

Impact of Integrating Facebook with Regular Classroom Instruction on Overall Student Evaluation of the English Language Course Offered at the Undergraduate Level

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Abstract: Facebook is one of the most popular social networking website among the Pakistani youth. It has become eminently predominant to integrate Facebook in academics. Numerous studies point at the positive impact of Facebook when used as a teaching aid with well-defined educational objectives. For this reason, a study was performed on the students of BS Computer Science to find the impact of a course related Facebook group incorporated with regular classroom instruction on students' overall evaluation of teaching and learning in the context of Pakistan. A questionnaire was administered to a sample of 61 consisting of students of three sections of the English Language course. Different tests like factor analysis and regression were performed on the data. The results indicate that Facebook had a positive and desirable impact on students' evaluation of the course. It is recommended that Facebook must be incorporated as a teaching tool with specific educational objectives to enhance English Language Teaching.

Key Words: Course related Facebook group 1, Physical classroom instruction/teaching 2, Student Evaluation 3

Introduction

Social networking sites are very popular these days. They offer a convenient platform on the web to people who intend to connect, interact and socialize with each other. Among the various SNSs, Facebook is particularly more popular. It allows people to build virtual communities, set up Facebook pages, and make groups on the basis of shared interests and get in touch with each other to share their ideas, views, or educate themselves about their area of interest or cause. Also, Facebook allows people to connect and socialize with others.

Facebook has become extremely famous in Pakistan in the past eight years. According to reports published by Pakistan Advertisers' Society, one million Pakistanis joined Facebook in January, 2014. By the end of the month, there were 12.6 million active Facebook users. An astounding fact is that 50 % of the users fall in the age group of 13 to 34. It can be concluded that Facebook is hugely popular among the Pakistani youth.

Educationists have realized the potential of Facebook as an academic tool long ago. It is widely used by educators in various ways. It is a common practice to use course related Facebook groups or pages at all educational levels.

Keeping in view the popularity of Facebook among the youth and the ever increasing number of Facebook users in Pakistan, the instructor decided to use a Facebook group to enhance student participation and learning in the English language course having the code number SS102 offered to Freshman at the department of Computer Science in FAST-National University of Computer and Emerging Sciences. Almost all the students had a Facebook account and were active users as well. Three facebook groups were built for the three sections of the English language course. All the students joined the group in the fourth week of the sixteen week semester. Facebook group was then used actively by the instructor in addition to the physical classroom instruction. The activities performed by the instructor on the Facebook group were as follow:

- Posting links to online grammar exercises
- Posting links to online listening and reading exercises
- Posting links to interesting articles to build reading habits
- Posting rubrics for presentation
- Sharing interesting thought provoking quotes to augment critical thinking
- Posting and sharing infographics
- Posting links to online vocabulary exercises and databases
- Posting words of the week
- Liking and commenting on students' posts
- Initiating fruitful discussions

After the completion of the course, the instructor decided to obtain students' feedback regarding the use of Facebook group in the English language course to determine its impact on students' learning. Therefore, this paper aims to investigate the impact of using a Facebook group along with regular classroom instruction on students' overall evaluation of teaching and their learning in the English language course

The next section presents a critical commentary of the literature on the subject. It is followed by the discussion of research methodology employed to find out the impact of Facebook group. The next section presents the findings and leads to the conclusion and the recommendations section.

Review of Literature

Web 2.0 technologies have played a significant role in redefining the way we communicate with each other. Web 2.0 technologies allow individuals to interact, communicate, and socialize with each other through the web. In this way, they build digital communities which impact one's life in ways not very different from the physical community. The students of this modern era are surrounded by such technology and use it to its full potential to enhance their lives. The modern child is often termed as "the digital native".

Facebook which is a Web 2.0 technology is a household term these days. It is a social networking website where people can interact, collaborate, and form virtual communities. It is an online communication tool allowing users to construct public and private profiles to connect with people all over the globe (Boyd & Ellison, 2007). Almost every student in any university has a Facebook account. Educationists and academicians are increasingly considering the use of Facebook in academics. It did not take very long for the educationists to realize the potential of Facebook as a respectable e-learning platform (Bosch, 2009).

It has become a common practice to build a Facebook group in addition to the physical classroom instruction for any given course at least at the university and college level. If there exists a specific course related group on Facebook controlled, managed, and led by the teacher, students' learning, motivation, and participation is substantially enhanced. Most of the students are active Facebook users and they will log onto Facebook more often than any academic suite. They may naturally want to check the notifications of the course group and will consciously and subconsciously learn more. There are numerous researches to support the fact that Facebook groups formed in addition to the physical learning environment impact students' academic achievement in a positive way.

