

Impact Of Information Communication Technology And Social Presence

On Adult Learners' Emotions In Distance Learning Programme,

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Abstract

The study examined impact of information communication technology and social presence on adult learners' emotions in distance learning programme, University of Ibadan, Nigeria. One thousand, nine hundred and eighty-four (1,984) respondents were selected from the University of Ibadan distance learning centre, Ibadan, Nigeria through purposive sampling technique. An instrument tagged Information Communication Technology and Social Presence on Adult Learners' Emotions Scale' (ICTSPALES) with $r = 0.91$ was used to obtain data for the study. Two hypotheses were postulated and data was analysed using Pearson Product Moment Correlation (PPMC). Results showed that there was significant relationship between information communication technology and adult learners' emotions in distance learning, University of Ibadan ($r = .705$; $P < 0.05$). Also, there was significant relationship between social presence and adult learners' emotions in distance learning, University of Ibadan ($r = .537$; $P < 0.05$). Therefore, the study recommended that distance education should further address issues of collaboration and community in order to fully embrace the collaborative potential of online learning and as well train tutors to develop the necessary communication skills, which would help them in online distance learning or blended courses.

Keywords: Information Communication Technology, Social Presence, Adult Learners' Emotion, Distance Learners

Introduction

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

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 and 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 Open Distance Learning (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) mentioned 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 and 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 and 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 and Brush (2008) as well as Richardson and 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 and 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 and Brush (2008) noted 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) concluded that there are no significant differences regarding the students' perception of social presence, satisfaction and cooperation between face to face and distance learning environments.

Taking into consideration the importance of social presence in the framework of distance education and the fact that there are no previous studies examining information communication technology and social presence in association with emotions in the framework of distance learning, University of Ibadan, this study seeks to identify the way information communication technology affects adult distance learners emotionally and intellectually as well as the relationship between information communication technology and social presence on one hand and learners emotional well being on the other by providing answers to the following hypotheses:

Ho1: There is no significant relationship between information communication technology and adult learners' emotions in distance learning, University of Ibadan.

Ho2: There is no significant relationship between social presence and adult learners' emotions in distance learning, University of Ibadan.

Literature Review

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. Students mainly search for their tutor to answer their queries about written assignments and emotionally support them. Holmberg (1995) focused 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.

Moreover, Vassilou-Papageorgiou and Vassala (2005) posited that students ask for friendly tutors that make learners feel at ease when 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) highlighted 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 among 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 online 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. 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) highlighted the importance of promoting tutor-student and student-student communication via synchronous and asynchronous CMC such as teleconferences, e-mails, chats and forums in distance learning programme. 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 or to the students' temperament (Loizidou-Hatzitheodoulou et al., 2001; 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.

However, students prefer to communicate mainly via e-mail. This is in accordance with the research of Kelsey and D'souza (2004) who found 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 (Wilson and Whitelock, 1998; Loizidou-Hatzitheodoulou et al., 2001; 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.

According to O'Reegan (2003), Zembylas (2008) and Hurd and Xiao (2010), 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. Moreover the development of emotional and social links through several types of communication, including face-to-face, reduces the intensity of negative feelings. Rovai and Wighting (2005) and O'Regan (2003) stressed that being familiar with the methodology of distance learning as well as enforcing quality student-tutor and student-student communication relieves intense negative sentiments. 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.

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). Also, Garrison (2011) highlighted the role of social presence in online distance learning and suggested that it is an essential construct in a collaborative constructive approach to learning. The result also suggested 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. In the same vein, Richardson and Swan (2003) and Johnson et al. (2007) 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.

Methodology

The descriptive survey research design was adopted for this study. The population comprised students of the distance learning centre, University of Ibadan, Nigeria. The sample size comprised of one thousand, nine hundred and eighty-four (1984) respondents selected through purposive sampling technique. An instrument tagged ‘Information Communication Technology and Social Presence on Adult Learners’ Emotions Scale’ (ICTSPALES) with $r = 0.91$ was used to obtain data for the study. Data collected were analysed using Pearson Product Moment Correlation (PPMC).

Data Analysis

The result of the data analysed are presented below.

H₀₁: There is no significant relationship between information communication technology and adult learners’ emotions in distance learning, University of Ibadan.

Table 1: Correlation Showing the Relationship between Information Communication Technology and Adult Learners’ Emotions in Distance Learning, University Of Ibadan

Variable	Mean	Std. Dev.	N	R	P	Remark
Information Communication Technology	19.0685	3.1309	1984	.705	.000	Sig.
Adult Learners’ Emotions	34.9924	5.1374				

Sig. at $P < 0.05$; $r = .705$

Table 1 above shows that there was significant relationship between information communication technology and adult learners’ emotions in distance learning, University of Ibadan ($r = .705$; $P < 0.05$). This implies that information communication technology is important in learning situation as it supports the adult learners emotionally.

H₀₂: There is no significant relationship between social presence and adult learners' emotions in distance learning, University of Ibadan.

Table 2: Correlation Showing the Relationship between Social Presence and Adult Learners' Emotions in Distance Learning, University Of Ibadan

Variable	Mean	Std. Dev.	N	R	P	Remark
Social Presence	19.0685	3.1309	1984	.537	.000	Sig.
Adult Learners' Emotions	30.2702	4.0076				

Sig. at $P < 0.05$; $r = .537$

Table 2 above shows that there was significant relationship between social presence and adult learners' emotions in distance learning, University of Ibadan ($r = .537$; $P < 0.05$). This implies that social presence is fundamental element of distance education since it is directly related to learning process as well as learners' emotions.

Discussion of Finding

The result of the first hypothesis revealed that there was significant relationship between information communication technology and adult learners' emotions in distance learning, University of Ibadan. 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). Also, Conrad (2005) affirmed that face-to-face interaction was considered as a benchmark of communication for 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 distance learning centre, University of Ibadan, chats and forums are not popular with the students, although few of the learners 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 distance learning centre, University of Ibadan.

It appears that the distance learning centre, University of Ibadan 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 ([Garrison, 2009; 2011](#)). 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; Anastasiades & Iliadou, 2010](#)).

Un-doubtfully, 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 ([Conrad, 2005; Tzoutza, 2010](#)).

The second hypothesis showed that there was significant relationship between social presence and adult learners' emotions in distance learning, University of Ibadan. 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](#)). Also, [Garrison \(2011\)](#) highlighted the role of social presence in online distance learning and suggested that it is an essential construct in a collaborative constructive approach to learning. The results also suggested 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.

Conclusion and Recommendations

Information communication technology (ICT) 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. 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 University of Ibadan Distance Learning. 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, for example by setting up courses where learner-learner and tutor-learner discussions are integral part of the course. Based on the aforesaid, the study recommended that:

- There is the need for distance education to further address issues of collaboration and community since distance education has not fully embraced the collaborative potential of online learning.
- The priority of the educational organizations should be to train tutors so that they can develop the necessary communication skills, which would help them in online distance learning or blended courses.

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