

Impact of Students' Participation to a Facebook Group on their Motivation and Scores and on Teacher's Evaluation

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Abstract

The development of Information and communications technology (ICT) has brought rapid and profound changes in the field of Education. Nowadays, teachers and students alike are engaging on social networks such as Facebook. This study discusses the benefits of using social network in the classroom. It aims at assessing the impact of Facebook on students' motivation and scores in a course of European Literature in a university of central Taiwan. A class of students was taught during the first semester of academic year 2013-2014 (September-January) using a traditional way of teaching. During the second semester (February-June 2014), the teacher used multimedia and Facebook to teach to the same students. They joined a "secret group", that is a group in which only students from the class can join, post, view posts, like, and comment.

This research compares various data from the first and second semester to measure students' improvement in motivation, their participation to the group and their scores. The data collected from the Facebook group during the whole second semester and students' evaluation of the educator at the end of each semester. Students are expected to make some progress and teacher's evaluation should improve. Even though Taiwanese students generally read and write in Chinese on Facebook, it is expected that they exclusively use English to read, share, and comment texts and information concerning the books studied during the second semester, thus increasing their chances to improve their reading and writing skills.

Keywords: Facebook; European Literature; Learning performance; Motivation; Scores.

Introduction

Facebook, the world most popular online social networking service, was founded more than ten years ago by Mark Zuckerberg. As of March 2013, Facebook claimed having 1.1 billion monthly active users (Facebook, 2013). Taiwan ranks 19 worldwide for the number of Facebook accounts (6,992,040 on a population of 23,359,928 in 2014; Berry, 2014). Even though there is already a large number of studies concerning the use of Facebook as an educational tool, few articles have been published on the impact of the social network on students motivation and scores as well as on the teacher's evaluation by students. Moreover, as far as we know, there are scarce studies on the usage of Facebook in courses of literature.

This paper focuses on a course of European Literature offered to English majors at a university in central Taiwan. During the second semester (February-June 2014), all students in the class joined a secret Facebook group in which the teacher as well as the students could post, view, like, comment, and share information, links, pictures, videos concerning the books studied during the semester. Research data consist of students' evaluation of teaching (SET) at the end of the semester, the number of posts, views, likes and comments in the Facebook group during the all semester and students' scores. This study will answer the following research questions:

1. What is the impact of Facebook on teacher's evaluation by students?
2. Is participation to a Facebook group helping students make progress as regard to their scores?
3. Can participating to a Facebook group help students increase their learning motivation?
4. What type of posts students like the most? Can it help teachers in the preparation of the teaching material?

Literature review

Student evaluation of teaching

This article notably analyzes student evaluation of teaching (SET) to highlight how using Facebook during and outside the classroom might have an impact on teacher's evaluation and on students' learning motivation. The objective of using Facebook as a teaching and learning tool in this study is to generate a virtuous circle ("chains of events which reinforce themselves through a feedback loop", according to Webel & Galtung, 2007), that is to create a situation inside and outside the classroom which will lead to an increase of motivation, concrete progress, learning satisfaction, and a better teaching evaluation. SET has become a common measure of teaching and learning quality in higher education (Zabaleta, 2007). This research will use teacher's evaluation at the end of the semester to measure various indicators of learning satisfaction. During the 20th century, no less than 2,000 studies were published on SET (Wilson, 1997). The main purpose of SET is to provide feedback for the improvement of teaching (Marsh, 1987). Student evaluation can also be used to identify indicators of teaching improvement and to provide concrete advice to educators (Montoneri et al., 2012). A growing number of higher education institutions (HEIs) tend to prefer online, anonymous and confidential end-of-term course evaluation (Harrington & Reasons, 2005).

Education and networking: the use of Facebook for educational purpose

Many note that Facebook is very popular among undergraduates, notably in the US (Cain, 2008), Australia (Vivian, 2011), and Great Britain (Madge et al., 2009). According to Souleles (2012), "The popularity of Facebook among university students inevitably raises questions on the educational potential of this Social Networking Site for Higher Education". Analyzing the

perceptions of undergraduate Graphic Design students in a higher education institution in Cyprus, on the use of Facebook for teaching and learning, Souleles (2012) demonstrated that the participants preferred face-to-face instruction and considered that Facebook should compliment rather than replace studio practices. Aware of students' preferences, in our study, we used Facebook as a complement to our European Literature class. Our group was primarily designed as a way to communicate with students and share information on the subject outside our limited 3 hours/week class.

