

## THE ROLE OF VIRTUAL SOCIAL NETWORKS IN STUDENTS' LEARNING PROCESS

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**Abstract:** This study mainly aimed at examining the role of employing virtual social networks and the learning process of the girl students of the first grade of secondary school in Eslamshahr in 2015-2016. The statistical population included 390 students were selected as the statistical samples through random cluster sampling. The data were collected using the questionnaire for virtual social networks and the questionnaire for learning process. Reliabilities of the measuring tools using Cronbach's alpha were respectively reported 0.72 and 0.81. Pearson correlation coefficient, regression analysis, and ANOVA were used for data analysis. Research results indicated a significant and negative relationship between employing virtual networks and learning process of the girl students of the first grade of secondary school in Eslamshahr district.

**Keywords:** virtual networks, learning process, the first grade of secondary school, students

### 1 Introduction

Today, one of the factors considered by experts and scientists for the development and survival of each country is the use of new technologies in the field of education in general and educational achievement in particular. The issue has caused major changes in the learning nature of students and the optimal use of the capacity of technologies provides learning with a specific scope and enrichment (Afzalnia, 2008). Combining technology with class curriculum is the integral part of an appropriate teaching (Pierson, 2001); however, the use of technology as a tool for teaching and learning in a classroom should provide assignments, which develop data recovery for problem solving, promote deep processing of ideas, and increase engagement of a learner with curriculum and teacher-learner and learner-teacher interactions. Therefore, the use of the Internet and virtual networks has been developed extensively among children and adolescents nowadays. When today's generation of children reach the age of maturity, they become familiar with the devices introduced to market easily and equip themselves with the latest knowledge in proportion to knowledge advancement. Hence, the future generation is the generation, which grows up with the Internet and other modern communication technologies and depends on them strongly. This makes parents, managers, and planners of different cultural and training sectors attempt to find solutions for the negative consequences of such technologies, particularly the Internet (Bidi *et al.*, 2013).

Therefore, we are witnessing significant developments with the spread of mass media and emergence of virtual social network among young people in educational system. Today's students never have the previous limitation and they are connected to any point across the world and interact with the teachers and students out of school environment. The emergence of the Internet has affected learning process. E-learning is one of the new training methods, which is used for training. The positive aspects of social network sites (SNS2) and their usage are being revealed. At present, students use SNSs as an assistant for their education in teamwork (Zavaraki *et al.*, 2015). On the other hand, with an extensive access of students to the Internet and virtual networks, we are witnessing a kind of dependency on networks and virtual environments. This increases relations of individuals in the virtual world; in contrast, their relations in the real world reduce (Samson and Keen, 2005).

Reviewing the studies on national education process indicates that the educational growth and development has always been one of the fundamental discussions, which has gained attentions of education experts, scholars, and researchers. Obviously, educational achievement of students in an educational system depends on several factors such as the use the Internet and virtual social networks (Afganeh, 1998). Studies show that the first online social network "Six Degees.com" was created in 1997. Despite its success with 90 million users in late 90s, it terminated its activity in 2000. As an online social network such as Asian Avenue<sup>1</sup>, Black-plante<sup>2</sup>, and Livejournal<sup>3</sup>, it could not provide different combinations of technical features such as profiles, list of friends, visitors' log in its service. In 2001, the first business network was created with the emergence of Ryze<sup>4</sup>. This network established business relations between users and supported the communications. Finally, it was considered as a pattern for business networks. A few years later, it was converted into a sync network. Soon after, in 2002, the well-known Friendster network was established as a rival for the online profitable websites of Dating Online<sup>5</sup> Mag.com. Although Friendster was considered the greatest social network in the Internet by early 2004, it lost a large number of its users due to technical and social problems. For this reason, this network is called "one of the biggest losers in the world of the Internet". The early years were finally converted into a basis for the emergence of other online and popular social networks such as Myspace, Facebook, or Studivz, which have highlighted constantly the phenomenon of online social networks since 2003. Clay Shirky - a social software analyst - describes the growth and development of online social networks based on their early emergence using YASNS (Yet another Social Networking Service) term. Myspace network was established in America in 2003 and it has been known as the biggest and most famous networks in the world in music since then. Another network - Facebook - was emerged in 2004, which has had considerable achievements since then. It was designed and created by Mark Zuckerberg in Harvard University. Only Harvard University students were its audience at the beginning, but some steps were taken toward network development and it was converted into a global network (Mahmoudi *et al.*, 2014).

