A DISTANCE EDUCATION MODEL FOR JORDANIAN STUDENTS BASED ON AN EMPIRICAL STUDY

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ABSTRACT

Distance education is expanding worldwide. Numbers of students enrolled in distance education are increasing at very high rates. Distance education is said to be the future of education because it addresses educational needs of the new millennium. This paper represents the findings of an empirical study on a sample of Jordanian distance education students into a requirement model that addresses the need of such education at the national level. The responses of the sample show that distance education is offering a viable and satisfactory alternative to those who cannot enroll in regular residential education. The study also shows that the shortcomings of the regular and the current form of distance education in Jordan can be overcome by the use of modern information technology.

Keywords: Distance Education, Empirical Study, Internet, Traditional Education, Educational Model

INTRODUCTION

With an increasingly young population, the demand for university education in the world vastly exceeds the supply. The number of people in the age group 18-23 in Arab countries alone is reaching 32.4 millions by the year 2000 (Gibbs, 1997). Considering that over 20% of this number will be seeking university education, it is expected that the number of prospective university students will exceed 6 millions by the year 2000. This leaves over 25 millions out of university education (Gibbs, 1997). Earlier studies on this respect expected the demand for university teachers to exceed 200,000 (Board, 1999). Besides that, nontraditional students (older, working) are seeking further education to improve their competitiveness in the labor market. This phenomenon is observed worldwide. According to (Darwaza & Abu Basha, 1993, p.154), over 50% of college students in the U.S. are adult learners (over 25 years of age).

Distance education is offering a viable alternative for those seeking university education and are unable to obtain it at traditional institutions chairs, either because of the shortage of seats, or because traditional residential education does not suit their special circumstances. Acording to Broad (UNESCO, 2002, p.9), The "non-traditional" students are most in need for educational opportunuties that are highly flexible in terms of time and place of instruction. He stated four reasons as dirvers for the rise of distance education in the U.S, which are : Dramatic projections for enrollment growth, The growing demand for higher education from nontraditional sources, The information technology revolution and the need for digital literacy, and the expanding marketplace of higher education/distance education providers.

The distance learning market in the U.S., for example, is growing at a 25% annual rate (NCES, 1998, p.98). In addition, many authors including Penfield (1996) & Broad (1999) claimed that no significant difference in the achievement and attitudes is observed when comparing a control group learning by Computer Aided-Learning at distance and a similar group of regular students at the same university. NCES (1998) cited many factors that prevent the widespread of distance education, including: program development cost,

limited infrastructure, equipment failure and cost of maintanance, legal concerns, lack of fit with institution's mission, and inability to obtain program autorization.

This research aims at studying the characteristics and attitudes of students who are joining distance education at increasingly high rates in Jordan. In the past, there was only one Arab University (Beirut Arab University) offering bachelor's degree at distance to Jordanian students. During the last decade, the number of Arab universities offering degrees at open distance to Jordanian students has reached 12. These inlude Juba university distance education center in Sudan, and Arab Open University in Kwait among others. The number of students studying at these universities has increased seven folds making these universities real competitors to traditional universities. See also (Bubtana, 1985, p.7). This study is based on primary data collected using a questionnaire. The questionnaire was distributed to a random sample of Jordanian distance education students. The results of the study are meant to help in understanding the characteristics and attitudes of the growing population of distance education students. The next section presents a brief introduction to the concepts of distance education. The following section summarizes the findings of the empirical study. The next to last section presents educational model as a set of suggestions to the highest body of education to adopt in order to cope with the growing number of students seeking further studies. The last section presents conclusions pertaining to the subject of the fast growing market of distance education.