According O'Sullivan et al. (2004), when teachers share information online, related to the class as well as personal information, students reported high levels of motivation and affective learning, indicating positive attitudes toward the course and the teacher. Mazer et al. (2007) note that photographs and information provided on Facebook may positively or negatively alter student perceptions. They showed that participants who viewed the Facebook of an instructor high in self disclosure would anticipate higher levels of motivation than participants who viewed the Facebook website of an instructor low in self-disclosure. Participants in this study reported that they valued professionalism and the appropriateness of the material on the teacher's Facebook page. I need to precise here that on Facebook, I shared knowledge and information on my wall, but very little personal information (only a few pictures of me attending a conference or going to a foreign country), and no private (family) information at all.

Al-Hammody (2014) analyzed the use of a Facebook group created for a group of students from the University of Mosul, Iraq, for English pedagogic purposes. This study used online questionnaire and phone interviews to examine students' perceptions of the benefits resulting from interacting in the Facebook group. According to Al-Hammody (2014), 54.3% of the participants mostly used the Facebook page for socializing in English, 48.6% used it for vocabulary learning, and 25.7% used it for seeking feedback and for improving translation skills. Manca and Ranieri (2013) attempted to identify the pedagogical potential of Facebook and presented a detailed review of the literature concerning the world most successful social network. They showed that students do not always feel comfortable with Facebook and they do not wish to use social networking as a unique teaching tool for learning.

However, a large number of studies demonstrated that Facebook can be used as an English Language Training (ELT) supportive tool. According to Baran (2010), educators can open and administer Facebook groups for their students to share knowledge, post, comments and dialogue with other members of the groups. Facebook may be used for teaching and learning (Anderson, 2009; Greenhow, 2011); it provides students with extracurricular content resources (Bahner et al., 2012; Pilgrim & Bledsoe, 2011). The educational use of Facebook was found motivating by Backer (2010) who also stated like other scholars that Facebook should be one element among many others in teaching and learning. Çoklar (2012) also observed that Facebook was considered motivating and interesting by students. Shams (2014) investigated the role and effectiveness of using Facebook in tertiary level English language classrooms in Bangladesh. She showed that a decreased direct class contact offsets the motivational factors and positive impacts of using Facebook, notably for students with poor English skills.

Methodology

The data source

The study case is a private university established in 1956 in central Taiwan. The data comes from the university's online student rating system, which provides student feedback to professors at the end of each semester. Participants were English majors in a Department of English. The

characteristics of the data source and research object are as follows:

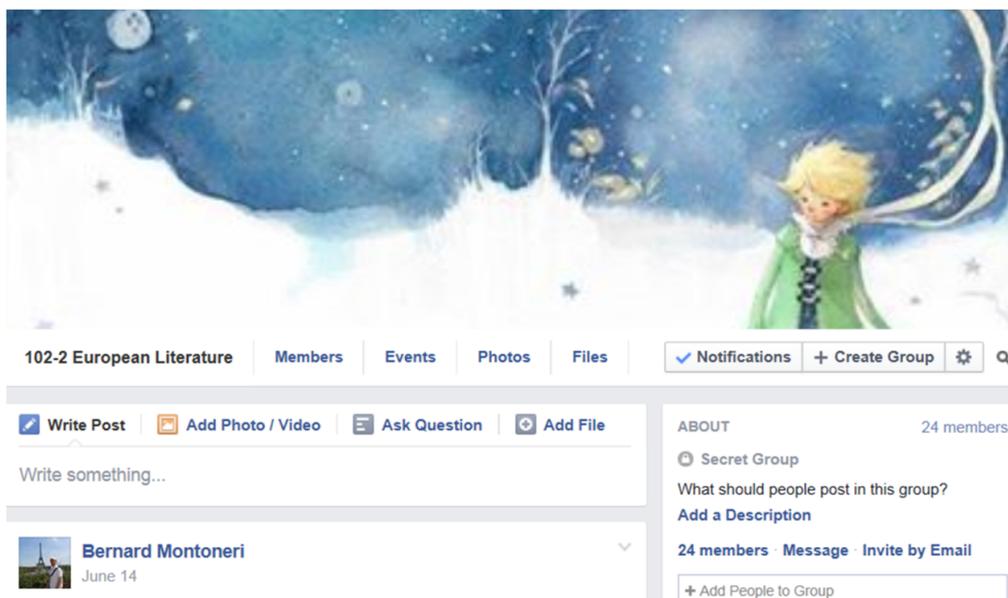
1. European Literature is an optional, three-credit course for junior students in the Department of English (three hours/week).
2. There were 19 students during the first semester (September 2013-January 2014) and 23 students during the second semester (February 25, 2014-June, 14 2014). 14 students have been selected for this study as they were registered during the two consecutive semesters. Other students dropped, were failed or followed only one semester (exchange students from China can only study one semester in Taiwan).
3. The data are based on questionnaires (11 questions) filled out by the students at the end of each semester. Each question is rated from one (very unsatisfied) to five (very satisfied).
4. All the students are required by the university to fill out the questionnaires online if they want their grades to be validated. So it is assumed they all did it.

