A Social Based Language Learning for CALL Environment to Develop Japanese Students’ English Communication Skills

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Abstract: Pre-college curricula, culture, and inadequate exposure to authentic communicative situations could be responsible for the difficulty in communicative English among Japanese college students. Additionally, Japan recognizes the TOEIC score as an authentic proof of English ability. These facts have encouraged Japanese universities to invest in CALL classrooms for CLT and drill-based TOEIC preparation without a clear pedagogy. This study proposes S-BaLL method that allows a blend of the drill-based TOEIC preparation and CLT to ensure authentic English communication. Students identify difficulties at the drill-based TOEIC preparation stage, and engage in group activities to solve the problems by turn-taking. An experiment conducted with a class of undergraduate students to ascertain students’ attitude in S-BaLL showed that most of the students were encouraged to participate. However, a few students found S-BaLL not encouraging for TOEIC preparation, and some others also preferred text to voice chat.

Keywords: CALL, TOEIC, CMC, Social Learning, Drill-and-Practice, S-BaLL

Introduction

As the world continues to strive towards globalization through information and communication technology, the English language is becoming the de facto standard of international communication. This can be justified by the fact that most of the international business and collaborative activities are often organized in English. The influence of the language in the current global economy indeed is motivating lots of industrial countries, such as Japan, to master the language in order to be more competitive. Therefore English education has become a more complicated discipline combining psychology, pedagogy and IT technology, especially for higher education learners (or students), and communicative language teaching (CLT) has been a recommended method for teaching EFL and ESL students (Savignon, 2002). However, despite the big investments in English education by the Japanese universities, most students graduate without the adequate communicative skill required to interact effectively in the business environment (Koike et al, 2008). (Koizumi, 2010) pointed out that communicative skill can be conceptualized from several linguistic factors such as fluency, accuracy, complexity, quality and quantity of contents, cohesion and coherence, sociolinguistic appropriateness, use of communication strategies, pronunciation, etc. Most of these factors, if not all, can not be fully mastered in the classroom without their appropriate application in real social situations. The Japanese students, as EFL learners, do not have much chance of application and are barraged by their own native language (Adachi, 2010), and also by a culture that prevents them from being outspoken (Inoue, 2007). Therefore Japanese students needed to develop their communicative competence encompassing not only the lexico-grammatical knowledge but also pragmatic, sociolinguistic, and procedural knowledge (Matsuda, 2010). In view of these problems many universities have adopted the use of E-learning in their English curricula to support English education. Most of these universities have established CALL classrooms which are usually furnished with VHS/MD/CD/DVD players, modern computers with Internet connections, LMS, etc. A major research issue is that quite a lot of these universities are motivated to use the CALL classrooms for TOEIC drilling practice (Junichiro, 2010, Seijiro et al, 2010), or “read-out-to-your-partner” conversation. This is partly due to the inability of faculty members to fully utilize the IT resources for their jobs (Jarrell, 2002), and also, by the demand for certificates to prove English ability from EFL candidates by international institutions including some Japanese major companies (Rebuck, 2003). However, the TOEIC practice is individual learning where learners can encounter some content difficulties. These difficulties may include spelling mistakes, wrong or difficult vocabulary or grammar, inadequate vocabulary to describe a picture or situation, inadequate vocabulary to understand an audio content, etc, which can put the learners in guess work (Hideki, 2010). On the other hand these difficulties can trigger collaborative learning. According to (Farouck, 2010) learners have different cognitive and metacognitive abilities, and, when they are engaged in social learning, the
weaker learners can be supported by the stronger ones, and also, the stronger learners can improve and have confidence in their knowledge.

This paper proposes a social learning method for CALL classrooms that will enable learners to engage in their traditional TOEIC drilling practice while engaging in collaborative learning activities in order to expose them to more English communicative situations through computer mediated communication (CMC) and to enable them to have an authentic proof of their English abilities.

Background

The lack of communicative skills in English is one of the recurrent problems among Japanese college students. This problem has been caused by many factors that include the lack of sufficient chances for Japanese students to speak English in everyday life (Adachi, 2010), the cultural factors (Inoue, 2010), the relationship issues at schools (Yoneyama, 1999), and teacher-centered grammar translations English classes they have had during their pre-university or pre-college schools (Shigeo, 2010). These situations have led to a gap between the students’ communicative skills and the English skills identified as useful to compete effectively in the global market (Koike et al, 2008). As mentioned earlier, the use of CALL is one of the major steps taken by some Japanese universities in their effort to improve the English abilities of their students. These CALL classrooms are usually based on individual learning where learners often interact with online content in a form of TOEIC drilling practice which can lead students to guess work (Hideki, 2010). This is in spite of the fact that many studies in E-learning emphasize on social-constructivism (Farouck et al, 2009). Therefore recent studies of the CALL environment encourage social learning practices (Junichiro, 2010, Seijiro et al, 2010). Meanwhile, Japanese universities are still motivated to engage their students in the TOEIC drilling practice so as to enable the students to acquire a good TOEIC score that will facilitate the students’ chances during job hunting (Rebuck, 2010). This paper focuses on how to blend the TOEIC drilling practice and CLT in the CALL classroom to expose students to more authentic communicative English as they engage in their TOEIC drilling practice, specifically:

