

Psychosocial Well-Being and Attitudes toward E-Learning

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Abstract

This paper investigates the correlation between students' attitudes toward e-learning and their perceived self-esteem and loneliness at the last stage of their online learning experience. For this study one hundred and twenty Israeli students were asked to complete a questionnaire. The students were enrolled in three fully online academic courses, which were similar in their instructional design approach although different in content. The results find that there is a correlation between high self-esteem and positive attitudes toward e-learning in general and toward online interaction with the instructor in particular. The findings further suggest that there is no correlation between loneliness and student attitudes toward e-learning. Building on these results, we hope to contribute to students' related research by further exploring the correlation between student personality traits and the student's e-learning preferences.

Keywords: attitudes toward e-learning, perceived well-being, fully online courses.

Introduction

The use of the Internet is becoming increasingly influential in our daily life. Internet technology is developing at an astounding rate. The pace and scale of these changes for the whole of society are such that this phenomenon has been compared to the 'Industrial Revolution' of the nineteenth century and dubbed The 'Internet Revolution' (Amichai-Hamburger, 2002).

The educational arena is not an exception. The e-learning revolution, with the implementation of the Internet in the learning process, is here and now (Moore & Kearsley, 2005). For our purposes, e-learning is defined as an interactive teaching-learning process in which at least part of it is done online by means of text/audio/video (Kurtz, Sagee, & Getz-Lengerman, 2003).

With the growth of online courses, ensuring success of students in the online classroom has become more critical than ever. Much research has been done on online students' perceptions, satisfactions, motivation, cognitive and learning styles, and how these factors influence student achievements in online courses. (see for example: Fahy & Ally, 2005; Young, 2006; Bates & Khasawneh, 2007; Offir, Bezalel, & Barth, 2007). Research also shows that personality traits are highly relevant factors in determining student behavior on the Internet (Amichai-Hamburger & Beb-Arzhithat, 2003). Based on the latter, we propose that the personality traits of perceived self-esteem and loneliness are relevant factors in determining students' attitudes toward online learning.

This paper investigates the correlation between the perceived self-esteem and loneliness of Israeli students – in their last phase of learning in fully online courses – with the students' attitudes toward e-learning and their preferred mode of learning. The analysis focuses on three undergraduate online courses similar in their instructional design approach but different in content: two courses are on the topic of *quantitative research*, and one is on *state and government in Israel*.

The Internet in its Psychological Context

The Internet creates a unique psychological environment for the online surfer. McKenna, Green, & Gleason (2002) suggest four major factors that differentiate Internet interactions from face-to-face interactions:

(1) *Greater anonymity* – On the Internet, people can easily maintain their anonymity. This feeling of anonymity frees people from social norms and encourages them to express themselves and behave more freely and sincerely than they would normally in face-to-face interactions.

(2) *Diminution of the importance of physical appearance* – Physical appearance is one of the focal determinants of how we are perceived by others (Fiske & Taylor, 1991). In an online environment, people are freed from being appraised by others based on physical characteristics. This freedom may help them form a new basis for their interaction with others and help strengthen their self-image and self-confidence.

(3) *Greater control over the time and pace of interactions* – One of the unique facets of Internet communication is that, for the participant, the whole encounter is taking place in an environment of his or her choosing, and this may be a source of security and comfort. Thus, the Internet user is able to go out to meet the world from his/her living room. Another source of security comes from the opportunity Internet users have to review their statements before sending them. This type of thought and review process does not exist in face-to-face encounters because they take place in real-time. This progression of writing and then reviewing it on the screen creates a higher self-awareness, since the writer observes him/herself as an object (Duval & Wicklund, 1972).

(4) *Finding similar others* – The need to belong is listed as one of the significant needs in Maslo's (1971) Hierarchy of Needs. Being a member of a group that shares your goals and interests is likely to enhance self-esteem (Tajfel & Turner, 1986), which is believed to be very important for well-being (Branden, 1969).

Research Questions/Hypotheses

In conducting the research presented in this paper, two hypotheses were proposed:

1. Students with low self-esteem will be associated with positive attitudes toward online learning and a greater preference for online learning as compared to those students with high self-esteem.
2. Lonely students, when compared to students who are less lonely, will express positive attitudes toward online learning and will choose online learning as their preferred mode of learning – over face-to-face.

Method, Participants, and Analysis

In summer 2007, one hundred and twenty Israeli students completed questionnaires while attending a face-to-face meeting a few days before the final exam. The students were enrolled in three fully online undergraduate courses.

The students were not required to attend this face-to-face meeting. This fact explains the relatively small sample of students: 19% of all students enrolled in the three courses.

Statistical analysis revealed no significant differences between the students in the three courses in regards to personal traits or in attitudes toward e-learning. The no-significant difference result led us to the decision to refer to the 120 students as a unified group.

Results

Students' background variables

Most respondents to the questionnaire were female (72.8 %), 27.2% male; 62.5% married and 35.7% singles; more than 60% of the students stated that their family income is average compared to the general or above the general; about 50% under the age of 30, ranging in ages from 21 to 57 ($M=32.8$, $SD=8.88$); for half of the students the course was their first online course.

State self-esteem and attitudes toward e-learning

Self-esteem was measured using Heatherton & Polivy's (1991) State Self-Esteem Scale (SSES). This scale consists of 20 positive and negative statements about one's self-concept, ranking from 1-lowest (negative) to 5-highest (positive).

