

## COMMUNICATION AND SOCIAL PRESENCE: THE IMPACT ON ADULT LEARNERS' EMOTIONS IN DISTANCE LEARNING

*Christina Angelaki [cangelaki@yahoo.com], Ilias Mavroidis [imavr@tee.gr],  
Hellenic Open University, School of Humanities [nmw.eap.gr], Patras, Greece*

---

### Abstract

The aim of this work is to examine the role of communication and social presence in distance learning environments and their impact on the emotions of adult learners. A study was conducted at the Hellenic Open University (HOU), using a questionnaire that was completed by 94 undergraduate and postgraduate students. More than 94 % of the students felt the need to communicate with their instructor and fellow students, but less actually did. More than 50 % of the students experienced both positive and negative emotions, while women were more prone to negative feelings. Negative emotions motivated students mainly to contact the tutor, while both negative and positive emotions motivated them to contact their fellow students. After communication, the majority of students felt positive emotions more intensely and negative ones less intensely, due to support and encouragement that they received from their tutor and fellow students. More than 80 % of the participants considered social presence as an important element of communication during their course, related to positive emotions. Regardless of the level of the course, age and marital status, quality student–tutor and student-student communication in the Hellenic Open University has an important effect on students' emotional well being.

**Keywords:** communication, emotions, distances learning, adult learners, social presence.

### Introduction

The field of distance education is constantly and rapidly evolving, satisfying the increasing demand for life-long education. The expanded use of new tools related to Information and Communication Technologies (ICT) facilitates communication, cooperation and dialogue among participants in distance learning courses, generating an increased research interest concerning collaborative learning environments (Schellens & Vackle, 2006). Great significance is attributed to the role of communication, social presence and emotions within the frame of distance education. Levels of social presence are tightly linked with communication as well as with the emotions, affecting learning progress in distance education or blended courses (Richardson & Swan, 2003; Jones & Issroff, 2005).

HOU, officially established through Greek Law 2552/1997, is a relatively new public educational institution and the only University offering exclusively distance education courses in Greece. In the framework of HOU, research issues – related to open and distance learning (ODL) – which have been considered important, include mainly quality and effectiveness of the offered distance learning courses, the use of ICT, tutor's role, tutor-learner communication and interaction (Giossos, Mavroidis & Koutsouba, 2008). Taking into consideration the importance of social presence in the framework of distance education (e.g. Gunawardena & McIsaac, 2004) and the fact that there are no previous studies examining communication and social presence in association with emotions in the framework of HOU, this study seeks to identify the way communication affects distance learners emotionally and intellectually as well as the relationship

between communication and social presence on one hand and learners emotional well being on the other.

More specifically, the purposes of the current research seek to examine:

1. the frequency and intensity of the emotions experienced by the students of distance education courses,
2. if these feelings motivate them to contact their tutor and fellow students,
3. the way students prefer to communicate with their tutor and fellow students,
4. how often students feel the need to contact their instructor and fellow students and how often they actually do contact them,
5. if there is any modification concerning the intensity of the feelings after communicating with their instructor and fellow students,
6. the importance that students attribute to social presence,
7. what kind of emotions students associate social presence with, and
8. the way parameters such as gender and level of the course influence the frequency and intensity of emotions as well as the importance attributed by learners to social presence.

## **Theoretical framework**

According to Keegan (1986) and Holmberg (1995), communication is a fundamental element of distance education, on the grounds that the students study away from their tutor and the educational organization. They also note that the medium of communication plays a critical role in linking the students with their instructor, providing for a two-way communication which is considered essential for the teaching and learning processes. Gunawardena & McIsaac (2004) highlight the importance of the constantly developing ICT which have dramatically changed the setting in ODL by providing new means for learners, for example through collaboration and negotiation within a group of peers in technology mediated learning environments. ICT present innovative and challenging ways to foster learning through collaboration via Computer Mediated Communication (CMC), creating a new and promising reality in ODL, the Computer Supported Collaborative Learning (CSCL) environments (Schellens & Valcke, 2006; De Wever, Van Keer, Schellens & Valcke, 2007). Developments of synchronous means of communication such as teleconferencing and video conferencing as well as asynchronous ones such as group discussions, facilitate interaction among learners and between tutor and a group of learners and enables collaborative work among learners, thus expanding the nature of communication within ODL. The two way tutor-learner interaction has evolved into multi-dimensional discussions and collaboration among learners as well as within groups that include both learners and tutors (Gunawardena & McIsaac, 2004; Schellens & Valcke, 2006; Strijbos & Fischer, 2007).

Furthermore the role of emotions is critical in adult learning as they are closely linked with the construction of meaning and knowledge (Dirkx, 2001; Shuck et al., 2007). They can be either a motivating or an inhibiting factor concerning the learning process (Dirkx, 2006). Zembylas (2008) and Zembylas, Theodorou & Pavlakis (2008) mention that despite the less evident dynamics of emotions in distance education, students are prone to experiencing both positive (e.g., excitement, satisfaction, relief) and negative (e.g., stress, fear, anxiety, isolation, guilt) emotions. Having examined the origin as well as the implications of adults' emotions in the context of distance learning courses of the Open University of Cyprus (OUC) they concluded that emotions of stress, fear and frustration stem mainly from the demands of the course's unknown methodology. Moreover, feelings of isolation were reported due to the lack of contact with fellow students. On the other hand, emotions of enthusiasm and satisfaction were associated

with their admission to the course as well as with the successful accomplishment of the writing assignments. Pavlakis & Kaitelidou (2012) also consider distance learning as a source of intense stress for the students of OUC. O'Reegan (2003), after interviewing 11 students of online courses, notes that students feel anxiety due to lack of clear instructions, not knowing what to do and having to find out what to do. The findings of Hurd & Xiao (2010) show that participants of distance learning programs, offered either totally or partially on line, experience intense negative emotions due to distance between them and their tutor as well as their fellow students, not to mention lack of extra-language elements (eye contact, posture, face expressions, gestures, etc.), demands of the course and technophobia. Finally, other recent studies have highlighted that emotions are critically involved in the learning process either inhibiting or enhancing it (Hara & Kling, 1999; Hara & Kling, 2003; O'Reegan, 2003; Rovai & Wighting, 2005).