Social networks can be divided into two groups of *virtual social networks* and *non-virtual social networks*. Different definitions have been proposed for social networks. The major definition is that the social networks or Internet social network is a site or a series of sites, which allow users to share their interests, thoughts, and activities. The social networks have been developed with unparalleled speed in a short period during recent years. In fact, virtual social networks are a combination of the hardware and software tools, which allow individuals to exchange information in a convenient, instant, extensive, cheap, and confident manner. Specifically, the social networks allow accessing to the specific data related to different fields. In virtual social networks, individuals may present information (by placing some posts on blogs or other social networks) or obtain some information (the same).

Internet social networks, especially those with conventional and non-business applications, are some places in the virtual world in which individuals introduce themselves in brief and provide conditions to establish communications with like-minded people in different fields (Oftadeh, 2011). The opinion poll of USA Today in 1997 indicated that 86 percent of teachers believed that the Internet made students fail to do their assignments, as they spent more time on the Internet, web surfing or online games instead of doing their assignments. Another opinion poll « Kimberly Young » shows that 58% of the students who use the Internet and virtual networks

<sup>1</sup> AsianAvenue.com

<sup>2</sup> Black-plante.com

<sup>3</sup> Livejournal.com

<sup>4</sup> Ryze.com

<sup>5</sup> Dating Online

excessively are placed at risk of school failure. In conclusion, it can be stated simply that extravagance in any aspect of life requires underachievement in other aspects of life. *Excessive indulgence* in the glamorous world of the Internet and virtual world hinders and aborts other affairs of users. Evidently, they slip farther behind those who have normal lives, they move away from the everyday life and social life, and they can never play the role expected by family, friends, and society (Bidi et al., 2013). Thus, it is of paramount importance to realize if there is a relationship between the use of virtual social networks and students' learning process, which is discussed in this research. Therefore, this research mainly focuses on the extent learning processes are influenced by virtual social networks.

## 2 Methodology

### 2.1 Population, Sample, and Sampling Method

This is a descriptive correlational research, as it aimed to examine the role of employing virtual social networks with the learning process of the girl students at the first grade of the secondary school in Eslamshahr district. Research statistical population included all the girl students of the first grade of the secondary

school in Eslamshahr in 2015-2016 academic year (8600 students in 32 schools in 10 sections). Therefore, cluster random sampling and Morgan's table were used for selecting 390 students at grade one as the statistical samples among 13 secondary schools for girls.

### 2.2 Research Tools and Data Collection Method

Two standard questionnaires including A) the *questionnaire for virtual social networks* and B) the *questionnaire for learning process* comprising three sections of Introduction, Research Demographic Variables, and Research Questions were prepared for testing research hypotheses. The Weinstein learning process questionnaire comprises 10 components including anxiety, attitude (students' interest in school and continuing education), concentration, data processing, motivation (level of persistence), self-assessment (attempt to review and exam preparation), main idea selection (ability to realize the major points of a lesson), study, time management, and examinations (exam preparation). Reliability of the measurement tools was calculated using Cronbach's alpha. Reliability values for the questionnaire of virtual social networks and the questionnaire for learning process were 0.72 and 0.81, respectively.

## 3 Research Findings

Table 1. Frequency distribution and percentage of research sample for any visual social network

Statistical Index Virtual Social Network	Frequency	Percentage
Facebook	34	8.7
Viber	39	10
WhatsApp	38	9.7
Line	71	18.2
Telegram	90	23.1
Instagram	85	21.8
Bee Talk	33	8.5
Total	390	100

As Table 2 shows, students mostly use Telegram virtual social network (23.1%). The percentages for Instagram, Line, Viber,

WhatsApp, Facebook, and Bee Talk are 21.8%, 18.2%, 10%, 9.7%, 8.7%, and 8.5%, respectively.

