enable him to remain constant communication with his instructor and peers. Responsibility is also another key aspect as the system requires students to have a self-paced learning experience. It is also an important factor that distance learning students discover their skills and potentials as this will contribute greatly to his adaptation in the distance learning system. Student's responsibility may also get in the way with his studies in the distance learning system, which is why it is important that students maintain their self-esteem and increase it along the process (Morgan, 1991).

Instructors can also generate and be part of this process by providing relevant and timely feedback for students to base their performance into. We have also said that interaction is one key to maintain a healthy disposition within this type of learning system. Technologies provide the ample communication channel for this purpose. It is also important for communication to happen constantly. Educators also maintain assessments and evaluation of student's performances and development. Educators also

make it a point to relate to students with examples relevant to them (Oh, 2005).

RESEARCH METHODOLOGY MODULE: A GUIDE TO INDEPENDENT RESEARCH

Research methodology module defines the activities on what a research is, how to proceed with it, the progress of the research and what factors contributes to the success in doing the research. Timms and Booth (1996) stated in his study that the understanding of research methodologies helps students in terms of their critical thinking analysis, applications of learned concepts and theories, and careful planning, evaluation and execution while doing a research. There are many research methodologies used in different researches, each has its own edge over the other.

A research methodology module ensures students in the distance education system to acquire basic knowledge that requires students to perform the tasks needed for them in the program and makes most out of the modules they have. The research methodology module aims to provide students with the ability and knowledge to practice their capabilities in doing independent researches (Timms and Booth, 1999).

Most research methodology modules provide the notable advice and sufficient ideologies to students regarding undertaking research procedures. It includes finding the right materials and using the most effective databases that will be beneficial in the research. Brainstorming and problem-solving techniques and applications are also included. Students also are taught to develop an argument. Handling references and resources citations in the

right format are also included in the module. Also analysis in figures, texts, and other materials in the research will also be discussed in the module. Making oral presentations and eliciting feedback from the audience is also included in basic modules format. Lastly, writing an efficient and credible research methodology is one of the primary concerns in the research methodology module (Timms and Booth, 1999).

There are different ways in which instructors can generate evaluation regarding the student's performance in the research methodology module. Students will be able to submit their research dissertations at the end of the course period as an assessment of their knowledge in making independent research with effective research methodologies (Timms and Booth, 1999).

Modules are given to students as source of information and guidelines for the students of distance education. Several supplementary materials are also sent to discuss the specific subject areas needed by the student in the course. This will provide the basic feature of what students are able to learn in a distance learning program with a research methodology module. The online version of a research methodology module is made to deliver the research methodology principles with just an ample description and a multitude array of supplementary resources and material to adapt to the student's need in learning this particular area of subject.

Research methodology is an important aspect in any subject field. Through an effective research methodology, the student can part vital information in the development of information research in the different field of expertise (Timms and Booth, 1999). Research methodologies are essential course

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subject. Even I, as a student, used the principles and ideas of research methodologies in my study.

I have directed my attention in focusing the thesis discussion into research methodologies as subjects or course in distance learning primarily because the course is needed by different fields of study. Research, as one of the major academic requirements of students, involves not only the theoretical concepts to be reviewed or data collection; a series of steps is including making an independent research (Timms and Booth, 1999). As mentioned in the previous discussion, learning and teaching research methodologies is essential but challenging. The reason for such is the complexity of the subject.

Research methodologies mainly deal with theoretical concepts, which are put to the test through the researcher's effort on producing a viable research output. The topics included in research methodologies can be hard without proper discussion and interpretation by instructors. Add to that the limitation of a more interpersonal communication between the instructor and a distance learning student (Timms and Booth, 1999).

Research methodologies as mentioned are included in all kinds of field of study. There are three kinds of research which are prominent today and I will define the three very briefly. Quantitative research deals with hard facts and measurable data, Qualitative research focus on the characteristics or attributes of the population under study. The last method is an emerging technique called the " mixed-method" in which both types are employed in research. These types of research are used based on how appropriate it is for

the study. Research on the field of science, math, physics and the likes use quantitative research. The social sciences field uses more often the qualitative method. It really depends on what kind of data is under study (Timms and Booth, 1999).

There are many fields of study that is offered under the distance learning system. In the UK, almost all courses are offered to post-graduate students. Universities and state colleges in the United States also offer distance courses from fields such as agricultural business, marketing, political science, sociology and the likes. However, some courses offered in the distance learning program are merited with a certificate and not really a degree. But some courses give diplomas after the graduation of the student. Distance learning has its most appeal to post-graduate students because of its flexibility and advantage in terms of the student's schedule (Wilkes and Burnham, 1991).

Since the research methodology, as a subject, is technical in nature and involves a concrete output to determine its effectiveness in a student, the educational institution offering this course would assess the student's performance with an accomplished research material. It must also be noted that aside from the module sent by the educational institution to the student, several supplementary materials will also be provided to explain in-depth the concepts needed to be understood by the students. From then, the student can search in the internet or have frequent interactive conversations with his teacher and fellow students about the module. Constant interactive communication is that the system sees as the solution to sustain the

information demand of the students regarding this specified subject area (Willis, 1993).

