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## **Satisfying distance education students of the Hellenic Open University**

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*The Hellenic Open University is the first Greek university that is designed to give the opportunity to adults, who have work and family obligations, to study at a distance. The main purpose of the paper is to describe the findings of a survey that was administered to the students of the Hellenic Open University, focusing on the main factors that contribute to the satisfaction of their studies. The first part contains a brief introduction and a literature review of distance learners' satisfaction and then the summary of adult learning theories, based on the fact that distance learners are normally adults. The second part describes the methodology of the survey and the results. A brief discussion and the limitations of the study are presented with recommendations for further research.*

### **Introduction**

The recent emergence of communication and networked technologies expanded the delivery mechanism for education and changed the way, that students have traditionally experienced the learning environment. Learners, who don't need to meet face to face with classmates and instructors, are now more responsible for completing instructional tasks without the explicit oral instructions provided in face-to-face settings (Howland and Moore, 2002). These changes hold substantial implications for the educators who are responsible for providing distance teaching environments.

According to Sampson (2003) distance education refers mainly to a mode of delivery (independent learning at a distance through the means of self-study texts and non-contiguous communication) and can be defined as an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner (Keegan, 2000, p.68).

However there are many challenges that distance education faces during its implementation. It tends to isolate students physically, which can have negative effects on team building and sociability. Students with an aptitude for verbal expression may suffer in the virtual classroom because the opportunities for them to speak up are limited. On the other hand, those who feel shy about speaking up in a classroom may be more likely to ask their questions in this environment. Students who get frustrated with technology may lose their motivation. Finally, distance

students need to be self-motivated and self-directed in order to succeed on their studies, characteristics that are difficult to develop (Picciano, 2002, Valasidou and Bousiou, 2004). Thus, it is quite important to investigate the needs of distance learners and the key areas that need to be considered in order to ensure satisfaction from their studies.

This paper aims to identify the key factors that contribute to the distance students satisfaction based on the case of the courses that the Hellenic Open University (HOU) offers. The first section defines the concept of distance learners needs and satisfaction. In the second section a review of the adult learning theory is presented and the third section describes the Hellenic Open University and its characteristics. A brief summary of the method used to conduct the research is presented and the last section includes the findings and limitations of the study.

## **Literature Review**

The majority of the literature review has concluded that there is no significant difference in student needs when traditional and distance education courses are compared (Sampson, 2003). The main point to consider is the lack of face to face communication between the learner and the instructor.

Dziuban and Moskal (2001) reported very high correlations between interaction in distance learning courses and student satisfaction. Their conclusions are based on a questionnaire distributed to students enrolled in Web-based (fully online) courses, mixed-mode (some online, some face-to-face) course and Web-enhanced, face-to-face courses. Among their findings there were statistically significant correlations between the quantity and quality of the interaction and students' satisfaction, in all three types of courses. However, in completely distance learning courses the relationship between satisfaction and interaction appears as a more critical factor than in the other courses.

Inman et al (1999) conducted a survey on student and instructor attitudes and satisfaction with distance education among 334 community college students in Kentucky. The students were enrolled in distance learning courses only and the purpose of the survey was to determine what factors influenced students' satisfaction. Their findings indicated that support materials provided by the instructor were the most important factor correlated with student satisfaction. The quality of the technology used was also rated highly, along with the quality of the materials produced by the instructor to assist students in using technology.

Oscar et al (2005) conducted a survey at the University of Pennsylvania in order to identify the factors that contribute to the students' satisfaction. The students (143 respondents) who took part in the survey were enrolled at an open course of the university. The findings of the survey revealed the instructors teaching ability, abilities of administrative personnel, the library and the students' previous experience of studying at a university, as the main areas that influence student satisfaction.

According to Stone (1990, cited in Threlkeld and Brzoska, 1994, p. 47) interaction plays a vital role for the success of distance learning courses. Moreover, adult students perform better when they control their own learning and interact frequently with the instructor. The interaction can occur more effectively during face-to-face

meetings between the instructor and the students, otherwise electronic mails and phone calls can help students keep in touch with the module deliverers.

For many learners, access to library resources may well be limited. This creates obvious problems for the distance learner. An evaluation of learner support conducted by Dillon et al (1992; cited in Threlkeld and Brzoska, 1994, p. 57) revealed that it is easier to succeed in the course when the library resources are adequate for the course support. The issue of student support has received renewed interest recently, with Tait (2000) and Simpson (2000) both exploring this aspect of distance learning in some detail.