DISTANCE EDUCATION VS. TRADITIONAL RESIDENTIAL EDUCATION

Distance education is a different way of offering education as opposed to traditional residential education. The term 'traditional residential education' in this research refers to the on-campus university education. Students have to attend classes at specific pace and times. They have to be therefore a specified duration and sit for exams at specific times. The term distance education refers to two kinds of education. The first and historically older kind is the synchronous, Open University style of education. In this form of education, students get the bulk of their education through media other than physical attendance. They start their studies at a specific time and have their exams at a specific time as well. The time and pace are pre-determined. The students get their tuition through printed materials, audio, video, radio and television. They have to attend on-campus activities a few times every year. The second recent kind, named asynchronous (or Internet) distance education benefits from the recent advances in computer and communication technologies.
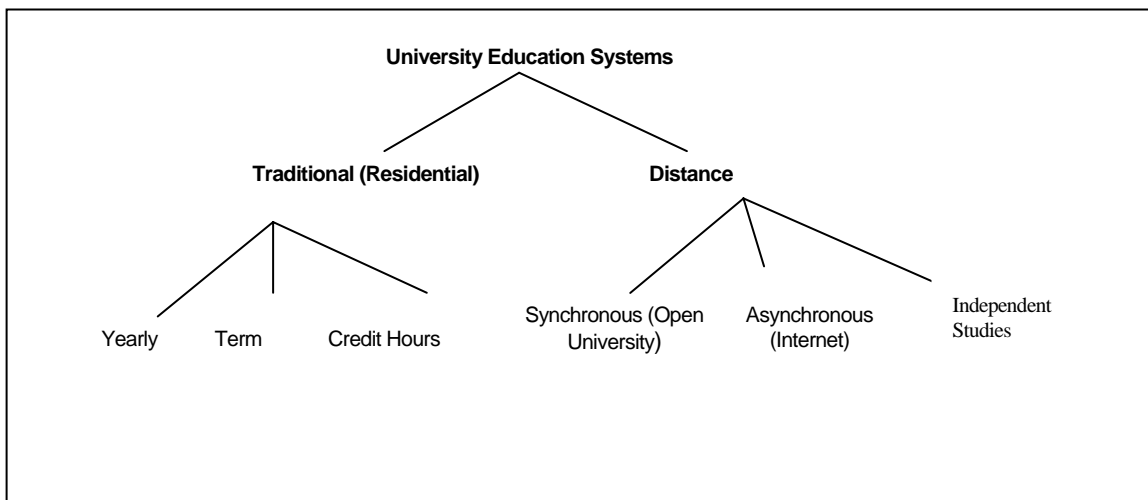

Figure: 1
Classification of Distance Education

It provides the student with the benefits of learning at his/her own time and pace. The course materials are provided via electronic media that can be accessed by the student when and where it suits him/her This form of education does not impose any restrictions on the time of enrollment, duration of study, or the dates of exams. Normally, the student does not have to attend any on-campus activities. This form of education utilizes the Internet technology. Figure (1) presents the different systems of university education. For more details, discussion and classification of distance education, see (Alsunbul, 2002, p.69:74) & (Stein, 1998).

Looking back to the last two or three decades only very few distance education institutions around the world are associated with open universities were present. Nowadays many universities of continuing regular education around the world already started or are planning to start a program on distance education. According to U.S. Statistics, khawalda (1995, p.6) & Lewis etal (1998) quoted that distance education was offered by about 90 percent of all higher education institutions in the U.S. To facilitate interaction in distance education, and to get high quality learning, a solid foundation of skills and knowledge should be laid out. It is important to provide an adequate infrastructure, sufficient resources to support the development of course content, access to appropriate technology, and to incorporate training with the goals of traditional education and achievement of course goals (Gartio, 1996). With regard to Jordan, the kind of distance education now mostly offered is the synchronous open-university style. Students register at universities inside or outside Jordan. They get the course materials in printed form or on computer media. These universities hold intensive courses for their students at locations in Jordan. The timing of the intensive courses is arranged to suit working people. The exams are held in Jordan as well. These arrangements are intended to suit working Jordanians who are interested in furthering their education.

Advocates of distance education claim that this form of education is the most suitable form for today's lifestyle. Some studies by Dale (1998), Ahmed (1997) & Deloughry(1992), suggested that the performance of distance education students is even better than that of traditional residential education students. Mohamed(2005, p.11) & (Sandler etal, 1983, p. 219) claimed that students preferred distance education to residential education. Some studies concluded that the scientific material provided in distance education is more organized than that provided in residential education (Ahmed, 1997), (Almeda, 1998) & (Alsunbul, 2002, p.72).

Three main characteristics of today's life are cited as imposing great challenges on traditional residential education and are urging for change. These include:

> The current era is marred with high rates of unemployment. One of the main reasons for this is the lack of adequate education. The traditional residential education system is not capable of coping with the accelerating pace of change. Hence, in many disciplines it is failing to provide the students with up-to-date knowledge (Ahmed, 1997) & (Larose et al, 1998).
> Business organizations are in great need to acquire new technologies and new scientific methodologies to improve their performance, but in many cases are unable to spare their employees time to further their knowledge.
> In these times of economic crisis and inflation, the increasingly high cost of residential education is hindering a lot of people from continuing their education. Distance education can provide a way out for those wanting to study, but are faced with the above problems. It offers them the following benefits (Alsunbul, 2002, p.73).

Portability (education delivered on-site), accessibility (available any time, in the workplace or the home), affordability, (cost effective for individuals and industry), incremental (augmenting current programs and services), effectiveness (increasing employee satisfaction and industry success), and flexibility (customized to individual learning requirements and progress).

