Sustaining Outside-of-Class CALL Activities by Means of a Student Self-Evaluation System in a University Blended Learning EFL Course

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Abstract. This paper is a report on a research project which was conducted on blended learning (BL) in an English as a foreign language (EFL) course at a Japanese university. In this study the BL approach to EFL teaching was defined as a combination of in-class and outside-of-class learning tasks and materials integrated in a single learning environment by a www-based courseware, ATR CALL BRIX (http://www.atr-lt.jp/products/brix/index.html). The use of the courseware outside of class was intended not only to help improve students' TOEIC scores, but also to nurture self-regulated learning (SRL). A student self-evaluation system was implemented in this project. On the basis of the findings of pre- and post-learning questionnaires and interviews with students, it was concluded that the self-evaluation system encouraged students to engage in SRL. Furthermore, pre- and post-TOEIC testing revealed that the students in the project improved their TOEIC scores ($p < .01$; $r = .49$).

Keywords: Self-evaluation system, Blended learning, Self-regulated learning, E-mentoring, English as a foreign language (EFL).

1 Introduction

1.1 Blended Learning: A Definition

Blended learning has been defined as a combination of face-to-face delivery with online delivery [1]. However, there is a lack of satisfaction with the definition that is apparent in the literature. As with other innovations in educational technology, there have been problematic issues with the definition of blended learning as the related technologies have developed [2].

In this study, the BL approach to EFL teaching was specified as a combination of in-class and outside-of-class learning tasks and materials integrated in a single

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learning environment by a www-based courseware, ATR CALL BRIX (http://www.atr-lt.jp/products/brix/index.html) which included a learning management system (LMS). The LMS provided a variety of learning materials designed to prepare students for the TOEIC Listening and Reading Test.

1.2 Blended Learning as a Facilitator of Self-Regulated Learning

Self-regulated learning (SRL) is defined as a set of proactive study processes that students use to manage their own learning by making decisions about their own learning goals, by selecting and deploying learning strategies and by self-monitoring their own effectiveness as learners [3].

Nicol & MacFarlane-Dick [4] found that feedback is a key element in the development of SRL as it informs students of the parameters of good learning behavior through self/peer learning performance comparisons enhanced by analytical interaction with instructors and peers. This process facilitates self-assessment and the development of self-esteem, key processes within SRL. Butler & Winne [5] also found that the richer the feedback a learner received, the higher the level of self-regulation. A study by Sadler [6] suggests that when constructive feedback empowers students self-regulatory skills improve. Interaction and feedback facilitates analytical thinking, as learners interpret what they have done or intend to do next, compare their own performance with that of their peers, and with the target performance level that their teacher guides them towards.

The abilities to recognize what good performance is and to gauge one's own performance against performance standards are key factors in the development of reflective learning. Interaction and feedback are important for self-assessment, as self-reflection alone can be a limited and difficult process [7]. Effective self-assessment is based on the critical evaluation of actual personal experiences, in particular the impact on current performance of past success and failure; the analytical observation of peer performance; and the constructive reception of feedback from peers and teachers. A study by Miltiadou & Savenye [8] highlighted the importance of feedback for improving self-assessment in ways that will foster study persistence by allowing learners to accept signs of incremental steps towards target-level success. Thus, the variety of interaction and feedback opportunities BL offers facilitates the growth of SRL through self-assessment skill-building.

Using several case studies from Japanese universities, Goda [9] examined e-learning environments and their capacity to encourage SRL. Goda [9] created a self-regulated learning scale for e-learning based on a study by Wolters, Pintrich, & Karabenic [10] which has 4 categories of SRL strategies; affective, cognitive, help-seeking, and independence-generating. The scale was designed for the purpose of investigating the link between learner types and learner behavior to ascertain what kind of support students require. It was hypothesized that different learner types when engaged in e-learning require different approaches to the provision of appropriate types and amount of support.

