

The Role of Demographic and Personal Variables on the Palestinian Students' Perceptions of a Blended Learning English Class

أثر بعض العوامل الديمغرافية على تصورات وأداء الطلبة الفلسطينيين في مساق لغة إنجليزية مدمج

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Abstract

This paper aimed at investigating Hebron University students' perceptions towards blended learning environment. Specifically, the study aimed to examine their attitude to the blended learning process as correlated to their gender, number of hours spent online, and anxiety. Moreover, it examined if there is a relationship between frequency of participation and attitude. In addition, it examined if there is a correlation between frequency of participation and performance in a blended learning course. The study was conducted in the second semester of the academic year 2009/2010. It included (74) students enrolled in a blended integrated language skills course offered at the English Department at Hebron University, Palestine. A questionnaire was designed to measure the students' perceptions towards blended learning which consisted of three attitudinal domains: convenience, perceptions, and online activities. The final grade of the students in the course is used to see if there is correlation between participation and grade. The findings revealed that there were no significant relationships between the three attitudinal domains and gender. However, there were significant relationships between the three attitudinal domains and anxiety as well as the number of hours spent online for academic purposes. Moreover, there were

significant differences in the students' positive attitudes due to the frequency of online participation. The more frequently the students sent messages, the more positively they viewed the process. Finally, a positive correlation was found between frequency of participation as reflected by the number of sent e-mails and the final grade.

Key words: blended learning, anxiety, gender, participation, e-mail, performance.

ملخص

تهدف هذه الدراسة إلى استطلاع تصورات الطلبة عن فعالية استخدام التعلم المدمج وعلاقته بعدة متغيرات مثل الجنس وعدد الساعات التي يقضيها الطلبة على الانترنت وعامل القلق. كذلك تقصت الدراسة العلاقة بين تصور الطلبة وعدد مشاركاتهم الإلكترونية. بالإضافة لذلك قُيِّمت الدراسة العلاقة بين عدد المشاركات الإلكترونية وأداء الطلبة في المساق المدمج. وللإجابة عن أسئلة الدراسة تم استخدام استبانة تتكون من (٤٠) فقرة ورعت على (٧٤) طالباً وطالبة، درسوا مساق "المهارات اللغوية المُدمجة" في جامعة الخليل في الفصل الدراسي الثاني من العام الدراسي ٢٠٠٩/٢٠١٠م. تم تصميم الاستبانة لفحص تصورات الطلبة لعدة محاور: الملائمة، التصورات، والأنشطة الإلكترونية. وقد تم استخدام العلامة النهائية للمساق لمعرفة إذا ما كان ثمة ترابط بين المشاركات الإلكترونية والعلامة النهائية. وأظهرت النتائج عدم وجود دلالات إحصائية دالة بين الجنس والمحاور الأخرى. ولكن ظهرت فروقات ذات دلالة إحصائية بين المحاور المذكورة وعامل القلق وعدد الساعات التي يقضيها الطلبة على الانترنت لأغراض تعليمية. بالإضافة لذلك أظهرت النتائج وجود فروقات ذات دلالة إحصائية بين تصورات الطلبة وأدائهم في الامتحان النهائي وعدد مشاركاتهم الإلكترونية.

Introduction

Blended learning is increasingly used in schools and universities to support the teaching learning process. With the emergence of the internet, it has become very popular. Nowadays, thousands of educational institutions employ some aspects of the blended learning environment in their teaching to support and improve the quality of the teaching process. Wright, Marsh and Miller (2000) stated “Technology has the potential to open the doors of the university to a wider audience, provide choices for non-traditional students, and extend services to populations that would otherwise not be able to attend the classes on campus” (p. 107). Petrides (2002) suggested that when a student

responds to distributed or distance-learning environments, “it allows for more freedom of thought and discussion” (p. 72). Thus, the blended approach to language learning aims improves the quality of learning by facilitating access, increasing flexibility and maximizing interaction or collaboration (Russell, 2013; Helm, Guth, & Farrah; Farrah, 2011; Graham, 2005; Thorne, 2003; Bates and Poole, 2003; Egbert and Hanson-Smith, 1999; Warschauer, 1998).

To sum up, blended learning can present opportunities that enable learners to improve their learning. With this in mind, the researcher has decided to conduct a study to assess the students’ perceptions of a blended learning English language course, namely, Integrated Language Skills, offered for English majors in the English Department of Hebron University, Hebron, and Palestine.

Definitions of terms: The following section presents the definitions of researchers for some terms mentioned in the study.

Computer anxiety: is the state of being anxious learners feel when learners are asked to use computers or while interacting with computers. It is defined by Raub (1981) as the complex emotional reactions that are evoked in individuals who interpret computers as personally threatening". Similarly, Herdman, (1983) defined it as Emotional fear, apprehension, and phobia felt by individuals toward interactions with computers or when they think about working with a computer.