Social presence is another fundamental element of distance education which is directly related to learning process as well as to communication and emotions. So & Brush (2008) as well as Richardson & Swan (2003) report that social presence has a powerful effect on the process of learning, enhancing student's performance and the satisfaction they get both from their tutor and the course. They also report that social presence seems to be more important to female students. Garrison et al. (2000) as well as Garrison & Arbaugh (2007) examined social presence as the students' ability to present themselves socially and emotionally as "real human beings" in CMC. Their findings showed that there is correlation between social presence and learning. They also found that students' satisfaction from the course is closely linked with activities boosting social presence in the context of an online distance learning course. Gunawardena & Zittle (1997), Tu (2002) and So & Brush (2008) note that students need to express their emotions during CMC, highlighting at the same time a close relationship between increased social presence and positive feelings such as satisfaction, relief and reduced levels of stress as well. Finally, Francescato et al. (2006) conclude that there are no significant differences regarding the students' perception of social presence, satisfaction and cooperation between face to face and distance learning environments.

## **Methods**

### ***Studies at the Hellenic Open University***

The HOU has been offering exclusively distance education courses to students throughout Greece and abroad since 1998. It consists of 4 Schools, namely Humanities, Social Sciences, Science and Technology, and Applied Arts. It currently offers 6 undergraduate and 27 postgraduate courses, all addressed to adult learners. HOU courses are addressed to non-Greek students as well, provided that they speak Greek fluently, as all courses are offered in Greek.

As for undergraduate studies, students are awarded a degree upon the successful completion of twelve course modules, while for postgraduate studies, students are awarded a Master's degree upon the successful completion of four course modules and a dissertation. There is also the possibility for a PhD degree. Applicants to undergraduate courses must possess a High School Certificate, while applicants to postgraduate courses must possess an undergraduate degree in a relevant field.

Depending on the course, HOU students should hand in 3-6 written assignments, throughout the 10-month academic year, for each course module they have enrolled in and sit exams at the end of it. Furthermore, each course module includes 5 face-to-face Counselling Group Sessions (CGS) which take place in 9 cities all over the country. Participation in CGS is not compulsory. Students must plan their own study during each course module, while they are continuously

supported by the academic staff. The tutor to student ratio is approximately one to thirty. Tutor-student communication and interaction between CGS is mainly held through e-mail and telephone. Furthermore, there is a web-based instructional environment / portal (<http://online.eap.gr>) wherein each course has its own website. Course websites simplify organizational procedures and enrich students' learning opportunities and experiences, providing also forums for asynchronous teacher-student and student-student interaction.

### **Research questions**

The survey was based on four research questions, regarding:

1. The frequency and the intensity of positive and negative emotions that students experience in the context of their studies.
2. (a) The way in which students prefer to communicate with their tutor and peers, and (b) the type of emotions that motivate students to contact their tutor and fellow students as well as why and how the intensity of emotions is modified after communicating with their tutor and fellow students.
3. (a) The significance that students attribute to social presence, and (b) the way in which social presence is related to positive and negative emotions when learners communicate with their tutor and peers.
4. (a) The way in which the gender influences both the frequency and intensity of students' emotions and the importance that students attribute to social presence, and (b) the way in which the level of the course influences both the frequency and intensity of students' emotions and the importance that students attribute to social presence.

The survey tool was a questionnaire based on the above research questions. A pilot test was carried out before the finalization and distribution of the questionnaire to students: the survey tool was disseminated to 8 students in order to secure appropriate levels of legibility, avoid any kind of ambiguities about directions, terms and questions and minimize threats concerning its reliability (Cohen, Manion & Morrison, 2007). These 8 students did not take part in the main research.

### **Survey tool**

The questionnaire consisted mainly of closed type questions, using a five point Likert scale. Scale's descriptors were mainly: 1 (Not at all), 2 (Little), 3 (Moderately), 4 (Much), 5 (Very much). Concerning the question about the frequency of contacting the tutor and the fellow students descriptors were: 1 (Never), 2 (1-2 times a year), 3 (3-6 times a year), 4 (1-2 times a month), 5 (1-2 times a week). There were also 4 open type questions where students were asked to briefly justify their choices concerning the modification of the intensity of their (positive and negative) emotions after contacting their tutor and their fellow students.

The questionnaire was divided into three parts. The first part contained demographic information questions regarding student's employment, marital status, number of children, technical equipment available to take part in CMC, as well as their knowledge of using it. The second part contained questions about their studies in HOU and more specifically about the level of the course and the number of course modules successfully attended until the time of the study.

The third part of the questionnaire was the longest one, containing questions related to communication, emotions and social presence. Concerning communication, questions examined students' need to contact their tutor and fellow students, the frequency of contacting them and students' preferences regarding the ways and means of contacting the tutor and fellow students.

Questions on emotions examined mainly frequency and intensity of both positive and negative emotions experienced in the context of their course, to which degree these emotions motivated them to contact their instructor and their fellow students and how this communication affected the intensity of their emotions. Students were also asked to briefly provide reasons to justify the modification of the intensity of their emotions. Furthermore students were asked to answer how important eight specific elements of social presence were to them concerning contact with their tutor and fellow students (e.g. interaction, development of social relationship, extra linguistic / non verbal communication, belonging in a learning community, etc.) both during face-to-face interaction at the CGS and CMC between CGSs. Finally, students were asked to answer to which degree they associate these elements of social presence with positive emotions as well as with negative ones.

