



Comparing Students' Academic Engagement Based on How Much They Use Social Networks in Learning English

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Abstract

Context: The current study aimed at comparing students' academic engagement (AE) based on their educational use of social networks (EUSN) in learning English at the Iran language Institute (ILI), Tabriz branch.

Methods: The survey study evaluated the status of EUSN and AE on 204 English language learners (ELLs). The population of the study consisted of all ELLs (n = 1874) studying at the Tabriz branch of ILI in the spring of 2017. The instruments used in the current study to measure variables were the Reeve and Tseng AE questionnaire ($\alpha = 0.968$) and a researcher-made questionnaire ($\alpha = 0.966$) for EUSN.

Results: The results of ANOVA and least significant difference (LSD) showed that students' AE varied according to their EUSN. AE of the ELLs using social network four to six hours a week (103.82 ± 8.19 hours) was higher than (93.74 ± 12.73 hours) those of the ones that spent two to four hours on social network and theirs was higher than (86.52 ± 16.7 hours) those of the ones that spent less than two hours on social network ($P < 0.01$). This difference was significant in all components of AE.

Conclusions: The use of social networking in education and learning can provide an appropriate basis for interaction between teachers and students and use of these networks in the teaching process is recommended.

Keywords: Social Networks, Students, learning, Language

1. Background

The population of Iranian English language learners (IELLs) is different with respect to the language, from a cultural standpoint and socially accepted norms. Dual language learning in the early years has many benefits (1). A society with access to multilingual resources has advantages and abilities to play an important social and economic role on the global stage (2). Some of the most critical difficulties of the IELLs are low parental English literacy, lack of competent teachers and mastery over modern teaching methods (3, 4), grammatical content, reliance on text-based environments, material development based on the grammar translation method (4), and lack of cultural background (5).

Today, the ever-expanding use of social networks is among all the options that the internet provides to its addressees (6). Tortosa stated that information and communication technologies (ICTs) can compensate and support education of students with special needs (7). Academic engagement (AE) can be understood and defined as the interaction between better attention and commit-

ment (8). Engagement is a relatively new construct (9). ELLs exhibit stability and effort when engaged in doing homework or activities, even in the absence of internal rewards (10). Academically engaged students have more ability to cope with academic stress and are more satisfied (11) and as described by Kaplan et al., they are attentive and participate in class discussions, exert effort in class activities, and exhibit interest and motivation in learning (12). There is an agreement among the experts that student engagement is a multi-dimensional concept (13, 14) and its dimensions include behavioral, emotional, and cognitive subtypes (13, 15). Cognitive engagement is intention and effort in performing critical feedback loops in self-regulated learning that are cognitive and metacognitive by nature (16). Motivational or emotional engagement is conceptualized as positive and negative emotional reactions to teachers, peers, and learning activities (15). Behavioral engagement at school is described as time, effort, and persistence in academic activity (16); and behavioral engagement for help from others in cognitive and motivational engagement (8). Social media can make fundamental alter-

ations in social life as well as interpersonal and social relationships (17, 18). Kolluru and Varughese showed students enjoyed pre-exam discussions (19). Diug et al. showed students actively engaged in Twitter activities had significantly higher end-of-semester grades compared with the ones that were not (20). Gagnon in the study on the Use of Twitter in health professional education showed a small increase in mean score that was not statistically significant (21). Kirschner and Karpinski reported that Facebook® users reported lower grade point average and spent fewer hours per week on studying than nonusers (22). Felisoni showed each 100 minutes spent using the device on average per day corresponded to a reduction in a student's position at the school's ranking of 6.3 points, range 0 to nearly 100 (23). Enrique investigated new challenges for ICT in education including the definition of the set of digital skills that teachers and students need to acquire, the integration of these skills in the curriculum, the design and implementation of strategies (24). The results of the study by Islam et al. supported the view that entertainment, social interaction, information seeking, and economic motives play a significant role in excessive Internet usage (25). The aforementioned results were also reported by different studies conducted on the same issue. The results of the study by Samawi showed that cognitive, emotional, and behavioral engagement can significantly predict AE (26).