Blended Learning

Several authors defined blended learning as integrating face-to-face and online learning to achieve more engaging and beneficial experiences (Peachey, 2013; Larsen, 2012; Graham, 2005; Thorne, 2003).

Garrison and Vaughan (2008) defined blended learning as “the thoughtful fusion of face-to-face and online learning experiences” (p. 5). Thorne (2003) referred to blended learning as “a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances

offered by online learning with the interaction and participation offered in the best of traditional learning” (p.15).

Online participation:

Several studies on online discussions assume that postings and scores achievement are valid indicators of learning behavior (Hamann, Pollock & Wilson, 2009; Hrastinski, 2008; Weinberger and Fischer, 2006; Astin, 1996). Hrastinski (2008) describes online learner’s participation as “a process of learning by taking part and maintaining relations with others. It is a complex process comprises doing, communicating, thinking, feeling and belonging, which occurs both online and offline” (p. 1761). He explains that students learn both by communicating online with peers and teachers, and offline by interacting with the text and reading course literature. Weinberger and Fischer (2006) indicated that learners are engaged in the online environment as they can “compose elaborated problem analyses and post them to a discussion board” (p.4). Their partners produce a text collaboratively as they read the messages and react to them by writing a critique or questions. They explain that ‘the rationale for analyzing the discourse is that in this kind of data, cognitive processes of learning are being represented to a certain degree’ (p.4).

Hamann et al, (2009) recognized that course grade is a basic marker of the student outcomes in a given class, and that it is expected to reflect knowledge better than learning. They consider it as a helpful metric of overall learner performance since the interest is in how learners do overall in the course rather than a particular aspect of learner outcomes. Astin (1996) suggested that “the greater the interaction with peers, the more favorable the outcome” (p. 126). Beaudoin (2001) examined the relationship between student’s interaction and performance an online class where he divided his participants into three groups (high interaction, moderate interaction, and low interaction). According to him, though the high interaction students achieved the highest performance, the low interaction group performed higher than did the moderate interaction group. Moreover, based on his data, he believes that low interaction students spend a significant amount of time in learning related

tasks, including logging on, even when not visibly participating, and they feel they are still learning and benefiting from this low profile approach to their online studies” (p.1).

Research Questions

The current study aimed to address the following research questions:

1. Are there significant differences in students’ attitudes towards blended learning due to gender, number of hours and anxiety?
2. Is there a significant relation between participation as reflected by the number of the sent e-mails and students’ attitudes towards blended learning?
3. Is there a significant relation between the students’ grade and their attitudes towards blended learning?
4. Is there a significant relation between participation as reflected by the number of the sent e-mails and the grade in a blended learning course?

Significance of the Study

To the researcher knowledge, this study is the first empirical study conducted in Palestine on the role of some personal and demographic variables on the attitudes and performance of Palestinian students in a blended learning environment. The researcher hopes to come up with conclusions that help the practitioners in the field. These conclusions may provide them with some of the needed information about some variables that should be taken into consideration in the blended learning environment at universities. The results of this study will hopefully have far-reaching implications on English language teaching in general. The researcher also hopes that this study will come up with practical conclusions that enhance English language teaching in Palestine.

Limitations of Study

Limitations are inherent in most studies. Consequently, there are some limitations for this study in terms of its population, time. The populations in this study are all students of a blended learning English course in academic year 2009/2010. Moreover, the blended English course is in its infancy. There is a need for more training for the students on the study using the blended learning environment. Despite the limitations, the study can hopefully answer the research questions.

The following sections will review the literature related to participation in the blended learning environment, gender and anxiety.

Literature Review

This section aims to review the studies that were conducted on blended learning. Then, the subsequent sections will report on studies that examined the relationship between blended learning and anxiety as well as blended learning and gender.

Several studies examined the effect of online participation on students' perceptions, performance and motivation (Peachey, 2013; Larsen, 2012; Yukselturk, 2010; Hamann et al, 2009; Al-Jaref, 2007; Norton and Irvin 2007; Davies and Graff, 2005; Chen, 2005). Peachey (2013) asserted that the greatest advantage of the blended learning environment is that it enables teachers and learners to extend the period of learning over a far greater timescale than would be possible with face-to-face teaching. Larsen (2012) found that teaching a writing class in a blended learning environment promoted student peer-to-peer interaction, student-teacher interaction, and had a positive influence on learner independence and self-discipline. He added that the students in blended learning writing course were positive about their feelings about the online and classroom activities. They also indicated that they liked learning in this blended environment and that they believed the course improved their writing skills.

According to Garaham (2005), some of the reasons for blending are more effective pedagogical practices and increased access and flexibility.

