

Encouraging autonomy through the use of a social networking system

Adrian Leis

Miyagi University of Education
adrian@staff.miyakyo-u.ac.jp

The use of social networking systems has enabled communication to occur around the globe almost instantly, with news about various events being spread around the world as they happen. There has also been much interest in the benefits and disadvantages the use of such social networking systems may bring for education. This paper reports on the use of Twitter in a Japanese university course, and the effect it had on the participants' autonomy. The second language learning motivation and metacognitive skills of 34 Japanese university students studying in a foreign cultures class were measured using both open-ended and closed-ended items in a questionnaire. The results suggest that only students who have high linguistic self-confidence will display progress in taking charge of their learning habits and becoming autonomous in their study as a consequence of using a social networking system in class.

Keywords: L2 motivation, L2 Self System, social networking systems, university students

1. Introduction

Many teachers in an English as a foreign language (EFL) environment often remark that regardless of how hard they try to create a classroom atmosphere that motivates students to study, unless the students themselves have a thirst for knowledge, their efforts may be fruitless. Teachers and researchers alike often discuss ways to increase the motivation of their students, in the hope of creating an environment where learners go beyond being motivated and take charge of their own study habits, that is, become autonomous.

In psychology, the field of motivation is extremely broad, with a variety of theories (e.g., Expectancy-value Theories, Self-determination Theory and Achievement Motivation Theory) being the focus of numerous studies. In research related to second language (L2) learning motivation, Gardner (e.g., 1985; 2001) led the field for decades, putting high importance on attitude, instrumental orientation and integrativeness (i.e., a desire to mix with the community who speak the second language) for students to be highly motivated in their language studies. More recently, Dörnyei (2005) proposed the L2 Motivational Self System to develop previous work conducted by Gardner, based on research in an EFL environment, rather than that of an English as a second language environment (i.e., an environment where English is spoken on a regular basis outside of the language classroom), as Gardner had done. In a theory inspired both by Markus and Nurius's (1986) *Possible Selves* and Gardner's idea of *integrativeness*, Dörnyei's (2005) *L2 Motivational Self System* suggests that students are driven to learn a L2 through a combination of wanting to integrate their current L2 self-image and the image of themselves using the L2 fluently in the future (i.e., Ideal L2 Self), while at the same time being aware of their Ought-to L2 Self, which, as Dörnyei (2009) describes, refers to "the attributes that one believes one *ought to* possess to meet expectations and to *avoid* possible negative outcomes" (2009, p. 29), as well as having a positive L2 learning experience (see Dörnyei, 2009, for an overview of the L2 Motivational Self System).

However, it seems that encouraging students to become autonomous is not an easy task. In a study looking at whether Japanese high school students showed a tendency toward being autonomous in their English studies, Leis (2012) suggested they did not. In this study, 327 high school students indicated their motivation through a questionnaire measuring the L2 (second language) Motivational Self System and metacognitive skills according to the definition given by Efklides (2006). Efklides describes metacognitive skills as the controlling function of metacognition and defines them as "what the person deliberately does to control cognition" (Efklides, 2006, p. 5).

Leis (2012) suggested that those students who had high motivation and showed a high correlation with the use of metacognitive skills in their English studies were autonomous learners. The results of this research suggest that very few students displayed the tendencies of an autonomous student. In fact, despite there being some students with high motivation but low use of metacognitive skills, the majority of those participating in the research showed low motivation and low use of metacognitive skills. Leis (2012) concluded that students lacked knowledge of study strategies, and teachers needed to encourage these by providing opportunities for students to reflect on their English lessons at home. The current paper discusses one attempt at this, reporting on the use of a social networking system to encourage autonomy in university students.

Over the past few years, the number of social networking system (SNS) users has increased. Bennet (2012) shows that the number of registered Twitter users increased dramatically from 375 million users to 500 million users in six months between the end of 2011 and beginning of 2012. The use of a SNS has also shown great benefits during natural disasters, especially for the students participating in the current study who, living in the area hardest hit by the major earthquake on March 11, 2011, experienced firsthand the advantages of using a SNS to contact family and friends around the globe. In the north-east region of Japan, immediately after the Great Eastern Japan Earthquake, when mobile phone lines were unusable, the safety of tens of thousands was confirmed thanks to the use of SNSs such as Twitter and Facebook (Wallop, 2011).