1. What learning method is suitable for the CALL classroom that will enable learners to improve their communicative skill as they engage in TOEIC drilling practice?
2. What will be the motivation and demoralizing factors that affect social learning in English among Japanese university students in the CALL classroom?

To answer these questions the Social-Based Language Learning (S-BaLL) Environment was proposed and experimented.

The S-BaLL Environment Design

There are three significant functions in the S-BaLL environment. These are the learning method, the instructor’s facilitation, and the system environment. All these functions focus on encouraging communicative language learning using the CALL environment.

The Learning Method

The learning method, fig. 1, is based on social constructivism and learner-centered learning. It has the following phases.

![Figure 1: S-BaLL Learning Model](#)
The Grouping Phase

Several grouping methods are used in English classrooms. These include grouping students based on friendship, proximity, task or interest, or chance (i.e. using random numbers, trump cards, alphabets, etc.) However it is not uncommon to find English knowledge gap among Japanese university students in the same class due to different levels of exposure to English before they reached university. In such situation the best method is to use streaming because it helps to group the students according to their English abilities for the social learning. In this method, students take a placement test and, based on the test results, they are grouped into three main categories- the novice, the intermediate, and the advanced students. Additionally, since students in the same group will be solving difficulties that they encountered during the TOEIC drilling practice, it underpinned the need to add a student with a better cognitive and metacognitive ability to act as a leader to enhance learning in the group. The knowledge gap between such student and other members of the group should not be very wide, otherwise there will not be effective collaboration among the members (Farouck, 2010). Therefore the following grouping algorithm was used. Let N, I and A be the main sets of novice, intermediate and advanced students respectively, in a given class (i.e. R). And let f(N), g(I) and h(A) be the unique elements of N, I and A for grouping respectively. And let \( s > 1 \) be the size of a subgroup. Then for any unique subgroup \( \omega_t \subset R, \quad \omega_t = Xf(N) U Yg(I) \) OR \( \omega_t = Xg(I) U Yh(A) \) where \( t=1…n \) (number of subgroups in the class), and \( X,Y \in N_1, \) are the number of elements for each subgroup from the main sets N, I and A, and \( X < Y \) and \( (X+Y) = s \). Additionally, the students’ computer learning skill should be ascertained through a questionnaire or observation during a hands on orientation. Those with lower skills should be given appropriate orientation before the commencement of the class activities. The subgroups, in either case, can be reshuffled periodically as in JIGSAW to improve learners’ social affinity.

The Warming up Phase

The instructor should explain the goal of the lessons both online and verbally in the CALL classroom. Then students are made to engage in an online social “ice-breaking” activity. The activity consists in having each student in a subgroup takes turn to ask her questions and expect answers from all other members in the subgroup. The choices of questions are carefully made by considering the domain of TOEIC question type, and situations that relate to students’ daily lives. This is to reduce their cognitive load, due to worrying about the correctness of their information, and focus only on “How-To-Say-It-In-English”. An example is shown in (tab. 1). Such question structure is critical because the willingness to communicate in English among Japanese students is very low in F2F oral discussion (Yashima, 2002). The second issue is their participation through the computer mediated communication (Farouck et al, 2009). Usually some students have intrinsic motivation, however when the intrinsic motivation is not maintained, their overall enthusiasm for learning may assume a negative direction if there is no extrinsic motivation (Akihiko, 2010). Therefore the instructor should give attention to motivation factors such as credit point, interesting activities, ensuring and encouraging curiosity, affect and cooperative attitude. After this activity students will move to the TOEIC drilling practice.