Similarly, Gage and Ross (2005) pointed out that “blended learning became a highly effective means of addressing diverse student’s needs, expanding access to flexible learning opportunities, and improving the quality of education” (p: 155). Rosset and Douglis (2004) indicated that “studies have shown that blending can help people to learn more, at greater speed” (p.36). Jung and Suzuki (2005) opined that blended learning helps students submit assignments electronically and instructors to provide feedback efficiently. Owston, Garrison and Cook (2005) recommended that online interaction to be a core issue when designing blended learning courses. Moreover, they concluded that “instructors blended their courses to put together a more flexible, efficient, accessible, and varied learning experience for their students. However, student’s satisfaction seems highly dependent on the level of interaction with instructors and other students” (p: 348).

Al-Jaref (2007) examined whether the frequency of using the online course correlate with the level of the students' reading skill. She wanted to examine if active participants are better achievers than passive participants. The students’ posttest scores were correlated with the number of responses they posted. She reported a significant correlation between the students’ scores and the frequency of using the online course. She concluded that students who posted more responses got significantly higher reading scores.

Hamann et al, (2009) examined whether online discussion participation benefits their students in reaching the overall course goals, as reflected in the course grade. They considered this measure useful because it is independent of their measure of online participation. They suggested that “the number of postings read was a more powerful predictor of course grade than either the quantity of postings (number of statements) or the quality of postings (in-depth or surface)” (p.9).

Yukselturk (2010) examined the factors that affect student’s participation level in an online discussion forum. Specifically, he examined the relationship between categories of students’ participation level (inactive, moderate, and active) and their demographics. He reported a significant relationship between students’ participation level in

discussion forum of the online course and their achievement, gender and weekly hours of internet use.

Davies and Graff (2005) examined the relationship between the level of online participation and grade. The students' accesses to group and communication areas were combined and used to represent the degree of participation. Among other findings, it was concluded that “greater online interaction did not lead to significantly higher performance for students achieving passing grades; however, students who failed in one or more modules did interact less frequently than students who achieved passing grades” (p. 663).

Chen (2005) examined students' learning progress based on their portfolio reflections as well as frequency and accuracy of their web postings. The results showed that significantly students posted more by topics and words and wrote more accurately. Moreover, the students focused more on meaning and communication in web postings. He concluded that such results indicate that writing frequently improves writing fluency and accuracy.

Webb, Jones, Barker, & Schaik (2004) found that there is a significant relationship between students' participation in e-learning dialogue with learning outcomes. They reported factors that could have an impact on “e-learning dialogues such as tutor intervention, students' perceptions, dialogue quality and learning outcomes are discussed, along with implications for the design of such systems (p.99).”

Coldwell, Craig, Paterson, & Mustard (2008) investigated the relationships between the participation, demographics and academic students' performance in an information technology course. They found a relationship between students' performance as measured by final results in the course and participation in the online learning environment. Similarly, they found relationships between gender, nationality, participation and performance.

Michinov, Brunot, Bohec, Juhel, & Delaval (2010) examined the impact of online learning success on a specific feature of time management – procrastination. They found a negative relationship

between procrastination and performance, mediated by the level of learner's participation in the discussion forums. They explained that high procrastinators are less successful than low procrastinators as they participate less in the discussion forums during the learning process. Moreover, they found that the learners who tend to have high procrastinations are inclined to write few messages in discussion forums, and thus have less communication with their peers.

Lin and Chiu (2007) mentioned that the overall performance of online learning may be affected by computer self-efficacy, computer anxiety, attitude toward Internet, and computer skills and the like.

Akkoyunlu and Soylu (2008) conducted a study to examine the students' learning styles (assimilators vs. divergers) and their perceptions of blended learning. They found that the learning of the students' styles affect their perceptions of blended learning process, such as ease of use of the web environment, evaluation, and face to face environment. They recorded the frequency of participation and saved the sent messages to the forum during a 14 week semester as follows: "0–5: Low", "6–11: Medium", "12–18: High". Data analysis revealed that participation to the forum showed that assimilators were the most active learners while divergers were less active. Xie, Durrington and Yen (2011) investigated the relationship between students' motivation and their participation in asynchronous online discussions. They found that students' motivation has a significant relationship with their participation in online discussion activities. Finally, Mat and Farrah (2013) concluded that success in online programs comes with planning and time is needed before one can see the success of its implementation.

The following sections are going to review some studies about blended learning and anxiety and blended learning and gender.

Blended learning and Anxiety

Several studies reported that Internet anxiety seems to be a crucial factor that could influence the blended learning process (Farrah and Tushyeh, 2010; Alenezi, Abdul Karim, & Veloo, 2010; Saadé and Kira, 2006).

Alenezi et al, (2010) investigated the role of enjoyment, computer anxiety, computer self-efficacy and Internet experience in influencing the students' intention to use E-learning in Saudi's universities. They found that that computer anxiety, computer self-efficacy and enjoyment had significant impact on the students' intention to use E-learning. Moreover, they confirmed mediation effects of the attitude on the relationship between perceived usefulness and perceived ease of use on the users' behavioral intention.