### **Sample**

The sample consisted of 108 students. More specifically it consisted of 57 students from three different undergraduate courses and 51 students from three different postgraduate courses. The distribution and collection of the questionnaires were conducted by the researchers at the beginning of the 3rd CGS meeting of the academic year 2010-2011. Participation in the study was voluntary. The results were derived from 94 questionnaires that were fully completed by the students (14 questionnaires were partially completed and therefore excluded from the analysis).

### **Data analysis**

The 94 fully completed questionnaires were analysed using the statistical software SPSS 17. Descriptive and deductive methods of data analysis were used. Regarding open type questions, data analysis was based on creating categories according to the semantic similarities of the students' responses counting in a concise way the subjects' references.

## **Results**

### **Demographic and social**

Female participants outnumbered male participants (62.7 % vs. 37.3 %) while most of them were aged between 30 and 39 years old (61.7 %). The majority of participants worked full time (78.8 %), were not married (54.3 %) and did not have any children (67.0 %). Everybody possessed a PC and almost everyone had internet connection at home (95.7 %) as well as an e-mail address (99.0 %). More than 50 % had a microphone and a Web camera. The majority (71.1 %) stated that they knew to communicate "well" or "very well" via PC. As far as the level of the course is concerned, 50.0 % of the students attended an undergraduate course and 50.0 % were postgraduate students. Finally, 67.1 % had already completed successfully at least one course module by the time the research was carried out.

### **Learners' need to communicate**

While 5.3 % of the students stated that they did not feel any need to communicate with their tutor, just 12.8 % of the students actually communicated with the tutor. Furthermore, 7.5 % of the participants stated that they never felt any need to contact their fellow students, while a larger number (13.8 %) claimed that they never took initiative to contact them.

### Means of communication

The majority of the students stated that they preferred to communicate via e-mail. In the second place of their choices came face-to-face communication and in the third place was phone communication. Other means of CMC did not seem to be popular with the majority of the students (Table 1).

Table 1: To which degree do you prefer to communicate via the following?

		Never %	Little %	Moderately %	Much %	Very much %
a.	Face to face	16.0	13.8	17.0	12.8	39.4
b.	Phone	9.6	16	23.4	27.6	22.4
c.	E-mail	2.3	8.5	19.1	22.3	47.8
d.	Skype	58.5	13.7	12.8	7.5	7.5
e.	Chat	58.5	18.1	10.6	7.5	5.3
f.	Portal of HOU	58.5	23.4	7.5	5.3	5.3
g.	Forums	53.5	26.5	4.3	6.4	9.6

### Frequency and intensity of emotions

The majority of students experienced frequently and intensely all of the positive emotions listed (Tables 2 and 3). Regarding negative emotions, more than 75.0 % stated that they felt frequently and intensely stress/anxiety and disappointment (Tables 2 and 3). On the other hand more than 50.0 % stated that they never felt guilt, isolation or shame (Table 3).

Table 2: How often do you experience the following emotions in the context of your studies?

A. Positive Emotions	Not at all %	Little %	Moderately %	Much %	Very much %	B. Negative emotions	Not at all %	Little %	Moderately %	Much %	Very much %
a. Enthusiasm	2.3	22.1	43.6	23.4	8.5	a. Stress/ Anxiety	11.7	20.2	35.1	23.4	9.6
b. Excitement	34.1	28.7	28.7	5.3	3.2	b. Disappointment	27.6	41.5	23.4	4.3	3.2
c. Relief	8.5	16.0	38.3	24.3	12.8	c. Guilt	61.5	14.9	16.0	5.3	2.3
d. Satisfaction	3.2	9.6	37.2	37.2	12.8	d. Isolation	54.1	16.0	19.1	8.5	2.3
e. Pride	13.8	16.0	36.2	26.5	7.5	e. Shame	88.3	8.5	3.2	0.0	0.0

Table 3: How intensely do you experience the following emotions in the context of your studies?

A. Positive emotions	Not at all %	Little %	Moderately %	Much %	Very much %	B. Negative feelings	Not at all %	Little %	Moderately %	Much %	Very much %
a. Enthusiasm	7.5	30.8	36.2	14.9	10.6	a. Stress/ anxiety	16.0	18.1	31.9	19.1	14.9
b. Excitement	24.3	42.6	20.3	7.5	5.3	b. Disappointment	33.0	34.0	24.3	6.4	2.3
c. Relief	9.6	23.4	33.0	22.3	11.7	c. Guilt	69.0	18.1	7.5	4.3	1.1
d. Satisfaction	7.5	16.0	36.2	24.3	16	d. Isolation	54.1	14.9	19.1	9.6	2.3
e. Pride	16.9	28.7	29.9	14.9	9.6	e. Shame	84	12.6	2.3	1.1	0.0

A comparison between the answers of female and male students concerning the frequency of their feelings, revealed that women experienced all the negative emotions – especially stress/anxiety and disappointment – more frequently than men (Table 4).

Table 4: Frequency of female and male students' emotions

Emotions	Male Students %	Female Students %
Stress / Anxiety	80.0	93.2
Disappointment	65.7	76.3

### **Emotions motivating communication**

Among all the positive and negative emotions examined, stress/anxiety was the emotion which motivated most of the students (72.4 %) to communicate with their tutor. Furthermore, regarding positive emotions, enthusiasm (73.3 %) was the one motivating them the most to contact their fellow students, while the negative emotion that mainly triggered communication with their fellow students was stress/anxiety (74.5 %).