Table 1: Ice Breaking Questions

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you think a woman makes a better boss, why or why not?</td>
</tr>
<tr>
<td>2</td>
<td>What do other people do that bothers you?</td>
</tr>
<tr>
<td>3</td>
<td>Where would you like to go on vacation, why?</td>
</tr>
<tr>
<td></td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>.</td>
</tr>
<tr>
<td>n</td>
<td>What do you think of the boys or girls in this university?</td>
</tr>
</tbody>
</table>

TOEIC Drill-and-Practice Phase

Students access the drilling system to practice the TOEIC type questions and answers at their own pace. This stage enables abstraction and schema construction. This can take half of the class time. As mentioned earlier, students have different cognitive and metacognitive abilities, thus some will be encountering some content difficulties. Students are encouraged to annotate these difficulties on a discussion board and later prioritized at the end of this phase. The difficulties on the board allow stronger learners in the subgroup who
have completed their TOEIC practice lessons to begin finding solutions while waiting for their weaker peers to complete this phase before moving to the group learning phase.

**Group Learning Phase**

Learners in a group take turn to discuss the difficulties that they found in the drilling phase. The learners continue discussing each other’s difficulties until the group learning time is ended. This activity can be extended outside the classroom on the internet if there are more difficulties to be resolved by the group. During this phase learners engage in cognitive diagnosing and restructuring. They are also able to evaluate their knowledge with the group. To stimulate the students’ participation, as mentioned earlier, extrinsic motivations such as points rewarding are essential. After this group learning phase, students return to the drilling phase to redo the part of the lessons where they experienced the difficulties for final reflection and evaluation, or exit the learning cycle.

**The Instructor’s Facilitation**

In addition to the roles explained in grouping and warming up phases, the instructor participates in group learning activities to facilitate, where necessary, through computer-mediation. After the class is over the instructor also examines the groups’ text and audio discussion logs to create a content that addresses some very important issues and errors committed by the learners. This content is shared with all the learners online as knowledge capital.

**The System Environment**

The learning system environment for S-BaLL consists of three main modules. These are Drill-and-Practice, Collaborative Learning and Instructor modules.

**The Drill-and-Practice Module**

This module consists of the TOEIC drill-and-practice interface. This interface also allows connection with the collaborative learning interface. The connection allows the students to annotate encountered difficulties on an online white board that can be seen by the members in the subgroup. This will enable the faster learner to start looking for a solution before the weaker members complete their drilling practice.

**The Collaborative Learning Module**

This module should comprise both synchronous and asynchronous tools for interaction. The module supports both text and audio interactions among the students, and consists of the white board where the annotated difficulties from the drill-and-practice module are displayed.

**The Instructor Module**

This module consists of interfaces that the instructor uses to manage the students and their learning. The interface enables group formation and management. The instructor can view each learner’s activity and contact them individually online for facilitation. The instructor can also monitor each group’s activity and join the group for facilitation.

**Experiment**

The goal of this experiment was to investigate students’ attitude and perception towards the S-BaLL. 12 undergraduate students took part in this experiment. They were tested for their English and computer learning abilities for grouping and appropriate orientation respectively. Learners were divided into four groups according to the grouping algorithm. Students randomly sat in the classroom because their interaction is mainly through computer mediated communication (CMC) to reduce the cognitive load due to physical presence, which affects willingness to communicate. The systems used for this experiment include Newton’s TLT E-Learning system for the TOEIC drill-and-practice lessons and Uchida PC@LL CALL management system for the collaborative learning activities. Both systems have an administrator’s function that supports the instructor’s function. The content of the Newton’s TLT E-Learning system was developed by the English faculty members of the author’s university for a TOEIC score between 300 and 700. Each student was given an ice-breaking question, and all the students were made to go through the learning phases explained earlier. At the end of the experiment learners were given a questionnaire, and some of
them were interviewed. The questionnaire used a Licket scale which took the form Strongly Disagree, Disagree, Normal, Agree and Strongly Agree. The experiment was conducted in two days on a pilot basis where the author played the instructor’s role. This approach might not enable external evaluation but it is an acceptable tool in action research.

**Experiment Result**

Data was collected from discussion log, a questionnaire and through interview. In the analysis, questionnaire responses are grouped into Negative (-ve), Neutral (Nt), and Positive (+ve) responses. The Negative took the sum of the Strongly disagree and Disagree while the Positive took the sum of the Agree and Strongly Agree. All students participated in the oral “ice breaking” interaction. The audio interaction log, not shown here, showed that learners have engaged enthusiastically in bargaining to co-construct meaning especially where they could not understand the meaning of some utterances and unclearly pronounced words. They also showed agreement and disagreement to some opinions. Some of the students also encouraged speaking through turn-taking signaling. There was also a pressure to speak since silence by a member will end the dialogue. Table 2. shows some factors that motivated the students’ participation in the S-BaLL. This information was retrieved from the questionnaire and has been categorized into intrinsic motivation and effect of social presence. On personal experiences, when students were asked to write about what they liked