Saadé and Kira (2006) stated that anxiety continues to be a significant issue in higher education and online courses. More importantly, anxiety seems to be a critical variable in relation to student's perceptions of online courses. Consequently, they investigated the effects of affect and anxiety (together and alone) on perceptions of an online learning system. Their results revealed that there is an interplay between affect and anxiety and their moderating roles on perceived ease of use and perceived usefulness. Moreover, they found that the anxiety has a positive impact on students' intention of using online system.

Elasmar and Carter (1996) explored current e-mail use, attitudes toward e-mail, and likelihood of future e-mail use among freshman university students at a particular college. Specifically, they investigated computer anxiety as a key factor in influencing the e-mail use. They found a negative correlation between computer anxiety and using e-mail. They concluded that anxiety could hinder e-mail use.

Krishnamurthi (1998) examined e-mail use pattern and attitudes towards e-mail. She found that students felt that e-mail use was useful in the classroom to communicate with their instructors and classmates. In addition to that the participants felt that e-mail would be an appropriate medium to send brief messages and lengthy assignments. Finally, she found that computer anxiety was found to be positively correlated to e-mail use as well as system user-friendliness and e-mail use. She explained that the result demonstrate that “students who are not anxious about interacting with computers feel motivated to use e-mail”. Furthermore, she suggested that “they are quite satisfied with the system that they use and this feeling can also enhance e-mail use as evidenced by

the positive relationship between system user-friendliness and e-mail use” (p. 108).

Blended Learning and Gender

A considerable amount of research has pointed to gender differences in Internet use (Abou Naaj, Nachouki, & Ankit, 2012; Caspi, Chajut & Saporta, 2008; Griffiths, 2003; Cook, Leathwood & Oriogun, 2001; Stewart, Shields, Monolescu, & Taylor, 1999; Gefen and Straub, 1997; Spender 1995; Herring, 1994). Abou Naaj et al. (2012) evaluated levels of student' satisfaction with blended learning and whether satisfaction differed according to gender. They reported that students' levels of satisfaction varied according to gender as male students tended to be more satisfied with blended learning than their female counterparts. They added that the female students had more interaction and discussion with instructors in face-to-face classes. Similarly, Caspi et al, (2008) investigated gender differences between participation in face-to-face and web-based classroom discussions. They found that males spoke more at the face-to-face classroom whereas females posted more messages in the web-based conference. They suggested that either females prefer written communication more than males do, or that females prefer written communication over spoken communication. Cook et al, (2001) examined gender differences in online participation. They found that females read about 11% more items than males and males posted about 6% more items than females. Stewart et al, (1999) examined gender differences regarding online participation and language styles and discussed access to computers and socialization. They suggested that males dominate the use of technology.

Spender (1995) claimed that computers are a male dominated activity, “the medium is presently formatted more in tune with the disposition and training of boys” (p.175). Spender (1995) argues that females who participate in the online environment are experts and worked through a “computing and word processing” stage. She contends that commuter activities make female participation hard as certain kinds of technologies are incompatible with definitions of females. Moreover, she points out problems in the technology for both males and females

that would contribute further to females' lesser participation. Gefen and Straub (1997) examined gender differences that might relate to beliefs and use of computer-based media. They found that both males and females 'differ in their perceptions but not use of email' (p.3).

Hou (2008) investigated the language learning strategy use among Chinese ESL students to identify the changes of their strategy use patterns due to some individual factors, such as gender. She found that the mean scores of females are slightly higher ($M = 3.40$) than males ($M = 3.32$). Finally, Yukselturk and Bulut (2009) analyzed gender differences in self-regulated learning components, motivational beliefs and achievement in self-regulated online learning environment. They found that "test anxiety explained a significant amount of variance in female students' achievement and two variables (self-efficacy for learning and performance, and task value) explained a significant amount of variance in male students' achievement" (p. 12). Moreover, with respect to gender they reported no statistically significant mean differences among motivational beliefs, self-regulated learning variables and achievement in programming.

To conclude, the above section reviewed some relevant studies on students' perceptions of and performance towards blended learning. Some studies investigated online participation in terms of students' perceptions, performance, and motivation. Other studies dealt with computer anxiety and its impact on online courses. Finally, another group of studies discussed blended learning in relation to gender where females preferred written communication more than spoken communication. All in all, most reviewed studies emphasized the positive role of blended learning.

Methodology

The current study utilized a quantitative research method to inquiry. The present section discusses the population, instrument for data collection, procedure, developing the questionnaire and its reliability and data analysis.