### **Impact of communication on emotions and reasons of modification of the intensity of students' emotions**

Students claimed that after contacting their tutor they felt mainly relief (70.2 %) and satisfaction (57.7 %) more intensely, while they felt mainly stress/anxiety less intensely (72.4 %). The main reason for the modification of the intensity of their feelings was the academic, emotional and psychological support that they received from their tutor.

Concerning the impact that communicating with their fellow students had on their feelings, all the positive emotions were felt more intensely while the negative ones were experienced less intensely. In particular, among the positive emotions, relief was boosted for 68.1 % of the students. As far as the negative feelings are concerned, isolation was the one mostly alleviated (68.1 %). Realising that they were facing common difficulties, sharing their concerns for their studies and cooperating were the main reasons for the modification of the intensity of the students' emotions.

### **Importance of social presence for students**

#### **Face-to-face communication at the CGS with their tutor and fellow students**

More than 80.0 % of the students considered the eight elements of social presence examined here important during face-to-face communication both with their tutor (Table 5) and their fellow students (Table 6) at the CGS.

Table 5: At the CGS how important is to you the following when you communicate with your tutor?

		<b>Not at all %</b>	<b>Little %</b>	<b>Moderately %</b>	<b>Much %</b>	<b>Very much %</b>
a.	Non verbal communication (e.g. eye contact, voice tone, posture etc)	10.6	13.8	30.9	23.4	21.3
b.	The feeling of belonging to a group	6.4	8.5	35.1	23.4	26.6
c.	Expressing your feelings	14.9	19.1	33	18.1	14.9
d.	Feeling immediacy	3.2	8.5	23.4	30.1	34
e.	Feeling intimacy	4.3	1.3	29.8	25.5	27.6
f.	Feeling that you do not disturb	11.7	11.7	30.9	21.3	24.5
g.	Interaction	2.1	10.6	27.6	28.7	30.9
h.	Feeling that social relationship is developed	6.4	12.8	24.5	27.6	28.7

Table 6: At the CGS how important is to you the following, when you communicate with your fellow students?

		Not at all %	Little %	Moderately %	Much %	Very much %
a.	Non verbal communication (e.g. eye contact, voice tone, posture etc.)	14.9	21.3	20.2	22.3	21.3
b.	The feeling of belonging to a group	7.4	10.6	25.5	24.5	31.9
c.	Expressing your feelings	11.7	11.7	28.7	25.5	22.3
d.	Feeling immediacy	4.3	6.4	28.7	33.0	27.6
e.	Feeling intimacy	5.3	6.4	25.5	30.8	31.9
f.	Feeling that you do not disturb	13.8	13.8	24.5	20.2	27.6
g.	Interaction	5.3	8.5	24.4	27.6	34.0
h.	Feeling that social relationship is developed	6.4	5.3	22.3	29.8	36.2

### *CMC between the CGS with their tutor and fellow students*

More than 80.0 % of the students considered the eight elements of social presence examined here important during CMC between the CGS both with their tutor (Table 7) and their fellow students (Table 8).

Table 7: How important is to you the following when you communicate with your tutor via PC?

		Not at all %	Little %	Moderately %	Much %	Very Much %
a.	To feel the tutor as a real person (see him, listen to him etc.)	14.9	12.8	31.9	21.3	19.1
b.	The feeling of belonging to a group	7.4	10.6	36.2	24.5	21.3
c.	Expressing your feelings	12.8	18.1	37.2	15.0	17.0
d.	Feeling immediacy	6.4	6.4	34.0	25.5	27.7
e.	Feeling intimacy	7.4	14.9	38.3	20.2	19.1
f.	Feeling that you do not disturb	9.6	13.8	22.3	26.6	27.6
g.	Interaction	5.3	13.8	33.0	20.2	27.6
h.	Feeling that social relationship is developed	5.3	16.0	30.9	23.4	24.5



Table 8: How important is to you the following when you communicate with your fellow students via PC?

		Not at all %	Little %	Moderately %	Much %	Very much %
a.	To feel them as a real person (see him, listen to him etc.)	13.8	12.7	27.6	22.3	23.4
b.	The feeling of belonging to a group	5.3	14.9	22.3	28.7	28.7
c.	Expressing your feelings	10.6	17.0	30.1	18.1	23.4
d.	Feeling immediacy	6.4	12.8	27.6	21.3	31.9
e.	Feeling intimacy	9.6	11.7	32.9	17.0	28.7
f.	Feeling that you do not disturb	10.6	17.0	24.5	14.9	33.0
g.	Interaction	5.3	8.5	28.7	24.5	33.0
h.	Feeling that social relationship is developed	10.6	3.2	26.6	25.5	34.0

A comparison of the answers of female and male students revealed that all eight elements of social presence were more important to women, both during face-to-face communication and CMC. The greatest differences between the responses of men and women concerned the expression of feelings and non-verbal communication (Table 9).

Table 9: Face-to-face communication with tutor. Percentage of students claiming that specific elements of social presence are “not important at all”

	Male students %	Female students %
Expressing their emotions	31.4	5.1
Non verbal communication	17.1	6.7

Table 10 shows the percentages of the “not at all” option regarding the importance of social presence’s elements during face-to-face communication with fellow students, while Table 11 shows the percentages of the “not at all” option regarding the importance of social presence’s elements during communication with the tutor via PC.

Table 10: Face-to-face communication with fellow students. Percentage of students claiming that specific elements of social presence are “not important at all”

	Male students %	Female students %
Expressing their emotions	25.7	11.9
Non-verbal communication	20.0	3.4

Table 11: CMC with tutor. Percentage of students claiming that specific elements of social presence are “not important at all”

	Male students %	Female students %
Expressing their emotions	22.9	6.8
Feel the other person as a real person	22.9	10.2

Concerning communication with their fellow students via PC, the respective percentages are presented in Table 12.