On the other hand, it is suggested that successful distance education learners need to be independent learners who are motivated and have focused goals in mind. These learners need flexibility in program structure (many have other responsibilities, such as full-time jobs) and want practical information that they can use immediately.

Issues Relating To Distance Education in Jordan & Arab Countries

Alsunbul (2002, p.73), pointed out that: the issue of quality assurance in the Arab countries stems from the fact that universities which adopt the distance education model have undertaken no effort to establish national standards to assure the academic quality of all processes conducted by the universities, particularly with regard to the course materials and their relevance to the Arab world context. Instead, individual institutions of distance education often achieve quality standards for their academic activities such as course production, evaluation and delivery by a trial and error procedure, a method that is not effective. In addition a case study prepared by the UNESCO (2002, p.10:11) regional office for education in the Arab states indicates that Higher Education Authorities seem to be absent from regulating providers of higher learning that are outside the mainstream of the education system, such as corporate institutions and providers of education opportunities through non traditional delivery means, i.e. open learning, e-learning, virtual universities, etc.

Jordan in specific, has witnessed a remarkable increase in higher education domain (distance and traditional), but still there are question marks on quality assurance of the distance education institutions offering distance education to Jordanian students. The Jordan accreditation body does not agreed yet to grant accreditation for such institutions. So the graduate of such institution may face real difficulties of getting a job in the Jordan job marketplace. The reasons for that stems from low educational level of such institutions. By examining the home pages and student guide books of these institutions, the following observations were made:

- ➤ Many distance education programs still rely on printed materials, audio and videocassettes, and conventional ways of linking students and their tutors on periodic bases. There is no evidence that new information & communication technologies are being integrated.
- ➤ The courses contents and materials do not meet the corresponding level of standards offered in traditional (residential) universities.
- ➤ Student's assessment is summative as a paper-based held at the end of each term or each year, leaving no room for course work and other formative assessment.
- ➤ Admission requirements are not evaluated against pre-set criteria to evaluate student background, but depend only on student desire to select the major of study he prefers.

THE EMPIRICAL STUDY

To build a model for distance education study in Jordan, a questionnaire was designed and distributed to collect the information needed from different student groups. Two universities offering open distance education were selected as the basis for the sample.

A sample of 100 students enrolled at these two universities was selected at random. The questionnaire was distributed to the students with guaranteed anonymity. The questionnaire is designed to collect data about the following issues:

- Reasons of students for enrolling in distance education.
- Age groups of respondents.
- working status of respondents.
- respondent ownership of a computer.
- Annual income of respondents.
- Previous qualification of respondents
- Reasons for enrolling in distance education program.
- Respondent impressions on distance education before enrolling in distance education programs and afterwards.
- Issue of computer literacy (knowledge of using computer by respondents).
- knowledge of using internet in distance education by respondents.
- Merits of distance education.
- Time flexibility of the respondent, that is, the ability to study at one's own time and pace.
- Cost of education from respondent point of view.
- Ability to perform social duties while studying.
- Disadvantages and/or drawback of distance education from respondent point of view.

Analysis of The Empirical Data

- The age distribution of the participants indicates that 80% of the students are between 20 and 40 years old. This implies that the majority of the students are not fresh secondary school graduates. 7% of the participants are less than 20 years old. Hence, distance education is attracting young people as well. However, it seems to be suiting the needs of older people more than the young ones.
- When respondents are asked about their reasons for enrolling in distance education, 66% of the participants identified the unsuitability of traditional education to their work and family conditions as the main reasons. Lower fees come in the second place, with the shortage of seats at traditional universities as a third. Nevertheless, it is observed that a good percentage would still prefer distance education even if the cost was higher than their current rates.
- Wen asked about their employment, 90% of the participants are found to be working people. This point emphasizes the advantage of distance education is to offer the opportunity to further their education without sacrificing their jobs.
- On the issue of computer ownership, only 16% of the participants have a computer at home. The trend of computer ownership in Jordan is expected to grow fast due to the spread of knowledge, drastically decreasing computer prices, the spread of the Internet and the low cost of using it, and the government policies encouraging the use of computers in all areas.
- On the issue of computer literacy, it is found that more than 95% of the participants are either using computers or learning to do so. This high number is not reflected on the number of the internet users. Only 25% of the participants are currently using the Internet. The percentage of those using the Internet should increase since 60% of the participants indicate that they are keen to learn how to use the Internet.