<table>
<thead>
<tr>
<th>No.</th>
<th>Intrinsic Motivation Factors</th>
<th>-ve (%)</th>
<th>Nt (%)</th>
<th>+ve (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It will give you the opportunity to write, listen and speak more in English.</td>
<td>8.3</td>
<td>0</td>
<td>91.7</td>
</tr>
<tr>
<td>2</td>
<td>It will give you the opportunity to read more English.</td>
<td>8.3</td>
<td>8.3</td>
<td>83.3</td>
</tr>
<tr>
<td>3</td>
<td>It will give you confidence on the English knowledge you already had.</td>
<td>16.7</td>
<td>25</td>
<td>58.3</td>
</tr>
<tr>
<td>4</td>
<td>It can help you to acquire higher TOEIC score.</td>
<td>32</td>
<td>24</td>
<td>40</td>
</tr>
</tbody>
</table>

**Effect of the Online Social Presence**

1. It will encourage you to interact more effectively with your peers. | 8.3 | 8.3 | 83.3 |
2. You will be motivated to help members in your group who have difficulties. | 33.3 | 16.7 | 50 |
3. It will give you the opportunity to learn something new from others. | 0 | 16.7 | 83.3 |
4. It will give you the opportunity to make more friends or enhance your friendship. | 8.3 | 50 | 41.7 |
5. It will help you to know your strengths and weaknesses in the English language. | 0 | 8.3 | 91.7 |
6. It will help you to understand and cooperate with your class mates better. | 16.7 | 33.3 | 50 |
7. It will help you to gain better sense of belonging in the class. | 8.3 | 25 | 66.7 |
8. It will make the class community more beneficial for you. | 8.3 | 33.3 | 58.3 |
9. It will give you the opportunity to communicate more with the instructor. | 16.7 | 16.7 | 66.6 |
10. It will encourage you to come to the class. | 16.6 | 41.7 | 41.7 |

**Table 3: Negative Effect of Social Presence**

<table>
<thead>
<tr>
<th>No.</th>
<th>Negative Effect of Social Presence</th>
<th>Students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning in group will give your friends the opportunity to know your weaknesses.</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Learning in group gives you more stress than learning alone.</td>
<td>58.3</td>
</tr>
<tr>
<td>3</td>
<td>It will make you feel like you are disturbing other members in your group.</td>
<td>50</td>
</tr>
</tbody>
</table>
about the S-BaLL, a student stated, “The ability to ask others questions.” Yet another student wrote, “I have to keep on working with the group, that’s enjoyable.” Additionally a student also mentioned, “I can share my difficulty with the teacher and the students in my group.” Even though these indicators are good variables to encourage learning, item no. 4 of the “Intrinsic Motivation Factors” in tab. 2 shows that 32% of the students felt that S-BaLL cannot help them in acquiring higher TOEIC score. Most of these students gave the reason that “It is better to prepare for TOEIC alone- especially when learning vocabulary.” To throw more light on demoralizing factors, tab. 3 shows the negative effects due to the social presence in S-BaLL. Some students also revealed other members’ attitude that prevented effective discussion, such as “Slow members do not make discussion smooth.” and “Some members don’t talk a lot”. Others also found the noise in the classroom problematic, as one wrote, “Others voices interrupted me.” Yet another student showed how the technology prevented smooth conversation, as she wrote, “I can’t type fast so I couldn’t make my opinion sometimes.” Some also mentioned, “I could not hear other members clearly,” which could be caused by technological fault, personality trait or unwillingness to talk due personal reasons.

Table 4 shows one of the groups’ discussions. By using a content analysis method (Farouck, 2010), three threads can be identified each addressing a specific difficulty but starting with a different attitude or action. A thread starts in * and ends in # under the “Attitude/Action” column. The first thread shows identification of a difficulty, agreement to the existence of the difficulty, encouragement for a solution, and finding a method to solve it. The second thread is short probably because a learner knows the solution or learners have already acquired a process of solving such a difficulty from the first thread. The third thread highlighted content difficulty where audio content did not match the text versions of the content. Some of these situations were genuine problems, but with others, it was due to the students’ weaknesses in listening skill. The dialogue shows the social bargaining skill exhibited by the students during their discussion to solve their problems. This includes uncertainty, salutation, identification of community problems,
encouragement, information seeking, solution, appeal, confirmation and affirmation, suggestion, opinion, and gratitude.