Tait (1995) categorises student support as advice/counseling, tutoring (individually or in groups), the learning of study skills, peer group support, feedback concerning assessment and progress, language support and administrative problem-solving, where the aim is to support students' individual learning whether alone or in groups. Student support is a key issue in the provision of distance education, and three services appear repeatedly in the literature: timely student feedback, on-site support, and access to library materials. The support provided by on-site facilitators has also been consistently cited as crucial to the effectiveness of a distance education programme (Murphy and Yum, 1998; McCleary and Egan, 1989; Valasidou et al, 2005).

In considering student support services, any institution that offers courses through distance learning must address the question of who their learners are and what their needs are. The institution must then determine how those needs can be met with regard to constraints of costs, technologies, and geography. It appears that media such as correspondence, face-to-face, telephone, and electronic communications provide a variety of means. Those means differ widely in their effectiveness (for individuals and groups) and in ways that appear to be only partially understood (Tait, 1995). As Lewis (1995) states, the tutor is "the main source of support for the student beyond the course materials" (p. 245). Clearly, then, the course materials and the tutors are of significant importance in distance education as well as resources that contribute greatly to meeting the needs of learners.

From the analysis above, it follows that distance students' satisfaction mainly depends on the support services that the educational institution offers to them as far as the instructor's assistance and guidance are adequate. Another important factor is the quality of course materials and the handouts that the instructor distributes in order for the learners to understand clearly the concepts and practices of the modules delivered. The majority of distance education students are adults who, due to family, work or other obligations, chose to study a course at a distance. Thus, in order to understand the distance students' needs and how to get those needs satisfied it is crucial to discuss the theories of adult learning and the main characteristics of adult students. The next session attempts to present the main issues considering adult learners, motivation and interaction issues and the different learning strategies.

### **Adult Learning Theory**

The organization of Economic Cooperation and Development (OECD) tried to define adult education and according to its belief it refers to "any learning activity or programme deliberately designed by a providing agent to satisfy any training need or

interest that may be experienced at any stage in his or her life by a person that is over the statutory school leaving age and whose principal activity is no longer its education” (Rogers, 2002).

Adults learn differently from children. According to Knowles theory of andragogy, the point that an individual achieves a self-concept of essential self-direction is the point at which one psychologically becomes an adult. When this occurs, the adult is an independent, self-directed learner and one expects to be held accountable for his learning (Knowles, 1984).

If learning styles do not have an impact on student learning outcomes and if the technology utilized also does not impact learning outcomes, what other factors could affect student learning at a distance? Perhaps the concept of distance itself and its impact on student learning and interaction between the student and the instructor should be examined. Moore (1989) indicated that the amount of interaction is an important factor in designing distance-learning courses. Moore believes that learners interact with the course content, with the instructor, and with other learners. Opportunities need to exist for all three types of interaction. Holmberg (1986) believed that learning by individuals is the most important focus of education.

Based on the fact that adults learn differently from children, there is a need to describe the teaching methods that are used especially for adults. Furthermore, the word “adults” contains many groups of people that learn differently. For instance, adults can be unemployed engineers, elders, scientists, immigrants and so on. Thus, a great variety of teaching and learning methods are used in adult education (Rogers, 2002). During the auto-directed learning, adults are focused on the procedure where they keep control of their own learning and they set the learning goals and outcomes. They also select the learning method they use and evaluate their performance by themselves. Another type of learning describes “the learning to learn”, which means that adults are self-conscious about the way that they manage to know what they learn. Personalized learning describes the ability of the student not only to study on his own and follow his own learning style, but also to choose the modules he learns.

According to the previous analysis adult learners have special needs and preferences during the learning procedure. The educator plays the role of the facilitator and not of the teacher and the students need to be self-directed and self-conscious about their learning (Valasidou et al, 2005).

### **The Hellenic Open University (HOU)**

The term distance education conjures up different models and interpretation depends on culture, scale and operational procedures (Jones, 1996). The Open University distance education model has been designed for adults studying part-time at home who are unlikely to have had recent formal education. Such students are typically employed full-time and have family or other responsibilities with which their studies have to merge.