In a study done by Bo Yan (2003), he laid perspective on one issue that had been ignored ever since the distance learning program is created. The issue being is the difference in evaluation and research in distance education. Studies done before only evaluated the performance of distance education in facilitating a different kind of learning process, not the research aspect of the system.

As defined in the study, evaluation is concerned on the practical use of the distance learning system and its improvements. Research is defined as the testing of theoretical concepts and construction of concepts to isolate other variable that contributes to a process or outcome. The study concludes that distance in the system is just a factor that contributes to its effectiveness, not with the learning aspect of the system (Yan, 2003).

The hypothesis of thesis is that distance learning is effective in educating student with the research methodology module. The parameters given are that the research methodology module is a module that consists of learning materials regarding research methodologies. Research methodologies are used in performing researches and are widely and often used by students in their courses. The module includes discussions on how to do research, what methods should be applied and how to make the research successful. This allows the students to perform research activities in different courses they are enrolled in (Timms and Booth, 1999). Since distance learning is an alternative and complementary way to facilitate learning among students,

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the challenge is to teach research methodologies given the complicated nature of the subject area.

There will be analysis on how the research methodology module will set its own limitations and advantages with distance learning system. In this way, we can give a clear analysis on how the distance learning system will work with students given this specified subject area. The use of research methodology module as a specific subject area will greatly help in narrowing the scope of the thesis and thus defining more the purpose of the thesis rather than just making a general analysis.

For the purpose of the thesis, we will also set post-graduate students in higher level education as the subject in teaching research methodology module through distance learning. This means that the students who acquired distance education degree or programs already experienced the traditional learning setting with their prior education degrees.

METHODOLOGY

Primary Research

Research was done to delve into the student's perception of the effectiveness of distance learning and in particular, the use of the research methodology module. The research focuses on the student's perception of effectiveness because it is difficult to quantify learning and the effects of the process in each individual. Students are the target of distance learning education, thru their perceptions is much more vital, and data from student perception may give us an over all view of student learning. The research

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also attempts to find out how students perceive the facets of distance learning that provides an advantage over traditional learning practices.

For the purpose of the thesis research methods, the diffusion of innovation model created by Everett Rogers in 1995 will be used. The model, published in the year 1995 in the book *Diffusion of Innovation*, serves as the basis of the research methodology used in the thesis. There are five stages in the innovation process (Rogers, 1995). Rogers called these stages as knowledge, persuasion, decision, implementation and confirmation respectively. For the purpose of the thesis, we will focus on two main aspects in the model, knowledge and persuasion. In these two particular stages, three constructs in the model were adapted. The three constructs adapted for this thesis are prior conditions, characteristics of the decision-making process and perceived characteristics of innovation (Rogers, 1995).

Our model consists of four constructs that will be used in the thesis research — prior educational conditions, characteristics of students, perceived characteristics of distance education and perceived characteristics of research methodology module. Guided by the student perception model illustrated in Figure 1, we used the four constructs to analyze the data and formulate hypothesis regarding the perceptions regarding the effectiveness of the distance education system and the research methodology module.

Figure 1. STUDENT PERCEPTION MODEL

Student Perception Model(Rogers, 1995)

Rogers (1995) describes the four constructs in Figure 1 as having multiple facets that have distinct characteristics that contribute to its effectiveness as a research method. An example will be for the previous educational practice construct, student's needs and sociological changes are considered to make evaluations.

The construct on characteristics of students includes factors such as socioeconomic characteristics, personality variables and communication behavior. The third construct, perception on distance education and online learning has several factors including relative advantage, student compatibility and course compatibility. And the fourth construct, perceived characteristics of research methodology module in distance education, grades and evaluation were considered as facets. Several indicators used by other researchers were used in the thesis research method (O'Malley and McCraw, 1999).

A questionnaire following indicators used by Roger (1985) and Moore and Benbasat (1991) were used as guidelines in this study. Each indicator has specific questionnaire items relating to it. Most of the items in the questionnaire are based on O'Malley (1999) paper. To analyze the data from the questionnaires, a seven-point Likert scale was used.

The survey was administered to post graduate students in higher level education. A total of 130 questionnaires were distributed and collected. We should note that these students have also experienced traditional learning in their past education years.

The interpretations of the results are derived from alpha and t-values computed. The raw data values are then synthesized to answer with an agreement or disagreeing statement. The derivative answers are made up of the respondent's questionnaire answers. In analyzing the answers to the questions, a negative value for the alpha and t-values indicates the agreement of students with the statement and a positive value means otherwise.

Secondary Research

A sample research methodology is examined. The module was obtained from www.aber.ac.uk.

RESULTS AND DISCUSSION

Primary Research

Part A:

The following set of graphs is considered in this thesis as supporting data for the analysis on distance education. The data is from the Statistical Analysis Report conducted in February 2002 by the National center for Education Statistics. The report is a Postsecondary Education Descriptive Analysis Report which analyzes the distance education instruction by postsecondary faculty and staff in the fall of 1998. Ellen M. Bradburn of the MPR Associates, Inc., supervised the study and Linda Zimbler, the project Officer of the National center for Education Statistics. The study is part of the evaluation of the U. S Department of Education under the Office of Educational Research

and Improvement. Each graph will help in the discussion of the efficacy of distance learning as perceived by the educators.