Table 12: CMC with fellow students. Percentage of students claiming that specific elements of social presence are “not important at all”

	Male students %	Female students %
Expressing their emotions	20.0	5.1
Feel the other person as a real person	22.9	8.5

The examination of a possible influence of the variable “level of the course” revealed no great differences. The only observation was that undergraduate students considered social presence slightly more important during face-to-face communication with their tutor, than when they communicate face-to-face with their fellow students. On the other hand postgraduate students did not do so.

### **Social presence and emotions**

Approximately 86.2 % of the students related the elements of social presence with positive emotions (joy, relief, satisfaction) while 48.9 % of the students did not relate them at all with negative feelings (stress, anxiety, isolation), both during face-to-face communication and during CMC.

### **Discussion and conclusions**

According to the findings of this study, communication with the tutor is important for students, since they often feel the need to contact their tutor in order to guide them in relation to the course material and in order to emotionally support them. Nevertheless, they seem a bit hesitant to do so. The importance of quality tutor-learner communication is underlined in several studies. According to Loizidou-Hatzitheodoulou et al. (2001), tutor-student communication is important in distance courses of the HOU, as CGS are held approximately every 2 months, which is a quite long time span. Students mainly search for their tutor to answer their queries about written assignments and emotionally support them. Holmberg (1995) focuses on the fact that regular tutor-student communication is essential on the grounds that it has a positive effect on students' motivation. At the same time, the attitude of tutors plays a significant role in encouraging students to contact them. Vassilou-Papageorgiou & Vassala (2005), in a study conducted with HOU students, concluded that students ask for friendly tutors that make learners feel at ease communicating with them. In this way, negative emotions such as loneliness and isolation are alleviated. Furthermore, taking into account that communication has been significantly facilitated due to the means provided by CMC, Wilson and Whitelock (1998) concluded that unfriendliness of the tutor, bad quality responses and slowness of replying to e-mails deterred students from contacting the tutor for help. Conrad (2005) highlights that the instructor's friendly attitude, reliability, promptness and immediacy are key factors that contribute to building a sense of community in distance learning courses.

On the other hand, students feel less the need to communicate with their peers. They do not seem willing to take initiative to communicate between them, although they believe that discussing with their fellow students contributes to finding answers to queries about written assignments as well as to alleviating negative feelings such as stress/anxiety and isolation, by enforcing their sense of community. According to Conrad (2005), course design is a main factor related to encouraging communication among learners. A carefully designed course including ground for asynchronous on-line discussion groups, venues for chats, forums, various group functions and lounge for social activities contributes significantly to promoting learner-learner communication and fostering community among students. Anderson and Dron (2011) suggest

that there are three different generations/models of distance education pedagogy, with a different relationship between the prime actors (i.e. teacher, student and content) playing the critical role in each one (for example, student-student interaction is celebrated in connectivist pedagogies). The authors stress that the availability of technologies to support different models of learning strongly influences what kind of model can be developed. Tzoutza (2010), in a study about the perception of CGS by tutors and postgraduate students of HOU, highlights the importance of promoting tutor-student and student-student communication via synchronous and asynchronous CMC such as teleconferences, e-mails, chats and forums between CGS in the framework of HOU. The restricted communication as well as their hesitance to communicate with their peers may also be related to the low perceived value attributed to student-student communication by students (Loizidou-Hatzitheodoulou et al., 2001) or to the students' temperament (Tait, 2003). According to Wilson and Whitelock (1998), the limited student-student communication as compared to student-tutor communication, is quite frequently observed in distance learning courses.

The results of this study suggested that students prefer to communicate mainly via e-mail. This is in accordance with the research of Kelsey and D'souza (2004) where the students communicate mainly via e-mail as they consider it as the most suitable means for simple and brief communication. Face-to-face communication is considered to be an important means of communication, highlighting the fact that students consider it essential in the framework of a distance learning course (Loizidou-Hatzitheodoulou et al., 2001; Wilson and Whitelock, 1998; Anastasiades & Iliadou, 2010; Tzoutza, 2010). Conrad (2005) in her study on the development of learners' sense of community in a blended course, also concludes that face-to-face interaction was considered as a benchmark of communication for the group of learners, despite the robustness of the group's online community, as meeting fellow students contributed to the health of the learning community. On the contrary, means of communication such as the portal of HOU, chats and forums are not popular with the students, although their majority claimed that they were familiar with communicating via computers and that they possessed the necessary equipment. This is probably linked to the fact that forms of synchronous or asynchronous CMC, such as teleconferencing or online discussion groups, are not an integral part of the course design in the framework of HOU courses. It appears that the HOU follows a more traditional distance education approach, which values independence and autonomy over collaborative discourse. The latter is in the centre of new approaches such as the community of inquiry framework, which is based on the online learning perspective (e.g. Garrison, 2009; 2011).

Students in the present study experience all the positive emotions which are suggested in the literature (Hara & Kling, 1999; O'Reegan, 2003; Zembylas, 2008; Zembylas, Theodorou & Pavlakis, 2008) as important for distance learning students. These emotions are linked with the admission to the course, the flexibility of the distance learning methodology, the in-time accomplishment of written assignments, the effective communication with the tutor and the support that students receive from the tutor. Furthermore students who took part in this study experienced often and intensely almost all the negative emotions described by O'Reegan (2003), Zembylas (2008), Zembylas, Theodorou and Pavlakis (2008) and Hurd and Xiao (2010). Such feelings are mainly associated to the unknown for students methodology of distance learning, the requirements of the course, the familial, professional and social responsibilities of the students as well as to the difficulties stemming from using technological tools.