on the use of Facebook in an EFL classroom, Promnitz-Hayashi (2011) suggests that students lacking self-confidence tended to become more motivated in class discussions after Facebook had been used as a tool for communication. Promnitz-Hayashi reports that the use of Facebook in a learning environment allowed students to have more control over their learning habits. Mork (2009) recommends Twitter as an effective tool for English writing classes, as with the lack of writing space (i.e., maximum of 140 letters and spaces) students are encouraged to get to the point of what they are saying. In a study of 27 university students, Al-Khalifa (2008) suggests that Twitter made students feel part of the class due to their being able to easily receive updates from their teacher and other students even outside of the lesson time. Borau, et al (2009) displays similar results in a study of 60 university students in China, concluding that the use of Twitter enabled students to feel part of the class community and that their communicative and cultural competence improved as a result of using this tool. This paper reports on the use of Twitter in a Japanese university and whether it had an effect in encouraging students to become more autonomous.

2. This study

A. Research questions

The purpose of the current research is to answer the following research questions:

1. Does using Twitter in a university classroom have a positive effect in encouraging students to become autonomous in their English studies?
2. What features of motivation affects students to have a positive experience using Twitter indicating a desire to use it again in future classes?

B. Course

The present study was conducted during an Understanding Foreign Cultures class at a Japanese university. One requirement of this class was to download and register as a Twitter user in the first week and make regular comments (i.e., tweets) in English throughout the 15-week course¹. Although no minimum number of tweets were indicated by the instructor, as part of the evaluation students were required to choose three tweets they had made or read during the semester and write three 100-word passages in English explaining why each of those tweets was meaningful for them.

C. Participants

The subjects in the present research were 34 university students studying with a goal of obtaining a qualification to teach English at Japanese junior high schools. Their English proficiency was self-perceived to be 3.06 ($SD = 0.98$) on a scale of 1 (i.e., beginner) to 5 (i.e., upper intermediate), suggesting the average to be at a low-intermediate level. Due to incomplete items and some students being absent, data from only 28 students were obtained at the time the questionnaire was conducted the second time.

D. Procedure

The present study used a questionnaire prepared by Dörnyei & Taguchi (2011) to gain an understanding of students' motivation according to the three principal concepts of Dörnyei's L2 Self System: the Ideal L2 Self (Appendix A), the Ought-to L2 Self (Appendix B) and the L2 learning experience (Appendix C). This questionnaire was chosen as it has proved to be a reliable medium to measure EFL students' motivation in previous research projects such as Taguchi, Magid, and Papi, (2009); Leis, Suzuki and Ando (2011); Leis, (2012; 2013). In addition, items related to metacognitive skills ($\alpha = .799$) (Appendix D) and attitudes to using Twitter in the classroom ($\alpha = .677$) (Appendix E) were included, with both variables being deemed suitable for analysis according to the guidelines of Cronbach's Alpha Reliability Scale.

Subjects responded to items on a Likert scale from 1 (i.e., strongly disagree) to 6 (i.e., strongly agree). In the fifteenth and final week of the course, students once again completed the questionnaire. In this second questionnaire, students were also asked open-ended questions (Appendix F) to gain a deeper understanding of their feelings towards using Twitter in the class. The data were analyzed using SPSS Version 20 to find any statistically significant differences in students' motivation and trends towards being autonomous as a result of the instructor using Twitter in the classroom.

3. Results

The first research question asks to what extent using Twitter in a university classroom affects the motivation and autonomy of students. The researcher conducted a one-way analysis of variance (ANOVA), 95% confidence interval (95%CI) and Cohen's *d* effect size analyses to measure whether any salient changes could be observed in students' motivation as a result of this activity.

Table 1: Comparisons of motivation and metacognitive skills at the beginning and end of the course

Factor	Week 1 (n = 34)			Week 15 (n = 28)		
	M	SD	95%CI	M	SD	95%CI
IS	4.22	1.16	3.82, 4.63	4.46	.88	4.11, 4.80
OS	2.49	.97	2.15, 2.83	3.21*	1.18	2.76, 3.67
LE	4.86	.73	4.61, 5.11	4.92	.58	4.70, 5.14
MS	3.68	.69	3.44, 3.92	3.90	.94	3.54, 4.27

Note. IS: Ideal L2 self; OS: Ought-to L2 self; LE: Learning experience; MS: Metacognitive skills; Max. = 6; Min. = 1; * $p = .011$.