This study also uses other data, such as students' scores during two consecutive semesters, detailed records of all the posts, views, likes, comments in the Facebook group during the semester and a questionnaire designed by the teacher and filled on February 18, 2014 by the 14 students involved in this study. According to this questionnaire, 100% of the students in the class had a Facebook account as to the beginning of the second semester.

Empirical study

The Facebook secret group was officially opened on February 18, 2014. All the students registered in the class quickly joined and the first post uploaded by the teacher was made on February 25, 2014 (post 1); the last one was made on June 14, 2014 (post 24).

Picture 1. Secret Facebook group: European Literature 102-2.



All the students registered in European Literature joined the Facebook secret group (24 members: 23 + the teacher). “Secret group” means that only students in the class of European Literature can join, post, view, like, comment, and share. The teacher is the administrator of the group; only he can add students to the group.

Picture 2. European Literature 102-2: teacher's post 23



This post consists mainly of pictures of *The Little Prince*. It was uploaded on May 24 and viewed by 21 students. 12 students liked the post (for the sake of anonymity, their names are hidden on all the pictures presented in this paper).

Analysis of teacher’s evaluation

Table 1 shows the evaluation score for each question between the first semester using traditional classroom instruction and the second semester using traditional classroom instruction and Facebook. We find that the average score for all the questions has progressed by 1.87% and the average students’ final score at the end of semester has progressed by 2.0%. Figure 1 indicates improvement for most of the questions, notably question 3 (4.10%), 6 (5.18%), 9 (5.18%), and 10 (5.57%). The progress of question 3 and 6 implies that the posts provided on Facebook give extra information helping students to better understand teacher’s curriculum content; as a result, teacher’s performance assessment methods are more fair and open.

The progress of question 9 and 10 implies that students are more confident to obtain better professional knowledge and core competencies. However, the scores of question 7 (-2.62%) and 11 (-1.09%) have decreased. According to the detailed data, more students appreciate teacher’s open attitude to communicate with students by using Facebook during the second semester. Nevertheless, several students refused to participate to group discussions via Facebook and without mentioning it during the entire semester. By consequence, these few students gave lower score to question 7 and reduced the average score. The score of question 11 and students’ final score show that students need less time and effort to obtain better performance: this is an important encouragement for teachers using social network during and outside the classroom.

Table 1. Evaluation score for each question for the first and second semester using Facebook.

Questions	Scores	Semester 1	Semester 2	Progress (in %)
1. Teacher was able to properly answer students' questions.		4.35	4.36	0.25%
2. Course curriculum structure was complete and covered all the important concepts of the discipline.		4.35	4.36	0.25%
3. Teacher fully grasped curriculum content and gave detailed explanation.		4.24	4.41	4.10%
4. The teaching expression was logical and organized which helped students to easily assimilate.		4.24	4.27	0.88%
5. Performance assessment covered important parts of the course.		4.29	4.36	1.62%
6. Performance assessment methods followed fair and open principles.		4.24	4.45	5.18%
7. Teacher used an open attitude to communicate with students.		4.29	4.18	-2.62%
8. Teacher concerned about students' learning conditions and gave timely counseling.		4.12	4.18	1.56%
9. I think this course has increased my professional knowledge.		4.24	4.45	5.18%
10. The completion of this course has improved my core competencies.		4.18	4.41	5.57%
11. The percentage of my attendance and invested effort in this course: (1) 0-20% (2) 20-40% (3) 40-60% (4) 60-80% (5) 80-100%.		4.41	4.36	-1.09%
Average score of questionnaires		4.27	4.35	1.87%
Student's final score at the end of semester		74.86	76.36	2.00%