The Hellenic Open University does not offer online (computer- or internet-based) studies yet. It combines distance studies and face-to-face lectures meetings. The administration of the university decided to convert it to an integrated online university

where teaching and learning will take place via the internet but this is not an easy task. Many students do not have internet access from their home or they are not familiar with studying without the teacher's presence and support.

The HOU addresses a great number of candidates, covering a very large spectrum of ages, wishing to follow undergraduate or postgraduate studies. Specifically, the HOU pursues to offer a second opportunity to adults for undergraduate studies. Moreover, it seeks to provide postgraduate curricula to graduates, who wish to extend or upgrade their studies to subjects related to their work position.

What has been adopted to be the elementary educational entity is the *module*. The various curricula are formed by combining modules developed by the faculties of the University. These curricula correspond to various certificates (at the undergraduate or postgraduate level), Bachelor or Master's degrees. The Bachelor degrees comprise 12 modules whereas the Master's degrees 4 modules.

The courses are designed according to the distance learning methodology. According to this methodology students study using books and study-guides designed to be compatible with the distance learning methodology, participate in 5 tutorials for each module taking place in 8 towns, communicate with the corresponding tutor by telephone, fax, email and letters, prepare 4–6 assignments for each module and finally take a final examination 10 months later, that is at the end of each module. The students of each module are placed into several students-groups. A tutor is allocated for each group of a maximum of 32 students who live in a certain geographical region.

The academic personnel of the HOU involves a small number of permanent personnel (Professors, Associate Professors, Assistant Professors and lecturers) identical to that of the traditional Hellenic Universities as well as a rather numerous body of tutors. The permanent personnel will undertake, besides the tutoring, the coordination of a group of tutors teaching a certain module and the academic responsibility for a given course (Professors and Associate Professors).

The HOU was developed as a university allowing the admission of students without an entry examination. Although it is a public university it is not expected that the whole cost of the studies of adults, will be covered by the state. Thus, a rather limited number of students can be enlisted in the HOU, which is in disagreement with its mission to address a great number of students. However, for a considerable number of students there are scholarships, which discharge them from the above-mentioned fees. It should be noted that fees cover the cost of instruction materials and all the expenses related with the studies. The instructive material consists of books and study-guides for a markedly large number of courses (31 courses) plus some audiovisual material. This instructive material will be enriched with the development of the other types of material complementary of the books and study- guides.

**Table 1: Summary of Hellenic Open University Figures**

1. Undergraduate students	8.251
2. Postgraduate students	4.436
3. PhD students	19
4. Number of Courses being offered	22
5. Number of Modules being offered	106
6. Number of applications submitted for attendance during academic year 2003 – 2004	52.346
7. Number of places offered for academic year 2003 - 2004	5.223
8. Graduates	1.674
9. Total of published titles	386
10. Subsidies awarded since 1998	978
11. Tutors	687
12. Research Staff	16
13. Administration Staff	89
14. New Courses to start in 2005	6
15. Educational Features a) Five Contact Sessions (Tutorials) per academic year in six regions (Athens – Thessaloniki – Patra – Heraklion – Ioannina – Ksanthi) b) Four to six assignments per academic year c) Distance consulting d) Final Exams in six regions e) Tutor – student average : 1/20 f) Studying specially designed learning material	
16. Total area covered by the university's premises (8 buildings)	4.800 sq.m

Source: <http://www.eap.gr>

Despite the resources and the advantages that were described above, students can still be disadvantaged: personal, local, or geographical constraints may restrict individual student's access to tutorials sessions or telephone contact with the tutor and the university. This predominately paper-based system, while proving to be a reliable model within Greece has its disadvantages. It lacks the desired flexibility and rapidity of communication that is important for sustaining distance students. An Internet-based system is an obvious solution; however it must prove itself secure, robust, scaleable, and affordable in order to be an acceptable model for the university to adequately support a volume of distance education students.

### **Research Methodology**

The survey was conducted during the period March-April 2004 in Thessaloniki. The students that took part in the survey enrolled in a course of the Hellenic Open University at the academic year 2003-2004.