Since this work focuses on the Japanese students’ interaction in the CALL classroom, they were asked about their preference of the synchronous interaction tools, i.e. voice or text chat. 50% indicated that they preferred the voice chat. Some of them gave the following reasons: “I'm not good at typing, I felt like I was wasting my group’s time”. “Japanese students are shy to speak in the class so this e-learning really encouraged us to speak.” 25% of the students preferred both text and voice chat with a common reason that, both will enable them to practice their writing and speaking. However, the other 25% preferred text chat to voice chat. Some of the reasons cited by this group include: “Some people speak very slowly … chatting enabled me to continue my work as I am waiting for them to finish talking”. Another student also mentioned that “Some people were hesitant to talk in the beginning, I think the text chat enabled them to engage.” Yet another comment is that “The text chat allowed me to check for words from dictionary before I made my comment.” This might have contributed to some students being slow in the interaction. Finally, students were asked to rate S-BaLL in terms of whether they will prefer it to the current Student-Content and Student-Instructor instructions in the CALL classroom. 75% indicated that they will prefer S-BaLL while 16.5% indicated that they will not. 8.3% remained neutral.

Discussion and Conclusion

The TOEIC scores remain an authentic measure of English ability in the international community and in Japan, in particular. Even though many Japanese students are able to obtain good TOEIC scores, English communication skill has yet to gain grounds (Koike, 2008). As indicated earlier, among the several causes of the Japanese inability to communicate, are inadequate exposure to authentic English communicative situations in their daily lives, both within and without the classrooms and the Japanese culture (Inoue, 2010). CALL classrooms have been used for both TOEIC drill-and-practice and communicative language teaching in many universities in Japan. This has often been done without a well-known pedagogy (Junichiro, 2010, Seijiro et al, 2010), which can blend both activities to expose the students to a more authentic English. These situations underpinned the use of S-BaLL on a pilot basis to investigate the possibility of giving the students an environment that can enable them to achieve both goals simultaneously.

The experiment conducted with the S-BaLL showed that most students (75%) welcome the idea of combining the drilling lessons with communication. This is because the students believe that the online social presence in this method did not only motivate them to improve their communication skill, but also their vocabulary, grammar and bargaining skill through authentic application and evaluation of their English language. The S-BaLL encouraged every member to speak through the CMC, irrespective of their weaknesses in the English language, because silence on the part of a student could end the dialogue. For example in the oral communication stage, it was observed that a member of a group was signaling others to take their turns to speak. Additionally, the ability to ask questions and share difficulties with the instructor and peers, as commented by the students, are of great interest to them. These could have been difficult in the F2F class where such attitude could be perceived as “rude” in the Japanese context. Thus the S-BaLL helped to reduce the cognitive load by overcoming such attitude of “shyness” and “rudeness” which are common in the F2F situation where a weaker Japanese student will prefer to be quiet if she acknowledges her own weaknesses or perceives others to have better English skill, or the stronger will be silent unless appointed as the leader of the group. The text discussion (tab. 4) shows that Japanese students can exhibit good manners in online discussion, and this can be a good tool to encourage discussion with a minimal negative influence from peers. Additionally, the interaction in (tab. 4) shows that Japanese students have the willingness to participate in negotiation for meaning irrespective of their grammatical or syntactical errors when given an enabling environment. That can encourage their gradual development in the English language to give them the confidence to communicate in a real authentic situation. For example, in a team of three students, a student makes at least three authentic oral utterances in addition to the written utterances per class. This can grow over an academic year.

Even though S-BaLL can encourage communication, some of the psychological factors that prevent collaborative work among Japanese students, tab 3, and computer learning skill essential for CALL, should be addressed. Though some students indicated that the noise from other students in the CALL classroom prevented them from concentrating, the author thinks it is an effective tool for developing concentration as communication in daily life will seldom occur in an absolute quiet area.
Thus, this study has suggested a double-edged social learning method that blends TOEIC drill-and-practice and a computer mediated CLT for CALL environment to expose Japanese students to a more authentic English communicative situation as they prepare for TOEIC examination. This method helps to reduce the cognitive load due to physical human presence, which hinders effective English communication among Japanese students. Therefore S-BaLL is expected to encourage students to embrace the attitude of learning English language from their mistakes instead of focusing on loosing face because of inadequate English skill. To achieve this goal, faculty members should be trained on how to utilize the CALL environment more effectively to confront today’s English education problems with appropriate psychology, CLT pedagogy and IT technology to support the Japanese students as EFL learners with a unique culture. The author acknowledges the short period and small class size used in this study. Therefore further work is needed to measure students’ actual improvement in both TOEIC scores and the communicative English skills. Additionally, further investigation of more specific cultural influences to the problem of Japanese to start communication, especially in the CALL, is necessary. This will help in developing a suitable learning management system for the S-BaLL.

References