A finding that appears to be quite surprising is that half of the students stated that they never experience isolation. According to the literature (e.g. O'Reegan, 2003; Zembylas, 2008; Hurd & Xiao, 2010; Keegan, 1986; Holmberg, 1995) students of distance courses often experience the emotion of loneliness and isolation due to geographical distance, lack of personal contact and due to the fact that they should meet the requirements of the course mainly on their own. The response of half of the students that they do not experience isolation could be attributed to the

fact that 68.1 % of the students had already successfully accomplished at least one course module by the time the research took place. Consequently the methodology of distance learning was familiar to them. Moreover the development of emotional and social links through several types of communication, including face-to-face, reduces the intensity of negative feelings (Zembylas, 2008; Zembylas, Theodorou & Pavlakis, 2008). Rovai and Wighting (2005) and O'Regan (2003) stress that being familiar with the methodology of distance learning as well as enforcing quality student-tutor and student-student communication relieves intense negative sentiments.

A comparison between male and female students' answers suggest that women seem to be more prone to negative feelings, especially stress and anxiety. Female students are considered to experience higher levels of stress and anxiety mainly due to the particular social, familial and professional challenges that they face as well as to their increased need for personal contact and preference for face-to-face meetings (Zembylas, 2008; Müller, 2008; Moss, 2004).

The results also suggest that positive feelings do not motivate students to contact their tutor, while negative feelings motivate them to do so. After contacting their tutor, students mainly feel more intensely relief and satisfaction. Communication with their tutor alleviates the intensity of negative emotions. This is due to the emotional, academic and psychological support the students get from their tutor. The above findings show the significance of the tutors' role in distance education courses regarding the students' need for support. This is in agreement with findings of other studies that focus on the demanding and multifaceted role of tutors in distance learning and online learning environments (Holmberg 1995; Mills & Tait, 1996; Rowntree, 1998; Conrad, 2005; Loizidou-Hatzitheodoulou et al., 2001; Anastasiades & Iliadou, 2010). Un-doubtedly, this is also related to the discussion on the model of distance education pedagogy followed and the technology used to support it (Anderson & Dron, 2011).

As far as student-student communication is concerned, the main emotions that motivate students to contact their peers are enthusiasm among the positive feelings and stress/anxiety among the negative ones. After communicating with their fellow students, they feel relief more intensely while isolation is felt less intensely, as they realize that they have common difficulties and that they can cooperate and share their anxiety. Communication among peers seems to be a really important factor that contributes to the emotional well being of the learners in distance learning courses. Therefore it should be promoted and reinforced by tutors as well as by the distance learning provider (Loizidou-Hatzitheodoulou et al. 2001; Conrad, 2005; Tzoutza, 2010).

Social presence seems to be rather important for students both during face-to-face meetings and in CMC, where it is considered rather important both for tutor-student and student-student communication. This is consistent with findings of other studies examining the significance of social presence for students who attended distance learning or blended courses (Richardson & Swan, 2003; Aragon, 2003; Johnson, Hornik & Salas, 2007; Wilson & Whitelock 1998). Garrison (2011) also highlights the role of social presence in online distance learning and suggests that it is an essential construct in a collaborative constructive approach to learning.

The results also suggest that social presence is associated with the positive emotions of enthusiasm, satisfaction and relief both during face-to-face communication and CMC, but more during CMC. This confirms the significance of social presence in communication via PC. Richardson and Swan (2003), Johnson et al. (2007), Tu (2001) and Gunawardena and Zittle (1997) observed that social presence in online distance learning or blended courses is linked with positive feelings and mainly with the satisfaction that students get from the course and the tutor.

Furthermore, the results suggest that social presence is much more significant to women rather than men, in particular the elements of “expression of emotions” and “non-verbal communication” which is demonstrative of the more emotional character of women (Muller, 2008; Zembylas, 2008; Rovai, 2002; Blum, 1999). The answers of women show that they consider social presence rather important in CMC, which is in agreement with the work of Cyr et al. (2007), Richardson and Swan (2003) and Baskin and Henderson (2005), highlighting the intense need of women for quality communication in distance learning courses.

Social presence during face-to-face communication and CMC is similarly important for postgraduate and undergraduate students, since there are no significant differences comparing answers of postgraduate students to those of undergraduate ones. A difference is observed only in the case of social presence in face-to-face communication with the tutor, where undergraduate students tend to consider it more important than postgraduate students do. Although there is no clear reason behind this deviation, it could be partly attributed to the fact that undergraduate students feel closer and more dependent on their tutor as they had attended conventional high school classes based on tutor-centred methods of education. Yet such assumptions should be investigated through further research.

It should be noted here that there were certain restrictions that might have influenced the findings of this study. The restricted number of students who took part in the research and the duration of the study is one of the study's main limitations. In this respect, a larger number of participants would enable further investigation of the relation between parameters such as the level of the course on one hand and emotions, perception of social presence and communication on the other. Finally, other factors affecting the expression of students' emotions, such as the social context, time constraints and personal commitments of students, could be further studied.

To conclude, communication and social presence not only are directly associated with emotions but they are also considered significant by the students, as far as their emotional state is concerned. Promoting as well as facilitating quality communication has a positive effect on students' psycho-emotional state, reinforcing their positive emotions and alleviating the negative ones. This is consistent with other studies examining emotions in online learning courses (Zembylas, 2008; Zembylas, Theodorou & Pavlakis 2008; Pavlakis & Kaitelidou, 2012). Consequently, issues related to inclusion or to the psycho-emotional state of the students in combination with communication and collaborative learning environments are significant, and therefore should be subject of further research in HOU.