Primary quantitative data gathered through questionnaires distribution on a convenience sample of 340 respondents (students) who study at the Hellenic Open University. The questionnaire that was used for the data collection was based on the results of the literature review (Oscar et al, 2005; Dziuban and Moskal, 2001). The questionnaire contained closed questions to assist in determining the degree of the respondents' agreement. Also, questions based on a five point Likert scale were used and the five scales were scored from 1 (Totally Disagree) to 5 (Totally Agree) measuring the respondents' opinion regarding the quality of the programme services and the tutorials. The structure of the questionnaire was quite simple in order not to cause any problem to the respondents. It consists of five parts. The first part contains general and introductory questions concerning the field of distance education. The second part was designed to measure the students responses regarding the reasons that led them to study at a distance and the third part dealt with their satisfaction level regarding course services. The fourth part referred to the quality of studies and finally the fifth part contains questions about demographic profiles of the respondents.

The sample of the study consists of 340 current adult students of any programme of the Hellenic Open University. The sample size for the intent and purposes of this study and the statistical analysis that has been developed was significant enough to help the investigator to identify the distance students' satisfaction levels.

The computer programme SPSS (ver.11.00) was used for analysing the data in this study. The data analysis process had two phases, the preliminary and main phase. The preliminary included descriptive statistics (i.e. frequencies, percentages, tables, charts). In the second phase multivariate analysis such as factor analysis (PCA) has been conducted in order to identify the main factors that influence the students' satisfaction.

## **Results**

Most of the respondents (54,4%) were 26-35 years old, married with at least one child. Managers and employees in public or private sector were the most frequently reported occupations and they work for more than 8 hours per day. Thus, the students of the Hellenic Open University are very busy with very limited free time to study. The majority of the sample (81,1%) has very good or excellent knowledge in the use of new technologies (internet, e-mail) and the 83,2% have access to internet at home.

The main reason that led them to study at a distance instead of in a traditional course is work obligations (68,9%), the programme flexibility (47,2%), the limited time (54,7%) and finally the lack of similar courses delivered conventionally. According to the literature review (Picciano, 2002; Howland & Moore, 2002) that is already presented above, distance learners have limited time to study due to family and work obligations and thus they choose to study at a distance in order to organize their personal schedule of studying.

Most of the students usually submit their assignments on time but only 15,4% takes part in a discussion with other students or in a group assignment (19,6%). Group assignments are not obligatory and most students prefer to study on their own without asking others classmates help. Very interesting is the fact that 56,2% very rarely or

never use the library for data collection while most of them (85,9%) ask very often for the lecturer's help and guidance.

Very impressive is the fact that more than 76% of the respondents stated that they are certain that they will finish the course successfully and this optimism comes from the effective communication they have with the instructor and the other students. More than 93% of the respondents agreed that the course they study has already enriched their knowledge regarding the modules.

The second stage of the research refers to the factor analysis - the results are presented below. Factor analysis was used to define the underlying components of agreement and frequency scales. For this, a choice of items (variables with loadings equal to or greater than 0,5) was chosen to determine which items are those that mainly contribute to the development of factors. These factors explain the underlying components of students' opinion about the educators' behaviour and issues regarding the technology used.

Factor analysis, for the question regarding student satisfaction about the services that HOU offers, defined three factors. The first factor interprets 27,114% of total variance; its reliability is 0,823 and consists of five variables. This factor can be named "Modules Material". The second factor interprets 19,147% of total variance; its reliability is 0,799 and consists of three variables. This factor can be named "Library and Internet Services". The third factor interprets 17,459% of total variance; its reliability is 0,769 and consists of four variables. This factor can be named "Assignments and Exams".

Factor analysis, for the question regarding the meetings with the instructor (tutorials), defined two factors. The first factor interprets 37,658% of total variance; its reliability is 0,811 and consists of six variables. This factor can be named "Information and Discussion about Modules". The second factor interprets 18,917% of total variance; its reliability is 0,613 and consists of two variables. This factor can be named "Introductory and Personal Discussions".

## **Discussion**

The literature review revealed that one of the main factors that contribute to distance learners' satisfaction is frequent tutoring (individually or in groups) and generally meetings with the instructor (Tait, 1995). According to the findings of the current survey, regarding the tutorials, the students of the HOU believe that there are two main areas to be considered. These areas include information about the modules and other introductory and personal discussions. Their satisfaction depends mainly upon the level of effectiveness of these meetings (tutorials) with the instructor and, specifically, the issues that are discussed during the meetings. During these tutorials the discussion should be targeted on the specific module. Other personal or irrelevant issues need to be avoided. Moreover, the instructor should spend time answering questions and dealing with the students' problems and misunderstandings, in order for the students to leave with an integrated picture of the module discussed. By doing this, the distance education model tends to get closer to the traditional educational model where students communicate face-to-face with the teacher. Generally,

according to Carswell et al (1999), such meetings with the educator contribute to the improvement of the interaction and good relationship establishment.