Irwin et al (2012) evaluated students' perceptions regarding the use of "Facebook Pages" within individual courses offered at the university. Through convenient sampling, he selected subjects who consisted of 4 instructors and 253 students from 4 courses conducted by the University's Health faculty. He administered questionnaires to the subjects in the first and the last class of the semester. The pre semester questionnaires asked students their opinions about the usage of Facebook in academics and their expectations from the Facebook pages designed for their courses. The post semester questionnaires asked students their opinion about the usefulness of Facebook pages and suggestions for improvement, and their perspective regarding its future as a student support tool. Next, Leveritt calculated the frequency distributions for each item and used Pearson's chi-square test to compare the pre and post semester responses. He found that the students have a favourable attitude towards the use of Facebook in academics and feel that it is useful in enhancing communication and interaction and in accessing course content. However, Irwin et al (2012) points out that it is still unclear if and how Facebook can enhance students'

learning outcomes. He recommends that further research is needed to enlighten one in regards with this matter.

Kabilan et al (2010) investigated whether university students consider Facebook useful and effective in learning the English language by administering questionnaires to 300 undergraduates at Universiti Sains Malaysia where the questionnaire had two sections-section A requiring demographic information about students, like, gender and language ability, and section B enquiring about students' Facebook usage and a construct on learning English in the Facebook environment. Kaliban et al analyzed the demographic data by using frequency and percentages, and to examine the items in the construct, they employed mean scores, frequency and percentages to describe students' views on Facebook as a learning environment for English. Kaliban et al found that Facebook can be a positive tool for use in the teaching and learning of English, but to utilize its full potential, it should be incorporated with well-defined educational objectives and supervision by the teacher.

Junco (2011) examined the relationship between frequency of Facebook use, participation in Facebook activities, and student engagement by using a large sample (N=2368) of college students. The variables student engagement, time spent for class and time spent in co-curricular activities were used. Linear regression was applied. The results show that Facebook can be used in ways that are advantageous to students. It is recommended to the instructor to personally supervise student activity on Facebook.

Ebosch (2009) explored the usage of Facebook for teaching and learning purposes by using the sample of 50 undergraduate students. In this article, the use of Facebook by university students, and lecturers' engagement with students via Facebook had been discussed. Virtual ethnography, qualitative content analysis, and semi structured interviews were conducted. It is concluded that computer based learning is quite efficient and useful from technological and economic perspectives. It is recommended that the medium of Facebook should be promoted as it will be useful for generating peer review on their written work.

Wang et al (2012) explored the usage of the Facebook group as a Learning Management System. In this study, the Face book group was used in two elective courses; one of the courses was offered to 16 students and their age varied from 24 to 25; the other course was offered to 15 students aged from 20 to 23. Likert Scale, Mean, Standard Deviation have been applied. The results show that the Facebook group has the potential to be used as a Learning Management System. It is recommended that the effective use of Facebook in learning can be achieved with many other factors like sound instructional design, positive teacher attitude, and strong technical support.

Shih (2013) explored the effect of incorporating blended learning with Facebook and peer assessment for English for Business Communication course for college students by selecting a

sample of 111 students enrolled in an ESP course: English for Business Communication in a technological university in Taiwan. The participants were divided into three groups and each group was required to use Facebook for giving peer assessment and feedback on their four assignments and also for sharing their English professional knowledge and exchanging ideas and opinions. Shih employed a mixed method comprising of pre and post tests for Facebook activities, four writing assignments with feedback on Facebook and LSSQ survey, interview and students' self-efficacy scale. He analyzed the quantitative data by SPSS descriptive analysis and factor analysis. The findings of the study show that incorporating Facebook in ESP courses can effectively assist students in learning Business Communication English and using Facebook would require instructors to put extra efforts in grading, correcting, and guiding students' activities and assignments.

Yunus and Salehi (2012) investigated the students' perceptions regarding the effectiveness of Facebook groups for teaching and improving writing. The researchers used a mixed method on the sample consisting of 43 third year students from the faculty of Education. The students had to participate actively in a Facebook group created by the researcher called "Write out Loud". At the end of the course, the students were administered questionnaires which had different sections. One section asked students about their opinions about the usefulness of Facebook groups in the writing process. The qualitative data were analyzed by frequency, percentages, and mean scores. The result of the study shows that a Facebook group is an effective tool especially in the brainstorming stage of writing. However, more in depth qualitative enquiry is needed to fully understand the impact of Facebook.

