

## Investigating the effects of Twitter on developing a social learning environment to support Japanese EFL students' self-regulated learning

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### Abstract

*Social learning has expanded within and outside the classroom, lead by the development of social media technology. The spread of social media, including "Facebook" and "Twitter", and of Smartphone and tablet technology, assists educators promote social learning beyond the classroom. Developing active language learning environments is the key element for supporting EFL learners, especially for Japanese university students who are expected to attain effective language competency but have only limited class hours during their undergraduate years. To meet this need, social media can be integrated into the EFL curriculum purposefully and appropriately, in order to promote communities of learning where learners can participate on a regular basis.*

*The aim of the present research is to investigate in what ways integration of social media supports learning outcomes and attitudes for Japanese students' English language learning. 15 Japanese undergraduate students, who take general English language classes as part of their undergraduate degree requirements, participated in this study. They were each provided with one iPad for their self-regulated learning within and outside the university during one semester. During the semester, they were required to use "Twitter" as a tool to record and share their study logs within a group. In this preliminary qualitative case study, the students' learning was examined using data including their Twitter logs and interactions on Twitter, online surveys, proficiency test scores, observations, and interviews with participants. The preliminary data show that the learning community on Twitter helps the participants to maintain their motivation and regular learning routines. In addition, the community builds a healthy sense of rivalry among the participants which affects positively their self-regulated learning. The full results will be presented at the conference.*

*The study concludes with some critical reflections on the integration of social media for the EFL curriculum. The findings contribute to both the ESL and the EFL teaching communities.*

### 1. Introduction and Context

#### **Social media and a student-generated social learning environment**

The idea that learning occurs with a deepening process of participation has gained significant ground in recent years, with communities of practice [1] and advancement of social media technologies increasingly made more available for education. Technology can provide for the creation of online communities for practice and for learning or for a combination of both.

Social media have become part of our lives, and definitely part of our students' lives. Students are building their social environments by using variety of social media, including "Facebook" and "Twitter", to connect and communicate with each other. In Japan, 40% of the population (51 million) are Social Networking Service (SNS) users and 65% of those users (33 million) actively post information. 71% connect via smartphone for convenient access. Japanese Twitter users are estimated at approximately 20 million as of September 2012 [2]. As these statistics indicate, social media is something our students engage in on an everyday basis.

The social media revolution's enormous success in creating online communities has caught language educators' attention. The spread of social media assists language educators to promote social learning beyond the classroom. By providing a relevant link with new technologies and learning theories and models, the utilisation of social media may help language learners to create a student-generated learning community.

Developing active language learning environments is a key element for the support of EFL learners, especially for Japanese university students who have difficulty satisfying their language acquisition needs within the limited class hours during their undergraduate years. To meet this need, social media

can be integrated into the EFL curriculum purposefully and appropriately, in order to promote learning communities where learners can participate on a regular basis.

Technology which is well-structured for the online community may have a positive effect on the creation of social learning environments which support students' Self-Regulated Learning (SRL). The aim of the present research is to investigate the ways in which integration of social media supports learning outcomes and attitudes toward Japanese students' English language learning. This project is the second project implemented to support the SRL of those who wish to invest more time in English study. The first project was conducted for 6 months and started in April 2011 with 20 students. It focused on the effects of the iPad on their SRL [3]. This paper investigates the outcomes of the second project, which started in November 2011, and was also conducted for 6 months, and with 20 students. The third project, focusing more on social learning, started in May 2012 and is in progress. One of the social media, Twitter, has been chosen for this project for its accessibility, utility and popularity. The role of Twitter is limited to supporting participants' connection with the community, in order to monitor their learning activities and maintain their motivation, not for providing a practice arena for the English language.

## 2. Research questions

In order to investigate in what ways the use of Twitter impacts on developing a social learning environment in support of SRL, this empirical study poses the following research questions:

- How can Twitter support the promotion of SRL tendencies in Japanese EFL students?
- In what ways can the use of Twitter enhance the development of a social learning environment to support Japanese EFL students' learning?

## 3. Method

### Project Overview

Participants in this study are 20 Japanese undergraduate students who do not major in English but are taking classes in general English language as a part of their undergraduate degree requirements. All of the participants are majoring in information and communications studies and have claimed that they were unsuccessful and underprepared for English language learning. Ethical guidelines for research drove the volunteer recruitment and selection process.

The duration of the project was 6 months, from November 2011 until May 2012. After two lengthy introductory technical sessions, each of the participants was provided with one iPad (WIFI model) for their English language study within and outside the university.

### Setting

There were no official instructions on learning activities nor tasks for this project. The students were encouraged to enjoy language learning as they wished, using the iPads they were provided with, but also using methods other than the iPads. They were allowed to use textbooks, web-based e-learning materials and smart phones. The only requirement they had to meet was to post a "tweet" on Twitter every time they studied English in any way during the project. They were instructed to include in their post the content and the duration of their activities. Most of the students had Twitter accounts prior to the project but were encouraged to create new ones for this project. They "followed" all the members' accounts and also had an access to the project "list" to view the group's activity.

### Data Collection

In this preliminary qualitative case study, the participants' learning is examined using data from proficiency test scores, online surveys, their Twitter logs, and individual interviews.