Table 1 shows a comparison of participants' Ideal L2 Self, Ought-to L2 Self, Learning Experience and Metacognitive Skills. A significant difference could only be observed in a students' Ought-to Self, $F(1, 60) = 6.95$, $p = .011$, $d = .67$. This suggests that through this activity, students felt more pressure from their teacher, peers or family members to study English. Although the other motivational factors of Ideal L2 Self, $F(1, 60) = 0.77$, $p = .385$,

and Learning Experience, $F(1, 60) = 0.12, p = .727$ and Metacognitive Skills $F(1, 60) = 1.20, p = .278$ showed some improvement, no statistically significant improvement could be seen.

To measure whether using Twitter was indeed effective in helping students become more autonomous in their studies, a Pearson's Product Moment Correlation (r) was conducted to measure the relationship between each motivation factor and Metacognitive Skills. Table 2 shows that although Ideal L2 Self ($r = 0.41, 0.45$) and Ought-to L2 Self ($r = 0.15, 0.26$) showed slight strengthening, Learning Experience ($r = 0.35, 0.59$) changed to display a strong correlation with Metacognitive Skills, suggesting that the classroom environment had indeed encouraged autonomy in students. However, it must be recognized that due to the low number of students in the sample, the range of 95% confidence intervals are quite broad in this analysis.

Table 2: Correlations of motivation and metacognitive skills at the beginning and end of the course

Factor	Week 1 (n = 34)			Week 15 (n = 28)		
	r	95%CI		r	95%CI	
IS	.41*	.14	.62	.45*	.09	.71
OS	.15	-.20	.47	.26	-.13	.58
LE	.35*	.01	.62	.59**	.28	.79

Note. IS: Ideal L2 self; OS: Ought-to L2 self; LE: Learning experience;

*Correlation is significant at the .05 level (2-tailed);

** Correlation is significant at the .01 level (2-tailed).

The second research question asks what features of motivation affected students to have a positive experience using Twitter in this class, indicating that they wanted to use it again in future courses. Data from only 28 students were retrieved in the second questionnaire with 15 students (i.e., 53.57%) indicating a desire to use SNSs in future classes and 13 students (i.e., 46.43%) showing a negative response. These feelings towards using Twitter in class were confirmed by a one-way ANOVA, $F(1, 26) = 31.3, p < .001, d = 5.82$) between the negative group ($M = 3.23, SD = 0.77, 95\%CI [2.76, 3.70]$) and positive group ($M = 4.80, SD = 0.71, 95\%CIs [4.41, 5.19]$) in the category of Attitudes towards Twitter with a very strong effect size.

Table 3: Motivation and metacognitive skills of the positive and negative groups

Factor	Positive group (n = 15)			Negative group (n = 13)		
	M	SD	95%CI	M	SD	95%CI
IS	4.67	.76	4.24, 5.09	4.22	.98	3.62, 4.81
OS	2.90	1.20	2.23, 3.57	3.58	1.09	2.92, 4.24
LE	4.82	.61	4.48, 5.15	5.04	.54	4.71, 5.36
MS	3.87	.79	3.43, 4.30	3.95	1.12	3.27, 4.62

Note. IS: Ideal L2 self; OS: Ought-to L2 self; LE: Learning experience; MS: Metacognitive skills;

Max. = 6; Min. = 1.

When the statistical levels of motivation and metacognitive skills were measured in these positive and negative groups and compared in a one-way ANOVA, (Table 3) no statistically significant difference could be observed. However, the positive group showed strong correlations with metacognitive skills in all three categories of the L2 Self System (Table 4). Table 4: Correlation of motivational factors with metacognitive skills

Factor	Positive group (n = 15)		Negative group (n = 13)	
	r	95%CI	r	95%CI
IS	.58*	.10, .84	.42	-.17, .78
OS	.67**	.24, .88	-.11	-.62, .47
LE	.71**	.31, .90	.52	-.04, .83

Note. IS: Ideal L2 self; OS: Ought-to L2 self; LE: Learning experience;
*Correlation is significant at the .05 level (2-tailed);
** Correlation is significant at the .01 level (2-tailed).

In addition to feedback based on items in the second questionnaire, students were also asked to share their ideas based on open-ended questions related to using Twitter in this course. Table 5 gives examples of feedback received from students in the positive group (i.e., those showing a desire to use Twitter in future classes) and the negative group (i.e., those not wanting to use Twitter in future classes).