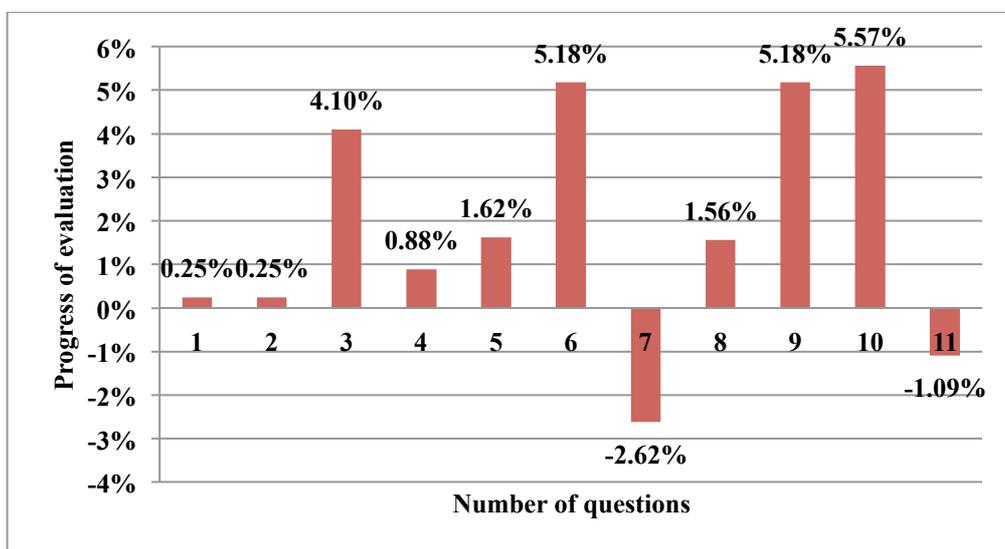


Figure 1. Progress of evaluation score for the semester using Facebook.

Analysis of various types of teacher's posts

The analysis in the previous section demonstrates that the use of social network as teaching and learning auxiliary does improve students' learning motivation and performance. In order to effectively enhance this improvement, an analysis of students' preference concerning the types of posts is proceeded. We define six types, such as quotation of texts (quote), power point files (ppt),

pictures or photos (photo), information of movies (movie) and music (song) adapted from books, and external links (link). It is important for students to realize that most famous movies and musicals for example are adaptations of European Literature (*Les Misérables*, *The Phantom of the Opera*, *The Lord of the Rings* and so many others). Table 2 and Figure 2 show that almost all the students participating to group discussion on Facebook have viewed all teacher's posts. Moreover, students are more interested in the posts with external links, pictures or photos, and information concerning movies. PowerPoint files seem to be less attractive to students, no matter how closely related to the class they might be. The teacher created more than 100 PowerPoint files, most of which are available for download on his website (<http://www1.pu.edu.tw/~bmon/Writing.htm>). This files notably introduce various books, cities, people, as well as historical and cultural movements.

Picture 3. Examples of PPT files for European Literature 102-2. King Arthur



Picture 4. Examples of PPT files for European Literature 102-2. 20,000 Leagues under the Sea