Fostering tutor-student communication as well as student-student communication could be further encouraged, not only by tutors but also by the distance learning provider (in this case HOU), for example by setting up courses where learner-learner and tutor-learner discussions are integral part of the course. According to Garrison (2009) distance education has not fully embraced the collaborative potential of online learning and therefore there is a need for distance education to further address issues of collaboration and community. Such issues could also be further addressed in HOU, both regarding research and educational practice. Finally, taking into consideration the particular and complex role of tutors in online distance learning or blended courses, one priority of the educational organization should be to train tutors so that they can develop the necessary communication skills.

## References

1. Anastasiades, P. and Iliadou, C. (2010). Communication between tutors-students in DL. A case study of the Hellenic Open University. In *European Journal of Open, Distance and E-learning, 2010/II*. Retrieved on 10 April 2012 from: [http://www.eurodl.org/materials/contrib/2010/Panagiotis\\_Chrysoula.pdf](http://www.eurodl.org/materials/contrib/2010/Panagiotis_Chrysoula.pdf)
2. Anderson, T. and Dron, J. (2011). Three generations of distance education pedagogy. In *International Review of Research in Open and Distance Learning, 12(3)*, (pp. 80-97). Retrieved on March 19, 2013 from: <http://www.irrodl.org/index.php/irrodl/article/view/890/1663>
3. Aragon, R.S. (2003). Creating social presence in online environments. In *New Directions for Adult & Continuing Education, 100*, (pp. 57-68).
4. Baskin, C. and Henderson, M. (2005). Ariadne's Thread: using social indices to distinguish events in face-to-face & ICT-rich settings. In *E-learning, 2(3)*, (pp. 252-261).
5. Blum, K.D. (1999). Gender Differences in Asynchronous Learning in Higher Education: Learning Styles, Participation Barriers & Communication Patterns. In *Journal of Asynchronous Learning Networks, 3(1)*, (pp. 68-88). Retrieved on October 22, 2010 from: [http://eec.edc.org/cwis\\_docs/NEWS\\_ARTICLES\\_JOURNALS/gender%20differences%20in%20asynchronous%20learning.htm](http://eec.edc.org/cwis_docs/NEWS_ARTICLES_JOURNALS/gender%20differences%20in%20asynchronous%20learning.htm)
6. Conrad, D. (2005). Building and Maintaining Community in Cohort-Based Online Learning. In *Journal of Distance Education, 20(1)*, (pp. 1-20).
7. Cohen, L.; Manion, L. and Morrison, K. (2007). *Research Methods in Education*. 6th edition. Routledge.
8. Cyr, D.; Hassanein, K.; Head, M. and Ivanov, A. (2007). The role of social presence in establishing loyalty in e-Service environments. In *Interacting with Computers, 19*, (pp. 43-56).
9. De Wever, B.; Van Keer, H.; Schellens, T. and Valcke, M. (2007). Applying multilevel modelling on content analysis data: Methodological issues in the study of the impact of the role assignment in asynchronous discussion groups. In *Learning and Instruction, 17*, (pp. 436-447).
10. Dirkx, J.M. (2001). The power of feelings: Emotions, imagination & the construction of feelings in adult learning. In *New Directions for Adult & Continuing Education, 89*, (pp. 63-72).
11. Dirkx, J.M. (2006). The meaning & role of emotion in adult learning. In *New Directions for Adult & Continuing Education, 120*, (pp. 27-34).
12. Francescato, D.; Porcelli, R.; Mebane, M.; Cuddetta, M.; Klobas, J. and Renzi, P. (2006). Evaluation of the efficacy of collaborative learning in face to face and computer supported university contexts. In *Computers in Human Behavior, 22*, (pp. 163-176).
13. Garrison, D.R. (2009). Implications of online learning for the conceptual development and practice of distance education. In *Journal of Distance Education, 23(2)*, (pp. 93-104).
14. Garrison, D.R. (2011). *E-Learning in the 21st century: A framework for research and practice*. (2nd ed.). London: Routledge/Taylor and Francis.
15. Garrison, D.R.; Anderson, T. and Archer, W. (2000). Critical Inquiry in a text based environment: Computer conferencing in higher education. In *The Internet & Higher Education, 2(2/3)*, (pp. 87-105).
16. Garrison, D.R. and Arbaugh, J.B. (2007). Researching the community of inquiry framework: Review, issues & future directions. In *The Internet & Higher Education, 10(3)*, (pp. 157-172).