Table 2. The descriptive statistics for research variables

Variables	Mean	SD	.Min	.Max
Application of Virtual Social Networks	72.08	12.89	30	92
Learning Process	180.71	54.88	88	322
Anxiety	26.80	5.86	10	36
Attitude	23.12	4.33	11	29
Concentration	22.23	6.66	11	37
Date Processing	23.66	5.86	14	35
Motivation	22.78	5.71	11	36
Self-assessment	20.16	5.46	10	36
Idea	20.68	5.11	9	30
Study	18.86	4.91	10	32
Time Management	17.56	4.71	10	34
Examinations	20.07	4.38	30	34

Table (2) indicates the mean, standard deviation, minimum, and maximum of the tests on the application of virtual social networks, learning process, and its subscales. Table (2) shows that the means of test for applying virtual social networks and learning process are 72.08 and 180.71, respectively. Among the subscales for the learning process, the maximum mean (26.80) was related to

anxiety and the minimum mean (17.56) was related to time management. Before discussing the research hypotheses and normality of the frequency distribution for research variables, the Kolmogorov-Smirnov test for goodness of fit was used for specifying its distribution.

Table 3. The Kolmogorov-Smirnov test based on normalization of data

Test	Quantity	Kolmogorov-Smirnov	Level of Significance
Application of Virtual Social Networks	390	0.95	0.32
Learning Process	390	0.92	0.36

The results of the Kolmogorov-Smirnov test indicate that the distribution of research variables was normal and the parametric statistics can be used for analysis assuming that the variable is within the interval scale.

Pearson correlation coefficient and multiple regression were used for examining the major hypothesis and minor hypotheses and the results are as follows:

Table 4. Pearson correlation coefficient test for the relationship between research variables (n=390)

Variables		Correlation Coefficient	Level of Significance		
Independent Variable	Dependent	-.131**	0.01		
Social Networks	Students' Concentration				
	Motivation			-0.27**	0.001
	Study			-0.155**	0.002
	Time Management			-0.124**	0.01
	Examinations			-0.188*	0.001
	Anxiety			0.04	0.34
	Attitude			0.06	0.18
	Self-assessment			0.06	0.17
	Processing			0.01	0.83
	Main Idea			0.064	0.20
Total	Learning Process	-0.164**	0.001		

The overall correlation coefficient in Table 4 shows that there is a negative significant relationship between the use of virtual social networks and the processes of students' concentration, motivation, study, time management, and examinations at the confidence level

of 0.001. Therefore, the higher the use of virtual social networks, the weaker is the learning process in students. Research results show no relationship between the use of virtual social networks and the processes of anxiety, attitude, self-assessment, and process.

Table 5. The results of regression analysis to predict the variable of learning processes

Independent Variable	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
Virtual Social Networks	0.164	0.027	0.024

The R<sup>2</sup> values in Table (5) show that the use of virtual social networks approximately clarifies 3 percent of the changes of learning process. The one-way ANOVA is used for regression

significance, i.e. to check whether the predictor variable (the use of virtual social networks) may be effective in predicting the variable of learning process criterion. The test results are provided in the following table.

Table 6. The one-way ANOVA for the predictor variable

Model		Sum of Squares	df	Mean of Squares	F	Level of Significance
1	Regression	31604.681	1	31604.681	10.75	0.001
	Error	1139995.155	388	2938.132		
	Total	1171599.836	389			

As Table (6) shows, the F (10.75) is significant at the level of 0.001 and the predictor variable plays a crucial and significant role in predicting learning process.