Table 5: Feedback from students related to using Twitter

Positive group (n = 15)	Negative group (n = 13)
We can check others' ideas and improve our English.	To tweet in English is difficult. In Japanese is okay.
It gives students a chance to use English.	I feel anxious about writing the right sentences.
Sharing ideas outside of class is good.	I always check my grammar and spelling before I tweet.
I'm not good at speaking, but I can share my ideas through Twitter.	I don't like Twitter for classes. I only want to use it in private.
I'm shy in class. But using Twitter, I can share my ideas.	Twitter is worldwide; I'm worried about my English.
It's effective if the class has a small number of students.	I am worried whether others can understand my English.
It was easy to share my ideas with others.	
It helps improve our English, because we make comments in English.	

4. Discussion

The results of this project have brought forward several points for discussion. First, it seems that using a SNS in the class had an effect on students' Ought-to L2 self. That is, students felt more responsibility to use English. This may have been due to the fact that using

Twitter was part of the evaluation of this course. Students may have found tweeting in English to be a burden, and in fact, this had a negative effect on some students, as can be seen in a negative, albeit weak, correlation with metacognitive skills of those in the negative group. Furthermore, one student in the negative group commented *I don't like Twitter for classes. I only want to use it in private*, suggesting he/she wanted to use Twitter for fun, not as a tool for using English. Similar reactions were seen in Stockwell's (2008) study into the use of mobile phones for educational purposes, in which his students displayed dissatisfaction towards such teaching methods voicing that these devices were "not a tool for study", and they "couldn't get into the study mode with the mobile" (p. 260). Therefore, based on such feedback, it would be advisable to explain clearly to students the benefits of using Twitter in class, as well as taking a more active role in the discussions, for example through designating activities or providing suitable topics, to help gain favorable attitudes from participants in the class.

Second, it seems that using Twitter has indeed created a learning environment in which students are encouraged to think carefully about their study habits. With a strengthening in the correlation between the learning environment factor of the Motivational L2 Self System and metacognitive skills, it could be concluded that the use of this tool has resulted in students becoming more autonomous in their English studies. This is supported in comments related to open-ended items in the second questionnaire from students such as *It helps improve our English, because we make comments in English*, and *I always check my grammar and spelling before I tweet*, suggesting that those in both the positive and negative group have shown metalinguistic and metacognitive skills in their studies (i.e., control their study habits and way they think), a move towards becoming autonomous in their learning.

Third, on a more negative note, it appears that anxiety related to grammatical correctness of English, and the reactions of other students plays a role in whether the use of Twitter is successful or not. Students in the negative group suggest lack of confidence in their English ability through comments such as *I feel anxious about writing the right sentences, I am worried whether others can understand my English* and *Twitter is world-wide; I'm worried about my English*. Although the instructor regularly told students that it was content and effort rather than grammatical accuracy that would contribute heavily to their grades, it seems that students still worried whether they were tweeting using the correct English or not. In similar projects in the future, it may be advisable for instructors to create a clear marking rubric in which more weight is given to effort and content of tweets, and less for the grammatical accuracy of the students' tweets. Such reward for effort, rather than result, may bring about better results, as researchers of the Self-worth Theory of motivation such as Dweck (2006), Covington (1992) and Dweck and Reppucci (1973) argue.

Through the points discussed here, it can be concluded that using Twitter in an EFL environment is effective in increasing autonomy in students, but this seems to be limited to students whose linguistic self-confidence is relatively high at the beginning of the course. Those students who lacked confidence in their English ability showed anxiety toward using the tool and showed little desire to use it again in future classes. It may be difficult for teachers to grasp the confidence students have in their own English ability at the beginning of the course, and therefore it has been suggested that teachers create a marking rubric that clearly shows students they will be rewarded for their effort more than their grammatical accuracy. If this can be done, using a SNS, regardless of whether that is Twitter, Facebook or any other system, in an EFL class may be more successful in creating autonomous students who have both high and low confidence in their English proficiency.

5. Conclusion

This paper has reported on a university course in which students were required to use Twitter, and whether this activity had an effect in increasing the autonomy of students in their English studies. Through the results and discussion, it has been concluded that using Twitter is indeed an effective tool to encourage highly confident students to become more autonomous learners. However, this study is not without its limitations.

First, the sample of students is quite small with only 34 responses in the first questionnaire and 28 in the second. With a larger number of students, who have varying English proficiency and linguistic self-confidence, stronger conclusions may be reached. In addition, due to the small number of participants, the range of the 95% confidence intervals, especially in regards to the correlations with metacognitive skills, was quite broad. With an increase in the number of students in the sample, more reliable figures may be achieved. However, as one student remarked, *It's effective if the class has a small number of students*. Therefore, it may be beneficial to create several small Twitter communities to create a relaxed atmosphere within that group. This may also be effective in reducing the anxiety students feel towards the grammatical accuracy of their tweets.