Population

The study was conducted at the English Department in Hebron University. Participants consisted of 73 undergraduate students (14 females and 59 males) enrolled in three sections during a 16-week blended learning integrated language skills course throughout second semester of the academic year 2009/2010.

Research Instruments

In order to achieve the objective of the current study, three research instruments were used in this study; achievement scores, frequency of participation and a questionnaire. The scores were used to show the level of the students' achievement and the frequency of participation was used in order to have records that show their participation in the blended learning environment. The attitudes of the students towards the blended learning environment were collected by the researcher through a questionnaire.

The following section presents brief information about students' achievement scores, participation, and the development of the questionnaire and its validity and reliability.

Achievement Score

In order to evaluate students' overall achievement in the course, first exams, second exams and course assignments and final projects were used. Final grades for the course are distributed as follow: first exam (20%), second exam (20%), assignments and projects (20%), final exam (40%), and the passing grade was set at 60%.

Frequency of Participation in the Blended Learning Environment

The frequency of sending e-mails in response to the instructor's assignments (doing exercises on Rocket Reader, summarizing articles, writing essays and writing reflections on articles) was recorded and saved in the instructor's e-mail account. The writing process lasted for 14 weeks. The students were encouraged to access the Rocket Reader online and to do some reading, vocabulary and writing exercises and to take

quizzes and to report their results to the instructor. Moreover, they were encouraged to read each other essays, summaries and reflections and respond to each other. Some students were very active participants and wrote up to 48 messages and some of them were inactive and wrote less than 9 messages. The researcher decided to use the following frequency scale: “0–9: Inactive”, “10–19: Moderately Active”, “20 and above Highly Active”.

Procedures of the Study

In this study the course was delivered in a blended environment making use of a number of online activities. First, the students were encouraged to use Rocket Reader software www.rocketreader.com. Rocket Reader includes writing lessons, vocabulary exercises, and reading comprehension tests. It evaluates users’ progress and suggests when to take a test or move to the next level. Moreover, it sends reports about the exercises that the students did and their progress thus maintaining a high level of motivation for interested students. Second, the students were encouraged to download and listen to online videos and news. Third, the instructor sent online articles to the students and asked them to make summaries and reflections. Finally, the instructor asked the students to write essays about certain topics and then he circulated the first written essays to the students as models and to have comments on them from other students. The topics were varied and were suggested in their textbook (Qualities I look for in my friend, an event that taught me a lesson, breaking a bad habit, shopping habits, how to study for a final exam, graduation day, etc.). The process was very motivating as the students were interested to see that their topic has been circulated and to get comments from others. Other students are motivated as they can access samples of some essays and benefit from them. Most of the time, the instructor was communicating via e-mails and sometimes was discussing some interesting topics inside the classroom.

Development of the Questionnaire

The questionnaire was developed based on the literature review conducted by the researcher to identify students’ perceptions on blended

learning environment (See Appendix). After a literature review, a 40 item questionnaire that is suitable for the blended learning environment was designed by the researcher. The first part of the questionnaire was about demographic data such as gender, GPA and attitudes towards online assignments and the number of hours they spend online. The second part was about the attitudes towards the blended learning environment. The items were structured according to three domains that were pertinent to the blended learning environment. The three domains were convenience, perceptions of the process, and content and learning activities. The first ten items were about the convenience of the online environment. Items from 11 to 24 were about the students' perceptions of the blended environment. Items from 25 until 40 were about content and learning activities. The students were asked to rate each item on a scale ranging from 1-5. (1 strongly disagree to five strongly agree).

Content Validity of the Questionnaire

The content validity of the questionnaire was examined against the degree to which the scale of items reflected student related dimensions of blended learning environment. The content validity for the instrument was carried out based on the suggestions of subject specialists and revision was carried out until the instrument reached its final format. The number of items was 54. Based on the suggestions of the experts, it was reduced to 40 by removing some similar items. Moreover, consistency in using the "online" term was maintained.

Reliability of the Questionnaire

The reliability coefficient of the questionnaire was tabulated. The result showed that the overall Cronbach Alpha Coefficient of the questionnaire is high ($r = 0.91$) indicating a very high degree of internal consistency, and therefore presenting a considerably reliable instrument.

Results and Discussion

This section presents the results of the study by answering the research questions.

Question One: Are there significant differences in students' attitudes towards blended learning due to gender, number of hours and anxiety?

a. Attitude and Gender

In order to examine the statistical significance of the students' attitudes towards blended learning due to gender, a t-test was carried out. As seen in Table 1, there are no statistically significant differences.

Table (1): t-test for Equality of Means.