Figure 2. Percentage of instructional faculty and staff at degree-granting institutions who taught various types of distance classes: Fall 1998

NOTE: Includes all instructional faculty and staff at Title IV degree-granting institutions with at least some instructional duties for credit. Non-face-to-face classes are those taught with a computer, TV-based, or other non-face-to-face primary medium.

As shown above, of the faculty instructors at degree institutions, only 6% teach distance education classes. Nine percent teach non-face-to-face class, 6% are computer based, 2% are TV based.

Figure 3. Percentage distribution of instructional faculty and staff at degree-granting institutions according to whether they taught non-face-to-face classes, by whether they taught distance education classes: Fall 1998

NOTE: Includes all instructional faculty and staff at Title IV degree-granting institutions with at least some instructional duties for credit. Distance education classes refer to any identified as being taught through a distance education program. Non-face-to-face classes are those taught with a computer, TV-based, or other non-face-to-face primary medium.

SOURCE: U. S. Department of Education, National Center for Education Statistics, 1998-99 National Study of Postsecondary Faculty (NSOPF-99), Data Analysis System.

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The figure above shows that majority of instructional faculty and staffs at degree-granting institutions teach face-to-face class, comprising 91% out of the 960 faculty surveyed. Only 9% of the faculty teach non-face-to-face class. Out of the instructors who do not teach distance education classes, only 6% teach non-face-to-face classes against 94% who teach classes face-to-face.

However, out of the instructors teaching distance education classes, majority teach non-face-to-face classes with 64% while only 36% teach face-to-face classes.

Figure 4. Percentage of full-time instructional faculty and staff at degree-granting institutions who communicated with students by email, by participation in distance classes: Fall 1998

NOTE: Includes all instructional faculty and staff at Title IV degree-granting institutions with at least some instructional duties for credit. Distance education classes refer to any identified as being taught through a distance education program. Non-face-to-face classes are those taught with a computer, TV-based, or other non-face-to-face primary medium.

The figure above shows that majority of the faculty, both distance education teachers and non-distance education teachers, communicates with students through e-mail. But teachers of distance education communicate to their students more than those who do not teach distance education classes. Seventy-eight percent of the faculty who communicate with their students through email are distance education teachers while only 69% do not teach

distance education classes. Also, 74% of instructors communicating with students through e-mail teach distance education classes while 69% do not teach distance education classes.

However, most students do not send e-mails to their instructors. Only a minor percent of students send e-mails to their instructors. But of these students, more students in distance education classes send e-mails to their professors than those students who do not take distance education classes. Thirty-six percent of the students who send e-mails to their professors take distance education classes while only 33% of students sending e-mails to their professors do not take distance education classes. Furthermore, 41% of the students who send emails to their instructors are in non-face-to-face programmes against 32% who are not in non-face-to-face programmes.

The figure above also shows that although majority of the faculty members e-mail their students, only a small percentage of students send e-mails to their instructors.

Part B:

Our goal is to determine student perceptions on the effectiveness of distance education in learning the Research Methodology module.

Table 1. Prior Educational Conditions (Traditional learning setting)

Item	Questionnaire	Alpha	Interpretation
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Number	value		
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er	aire Items	a	ion	
1	Traditional classroom learning is more conducive to my personal experience in learning.	-0.252	0.082	Agree
2	I am satisfied with the learning method I experienced in the traditional education system.	-1.053	0.053	Agree
3	My teachers greatly	-2.543	0.093	Agree

help with
the
discussions
and the
learning
process.

4 I can easily
approach 0. 0. Disagree
my 541 082
teachers.

5 I can easily
approach -1. 0. Agree
my 023 071
classmates

6 I prefer -0. 0. Agree
learning in 048 050
the
classroom
environme
nt than
with the

computer.

The first goal of this study is to determine the students' perspective on the effectiveness of traditional learning. Students agree, although not significantly, that the traditional learning setting is more conducive in learning (Item #1). Many are satisfied with the learning method they experienced in a classroom (Item #2). They are also pleased that they can easily approach their classmates (Item #5). They also said that the teachers greatly help with the discussions (Item #3) but many said that teachers are not that easy to approach (Item #4). Finally, students prefer learning in a classroom environment than with a computer (Item #6) but findings were not that significant.

Table 2. Characteristics of Student

Item Number	Questionnaire Items	t-value	Alpha	Interpretation
1	I have earned a degree prior to enrolling in a distance education	-1.231	0.081	Agree

system.

2 I am
working
full-time. -2. 0.
472 052 Agree

3 I have my
own
family. -0. 0.
512 064 Agree

4 I want to
pursue
another
degree
than the
one I
already
have
finished. -1. 0.
011 102 Agree

5 I easily
learn from
reading
books and
other
materials. -0. 0.
931 072 Agree

6 I need my
instructor -1.
to always 332 0. 50 Agree <
guide me.