A pre- and post-test design method was used to examine students' improvement in language proficiency. Before this project began, the pre-test was conducted to collect data on participants' level of proficiency, and after this project, the post-test was conducted to determine the improvement. The Test Of English for International Communication (TOEIC) (the global standard for assessing English proficiency for business, widely used in Asia: <http://www.ets.org/toeic>) online practice test software was used for both pre and post tests. The level of the tests was controlled appropriately. In order to monitor their learning activities, all the participants submitted feedback via an online survey every two months, describing their learning experiences. Individual interviews were also conducted every two months. Their tweet logs were kept as a record of their learning activities, and both the quantity and

quality of their tweets were examined. Data for 15 out of 20 participants who participated for the whole duration of the project were used for this study.

#### **4. Results and Discussion**

In this section, in order to examine the two research questions stated above, the students' improvement in language proficiency, time management of learning activities and Twitter usage have been analyzed and discussed in this section.

The students' improvement in language proficiency were analysed first. The students were placed into two groups according to their achievement level. The two groups' characteristics will be compared in terms of their time management of learning activities and Twitter usage.

##### **Improvement in Language Proficiency**

Out of 15 participants, 12 scored higher in the post test and 3 participants did not improve. The average of the participants' TOEIC online practice test scores (Max: 990 points) increased from 403 to 468 points. The students who improved increased their scores by 83 points on average, and 33% of the students who improved increased their scores by more than 120 points (200 points was the greatest improvement) in comparison with the pre-test. Only 3 participants did not improve their scores, 1 participant scored less than in the pre-test and 2 participants' scores remained unchanged.

##### **Time Management Skills**

All participants indicated that the amount of time they spent for English learning improved. Previously, they struggled to maintain motivation, however, in this project, on average 60% of the students maintained study time of between 30 to 60 minutes a day, and 33% maintained study time of 15 to 30 minutes on a regular basis. All participants stated that their study time increased, and time management of their learning activities improved. However, the 3 participants who did not improve their scores all invested 15 to 30 minutes study time on average, which was the lowest among the participants.

##### **Twitter Usage**

Participants were asked to provide feedback on their use of Twitter for this project via an online survey. They were asked whether Twitter use was beneficial or not for their learning, and if yes, they were asked to describe their reflections on Twitter use via an open-ended question. All 15 participants stated that Twitter use influenced them positively and no negative comments were recorded.

In the online survey, 12 participants (80%) stated that they posted tweets "always" or "almost always" to record their learning activities as instructed. All of those 12 participants improved their scores. The remaining 3 participants stated that they "rarely posted" tweets. Twitter usage by the 15 participants was analyzed for three months of the project, from February to April. In terms of quantity, there was no significant variation during those three months. The daily average number of tweets per participant was 1.03 tweets. 40% of the participants posted tweets more than 5 times a week on average. The weekly average tweet by the 12 improved participants was 8.6 times, however the weekly average for the 3 participants in the group with no improvement in the post-test was less than 2 times. In addition, they did not post their tweets as directed and were the lowest 3 in the Tweet tally.

##### **Effects of Twitter Use**

Feedback by the 12 participants in the improved group pointed to two important factors on the positive effects of Twitter use, as follows;

##### **Twitter used as a Learning Management Tool**

From a personal setting, the user's tweet logs can be easily traced. From this record, users can see all posted tweets, and can judge the quantity and frequency of their tweets using the date stamp. Participants stated that this function helped them monitor their activities. For instance, when participants noticed that the last tweet was made 3 days ago, they realized they had not studied for some time, and started making an effort to make time for study. They reflected on the tweet content as well. As they were instructed, from the tweet records they viewed the content of their activities. When they realized that they had continuously used only vocabulary building apps, for example, they directed themselves to work on other skills such as reading or listening. Some recorded their test scores, in order to compare previous scores with new ones. The record of tweet logs helped the

participants to visualize their learning activities; their comments and tweet logs showed that they monitored and regulated their learning using social media.

**Twitter Used as a Personal Motivator**

The online survey and interview data showed that being part of a Twitter-based learning community helped the participants maintain motivation and also helped keep them engaged in the project. All of the 12 participants who improved stated that viewing members' tweets encouraged them to keep up with their study. They also commented that they became a little competitive. When someone tweeted often or introduced useful apps or interesting articles, they felt inclined to tweet more or to introduce a better article. Thus healthy and friendly rivalry was cultivated in the learning community.

**Developing a Social Learning Community for SRL**

As can be seen from the present results, a Twitter-based learning community can demonstrate an effective SRL cycle, as shown in figure 1. After the participants' learning activity, they participated in the online community by posting tweets regarding the content of their study. Viewing and reflecting on others' tweets, they maintained their motivation in the SRL setting and also engaged in their learning activity before posting a tweet again.

**5. Concluding Remarks**

As indicated, this project was set in order to support SRL, participants were not in the formal class or given any formal instructions or tasks. They were provided an iPad for convenient access to the study materials and a comfortable learning environment, and instructed to "link" with other group members by posting tweets to share their learning activities.

In this empirical project, the students successfully established a self-generated learning community. The results show that legitimate participation in the community benefits the SRL of participants. Making the best use of the Twitter functions, they engaged in their learning activities and maintained adequate study time on a regular basis. Sharing members' tweets brought about friendly revelry among participants, which helped maintain their motivation for learning. Considering the small sample in this study, it is not yet possible to generalize the findings. We need therefore to gather more data from a larger variety of sources and participants.

It seems natural that social media will have a greater role to play in future language curricula. At the same time, it must not be forgotten that a solid language curriculum needs to be built on sound pedagogical principles, best grounded in the theory of educational psychology. Technology can enhance the curriculum when efforts are made to blend technologies and identify barriers to technology integration. We must consider the purpose, appropriateness, multimodality and sustainability of the technology integration [4] in order to build a language curriculum based on the established principles of learning.

**Fig. 1. An SRL cycle for the successful participants**



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