17. Giossos, I.; Mavroidis, I. and Koutsouba, M. (2008). Research in distance education: review and perspectives. In *Open Education*, 4(1), (pp. 49-60). (In Greek with English abstract).
18. Gunawardena, C.N. and Zittle, F.J. (1997). Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. In *The American Journal of Distance Education*, 11(3), (pp. 8-26).
19. Gunawardena, C.N. and McIsaac, M.S. (2004). Distance Education. In D.H. Jonassen, (ed.), *Handbook of research for educational communications & technology*, (pp. 355-395). 2nd Edition. London: Lawrence Erlbaum Associates.
20. Hara, N. and Kling, R. (1999) Students' frustrations with a web-based distance education course. In *First Monday*, 4(12). Retrieved on December 7, 2010 from: <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/710/620>
21. Hara, N. and Kling, R. (2003). Students' distress with a web-based distance education course: An ethnographic study of participants' experiences. In *Turkish Online Journal of Distance Education*, 4(2). Retrieved on December 9, 2010 from: <http://tojde.anadolu.edu.tr/tojde10/articles/hara.htm>
22. Holmberg, B. (1995). *Theory and practice of distance education*. London: Routledge.
23. Hurd, S. and Xiao, J. (2010). Anxiety & Affective Control among Distance Language Learners in China & the UK. In *RELC Journal*, 41(2), (pp. 183-200). Retrieved on December 7, 2010 from: <http://rel.sagepub.com/content/41/2/183.full.pdf+html>
24. Jonhson R.D.; Hornik, S. and Salas, E. (2007). An empirical examination of factors contributing to the creation of successful e-learning environments. In *International Journal of Human Computer Studies*, 66, (pp. 356-369).
25. Jones, A. and Issroff, K. (2005). Learning technologies: Affective and social issues in computer supported collaborative learning. In *Computers and Education*, 44(4), (pp. 395-408).
26. Keegan, D. (1986). *The foundations of distance education*. London Routledge.
27. Kelsey, K. and D'souza, A. (2004). Student Motivation for learning at a Distance: Does Interaction Matter? In *On line Journal of Distance Learning Administration*, 7(2). Retrieved on December 7, 2010 from: <http://www.westga.edu/~distance/ojdla/summer72/kelsey72.html>.
28. Loizidou-Hatzitheodoulou, P.; Vasala, P.; Kakouris, A.; Mavroidis, I.; Tassios, T. (2001). Types of communication in distance learning and their contribution to the educational process. The case of the students of the postgraduate module "Open and Distance Education" of HOU. *Proceedings – 1st Panhellenic Conference for Open and Distance Education* (in Greek with English abstract).
29. Mills, R. and Tait, A. (eds) (1996). *Supporting the learner in open & distance learning*. London: Pitman Publishing.
30. Moss, D. (2004). Creating space for learning: Conceptualising women & higher education through space & time. In *Gender & Education*, 16(3), (pp. 283-362).
31. Müller, T. (2008). Persistence of Women in Online Degree Completion Programs. In *International Review of Research in Open & Distance Learning*, 9(2), (pp. 1-18).
32. O' Reegan, K. (2003). Emotion & E-learning. In *Journal of Asynchronous Learning Networks*, 7(3), (pp. 78-92).
33. Pavlakis, A. and Kaitelidou, D. (2012). Burnout Syndrome in Students of a Distance Learning Program: The Open University of Cyprus Experience. In *European Journal of Open, Distance and E-learning*, 2012/I. [http://www.eurodl.org/materials/contrib/2012/Pavlakis\\_Kaitelidou.pdf](http://www.eurodl.org/materials/contrib/2012/Pavlakis_Kaitelidou.pdf)

34. Richardson, C.J. and Swan, K. (2003). Examining social presence in online courses in relation to students' perceived learning & satisfaction. In *Journal of Asynchronous Learning Networks*, 7(1), (pp. 68-88).
35. Rovai, A.P. (2002). Building Classroom Community at a Distance: A Case Study. In *Educational Technology Research & Development*, 49(4), (pp. 33-48).
36. Rovai, A. and Wighting, M. (2005). Feelings of alienation & community among higher education students in a virtual classroom. In *The Internet & Higher Education*, 8, (pp. 97-100).
37. Rowntree, D. (1998). *Exploring Open & Distance Learning*. London: Kogan Page.
38. Schellens, T. and Valcke, M. (2006). Fostering knowledge construction in university students through asynchronous discussion groups. In *Computers & Education*, 46(4), (pp. 349-370).
39. Shuck, B.; Albornoz, C. and Winberg, M. (2007). Emotion & their effect on adult learning. A constructivist perspective. In S. M. Nielsen & M.S. Plakhotnik (eds.), *Proceedings of the Sixth Annual College of Education Research Conference: Urban & International Education Section*, (pp. 108-113). Miami: Florida International University.
40. So, H.J. and Brush, T.A. (2008). Student perceptions of collaborative learning, social presence & satisfaction in a blended learning environment: Relationships & critical factors. In *Computers & Education*, 51, (pp. 318-336).
41. Stribos, J.W. and Fischer, F. (2007). Methodological challenges for collaborative learning research. In *Learning and Instruction*, 17(4), (pp. 389-393).
42. Tait, A. (2003). Reflection on Student Support in Open & Distance Learning. In *The International Review of Research in Open & Distance Learning*, 4(1). Retrieved on February 2, 2011 from: <http://www.irrodl.org/index.php/irrodl/article/viewArticle/134/214>
43. Tu, C.H. (2001). How Chinese perceive social presence an examination of in an online learning environment. In *Educational Media International*, 38(1), (pp. 45-60).
44. Tu, C.H. (2002). The relationship between social presence & on line privacy. In *The Internet & Higher Education*, 5, (pp. 293-318).
45. Tzoutza, S. (2010). Face-to-face tutorials: The views of postgraduate students and their tutors at the Hellenic Open University. The case of postgraduate course on "Open and Distance Education" at Hellenic Open University. In *Open Education*, 6(1,2), (pp. 46-65). (In Greek with English abstract).
46. Vassilou-Papageorgiou, V. and Vassala, P. (2005). The support of postgraduate students in DL: what students need and what tutors think. In Lionarakis A. (ed.), *Proceedings of 3rd International Conference of Open and Distance Learning, Vol. A*. Athens: Propompos (in Greek with English abstract).
47. Wilson, T. and Whitelock, D. (1998). What are the perceived benefits of participating in a computer-mediated communication (CMC) environment for distance learning computer science students? In *Computers & Education*, 36(3/4), (pp. 259-269).
48. Zembylas, M. (2008). Adult learners' emotions in online learning. In *Distance Education*, 29(1), (pp. 71-87).
49. Zembylas, M.; Theordou, M.; Pavlakis, A. (2008). The role of emotions in the experience of on line learning: challenges and opportunities. In *Educational Media International*, 45(2), (pp. 107-117).