At Yamagata University, Japan, the scale was used to determine the influence of e-mentoring in a blended learning course. It was found that e-mentoring had an affect

on help-seeking. In a further study, time management was focused on as a SRL target behavior that the use of a LMS could improve, particularly with regards to having too much freedom in terms of the use of time which can lead to postponement of tasks and failure to complete assignments [9].

Kumamoto University in Japan has used a CALL English program to improve students' autonomy and SRL skills. The system allows students to check their own learning progress and amount of time spent on the LMS and compare their learning performance with that of their classmates. The findings of this study suggest that an e-mentor and other forms of support are important in order to increase time spent on SRL activities [9].

Ng, Seeshing Yeung, & Yuk Hung Hon's study with EFL students in Hong Kong [11] shows a correlation between levels of learner satisfaction and two factors: learner self-management of the amount of time and effort invested in learning and the amount of time spent on self-assessment of their learning performance. The study claims that learners who are active in self-assessment have more effective learning outcomes than learners who attend class and engage in few self-assessment processes. Thus, it can be expected that BL practices that involve peer and teacher interaction and a deep engagement with materials will encourage the active learning behavior common in self-regulated learners.

Sagarra & Zapata's [12] study of Spanish L2 learners in the United States claims that how learners acquire information is related to the depth of engagement with the materials and the learning process. For example, resubmitting work in the online phase multiple times and then being encouraged to self-assess each time in the face-to-face phase, prompts critical thinking, and the creation of more opportunities for self-assessment, reflection and satisfaction due to a growing sense of achievement as progress is made toward learning goals. Learners who were active in self-assessment increased their self-awareness of SRL strategies.

Qu [13] found that high levels of engagement in interaction and feedback enhances self-efficacy levels in EFL learners in China. Conventional courses with limited resources, usually the teacher and the students, have low levels of input from peers compared to BL courses. It was found that encouragement and inspiration from teacher and peer feedback that acted as scaffolding built learners' self-confidence. Through engagement with other people, cognitive processes were activated, and as students became increasingly aware of their own weak and strong points, their problem solving strategies improved.

Sanprasert [14] investigated a BL delivery system for Thai EFL students that was designed as scaffolding to create a flexible learning environment based on autonomous learning. Thai students are generally described as being obedient to the point of being over dependent on their teachers. Thus, classroom time assigned to face-to-face interaction may mainly be spent in students listening to the teacher talk. The study acknowledged that it is not easy to radically alter ingrained learner and institutional characteristics; however, if teaching and learning methods shift the classroom power structure, individual capacity may be liberated. Sanprasert [14] found that students who had been described as having low SRL levels became more aware of the importance of their own roles, they gained in confidence at setting goals,

and did not just rely on receiving them from the teacher. The students reported that feedback which allowed them to compare their performance with that of their peers was a good source of motivation. While many students still preferred to have face-to-face time with a teacher, blended learning had altered their beliefs and behavior in ways that resulted in more active SRL activities.

A study by Jochum [15] examined the use of blended learning by learners of Spanish and the impact of self-reflection and assessment. The study identified how a BL multiple delivery system prompted SRL. Although the online activities were student-centered and thus, facilitated independent learning and consequently improvements in learner self-esteem, it was concluded that online materials alone do not provide students sufficient output opportunities and feedback. It was found that if online tools are used to provide data on learner progress to teachers and students, teacher and peer feedback can become a rich source for self-reflection which may prompt learners to adapt their learning strategies in the SRL practice phase.

The studies reported above offer encouragement that systematic procedures for student self-evaluations in the BL approach to foreign language teaching may promote SRL. Positive findings are reported on efforts to constructively apply the on-going developments in ICT to create effective combinations of on-line and in-class mentoring in programmed generic e-mentoring and face-to-face in-class teacher and peer mentoring. The studies rest on an assumption that students will use on-line self-evaluation materials and add to it in their own independent and individual ways in class.