According to Levy (1999) the course handbook and the material distributed to distance learners are considered to be important aspects of students' satisfaction. Most HOU students seemed very satisfied with the quality and the quantity of teaching and tutorial material that is provided to them for each module by the university. The survey that Inman et al (1999) conducted, comes to an agreement with the previous findings and supports the view that the quality of the materials produced by the instructor needs to be of high standards in order to help students effectively.

The students of HOU pointed out that the library and internet services need to be adequate in order to help them with their studies. It is obvious that for distance learners it is more difficult to get access to library resources and this can be partially solved by providing via internet electronic copies of the books or the journals that the university library includes. Moreover, distance learners need to have access to the internet in order to better exploit the opportunity to find and use different educational material or communicate with other students and the instructor himself. As Dillan et al (1992; cited in Threlkeld & Brzoska, 1994) stated, when the library resources are adequate it is easier to succeed in the course.

Feedback from the assignments and exams is also crucial for distance education success. When feedback from the instructor is quick, clear and complete, then the students can easier understand how they performed or improved. In order for the feedback to be effective, there is a need for the students to interact frequently with the instructor. The interaction in distance education relates closely with the students satisfaction and, based on Dziuban and Moskal (2001) report, this relationship appears to be a very critical factor for distance education's effectiveness. However, according to the findings of the research, the student to student communication is very weak. It is obvious that the lecturer does not encourage the interaction between students. Each one prefers to study on his/her own without asking for help from other classmates. Based on their answers, on whether the instructor motivates students to communicate with each other the results were that students are not motivated by their instructors or administration to cooperate with each other on their studies and this weakens the communication and interaction (45% does not agree with the statement "The instructor motivated me to communicate with other students"). This can be avoided by increasing the number of group assignments or giving additional marks to students who interact with each other (by using electronic forums for discussion or chatting about specific topics of the modules).

In distance learning environments, where students and instructors are at a distance, the presence of interaction and effective communication plays a vital role for the success of the course. Students need to be guided and counselled by the instructor, get feedback concerning assessment and progress and generally get support from the university and the instructors (Alexander, 2001). Only when all three types of interactions exist (students, instructor, programme) then students will be satisfied and eventually succeed in their studies (Moore, 1989). According to Lewis (1995) the tutor is the main source of support for the student beyond the course materials. Especially adult learners, who are the majority of distance learners, need to be motivated in different ways than children. Thus, the role of the instructor is that of a

facilitator who understands the adults' special needs and learning methods and adjusts his or her teaching methods and materials to them.

### **Limitations of the Study and Recommendations**

The present study has some limitations that are described below:

First, the sample that was used for the survey can be characterized as convenient (sample members are chosen on the basis of their being readily available/accessible, according to Diamantopoulos and Schlegelmilch, 1997:14) for the needs of the study. It can not be considered representative of the whole population (more than 12,000 students based on Table 1). Thus, there is a need for another survey to be conducted using targeted sample. Although the findings of the study can not be generalised for the general population, they can satisfy the study purposes and can be characterised as satisfactory.

Another limitation is the fact that the questions that constitute the questionnaire are not enough to cover all the issues that were reviewed. However, more questions refer to more time for the respondents to spend in order to answer them.

Finally, it should be pointed out that, according to the literature review, there are more factors that contribute to the distance learners' satisfaction. For the purposes of this study these factors were limited to the main areas revealed by the review as crucial for distance education.

Most of the studies aimed at examining the distance education in Greece are based on the technology used and not on the satisfaction of the distance students. It would be very interesting for research to conduct a survey about learning and teaching methods that are used in distance education and lead to students' satisfaction so as to select the most appropriate. Studies concerning those issues have already been done for US and European institutions (Holmberg, 1986; Keegan, 2000; Moore, 1989; Peters, 1993) but not for Greek distance courses.

The present study did not deal with the evaluation and assessment procedures of the courses that the Greek Open University offers compared to students' satisfaction. It would be worthwhile to explore the connection between the students' performance and satisfaction for the course they study.

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