	Gender	N	M	SD	T	d.f	Sig.
Convenience	Female	59	4.38	.50790	1.313	71	.193
	Male	14	4.18	.56413			
Perceptions	Female	59	4.56	.41399	1.934	71	.057
	Male	14	4.33	.34637			
Activities	Female	59	4.54	.33706	1.355	71	.180
	Male	14	4.40	.34123			

Table 1 shows that there were no significant differences found in the three attitudinal domains due to gender. However, the mean scores show the female students had better attitudes in the three domains (Convenience: Males 4.18 and Females 4.38, Perceptions: Males 4.33 and females 4.56, Activities: Males 4.40 and females 4.54). a number of studies reported similar findings. For example, Yukselturk and Bulut (2009) found no statistically significant mean differences among motivational beliefs, self-regulated learning variables and achievement in programming. This is in agreement with Griffiths's (2003) study who found no significant language learning strategy use difference in relation to gender. Similarly, the mean scores in his study, also revealed that female students reported using learning strategies a little more frequently ($M = 3.40$) than male students ($M = 3.32$). This is also in the line with Caspi et al, (2008) who found that females posted more messages in the web-based conference. They suggested that either females prefer written communication more than males do, or that females prefer written communication over spoken communication. Hou (2008) found that the

mean scores of females are slightly higher ($M = 3.40$) than males ($M = 3.32$). A different result is found by Cook et al, (2001) who reported that females read about 11% more items than males and males posted about 6% more items than females. Stewart et al, (1999) suggested that males dominate the use of technology. Spender (1995) argues that computers are a male dominated activity as the internet is a hurdle for female participation which would contribute further to females' lesser participation.

b. Attitude and number of hours spent online for academic purposes

In order to examine the statistical significance of the students' attitudes towards blended learning due to the number of hours they access the Internet for academic purposes, a t-test was carried out and Table 2 shows that some dimensions have a significant difference and others don't.

Table (2): t-test for Equality of Means.

	Number of hours	N	M	SD	T	d.f	Sig.
Convenience	less than two hours	27	4.20	.52732	-1.860	71	.067
	more than 2 hours	46	4.43	.50386			
Perceptions	less than two hours	27	4.38	.42781	-2.299	71	.024
	more than 2 hours	46	4.60	.38031			
Activities	less than two hours	27	4.40	.31980	-2.198	71	0.031
	more than 2 hours	46	4.58	.33744			

As seen in Table 2, two dimensions showed significant differences (Perceptions at .024) and online activities (.031). This result agrees with

Beaudoin (2001) who found association between the number of hours spent online for academic purposes and the students' attitudes. Similarly, Yukselturk (2010) reported a significant relationship between students' participation level (inactive, moderate, and active) in discussion forum of the online course weekly hours of Internet use. The researcher agrees that the students who spend more hours online for academic purposes have the tendency to have positive attitudes towards the blended learning environment.

c. Attitude and Anxiety

In order to examine the statistical significance difference of the students' attitudes towards blended learning due to anxiety, a t-test was carried out and Table 3 shows that some dimensions have a significant difference and others don't.

Table (3): t-test for Equality of Means.

	Online assignments make me anxious	N	M	SD	T	d.f	Sig.
Convenience	Yes	40	4.17	.51689	-	71	.001
	No	33	4.56	.44639	3.420		
Perceptions	Yes	40	4.45	.41853	-	71	.117
	No	33	4.60	.38971	1.587		
Activities	Yes	40	4.43	.35284	-	71	.032
	No	33	4.60	.30259	2.193		

As seen in Table 3, two dimensions showed significant differences (Convenience at .001 and online activities .0332). This result agrees with (Farrah and Tushyeh, 2010; Elasmr and Carter, 1996; Krishnamurthi, 1998). For example, Farrah and Tushyeh (2010) found that the students who have e-mail account and access to the internet have less anxiety. Similarly, Krishnamurthi (1998) found a positive correlation between computer anxiety and e-mail use concluding that students feel motivated to use e-mail when they are less anxious about interacting with

computers. Elasmr and Carter (1996) found a negative correlation between computer anxiety and using e-mail and concluded that anxiety could hinder e-mail use.

Most of the above mentioned studies found association between anxiety and the attitudes of the students. This means that less anxious students have the tendency to have positive attitudes towards the blended learning environment.

Question Two: Is there a significant relation between participation as reflected by number of the sent e-mails and the students' attitudes towards blended learning?

In order to examine the statistical significance in the relationships between students' attitudes towards blended learning due to their participation as reflected in the number of the sent e-mails, One-Way ANOVA, means and standard deviations calculations were carried out as seen in Table 4 and Table 5.

Table (4): One-Way ANOVA analysis of the significant differences in the attitudinal domains due to the number of sent e-mails.

Domains		Sum of Squares	Df	Mean Square	F	Sig.
Convenience	Between Groups	4.339	2	2.170	9.977	.000
	Within Groups	15.223	70	.217		
	Total	19.562	72			
Perceptions	Between Groups	1.439	2	.720	4.723	.012
	Within Groups	10.667	70	.152		
	Total	12.106	72			
Activities	Between Groups	1.261	2	.630	6.257	.003
	Within Groups	7.052	70	.101		
	Total	8.313	72			

Table (5): The means and standard deviations of the three attitudinal domains due to the number of sent e-mails.