In the classroom students must be willing to interact with each other and their teacher as learning colleagues, and not as isolated individuals or in groups that are primarily friendship-based. Based on such constructive attitudes, classroom time can be devoted to interaction between students and their teacher that will support outside-of-class study through problem-solving tasks which depend for success on self- and other-analytical reflection of learning task performances.

The aim of the study reported in this paper was to learn how to recreate the self-reflective independent learning environment that some high-performing students employ to continuously and gradually improve their skills. Professional mentoring for top performers typically relies on self-reflection by students that allows timely critical interventions by the mentor. The aim of our study is to apply this combination of teacher/peer-mentoring and self-mentoring to enhance students SRL effectiveness at the same time teachers become more insightful mentors to the full range of students they teach from the highest to the lowest proficiency levels.

The study reported in this paper explores a way of creating and sustaining student motivation at levels high enough to ensure that a virtuous cycle of reflection, mentoring intervention and performance is created.

2 ATR CALL BRIX

ATR CALL BRIX is a www-based courseware with a LMS, which contains seven different functions: 1) study logs, 2) feedback on the achievement rates of student-set

goals, 3) records of the frequency of the use of the materials, 4) a record of time spent on learning, 5) a continuous update of the average score on the TOEIC learning tasks, 6) an evaluation of students' weak points and advice for further learning, and 7) students' rankings in comparison with other students in the course [16].

The courseware was used in conjunction with weekly messages of advice and encouragement from an e-mentor team, student in-class completion of a self-evaluation form in which students reflected on their progress and set personal learning goals, and in-class teacher-student communication in learning tasks.

3 Research Question

The project sought to answer the following research question: Would this project's student self-evaluation system lead to an observable development in student attitudes, knowledge, and skills which characterize successful SRL practices?

4 Student Self-Evaluation System

A student self-evaluation system was implemented in this project which combined e-mentoring outside of class and weekly in-class self-evaluations as part of the course routine.

E-mentoring can be defined as similar to traditional mentoring but accomplished through ICT communication. It is also known as online mentoring, virtual mentoring, telementoring or cybermentoring, utilizing computer-mediated communication tools such as e-mail, listservs, chat groups, and computer conferencing [17], [18], [19]. E-mentoring has been adopted by companies, educational institutions and community programs where face-to-face or synchronous mentoring is not readily accessible, for example where there is a substantial distance between mentor and learner [18]. Compared to e-coaching where the focus is on a single goal or area of performance, e-mentoring involves a more ongoing period of advice to support an individual's development in a more general sense, for example, in achieving their career goals [18]. Within an educational setting, e-mentoring can be said to cover the academic or non-academic needs of the learner such as providing advice regarding the retention of knowledge and enhanced academic performance, or giving encouragement when human relationship problems interfere with study. The term online-tutoring, in contrast, is used when the focus of support is limited to academic areas [20].

For outside-of-class e-mentoring, students were placed in four groups according to their TOEIC scores at the beginning of the semester. An e-mentor team of one teacher and a graduate school student teaching assistant sent different need-based messages of advice and encouragement weekly to the mobile phones of the students in each of the four groups according to how often the students used the LMS learning materials. In addition, a self-evaluation process was a feature of the weekly class. The students reflected on their previous goals and set new goals for the following week in consultation with their peers and the classroom teacher. Fig. 1 shows a flow of the tasks of participants and the e-mentor team in the student self-evaluation system.