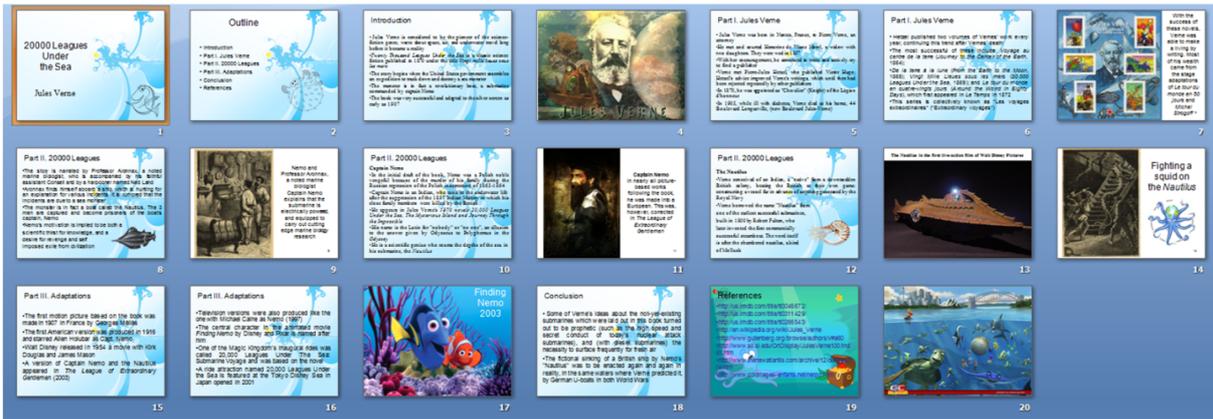


Table 2. Average number of views and likes for different types of posts.

Type of posts	Number of views	Number of likes
Quote	21	4
PPT	21	2
Photo	21	7
Movie	21.2	4.8
Song	21	3
Link	20.8	7.5

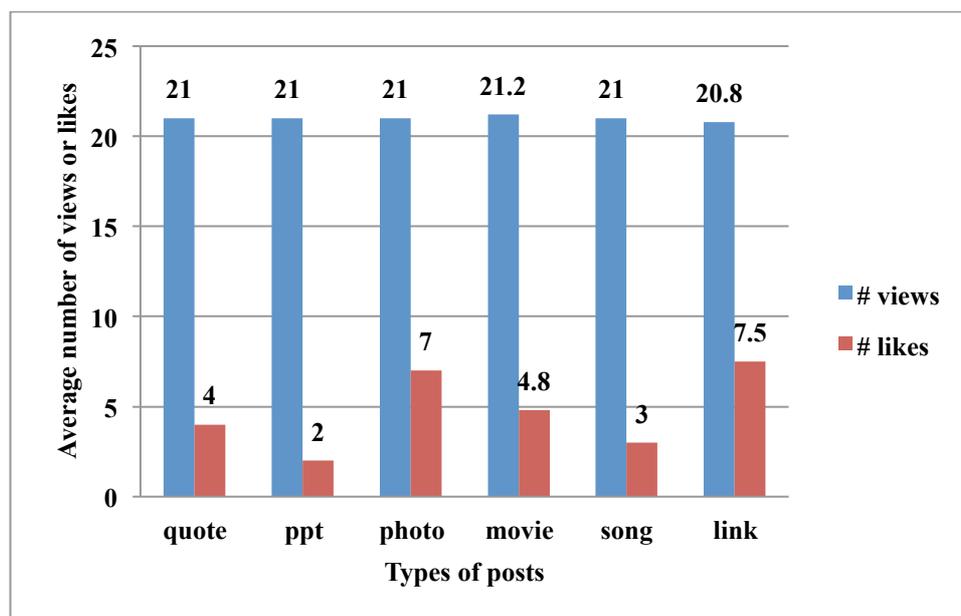


Figure 2. Comparison of different types of posts.

Analysis of students' learning behavior

Table 3 and Figure 3 show that more than half of the students viewed teacher's weekly posts in one week (viewed immediately or during the 7 days after the post was uploaded), notably for weeks 3, 4, 8, 14, and 17. Because week 2 is the opening of this group, only part of students had already joined the group. Weeks 3 and 4 were posted at the beginning of semester; probably students were surprised and more attracted by teacher's new teaching methods by using Facebook. Week 8 and 17 are the weeks just before midterm and final examinations. Table 3 also indicates that more than 80% or even 90% of students have viewed teacher's weekly posts in the first two weeks; the proportion of view time in week 9 is only 62% since students are busy passing midterm exams for all their courses. The proportion during week 12 is also 62%, because 6 students attended other activities and viewed posts later. Consequently, we suggest that teachers post external links, pictures or photos at the opening of the Facebook group and during the weeks before the midterm and final examinations in order to enhance students' learning interest and motivation. On the contrary, during week 5 and 12, teachers may diversify course contents and teaching methods by applying multimedia materials in order to attract students' attention.