Table 7. The results for the regression coefficients of learning process

parameters				t	Level of Significance
	$\beta$	Error	Beta		
Constant Value	231.101	15.607		14.808	0.000
Use of Virtual Social Networks	0.699	0.213	-.164	3.280	0.001

Table (7) shows a negative and significant relationship between the use of virtual social networks and learning process. With respect to the coefficients in the table, it is possible to write the following regression equation for the criterion variable (learning process) as follows:

$$b_1x_{1+a} = \text{Constant value of } \hat{y} \quad (1)$$

Learning process = 231.101+0.69 (the use of virtual social networks)

#### 4 Discussion and Conclusion

The present research discusses the role of the use of virtual social networks and the learning process of the girl students of the first grade of secondary school in Eslamshahr district. Research results

proved that the correlation coefficient between the use of virtual social networks as the predictor variable and learning process (concentration, motivation, study, time management, and students' examinations) as a criterion is negative and significant with respect to the confidence level of 0.01. That is, the higher the use of virtual social networks, the weaker is the students' learning process. The univariate regression proved that use of virtual social networks is a negative and significant predictor of students' learning processes. The result is consistent with the studies of Abadi (2009), Javadinia et al., (2012), Hasanzadeh et al., (2012) and Hashemi (2009), Habibi (2015), Bolen and Harry (2000), Yong (1996), Young (1998), and Gustavmesh (2012). It is inconsistent with the studies of Kian, et al., (2015), Mansouri (2012), and Lokin et al., (2012). Based on the research results, it is recommended that parents allocate a short time for connection to the Internet as per a preplanned schedule to prevent it from influencing students' learning processes.

## References

1. Afganeh, S.: Examining the relationship between mental preparation, pre-school education, family specifications and educational achievement, Master's Thesis. Islamic Azad University of Roudehen, 1998.
2. Afzalnia, M.: Design and introduction to learning centers, materials, and resources, Tehran: SAMT Publications. 2008. ISBN 1875324923.
3. Bidi, F., Kareshki, H.: Internet addiction, Tehran: Avay-e Nour Publication, 2013. ISBN 1453782349.
4. Ebrahimabadi, H.: The pattern of internet use, cultural research quarterly, 2009. Vol. 7, p. 97-118.
5. Habibi, M.: Actual norms and virtual abnormalities, Tehran: Tehran University Publications, 2011. ISBN 1375873245.
6. Hasanzadeh, R.: The Relationship between Internet addition and educational achievement and personal characteristics of learners, Quarterly of IT and Communications in Educational Sciences, 3<sup>rd</sup> Year, 2002. Vol. 1, p. 34-39.
7. Javadinia, A., The pattern to use virtual social networks among the students of Birjand University of medical sciences, Iranian journal on training in medical sciences, 2013. Vol. 12, p. 8-14.
8. Kian, M.: Reassessing the role and application of virtual social networks for students, Noor Specialized Journal Database, 2013. Vol. 3, p. 69-88.
9. Mahmoudi, A., Mahmoudi, M., Torkashvand, P.: Social Networks: Aspects and Concepts. Tehran: Saco Publications, 2014. ISBN 1559873452.
10. Mansouri, Z.: Studying different interactions of students in connection with curriculum in a virtual environment", Master's thesis, Tehran Payame Noor University, 2012.
11. Oftadeh, J.: An introduction to the history of social networks, Hamshahri Online, content code: 137239. Available at <http://hamshahronline.ir>, 2011.
12. Pierson, M.E., Pierson, M.E.: Technology integration practice as a function of pedagogical expertise, Journal of Research on Computing in Education, 2001. Vol. 33(4), p. 413-430
13. Samson, J., Keen, B.: Internet Addiction". Retrieved from [http://www.Islamonline, Net/English/Last](http://www.Islamonline.Net/English/Last) visited 2016/05/13Science/2016/05/article.4.shtml, 2005.
14. Zarei Zavaraki, Es.: Determination of the impact of virtual social networks on the English language learning of students, National Conference on Virtual Social Networks: A bed for training and learning, Allameh Tabatabaei University, 2015. Vol. 3, p. 11-13.

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