McCarthy (2010) explored the results of blending virtual and physical learning environments to enhance the experience of first year by immersing students into university culture through social and academic interaction between peers by using Facebook as a tool in addition to lectures and tutorials. His sample consisted of 120 students including 27 international students, enrolled in the course "Imaging Our World". The students were required to submit work online to Facebook and provide critiques of peers' submission, and the resulting discussions were transferred into the physical classroom to build meaningful relationships between peers. McCarthy administered pre and post semester questionnaires to the subjects and also collected weekly feedback and project specific reflections from the students. He used pre semester questionnaires to obtain information about demographics and other descriptive variables including gender, age bracket, residency, Facebook usage, such as, time spent on the site, and types of connections it was used for, and finally, he assessed students' attitude towards online and in class communication with peers. In the final week, through a survey, he assessed students' experiences throughout the course and their views about the effectiveness of the virtual and physical classroom. McCarthy found that international students found it more convenient and easier to communicate with local students via Facebook and also the local students were also very keen to engage with students from different backgrounds. This connection transferred into the physical classroom too as Facebook

provided a good platform for preliminary socialization and interaction with peers. This blending increased interaction with peers.

In the light of the above researches, it can safely be concluded that facebook, if incorporated with physical classroom teaching, has a positive effect on students' evaluation of teaching and learning. For this reason, a facebook group was built for the students enrolled in the English Language course at FAST-National University of Computer and Emerging Sciences to discover the impact of facebook integration with regular instruction in the context of Karachi, Pakistan.

Methodology

Student evaluation of a course reflects their opinions and verdict regarding the instructor, teaching methodology, and academic achievement. To measure the impact of using a course related Facebook group, a likert scale questionnaire was constructed to obtain student evaluation of teaching and learning in the English language course. Students' opinions received via the questionnaire were analyzed to determine the impact of a Facebook group for the course. The model used to estimate the effect of using a Facebook group along with regular classroom teaching on students' evaluation of their learning is elaborated below:

$$y = \alpha + \beta_1 FB + \beta_2 PC + \varepsilon$$

where 'y' represents students' overall evaluation of their learning; 'FB' represents the facebook group made for the course and 'PC' stands for the physical classroom learning. The model is estimated by using the data obtained from administering questionnaires to all the students enrolled in the three sections of the course. Sixty one out of sixty four students filled the online questionnaire. The questionnaire consisted of a total of twenty items and a 1 to 5 likert scale. Reliability analysis, factor analysis, and regression analysis were performed on the data.

Findings

This section presents the data are structured in a specific order. The data were analyzed by using different tests in SPSS software.

Reliability:

To demonstrate data reliability, the statistical tests of reliability have been performed. The instrument (likert scale questionnaire) contains 19 items. Reliability test was run in SPSS software and according to the limitation; the value of Cronbach's Alpha must be more than 0.5 that is 50% in order for the data to be reliable. The Cronbach Alpha value of this study is 0.699 which means 69% and therefore the value determines the reliability of the data and that the data is acceptable.

Table: 1

Variable	No. of Items	Cronbach's Alpha
Student Evaluation	7	0.677
Face book group	7	0.569
Physical class room instruction	5	0.563
Overall	19	0.699

The first variable has 7 items and the value of alpha of these items is 0.677. The second variable also has 7 items and their value of alpha is 0.569. The third variable has 5 items and their alpha value is 0.563. The overall reliability of the scale is 0.699 or 69%.

Factor Analysis:

Table: 2

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.804
Bartlett's Test of Sphericity Approx. Chi-Square 366.011	
Df	66
Sig.	0.000

As per the requirement, the value of alpha is greater than 0.50 and thence the data are reliable. The values of KMO and Bartlett tests are 0.804 and 0.000 respectively. The values confirm the adequacy of the sample for performing factor analysis.

Table: 3

Rotated Component Matrixa

	Component		
	1	2	3
Student Learning: It was clear to me what I was supposed to learn in this course.			.618
The handouts and other materials we were given helped me to understand the units.			.733
The different types of teaching (lectures, labs, facebook) supported each other well.			.848
Facebook: Because of using the Facebook page, I was able to learn more English.	.902		
Using the Facebook page enhanced my interest in the course.	.765		
I liked seeing my mentors' feedback on what I posed on the Facebook page.	.854		
I learned more because of information posted by my mentors on the Facebook page.	.673		
Because I was already on Facebook, the page was a quick and easy way to get information and keep up to date.	.517		
Physical classroom learning: The atmosphere in the class is relaxed during the lectures		.763	
The physical atmosphere of the classroom motivates me as a learner		.774	
In the classroom I feel able to ask the questions I want		.854	
I feel comfortable in class socially		.564	

According to the table, the result of factor analysis shows the independent variables' accuracy of the data. In table 4.2.2, rotated component matrix defines the correlation between the independent variable when compared with the dependent variable. The value which possesses the highest value of correlation shows the highest level of relationship to the dependent variable. It makes a group for each variable.