Table 3. Students' views time by week

View time \ Weeks	2	3	4	5	8	9	10	12	14	17
1d	0.8	6	14	9.7	11.5	13	7	11	8.7	13
2-3d	1.9	2.5	3	1.3	4.5	0	3	1	5.0	7
4d-1w	10.6	8.5	1	1.0	1.0	0	4	0	4.0	0
1-2w	5.5	2	1	4.0	1.0	0	3	1	0.3	0
3-4w	1.0	0	0	2.3	3.0	5	0	6	3.0	0
1m~	1.3	2	2	2.7	0.5	3	4	2	0.0	0
Proportion in first week (%)	63%	81%	86%	57%	79%	62%	67%	57%	84%	100%
Proportion in first two weeks (%)	89%	90%	90%	76%	84%	62%	81%	62%	86%	100%
Proportion in first month (%)	94%	90%	90%	87%	98%	86%	81%	90%	100%	100%

It appears in Table 3 that posts are viewed during the first days, in general during the first week. All the students who viewed Post 17 did it in a period of 3 days. It depends if they are interested in the posts or not.

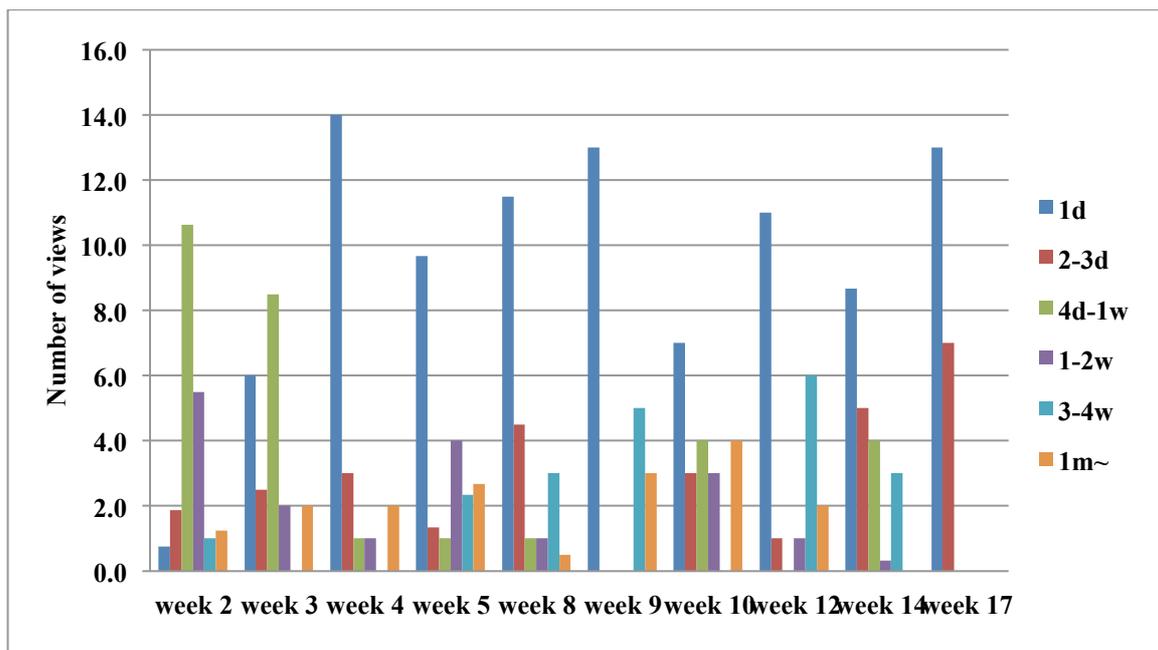


Figure 3. Students' views time to see whether students follow program every week.