According to the importance of learning English and the inability of most IELTs to learn this language as a foreign language, and the increased audio-visual communication tools in families, the current study sought to benefit from social media and help ELLs learn English, which helps to overcome the problems of teenagers' spending time with mobile phones and the internet and other mass media, changing it to an opportunity to learn English in the family environment. Therefore, the current study sought to answer this question: Is the AE of ELLs different, based on their use of social networks in learning language at the ILI, Tabriz branch?

2. Methods

In this survey study, the questionnaires were first run in order to evaluate their validity and reliability. At the next stage, the research sample was selected and then, the questionnaires were distributed among the sample population and the data were collected. The population of the current study consisted of all ELLs ($n = 1874$) studying at the ILI in the spring of 2017. According to the Krejcie and Morgan table, and at first using stratified random sampling method by equally considering the branches of the ILI, and in the second step, using stratified proportional random sampling method in terms of gender, 204 ELLs including 90

females (44.13%) and 114 males (55.87%) were selected. ELL inclusion criteria were regular attendance in the spring term classes, and midterm and final examinations. In addition, the exclusion criteria were lack of regular attendance at classes, leaving the social network, or lack of willingness to provide information. The standard academic engagement questionnaire developed by Reeve and Tseng was evaluated via factor analysis (27) and confirmed. This questionnaire was used to collect data, which consists of 22 items, cognitive (1-7 items), emotional (8-14 items), and behavioral (15-22 items) dimensions. Reeve and Tseng confirmed the validity of this questionnaire and Hajalizadeh (28) reported its reliability in Iran at 0.87; in addition, after conducting the pilot implementation on 28 students, Cronbach's alpha for AE was 0.968, and 0.908, .0904, 0.909 for behavioral, emotional, and cognitive engagements, respectively. In order to assess the validity of the questionnaire, content validity was used by 10 experts and content validity ratio (CVR) = 0.79, content validity index (CVI) = 0.87 were calculated. Therefore, face validity by experts was used; in the next step, construct validity was used via factor analysis (principal components method). In the achieved factor matrix, all items of the questionnaire had a correlation higher than 0.5 and three factors explained the 78.32% of variance. The Kaiser-Meyer-Olkin (KMO) value 0.77 and the P value 0.000 were obtained. In addition, a researcher-made questionnaire for the educational use, on social networking, included 15 items extracted and designed based on theoretical foundations. In order to assess the validity of this questionnaire, content validity and face validity, in the next step, and construct validity were used via factor analysis (principal components method). In the achieved factor matrix, all items of the questionnaire had a correlation higher than 0.5 and three factors explained the 76.93% of variance. The KMO value 0.83 and the P value 0.000 were obtained. The reliability coefficient of the questionnaire was obtained by conducting the pilot on 30 students (0.966). Both questionnaires were scored based on a five-option Likert scale, ranged 1 to 5 in each item. The acceptable level was 0.05.

In order to analyze the data, students were divided into three categories based on the amount of educational use of social networks: below moderate (less than two hours per week), moderate (two to four hours per week) and above moderate (four to six hours per week). The data were analyzed with SPSS version 22 using ANOVA, the amount of ELLs AE was compared at the significance level of 0.05. The least significant difference (LSD) post hoc test was used to determine the difference between the groups. Ethical considerations and confidentiality of ELLs' information were considered. This paper is part of the dissertation in MSc degree (code: 1020621952002) in Tabriz Islamic Azad university.

3. Results

The research hypothesis was: Academic, cognitive, behavioral, and emotional engagements of the ELLs vary based on their educational use of social networks. The results of ANOVA and LSD are shown in [Table 1](#).

According to the classification, 48 (23.53%), 120 (58.82%), and 36 (17.65%) students used social networks less than two hours per week (less than medium), two to four hours per week (medium use), and four to six hours per week for educational purposes (higher than medium), respectively ([Table 1](#)).