Regression Analysis:

Table: 4

Regression Coefficient(Students' Evaluation)

Variables	Coefficient	t-stats	Prob.	V.I.F
(Constant)	2.285	4.949	0.000	
Facebook Group	0.225	1.904	0.062	1.357
Physical Classroom Learning	0.247	1.954	0.056	1.357
Adj. R²	0.181			
F-stats (Prob.)	7.638 (0.001)			

The above table describes the statistics of all the variables be it dependent or independent along with their beta values, co-linearity value, and significant value. The value of beta demonstrates the nature of the relationship between dependent and independent variables. If the value of beta is positive, it means that positive relationship exists between the dependent and independent variable and if it is negative, it means that there is a negative relationship between the dependent and independent variable. According to table 4.3.1, both the independent variable "Facebook group" and "Physical Classroom Learning" have a positive impact on students' overall evaluation of the teaching learning experience.

The regression equation formed using beta value is as follows:

$$\text{Student Evaluation} = 2.285 + 0.225 (\text{Facebook group}) + 0.247 (\text{Physical classroom learning})$$

The t value shows the relative importance of each variable in the above model. P value shows the significance of each variable. In the above table, the Prob. values of variables Facebook group and Physical classroom learning are 0.062 and 0.056 respectively. Since both the values are less than 0.1, it can safely be claimed that both the independent variables have a significant effect on

the dependent variable. The VIF value shows that multiple co-linearity does not exist in this model. The VIF value represents the coefficient of multi co-linearity. As per the rule, if the VIF value is greater than 10, multi co-linearity exists. As the VIF value in the table 4.3.1 for both the variables is less than 10, change in the value of any variable does not affect the values of other variables. Adjusted R square in the table 4.3.1 shows that the model can predict the dependent variable with only 18% accuracy.

Conclusion

Student evaluation of teaching and learning in a language class can be enhanced by utilizing multiple technologies. This study intended to analyze the impact of the usage of Facebook group integrated with the traditional classroom teaching on the students' evaluation of teaching and learning. For this purpose the teacher designed a research instrument (Likert Scale Questionnaire) and got it filled by the students enrolled in the English Language course at FAST-National University. The variables Facebook, physical classroom, and students' evaluation of teaching and their learning have been used. The sample size for this research was 61.

At the end of the semester, that is, Fall 2013, the data were collected from the students of 3 sections of the English Language course. This data was scrutinized with the application of different tests on SPSS. The first test applied was the reliability test to measure the reliability of the data, then factor analysis was performed to check the value of the KMO (Kaiser-Meyer-Olkin) and Bartley to determine whether the data were enough to run the regression or not. The factor analysis test also informed through rotated component matrix about the co-relativity between the items of variables. This helped in finding out the outliers and making a perfect bunch of items for each variable. Next, linear Regression was run that revealed that the two independent variables-classroom learning and Facebook- both have a positive impact on student evaluation of teaching and learning.

The importance of traditional class room teaching cannot be negated and this has been proven through this study. Facebook can be used as one of the tools to improve the level of learning. This study shows that students find this platform quite informative and practical. Even the shy students of the class were able to interact with the teacher through the medium of Facebook. As the students were already on Facebook, so it was not at all difficult to learn through Facebook as compared to any other academic suite. In case of an academic suite, students are always a little reluctant in the beginning but in the case of Facebook the learners were already familiar and comfortable with this platform. Thence, the integration of Facebook with the class room teaching impacted student learning positively.

Suggestions and Recommendations

The purpose of this study is to find out the level of effectiveness of the Facebook page on the students' language learning. Results of the tests reflect that the students were quite at ease with

the usage of the Facebook page for their learning. Also, this tool can be used with the traditional classroom teaching to improve the level of student learning.

Physical class room setting also plays an important role in the learning of the student. Consequently, the environment of the class should also be made better for improved learning. The friendly atmosphere and the freedom of expression in the classroom have a good impact on the learning of the students especially in a language class.

Following are the recommendations with respect to this study:

- The use of technology in the language class should be made obligatory for the teachers. It will yield positive results in student learning.
- As Facebook is quite popular among the youth, the use of Facebook page will motivate the students toward the learning activities.
- The Facebook page and the class room teaching should be aligned properly so that topics taught in the classroom can be more easily understood by the students with the help of the links provided by the teacher on Facebook.
- Teacher should use the platform of the Facebook effectively for discussion. This will help the instructor to know the difficulties faced by the students and to know the area of interest of the students. This way teacher can post the topics for reading and discussion of the students' interest.

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