

Students' Perceptions of Using Facebook Group and a Course Website as Interactive and Active Learning Spaces

Gila Kurtz

The College for Academic Studies
kurtzgila@gmail.com

Abstract

The purpose of this research was to investigate how the use of two virtual platforms for learning – a Facebook group and a Learning Management System (LMS) course website – affect students' perceptions on learning and participation. The theoretical basis for the research relied on social-constructivist theory. A total of 134 graduate students participated in the research. The main conclusion from the findings is that although Facebook was not originally created for educational purposes, it can be used as a virtual environment for discussion and sharing knowledge. Students reported being engaged in interaction and active participation in the Facebook group as well as appreciated its major contribution to their own personal learning experience. The Facebook group was perceived as a protected environment that fosters social learning processes while emphasizes learner involvement and active contribution as well as frequent interaction with peers and instructor. The course website, on the other hand, was perceived as a learning content repository designed for traditional, individual learning processes, such as recalling and understanding the course content.

Keywords: Facebook group, course website, higher education, learning environment, web 2.0 learning.

Introduction

Social networking sites have been subject to much recent interest within the educational community. Social networks, like Facebook, Twitter, LinkedIn, etc. are part of the Web 2.0 social media, characterized by the creation and sharing of user-generated materials with common interests (Boyd and Ellison, 2008).

Facebook, the biggest and most well-known social network worldwide, was not initially designed for educational purposes but its unique characteristics, such as grouping around specific areas of interest, knowledge sharing, group discussions and self-expression, brought it to the attention of educators as a potential learning environment (Allen, 2012; Woodley and Meredith, 2012; Bates, 2011; Cerdà and Planas, 2011; Estus, 2010; Redecker et al., 2010).

This article aims to examine students' perceptions of using Facebook group and a Learning Management System (LMS) course website on learning and participation.

Theoretical framework

The theoretical roots of the present research stem from the social-constructivist pedagogy. Constructivism, particularly in its “social” forms, emphasis the active involvement of the

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learner with the teacher and peers in creating (constructing) knowledge (Airasian and Walsh, 1997; Anderson and Dron, 2011; Harasim, 2012; Nanjappa and Grant, 2003). According to Piaget (1969), social knowledge can be learned through actions or interactions and collaboration with people. Similarly, Vigotsky's theory (1962) emphasizes the social essence of knowledge construction. According to his theory, social interactions are an essential part of human cognitive development. A key principle of social constructivism is the pedagogical emphasis on the role of active participation and collaboration among the learners and teachers (Harasim, 2012).

In an online-supported collaborative learning, the mutual relations among learners are assisted by technology which combines learning activities with an online learning environment. According to researchers' estimations, the technological tools that support collaborative learning have great potential for significant learning as they also enable peer interaction, self-investigation, reaching out to experts and finally, generating new knowledge (Anderson, 2003; Rick and Guzdial, 2006; Davidson and Goldberg, 2009; Beaudoin et al., 2013).

The emphasis in Facebook on communication, interaction and social bonding can be embedded within the social-constructivist learning process. Such a process allows for new perspectives of educational behavior that previously were not possible.

Despite the enormous potential in the field of education, up till now, Facebook is used mainly as an informal learning environment (Cheung et al., 2010; Corrin et al., 2010; Forkosh-Baruch and Hershkovitz, 2012; Hew, 2011; Madge et al., 2009; Mazer et al., 2007; Selwyn, 2007) and less for formal educational activities (Kurtz et al., 2013; Mott, 2010; Schroeder and Greenbowe, 2009; Wang et al., 2012).

One of the explanations as to why such little formal educational work is done using Facebook is that many teachers are discouraged from becoming their students "friends" and vice versa. A connection between a social network and a learning environment, such as with Facebook, is often considered an invasion of privacy and overexposure of personal life (Hewitt and Forte, 2006; Mendez et al., 2009).

The emergence of Facebook groups, where participation does not require "friendship" or personal exposure among its members, has created the opportunity for a learning team, where teachers and students can learn together without sharing their personal lives.

Research questions

The main question for this research is: how the use of two virtual platforms for learning – a Facebook group and a Learning Management System (LMS) course website – affect students' perceptions on learning and participation. Here are four concrete research questions:

- RQ1 What are the students' perceptions of the platforms as learning environments?
- RQ2 How do the different modes of the platforms affect students' perceptions on learning?
- RQ3 How do the students estimate their active participation in the two learning platforms created?
- RQ4 How do the students evaluate the overall contribution of the two platforms to their learning process?

Research method

Course

The course *ICT and Learning* is a 3-credit graduate course in the School of Education at the College for Academic Studies in Israel. The course website was used for the delivery of course content and online assignments. Both platforms were promoted as community spaces where students could collaborate and share learning content with one another as well as with the instructor. The students could choose their preferred online space for these activities.

Participants

Two hundred and thirty-nine graduate students registered for the course in the fall of 2012. The students were invited by email to respond to an online questionnaire. One hundred and thirty-four respondents participated in total (56.1% response rate).