- The annual income distribution of the students indicates that the majority of the students are lower to middle class students-employees who see in distance education an opportunity to improve their positions. Some distance education institutions offer students, who completed a two-year college degree, the opportunity to get a bachelor degree in two years. This study finds that 65% of the students hold two-year college degree.
- The previous qualifications of students (prior to joining the current program) show that around two thirds of the participants have got an associate degree. This highlights the importance given by these students to obtaining a bachelor degree. Without a bachelor degree, one cannot expect to be promoted to a higher position in government or the private sector in Jordan.
- When asked about their perception of distance education before enrolling in their programs, 60% of the participants indicate that the quality of distance education is either equivalent to that of traditional education or higher. That percentage increased to 70% after enrolling in their current study programs.
- The issue of the knowledge of the Internet emphasizes the importance people give to the Internet. While only 24% of the participants can use the Internet, 60% are keen to learn to do so. Despite the rapid expansion of the use of the Internet in distance education worldwide, only 33% of the participants had information about this issue. This is probably due to the lack of publicity in Jordan media about this modern type of education.
- The merits of distance education that are widely accepted concerning time and place flexibility, and lower fees are widely acknowledged by the participants. It is important to highlight that the participants give less weight to lower fees. This is due to the fact that the public universities in Jordan charge much less fees than the private ones, but comparing distance education fees to private universities' fees, the latter are far higher.
- In response to a set of questions about the disadvantages/drawbacks of distance education, 88% of the participants agree that the lack of campus activities (which is a characteristic of distance education), is one the drawbacks of this educational system.
- 75% of the participants feel less motivated because of not facing any competition in distance education similar to that felt by regular students in traditional education. Over 90% of the sample members list the lack of direct contact with an instructor as a drawback of distance education.

THE DISTANCE EDUCATIONAL MODEL

Since asynchronous education is expanding worldwide, and people and organizations all over the world are realizing its benefits. Official bodies responsible for higher education in Jordan must start to prepare the rules and regulations for an ordered introduction of this kind of education.

The following vision and procedures are required for establishing an asynchronous distance higher educational system in Jordan:

Integrated national IT strategy and infra structure for the whole country
to include educational institutions, governmental sector and private sector.
The official body must provide easy and reliable access to the Internet probably by integrating and expanding the current IT and communication system to include the whole contry and manage it by a centralized system.

The cost of using this service must be a reasonably low one because a student in such a program will be an extensive user of the Internet services. High costs of using the service will be a defeating factor for the whole project.

Developing a unified legestlsation policy system to control admission/admission requirements, transfer to/from traditional instutions

For this kind of education to have any credibility, we have to insist on the quality of students joining this type of program. We should apply the same admission rules applied by residential universities. A new measure of computer literacy must be introduced in order to ensure that the student will be able to make full use of the available technology in the learning process. This kind of assessment tool has long been introduced in countries such as the USA, South Africa, and India.

Here we give the example of the TOEFL examination, which was introduced to ensure that the entering student has an acceptable level of English language, and the GRE, GMAT examinations, which test the student understanding in the field of specialization. The candidate must pass a comprehensive test in computer literacy.

This test should examine the student's ability regarding: the operation of a computer and using the Internet (e.g ICDL exam). An independent body should organize the computer literacy test and its results should accompany the admission application form. All graduate from high school are eligible to join the distance education program of his choice, and without binding number of accepted educator to the current market needs since markets needs are not stable and yearly changing

Putting quality standards and frames to gurantee high quality distance education graduate no less than residential graduates.

There should be regulations at the national level recognizing and formally accepting the degrees attained through this kind of education.

Teaching requirements

- ➤ Language of teaching should be a combination of English and Arabic to make it available for a much wider audience.
- ➤ Course materials should be available for download by students. This is an advantageous way since it makes it easier to update, and more accessible to the students.
- ➤ Majors all fields of study can be included in asynchronous distance education with the exception of fields requiring high practical training such as medicine.

Hardware/Software requirements

A student must have full access to a computer. The proposed asynchronous university must have the proper and adequate equipment to provide quality teaching and easy access for its students. For a much wider discussion of this subject and specifications refer to (Broad, 1999) Some majors might require regional centers with electronic conferencing facilities.

Student assessment requirements

For the assessment procedure to be credible, it has to ensure that the student and only the student is being assessed. In residential education, this is not much of a problem as in distance education. Regulations should be set in the case of asynchronous distance education to compensate for the lack of physical contact. The lack of physical contact between student and instructor must also be compensated for by a higher rate of assignments, tests, and projects carried out by the students.

The only benefit this kind of education offers to the student is allowing him/her to study at his/her own time and pace, but that should not be at the expense of quality and standards.