According to the results of ANOVA ([Table 1](#)), the significance level of the test was less than 0.01, compared with the AE and its components in the ELLs, and based on their educational use of social networks during the week. Accordingly, academic, cognitive, behavioral, and emotional engagements of the ELLs using social networks four to six hours a week were higher than those of the ones that spent two to four hours on social networks and were higher in the ELLs using social networks two to four hours a week than those of the ones that spent less than two hours on social networks. This difference was investigated using the LSD test. The results are shown in [Table 2](#).

Based on the results of LSD test ([Table 2](#)), AE of the ELLs that used social network four to six hours a week (103.82 ± 8.19 hours) was higher than that of the ones spending two to four hours on social networks (93.74 ± 12.73 hours), and it was higher in the ELLs that used social networks two to four hours a week (93.74 ± 12.73 hours) than that of the ones spending less than two hours on social networks (86.52 ± 16.7 hours).

Behavioral engagement of the ELLs using social networks four to six hours a week (33.15 ± 2.89 hours) was higher than that of the ones spending two to four hours on social networks (30.13 ± 4.28 hours), and it was higher in the ELLs using social networks two to four hours a week (30.13 ± 4.28 hours) than that of the ones spending less than two hours on social networks (28.47 ± 4.66 hours).

Emotional engagement of the ELLs using social networks four to six hours a week (37.55 ± 3.44 hours) was higher than that of the ones spending two to four hours on social networks (33.73 ± 5.51 hours), and it was higher in the ELLs using social networks two to four hours a week (33.73 ± 5.51 hours) than that of the ones spending less than two hours on social networks (31.16 ± 6.47 hours).

Cognitive engagement of the ELLs using social networks four to six hours a week (32.83 ± 2.98 hours) was higher than that of the ones spending two to four hours on social networks (29.7 ± 4.78 hours), and it was higher in the ELLs using social networks two to four hours a week (29.7 ± 4.78 hours) than that of the ones spending less than

two hours on social networks (26.81 ± 7.002 hours).

4. Discussion and Conclusion

The results of the current study indicated that ELLs academic engagement varied according to their use of social networks in language learning at the ILL, Tabriz branch. The results were consistent with the studies by Zarei and Ghorbani (10), Gagnon (21), Diug et al. (20), Kolluru and Varughese (19) regarding the effect of virtual social networks on AE and were inconsistent with those of Islam et al. (25), and Kirschner and Karpinski (22) regarding the lack of effects of virtual social networks on AE.

Student engagement is a determining factor in student's motivation and academic achievement and is generally a major factor in student's academic life. There is an agreement among the experts that student engagement is a multi-dimensional concept and its dimensions include behavioral, emotional, cognitive subtypes. Components of student academic engagements are crucial factors that affect students' academic achievement in school. Student's engagement contributes as a dynamic process to better performance of students in other fields of study and education.

Regarding the current study findings, it can be said that the spread of new technologies in the field of electronics and computers over the past decades led to the emergence of a variety of electronic and computer programs in the world such as the internet, mobile phones, satellite receivers, and computer games. With the advent of social networks, the use of these networks is an integral part of the lives of many students and has a direct impact on all aspects of students' lives including studying, AE, and other academic skills. Many studies investigating the motivations of people in subscribing to virtual social networking sites show that these networks provide all the needs of users previously met by e-mail, news websites, weblogs, chat rooms, etc. People come to such spaces for entertainment, information needs, socialization, curiosity, social interaction, and spending time.

Students' AE shows their tendency toward positive aspects of classroom in all aspects of emotional, cognitive, and behavioral dimensions. Academic engagement and its activities play an important role in improving the academic activities of students. Students with higher academic engagement have more academic achievement.