The attitudes toward Online-Learning Scale (OLS) was adapted from research by Kurtz, Sagee & Getz-Lengerman (2003). The OLS consists of 14 items examining aspects of beliefs, preferences, and satisfaction – all related to online learning and ranking from 1-lowest (negative) to 5-highest (positive). In addition, students were asked to state their preferred mode of learning: (1) only face-to-face; (2) only online; (3) blended (i.e., face-to-face and online), or (4) no preference. This question served as a concluding question that summarized the OLS items.

Pearson correlation conducted between SSES and OLS revealed a positive relationship between the scales ($r=+.33$, $p=0.00$, $n=110$). This result indicates that students with high self-esteem are more likely to express positive attitudes about online learning.

To further examine the correlation between the two indices, we divided both indices into factors. Based on Kurtz, Sagee & Getz-Lengerman (2003) we divided the OLS into two factors. The first factor was *attitudes toward online learning in general factor* (accounted variance = 43.1%, $M=3.4$, $SD=0.76$). The second factor was *attitudes toward the course in regard to the interaction with the instructor factor* (accounted variance = 13.4%, $M=2.5$, $SD=0.93$).

Although Heatherton & Polivy (1991) identified three factors within the SSES, we found only one factor with a single value greater than .5, which was the *performance self-esteem factor* (coefficient alpha of .69). The mean score of the *performance self-esteem factor* was 4.2 ($SD=0.60$).

Pearson correlation shows that the *performance self-esteem factor* is highly and positively correlated with the *attitudes toward online learning in general factor* ($r=+0.38, p<0.01, n=113$), but that there is no significant correlation with the *interaction with the instructor factor*. These results provide additional empirical support for the tendency that students with high self-esteem are more likely to express positive attitudes toward online learning

The association between the SSES and the preferred mode of learning reveals a significant correlation between the variables (chi-square=112.73, $df=118, p<0.04$). There was also a significant correlation of the SSES with the students who prefer an online mode of learning ($n=11$) and students who prefer face-to-face learning ($n=25$) ($t=-1.638, df=31, p<0.1$). These results indicate that students who prefer an online mode of learning are likely to rate themselves as having a higher self-esteem than those students who prefer learning face-to-face.

Overall, we did not find support for the first hypothesis, where it was expected that low self-esteem is associated with positive attitudes toward online learning and a greater preference for online learning as compared to students with high self-esteem. Instead, the results indicate that self-esteem is positively related to attitudes toward online learning, and those students who exhibit high self-esteem have a greater preference for online learning.

Loneliness and Attitudes Toward E-learning

Student loneliness was measured using the revised UCLA Loneliness Scale from Russell, Peplau, & Cutrona (1980). The UCLA scale contains 20 positive and negative statements about one's social relations. Participants rated each statement according to applicability using a 4-point scale from *not at all* (1) to *very much* (4).

Pearson correlation between loneliness and OLS did not reveal a significant relationship between the variables. Also, the chi-square test between the UCLA Loneliness Scale and the students' preferred mode of learning did not reveal a significant correlation between the variables.

Overall, the second hypothesis was not substantiated, i.e., no correlation was found between student loneliness and student attitudes toward e-learning and preferred mode of learning.

Discussion

The current paper investigated the correlation of the psychosocial well-being of students in the last stage of their learning in online courses, with the students' attitudes toward e-learning. Two hypotheses were proposed, and both were not substantiated. The results for the first hypothesis revealed a correlation, but not in the expected direction. Students' self-esteem was positively related to attitudes toward online learning and a greater preference for online learning. As for the second hypothesis – no significant relationship between student loneliness and attitudes toward e-learning and preferred mode of learning were found.

We suggest two possible explanations for these unexpected results. The first is that learning as a process requires a specific set of intellectual skills. Furthermore, for the innovative online learning process to be successful, one also needs a set of technological skills. Lacking the required technical skills can be a source of computer anxiety (Loyd & Gressard, 1984) and even become a barrier to learning (Cheurprakobkit, Hale, & Olson, 2002). Those students must invest extra effort in learning the necessary technology skills while being expected to simultaneously master new course content. Online learning requires access and know-how. We can assume that some of the students did not feel confident with both sets of skills. This may be why we found

that students with high self-esteem tended to express positive attitudes toward e-learning and prefer the online mode of learning, while students with low self-esteem tended to express negative attitudes. The second explanation could be that the instructional design of the online courses did not allow for much student control over the learning process nor did it allow students to maintain their anonymity within the learning process. Students were requested to participate in class discussions/assignment within specific dates, and the instructor could track their activities at any time in class. This explanation can help us better understand why the second hypothesis was not substantiated.

Recommendations for Future Research

We do not intend to generalize these results to a wider population. However, our participants offered us food for thought, providing unexpected correlations – and no correlation. It is vital to extend the research to a comparative study with a control group that will study the same content but in the traditional method, e.g., face-to-face. It would also be advisable to extend the research to broadly include representative groups of students who differ in their psychological traits, phase of study, and internet experience. Also, **longitudinal** research that samples the same students at different points in time is needed for identifying trends and changes in psychosocial well-being and attitudes toward e-learning.

Finally, it is also vital to extend this research to courses with different instructional design than the one presented here. For example, researching online courses that allow greater control over the learning process and emphasize collaborative work and personal contribution, while at the same time offer students the possibility to maintain their anonymity.

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