Coordination program between distance instutions, and other residential and none residential instutions nationaly and internationaly to exchange experience .
Other issues such as training human resources to prepare the courses and operators of the systems, number of credit hours for a degree or none credit course(s), class meetings, transfer to residental universities and so forth, shuld be taken in consideration.

Setting a strategy for establishing a main centre to develop support software in the field of distance education in coordination with private sector. Figure: 2 below gives a suggested flowchart for the introduction of asynchronous distance learning in Jordan.
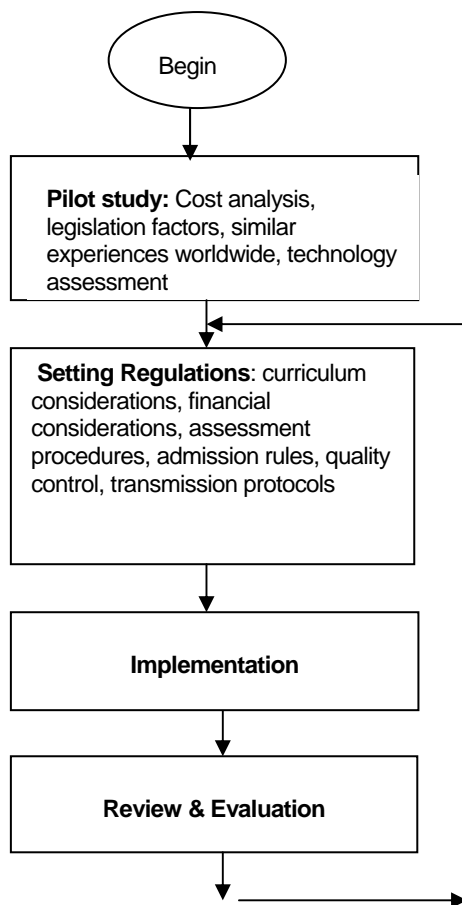
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        │ Pilot study: Cost analysis, │
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        │ Setting Regulations:        │
        │ curriculum considerations,  │
        │ financial considerations,   │
        │ assessment procedures,      │
        │ admission rules, quality    │
        │ control, transmission       │
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Figure: 2 Suggested Flowchart for the Inroduction of
Asynchrounus Distance Learning in Jordan

CONCLUSIONS

The empirical study showed that distance education is offering a viable educational alternative to a vast number of those who want to further their education but are unable to achieve that through the current residential system of education. Distance education students value highly the distance education system. The disadvantages of the current system of distance education that are cited by the sample can be summarized as follows:

- ➢ Lack of campus activities
- ➢ Lack of competition among students
- ➢ Lack of interaction with an instructor
- ➢ Lack of open discussion with other students.

It is well proven that the use of modern technology; namely the Internet (Internet-based/Web-based instruction), can help overcome these disadvantages (Alsunbul, 2002) & (Witmer, 1998). The Internet has enabled the establishment of entities such as the virtual campus, discussion groups, virtual laboratories and online libraries. These and others combine to offer the student an environment that combines the benefits of both residential and distance systems.

Nowadays, the Internet is used to deliver regular classes to students who would prefer to take their classes from home, as well as delivering education to distance education students who live far away from campus, probably in a different continent. The use of the Internet in distance education has led to the introduction of asynchronous education. It is worth mentioning that a number of leading synchronous distance education institutions are changing to this new form (Hanna, 1998). Although asynchronous distance education is spreading fast worldwide, we are yet to see its wide spread in Jordan. We believe that the introduction of this new kind of education will have a very strong and positive impact on the educational system as a whole, due to the following reasons:

- ➢ Asynchronous distance education provides the opportunity of updating course contents to cope with the rapid change in technology and knowledge.
- ➢ It provides the opportunity of introducing new courses in a much easier and faster way than traditional ways of education.
- ➢ It provides a better opportunity for improving and enriching course contents by getting responses from a vast population of students, since these courses are offered to a greater audience than traditional residential and synchronous distance education courses (Daniel, 1996).
- ➢ It can help overcome the problem of scarcity of qualified university teachers in the Arab countries (Board, 1999). An asynchronous course can be offered to a much larger number of students than in a residential course, thus drastically reducing the needed number of lecturers (Ahmed, 1997), (Alsunbul, 2002) & (NCES, 1998).
- ➢ It improves time and place flexibility, because it allows a student to determine the pace of study.

Hence, it can be said that asynchronous distance education is better suited for today's needs and lifestyle in Jordan. But for this method of learning to have a role, there are great barriers to overcome. These include:

Computer literacy, English language proficiency, cost of Internet, degree accreditation, Defining an acceptable method of student assessment, and Social-psychological-cultural studies must be undertaken to tailor the courses and the methods of teaching to the needs and traditions of the society.

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