E-learning provides a convenient environment for interactive and multimedia communication between a network of people, places, teachers, and students together. This multimedia interaction, in the case of proper and principled planning, can play an important role through tools such as online discussions, chat with classmates

Table 1. Results of ANOVA Test^a

Social Network Use	N	Engagement			
		Academic Engagement	Behavioral Engagement	Emotional Engagement	Cognitive Engagement
Less than medium (less than 2 h)	48	86.52 ± 16.7	28.47 ± 4.66	31.16 ± 6.47	26.81 ± 7.002
Medium (2 - 4 h)	120	93.74 ± 12.73	30.13 ± 4.28	33.73 ± 5.51	29.7 ± 4.78
Higher than medium (4 - 6 h)	36	103.82 ± 8.19	33.15 ± 2.89	37.55 ± 3.44	32.83 ± 2.98
F	-	17.78	13.11	14.07	14.07
P value	-	< 0.001	< 0.001	< 0.001	< 0.001

^aValues are expressed as mean ± SD.

Table 2. The Results of LSD Test

Dependent Variable	Use of Network (I), h	Use of Network (J), h	Engagement Mean Difference (I-J)	Std. Error	P Value
Academic engagement	Less than 2	2 to 4	-7.21*	2.24	0.002
		4 to 6	-17.29*	2.9	0.001
	2 to 4	4 to 6	-10.07*	2.49	< 0.001
Behavioral engagement	Less than 2	2 to 4	-1.66*	0.713	0.021
		4 to 6	-4.68*	0.92	< 0.001
	2 to 4	4 to 6	-3.02*	0.79	< 0.001
Emotional engagement	Less than 2	2 to 4	-2.56*	0.93	0.007
		4 to 6	-6.38*	1.2	< 0.001
	2 to 4	4 to 6	-3.82*	1.03	< 0.001
Cognitive engagement	Less than 2	2 to 4	-2.88*	0.88	< 0.001
		4 to 6	-6.01*	1.13	< 0.001
	2 to 4	4 to 6	-3.12*	0.98	0.002

and teachers without time and space limitation to enhance learning. Learner engagement is a key element of e-learning. In order to make better use of cyberspace in training, in particular to make better use of virtual social networks, creating more attractiveness through providing appropriate tools, allocating sufficient resources, creating technical, cultural, and social infrastructure and managing predictable programs is important. On this basis, also with regard to the theory of participatory learning, students can be excluded from the passive mode and encouraged to engage in teaching and learning more effectively. Thus, with regard to socializing the teaching process, supporting the student's activity during teaching-learning and paying attention to learner's needs and his social status in education, learning engagement of learners increases. E-learning, based on virtual social networking, can provide more opportunities for interaction between learner and content, learner with teacher, learner with other learners, and provide the possibility of sharing information and sharing knowledge as well as achieving

new knowledge based on self-learning process. The key to all these learning activities and activities in cyberspace is the engagement of the student in the teaching process. Using participatory learning in the e-learning environment influences learning experiences in an online environment and improves the e-learning ecosystem. Increased engagement due to frequent partnerships in various activities, such as studying an issue, feedback, engaging in active learning, and engaging with instructors and other students are some of the improvements in the e-learning environment. Promotion of ICT infrastructure in the development of e-learning, in particular the use of virtual social networks such as Telegram, Facebook, Twitter, etc., in training and also helping learners use electronic devices such as smartphones, laptops, tablet, etc., can lead to more opportunities for learners and the development of educational engagement in them.

Based on the obtained results of the current study, the following applied suggestions can be presented:

Due to the fact that students' AE differs in terms of the

level of using social networks in language learning, it is suggested that parents introduce useful networks to their children. Moreover, since cognitive engagement of ELLs varies in terms of the level of using social networks in language learning, it is recommended that teachers try to create groups, prepare materials for them, and manage them. Since students' emotional engagement differs in terms of the level of using social networks in language learning, it is also recommended that parents and teachers try to introduce useful channels and collaborate with the students involved. And, behavioral engagement of students also differs in terms of the level of using social networks in language learning; hence, it is suggested that scientific workshops be organized for the benefit of learners, and the culture of using social networks be presented to them as well. Based on the current study findings, it is recommended that researchers study operational strategies affecting the efficiency of social networks in learning the English language as well as the possibility of using social networks in other types of formal education such as schools or staff training.

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Footnotes

Authors' Contribution: All authors had equal role in data analysis, drafting, and critical revision of the manuscript. They also read and approved the final copy of the manuscript.

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