Participation		Convenience	Perceptions	Activities
low	Mean	4.08	4.38	4.37
	N	34	34	34
	Std. Deviation	.48975	.40711	.34300
moderate	Mean	4.58	4.71	4.67
	N	18	18	18
	Std. Deviation	.40475	.21670	.17580
high	Mean	4.57	4.59	4.60
	N	21	21	21
	Std. Deviation	.47554	.46900	.36362
Total	Mean	4.34	4.52	4.51
	N	73	73	73
	Std. Deviation	.52125	.41005	.33979

As Table 4 and 5 reveal, there is a significant relationship between the participation of the students as reflected in the number of sent e-mails and their attitudes towards blended learning. Table 5 reveals that there are statistically significant relationships between participation and the three domains (Convenience = .000, Perceptions = .012, Activities = .003). The significant relationship favors the categories of the students whose frequency of set e-mails is moderate to high as seen in Table 5. Table 5 shows that the means of the moderate and high categories of students are statistically higher than the low category in the three domains. However, there are slight differences in the means of the moderate and high categories favoring the moderate category. These slight differences in the means between the moderate and high categories are not statistically significant.

The result of this study is in agreement with the results of several studies examined the effect of online participation on students' attitudes and performance (Xie, Durrington, & Yen, 2011; Yukselturk, 2010; Chen, 2005). For example, Yukselturk (2010) reported a significant relationship between students' participation level (inactive, moderate, and active) in discussion forum of the online course and their achievement. Akkoyunlu and Soylu (2008) reported that participation to the forum showed that assimilators were the most active learners while divergers were less active. Finally, Xie et al, (2011) found that students' motivation has a significant relationship with their participation in online discussion activities.

Question Three: Is there a significant relation between the students' grade and their attitudes towards blended learning?

In order to examine the statistical significance in the relationships between students' grade and their attitudes towards blended learning, One-Way ANOVA, means and standard deviations calculations were carried out as seen in Table 6 and Table 7

Table (6): One-Way ANOVA analysis of the significant differences in the attitudes in the three attitudinal domains and the grade.

Domain		Grade
Convenience	Pearson Correlation	.540(**)
	Sig. (2-tailed)	.000
	N	72
Perceptions	Pearson Correlation	.393(**)
	Sig. (2-tailed)	.001
	N	72
Activities	Pearson Correlation	.248(*)
	Sig. (2-tailed)	.036
	N	72

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table (7): The means and standard of deviations of the three attitudinal domains and the grade.

Grade		Convenience	Perceptions	Activities
less than 70	Mean	3.98	4.28	4.38
	N	28	28	28
	Std. Deviation	.49595	.46246	.39237
70-79	Mean	4.48	4.69	4.59
	N	24	24	24
	Std. Deviation	.36076	.23739	.23165
80 and above	Mean	4.68	4.65	4.59
	N	21	21	21
	Std. Deviation	.40901	.34402	.32809
Total	Mean	4.34	4.52	4.51
	N	73	73	73
	Std. Deviation	.52125	.41005	.33979

As Table 6 and 7 reveal, there is a significant relationship between the students' grade and their attitudes towards blended learning. Table 6 reveals that there are statistically significant relationships between the grade and the three domains (Convenience = .000, Perceptions = .001, Activities = .036). The significant relationship favors the categories of the students whose grades are moderate to high as seen in Table 7. It also shows that the means of the moderate and high categories of students are statistically higher than the low category in the three domains. However, there are slight differences in the means of the moderate and high categories favoring the moderate category. These slight differences in the means between the moderate and high categories are not statistically significant. The result of this study is in line with the results of several studies that examined relationship between the students' grade and their attitudes towards blended learning. Norton and Irvin (2007) reported

significant relationships between expectations of success and the value students attribute to the blended learning environment.

Chen (2005) found that the students who significantly posted more by topics and words wrote more accurately. Moreover, they held much better perceptions about the blended learning and focused more on meaning. Lin and Chiu (2007) found that the overall performance of online learning is affected by attitude toward Internet, computer skills and the like. Akkoyunlu and Soylu (2006) reported that the more the students participated in the blended learning environment, the more positive perceptions they developed about it. Akkoyunlu and Soylu (2008) found that assimilators were the most active learners while divergers were less active. It seems that the students who held positive attitudes towards blended learning were motivated and this motivation enabled them to achieve better grades.

Question Four: Is there a significant relation between participation as reflected by the number of the sent e-mails and the grade in a blended learning course?

In order to answer this question, a correlation test was carried out as seen in Table 8.

Table (8): The correlation between the participation level and the performance.