Instrument and data collection

The instrument selected for the research was an online questionnaire that included 39 multiple-choice questions on students' perceptions as affected by each of the two platforms.

Perceptions on Platforms as Learning Environments –The six items for the perception of the platforms as learning environments were adapted from Kurtz' (2013) research. Cronbach's alpha was .845.

Perceptions on Learning – The perceived learning items were adapted from Caspi and Blau's (2008; 2011) work and Garrison et al.'s (2004) questionnaire. Cronbach's alpha for the cognitive aspect was .784 and .701 for the emotional aspect

The collection of the data using the *Google form* application was carried out towards the completion of the course, during January and February 2013

Findings

Background characteristics of students

Eighty-five percent of respondents (n=112) are female and 15% (n=19) are male. Their average age is 39.1 (SD=9.78). As represented in Table 1, most of the students are technology literate. They reported high (73.0%) or moderate (21.5%) frequency of web use for general purposes. They also reported having high (60.5%) and moderate proficiency (38.8%) level of technological proficiency.

Table 1. Level of browsing frequency and technology expertise of respondents

<i>Characteristic (N=134)</i>	(%)
Level of browsing frequency	
Low	5.5
Moderate	21.5
High	73.0
Total	100.0
Level of technology expertise	
Low	0.7
Moderate	38.8
High	60.5
Total	100.0

RQ1 What are the students' perceptions of the platforms as learning environments?

This research question was tested by a paired sample T-test. We found a significant difference between the course website and the Facebook group in 4 items: The learning environment as a dynamic and updated courseware content, $t(111)=-3.506$, $p<.001$, a channel for peer interaction $t(111)=8.967$, $p<.001$, fosters collaborative learning $t(111)=-7.904$, $p<.001$ and aids struggling students and students with difficulties $t(111)=5.268$, $p<.001$ (see Figure 1).

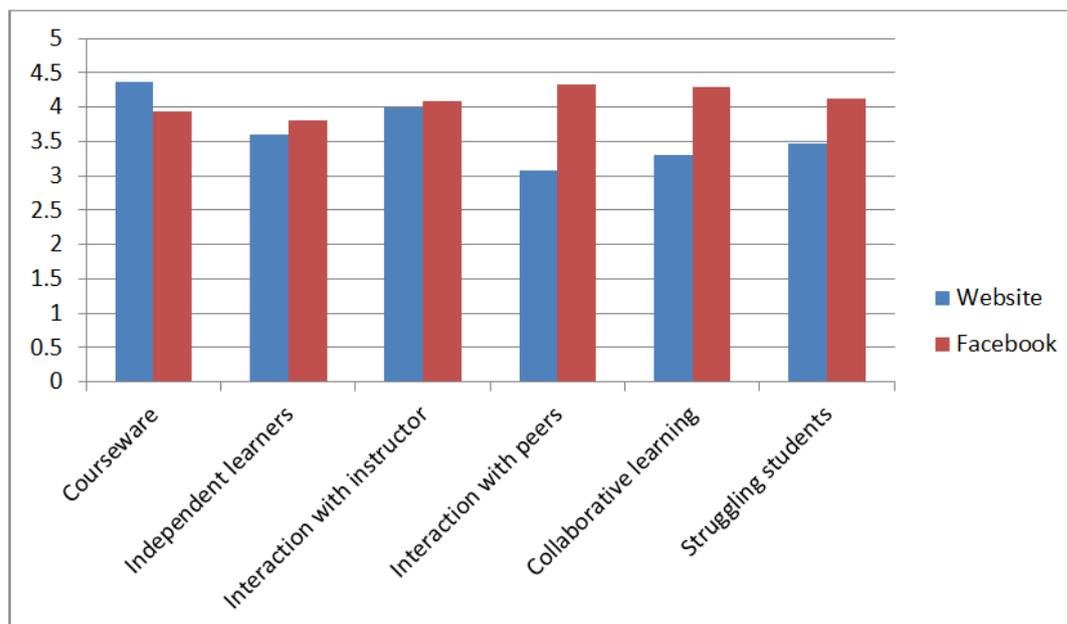


Figure 1. Average students' perceptions by platforms

The course website was considered by the students to be the main source for course materials. The Facebook group, however, is perceived as a more appropriate environment for social learning processes and a more convenient environment to help struggling students.

RQ2 How does the different modes of the platforms affect students' perceptions on learning?

A significant difference between the course website and the Facebook group in both cognitive – $t(110)=3.866$, $p<.001$ and emotional aspects – $t(112)=5.581$, $p<.001$ of perceived learning was found. Participants perceived their cognitive aspect of learning to be higher for the course website (Means 3.88 and 3.41, SDs: 0.85 and 1.21 respectively) while their emotional aspect was found to be higher for the Facebook group (Means 4.26 and 3.92, SDs: 0.56 and 0.58 respectively).