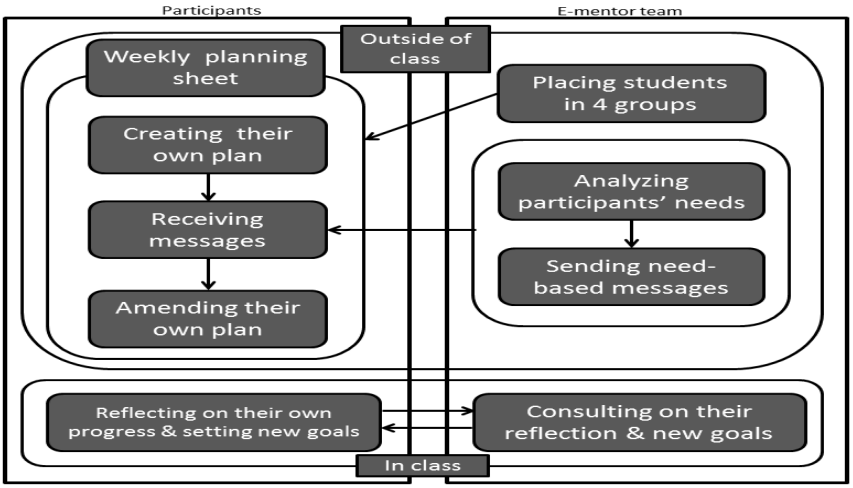

Fig. 1. Flow of tasks of participants and e-mentor team in the system

5 Validation of the Study

5.1 Participants

Twenty nine students at a university in Japan participated in this study. The participants' scores on the TOEIC Listening and Reading Test in September ranged from 295 to 650 (average = 482.59).

5.2 Method

The participants were provided, as out-of-class activities, with the courseware materials for improving their TOEIC scores between September, 2012 and January, 2013. The materials were designed to be completed in eight weeks, and each week the records of the seven LMS materials were compiled. A pre- and post-course, the Online Self-Regulated Learning Questionnaire (OSLQ), was administered in September and in January. It included 24 items which used a 5-point Likert scale for ranking student responses from strongly agree (5) to strongly disagree (1). The OSLQ covered six SRL constructs [21]: setting goals, structuring the learning environment, creating learning strategies, managing time, seeking help, and conducting self-evaluations. The student self-evaluation system was implemented in this project which combined e-mentoring outside of class and weekly self-evaluations as part of the class routine between September, 2012 and January, 2013.

5.3 Results and Discussion

Scores of four out of the six SRL constructs significantly increased as described in Table 1, below. The results indicate that the messages that the e-mentor team sent

weekly to the participants and the self-evaluation form in which the participants reflected on their goals of the week and set new goals for the following week were likely effective in encouraging SRL behavior. Task strategy creation and help seeking SRL behaviors showed no significant changes in score level, although help seeking scores decreased. A possible explanation could be that the ATR CALL BRIX's LMS gave the participants adequate advice and explained which materials should be used in order to overcome weaknesses in their study plans to improve their TOEIC scores. The following statement is a typical student statement regarding their appreciation of the LMS: "The LMS is so nice. It shows me what I can do to improve my TOEIC score."

Table 1. Results of OSLQ in September and January

	OSLQ (September)	OSLQ (January)	*p*	*r*
Goal setting	2.86	3.26	.002**	.57
Environment structuring	3.14	3.55	.030*	.56
Task strategies	2.40	2.45	1.00	.00
Time management	2.68	3.20	.000**	.66
Help seeking	2.13	2.05	.523	.12
Self-evaluation	2.53	2.83	.043*	.38
$*p < .05$; $**p < .01$				

Furthermore, pre- and post-TOEIC testing was conducted in September, 2012, at the beginning of the semester and in January, 2013, at the end of the semester. The result as is shown in Table 2 revealed that the students in the project significantly improved their TOEIC scores ($p < .01$; $r = .49$).

Table 2. Results of pre- and post-TOEIC testing

TOEIC score (SD)		Gain	*p*	*r*
Pre-TOEIC	Post-TOEIC			
482.59 (91.01)	520 (116.02)	37.41	.009**	.49
$**p < .01$				

6 Conclusion

The following research question was the focus of the project described in this paper: Would this project's student self-evaluation system lead to an observable development in the student attitudes, knowledge, and skills which characterize successful SRL practices? The results of the study reveal the student self-evaluation system, an important component of our BL project, encouraged SRL development.

Further research should be conducted to identify which particular types of e-mentoring may be most effective in encouraging SRL.

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