		Number of sent e-mails	Grade
number of sent e-mails	Pearson Correlation	1	.426(**)
	Sig. (2-tailed)		.000
	N	74	72
Grade	Pearson Correlation	.426(**)	1
	Sig. (2-tailed)	.000	
	N	72	72

** Correlation is significant at the 0.01 level (2-tailed).

Table 8 shows that there is a statistical relationship between the participation level in the blended learning course and the students' grade in that course. This is in agreement with several studies that investigated the relationship between online participation and students' grade (performance) (Xie et al, 2011; Yukselturk, 2010; Hamann et al, 2009; Norton and Irvin 2007; Al-Jaref, 2007; Davies and Graff, 2005; Chen, 2005). For example, Al-Jaref (2007) found that students' posttest scores were correlated with the number of responses they posted. She explained that there is a significant correlation between the students' scores and the frequency of using the online course. She concluded that students who got higher score posted more responses. In the same line, Hamann et al, (2009) suggested that the number of postings read was a more powerful predictor of course grade. Davies and Graff (2005) found that less interaction in the blended courses is one of the reasons that caused some students to fail in one or more modules. Webb et al. (2004) found that there is a significant relationship between students' participation in e-learning dialogue with learning outcomes. Coldwell et al, (2008) found a relationship between students' performance and participation in the blended learning course. Michinov et al, (2010) found a negative relationship between procrastination and performance, mediated by the level of learner participation in discussion forums.

Conclusion

This study aimed to investigate the role of some demographic and personal variables in students' attitudes towards blended learning. The results revealed there were no significant differences between the three attitudinal domains (convenience, perceptions, and activities) due to gender. However, the findings revealed that there were significant differences in terms of their positive attitudes due to the frequency of online participation in favor of the high and medium frequencies. The students' performance and their level of online participation had a positive impact on their perceptions about blended learning environment. Moreover, that there were significant relationships between anxiety and positive attitudes favoring the students who are less anxious about Internet use. Likewise, there was a direct correlation between the

students' positive attitudes and their achievement level. In fact, the high level of participation had a positive impact on the students' attitudes and performance. The positive attitudes and performance could be due to the blended learning environment that facilitates access, increases flexibility and maximizes interaction and collaboration among learners (Farrah, 2011, Bates and Poole, 2003; Egbert and Hanson-Smith, 1999; Warschauer, 1997). To sum up, the level of participation had a positive impact on the attitudes and the students' who held positive attitudes got high performance. This could mean that if the blended learning course is developed well, it will enable learning to occur. Analysis of participation as reflected in the number of sent e-mails showed statistically significant relationships between participation and attitudes and participation and performance.

Recommendations

Based on the results of this study, it could be concluded that active participation in the blended learning environment yield better performance and grades. In order to maximize students' participation, instructors should encourage and motivate their students and to make the rules of engagement and participation clear. Finally, the present study recommends that blended learning environment to be extended to other courses in the English Department and other departments and faculties. Further research should be conducted to examine the quality of the sent and posted messages in terms of length and content and to examine if frequency of participation is a useful measure of student success or course effectiveness. Further, there is a need to examine the students' assessment of the blended learning process in a qualitative study in terms of the challenges they encountered, their suggestions. Finally, the researcher believes that there is a need to conduct similar studies with larger group of participants and equal samples of male and females to confirm such findings by examining their perceptions and learning styles in a blended learning environment.

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Perception							
11	Doing online activities is worthwhile experience						
12	E-mails are important for communication with others						
13	E-mails are important for doing homework and assignments						
14	E-mails are important for entertainment						
15	I can do a lot of educational activities while using the internet						
16	Using the internet is useful for academic purposes						
17	Using e-mails made me involved in my study						
18	Using e-mails provided a better learning experience						
19	Using e-mails made the course more interesting						
20	Using e-mails increased my motivation for the course						
21	Using e-mails enhanced the interaction between me and the instructor						
22	Using e-mail provided better access to my instructor						
23	Using e-mail helped me to receive prompt feedback from my instructor						
24	I will take additional online courses						
Content and learning activities							
25	I used the Rocket Reader frequently						
26	I think working with Rocket Reader is interesting and enjoyable						
27	The Rocket Reader content encouraged me to learn						
28	The Rocket Reader encouraged me to spend more time using the internet						
29	The online group activities encouraged me to interact with my classmates						
30	Using E-mails facilitated group work activities among students						
31	The Rocket Reader exercises improved my vocabulary						
32	The online reading activities increased my comprehension						
33	The online reading passages stimulated my critical thinking skills						
34	The internet activities helped me too improve my language skills						
35	Writing the online summaries improved my writing abilities						
36	The listening links improved my listening skill						
37	The online activities were convenient						
38	The online activities stimulated my creativity						
39	The online activities were relevant to the course objectives						
40	The online activities motivated me to study harder						