The students' responses to this research question provide an empirical evidence of their high level of comfort and a willingness to share their emotions in the Facebook environment even if the activity is for formal learning process with the instructor's presence. The course website, however, is perceived to be more suitable for individual cognitive learning processes, such as gaining knowledge and understanding the course content.

RQ3 How do students estimate their participation in the two platforms?

Student participation was measured by the frequency of entry to each of the learning platforms. The findings shown in Table 2 reveal that the most frequent entry is "every day or two" to the

Facebook group (44.8%). For the course website, the highest entry was "every week" (37.6%) followed by "every 3-4 days" (30.8%). Only a small minority reported they entered the platforms "every 2-3 weeks" or "every month or more."

Table 2. Frequency of login to the learning spaces (%)

<i>Characteristic (N=134)</i>	<i>Course website</i>	<i>Facebook group</i>
Every day or two	22.8	44.8
Every 3-4 days	30.8	23.2
Every week	37.6	20.0
Every 2-3 weeks	6.8	7.0
Every month, or more	2.3	6.0
Total	100.0	100.0

In addition, the students were asked to report on the frequency of their active contribution in each of the learning platforms. One of the parameters of learner commitment to an online group in which they participate is their willingness to actively contribute. The more committed they are, the more they will contribute content, information, etc. (Kraut & Resnick, 2011).

Table 3 indicates that most students reported "occasional" contributions to the course website (51.9%) and to the Facebook group (50.0%). A similar percentage of the students did not contribute to the course website (42.1%) nor the Facebook group (41.4%), Less than 10% reported that they contributed "many times" to the Facebook group (8.6%) while only 6.0% to the course website.

Another indication for active participation is the "Like" responses to statuses. The majority of the students (75%) reported that they clicked "Like" to statuses "occasionally" or "many times" in the Facebook group.

Table 3. Frequency of active participation in learning spaces

<i>Characteristic (N=134)</i>	<i>Course website (%)</i>	<i>Facebook group (%)</i>
Frequency of posting messages or statuses		
Never		
Occasionally	42.1	41.4
Many times	51.9	50.0
Total	6.0	8.6
	100.0	100.0
Frequency of writing "statuses" or clicking "Like" to statuses		
Never	-	24.5
Occasionally	-	59.6
Many times	-	15.4
Total	-	100.0

Both platforms received high levels of frequency in terms of participation and a modest to high rate in terms of active contribution. Though both platforms are viewed as viable environments

that invite participation and active contribution, the Facebook group is viewed as more appealing and tempting for active involvement even for a quick "Like" indication. Through the "Like" feature, as a unique expression of social learning, students can show their support and appreciation for the content their peers and/or instructor have posted.

RQ4 How do the students evaluate the overall contribution of the two platforms to their learning process?

The students were asked to grade (on a scale from 1 to 10) the overall contribution of each of the online learning platforms to their learning process. The Facebook group received a higher average grade – 7.83 (SD=2.19) – than the course website – 7.61 (SD=2.24). Though the average rate of the Facebook group is slightly higher, the difference is not statistically significant.

Concluding remarks

The main conclusion from the findings is that Facebook, although it was not originally created for educational purposes, can be used as a virtual environment for discussion and sharing knowledge. Students reported being engaged in interaction and active participation in the Facebook group as well as appreciated its major contribution to their own personal learning experience.

The Facebook group is perceived as a protected environment that fosters social learning processes while emphasizes learner involvement and active contribution as well as frequent interaction with peers and instructor. The course website, however, is perceived as a learning content repository designed for traditional, individual learning processes, such as recalling and understanding the course content

The students' reports indicate that the learning processes, especially in the Facebook group, were congruent with the basic tenets of social-constructivist pedagogy, i.e., that there is an emphasis on the role of interaction and collaboration, particularly among the participants (Harasim, 2012).

A partial possible explanation for the findings is that while the Facebook group application provides a sense of ownership of the learning process, the course website is more of top-down content imposed by the instructor. Both environments contribute to the learning process but each one targeted a different area. While Facebook serves as the social domain of the learning, the course website serves the individual learning domain. Facebook is perceived to be less structured and more of a student place while the course website is perceived to be more structured and a formal teacher's place.

Over all, new technologies (like Facebook) along together with older technologies (like a course website) enable new approaches to teaching and learning. It should be kept in mind, however, that technology is not an end but rather a means. Without the use of effective pedagogical principles, any platform, no matter how interactive, will not create meaningful learning (Dillenbourg et al., 2002).

This study is not without limitations and conclusions, as the main one being that this is a one case study, with a limited number of students. It is clear that we do not intend to generalize these results to a wider population. However, our participants offered us food for thought, providing positive attitudes toward the use of a Facebook group as a legitimate learning environment alongside the course website. It is vital to extend this type of research to include

representative groups of students who differ in their phase of study, individual characteristics and learning content. Moreover, it is also vital to extend this research to courses with a different instructional design than the one presented here.

Finally, we hope that this research will provide a basis for further research, and will provoke and encourage new thinking and new practices in the educational field with the use of social network sites like Facebook.

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