Second, because individual students were not tracked, through for example student numbers, it is difficult to measure whether students had high or low motivation at the beginning of the course. If the researcher had been able to do this, a clearer understanding of whether using Twitter was effective in increasing the motivation of students whose motivation had been low at the beginning of the course and whether some students whose motivation was high at the beginning of the course were in fact demotivated by this activity. Furthermore, the author was unable to remove the data of those students who were unable to complete the post-activity questionnaire. In future studies, tracking students may bring about an increase in the reliability of the results.

Despite these limitations, however, the author is still confident that the results have given some insight into the effects the use of a SNS in an EFL environment has on students. The findings have also provided recommendations for future classes, in order to make the use of such a tool even more effective for a wider range of students. For teachers to realize the benefits a SNS brings to the language classroom, it is essential to build on the linguistic self-confidence their students have at the beginning of the course. It is hoped that, with consideration of the students' language needs and enjoyment, that more EFL instructors will consider a SNS as a tool that will be beneficial in taking their students beyond being motivated, to taking charge of their own learning as they become autonomous in their studies.

Note

1. Although the number of smartphone users is dramatically increasing, there are still those who are using mobile phones that cannot readily access the Internet, or who cannot easily tweet a comment due to reasons such as being unable to download the Twitter application on their mobile phone. Such students would be required to access the Internet through computers and therefore would be at a distinct disadvantage to those who use smartphones, as it would be difficult to access the SNS during times such as commuting to university.

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Appendix A

Items used to measure subjects' ideal L2 self

Statement
I can imagine myself living abroad and having a discussion in English.
I can imagine a situation where I am speaking English with foreigners.
I can imagine myself as someone who is able to speak English.
Whenever I think of my future career, I imagine myself using English.
The things I want to do in the future require me to use English.

Appendix B

Items used to measure subjects' ought-to L2 self

Statement
I study English because close friends of mine think it is important.
I have to study English, because, if I do not study it, I think my parents will be disappointed with me.
Learning English is necessary because people surrounding me expect me to do so.
My parents believe that I must study English to be an educated person.

Appendix C

Items used to measure subjects' L2 learning experience

Statement
I like the atmosphere of my English classes.
I find learning English really interesting.
I always look forward to English classes.
I really enjoy learning English.

Appendix D

Items used to measure metacognitive skills

Item (English)	Item (Japanese)
I often think about whether my study methods are effective or not.	私は自分の勉強の仕方が効果的かどうかいつも考えている。
I often write notes to myself to improve my study methods.	英語の学習方法を上達させるために授業中によくメモをとる。
I have a clear goal for studying English.	英語学習の明確な目標がある。
I have fully prepared a plan to achieve my goal in the future.	英語学習の目標を達成するための明確な計画がある。
I always discuss the content of an English passage with friends to check whether I have understood it well.	学習した英単語、構文、英文などを理解しているかどうか確認するため、内容についてよく友だちと話し合う。
I always make sure I have a plan before starting a task such as reading a passage.	英語の学習を始める前に計画を立てている。
I often think about the reasons when I am unable to complete a task.	英語の学習がうまくいかない時に必ずその理由を考える。
I know the best environment for me to concentrate on studying English.	自分が英語を勉強する時の理想的な学習環境は理解している。
I know effective ways to improve my memory of English vocabulary.	英単語を覚えるための効果的な方法を知っている。
I have ways to make myself concentrate more in English classes.	私には英語の授業で集中するための方法がある。

Appendix E

Items used to measure attitudes toward using Twitter

Item (English)	Item (Japanese)
Social networking systems such as Facebook and Twitter are effective for my English study.	FacebookやTwitterのようなsocial networkは英語の勉強のために効果的である。
If I become a teacher in the future, I would like to use social networking systems such as Facebook and Twitter in my classes.	将来、教員になったら授業でFacebookやTwitterのようなsocial networkを使いたい。
* I am not confident using social networking systems such as Facebook and Twitter as they are too complicated.	* FacebookやTwitterのようなsocial networkは複雑すぎて使う自信がない。

Note: * In the analysis, this item was recoded (i.e., 6 → 1, 5 → 2, etc.) as it was a negative statement.

Appendix F

Open-ended items used in the second questionnaire

These items were provided to subjects in English.

Item

How did you feel about Twitter being used as a way to share ideas from the classroom?

What problems or anxiety did you feel about using Twitter in our class?

Would you like to use Twitter in other classes in the future?