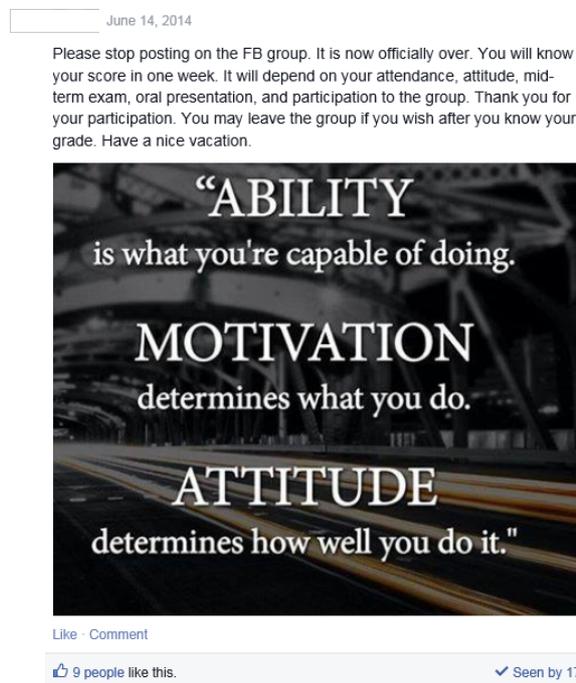
Some students in the group also post. Interestingly, almost all the students view the posts of their classmates. In Picture 5 below, a student posted in March a video about *The Little Prince*; there were 19 views, 1 comment, and 7 likes. There are few comments during the semester, however, students often sent messages directly to the teacher, notably when they are absent, sick or when they have questions about the class and the exams.

Picture 5. Post by a student on March 11, 2014



Picture 6 below is the last post of the semester (June 14). The teacher thanks the students for their participation and tells them they may leave the group. Interestingly, students did not post or view posts anymore, but they did not leave the group (even the very few students who failed the class). 9 students liked the post. it could be interpreted as a sign that they liked this experiment. Some students probably also like the motivational quote, as the teacher insisted repeatedly on the importance of their attitude (attendance, respect, learning attitude).

Picture 6. Last post by the teacher at the end of the semester



Conclusion

Facebook can help educators to present and organize their courses, notably their teaching materials. Teachers can be administrators of a Facebook group, set up some rules and moderate the posts and comments. They can also be members of a Facebook group and interact with

students. As administrators and members, they have the opportunity to observe students' improvement, their motivation, and their needs. They can notably see which post students prefer and plan their lessons accordingly.

Contribution

The present paper addresses the issue of improving classroom teaching by creating and managing a Facebook group in a class of European Literature in Taiwan. Online students' ratings of teachers at the end of each semester can help teachers to analyze students' motivation and any improvement in their evaluation by students. The four main contributions of this study are:

1. What is the impact of Facebook on teacher's evaluation by students? According to this study, teacher evaluation is higher during the second semester. The average score for all the questions has progressed by 1.87%.
2. Is participation to a Facebook group helping students make progress as regard to their scores? The average students' final score at the end of the second semester has progressed by 2.0%.
3. Can participating to a Facebook group help students increase their learning motivation? Students tend to view posts more at the beginning of the semester because they are surprised and interested by the new teaching method. They regularly and constantly participated to the group during the entire semester. The fact that students were still viewing and liking the last posts at the end of the semester showed their interest.
4. What type of posts students like the most? Can it help teachers in the preparation of the teaching material? Almost all the students participating to group discussion on Facebook have viewed all teacher's posts. They are more interested in the posts with external links, pictures or photos, and information concerning movies.

The score of question 11 and students' final score show that students need less time and effort to obtain a better learning performance. Obviously, a good atmosphere during the class combined with teaching preparedness and clarity may improve students' motivation. It appears that Facebook may also improve students' learning motivation as a complement to the class. The teacher can, outside the classroom (only 3 hours per week), continue to communicate with the students and share more information and documents. Being more motivated and more knowledgeable in the studied subject, students may obtain better grades and feel more satisfied. As a result, the teacher may obtain a higher evaluation.

Future directions

Opening Facebook groups is time consuming and demands constant effort during the entire semester to record all the data necessary in order to analyze any improvement in students' scores, motivation, and in teachers' evaluation. It would probably be easier to create a team of scholars helped by assistants to collect data for more and bigger classes to verify whether the conclusions are the same as in a small class. Research could also focus on the interaction between the teachers and the students in the group, particularly on the number and type of messages exchanged between them (students' questions about the class, the syllabus, and the exams; students telling the teacher they are sick and cannot attend the class; the exam or other related problems).

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