Developing Online Drill-Based English Content for TOEIC Preparation at a Japanese University

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Abstract: Many international institutions including some major companies in Japan have resorted to considering TOEIC scores as authentic proof of English ability among Japanese graduates. This development is motivating many universities in Japan to invest in CALL environments that use commercial drill-and-practice systems for TOEIC preparation. The content of some of the commercial systems do not reflect the connection between the essential business English taught in the F2F classrooms and the Japanese social-cultural context, which improve comprehension and retention. This paper discusses a method that uses action research based on social constructivism, and involves a team of English faculty members, to develop online drill-and-practice English content for Japanese students. The research involved the use of only the content of a commercial TOEIC preparation system at a stage, and with the new content developed by the team in different cohorts. A statistical analysis of the TOEIC scores of more than 1400 students over three years shows that there has been a significant improvement of the

TOEIC scores and an improved learner motivation as a result of the new content.

Keywords: E-learning, TOEIC, CALL, Action research, Content development, Socio-cultural, Social-constructivism

1. Introduction

The influence of the English language and the use of information and communication technology (ICT) tools such as telephones, e-mail, online conferences, and social networks, are among the major factors that contribute to a business's competitiveness in the global economy. These have catalyzed the rate at which people, once seemed a distance apart, come together on the same platform to conduct businesses mutually. Some of these business transactions start online and end in a physical face to face (F2F) environment, while others are conducted entirely online. Japan, as an industrialized country has one of the best ICT infrastructures in the world, which should give it an upper hand in exposing its culture and businesses to every corner of the globe. However, after graduation, most Japanese university students do not have adequate business English and intercultural communication skills essential to give them the confidence to compete more effectively in the global market (Koike, 2008, Inoue, 2007).

To improve this situation the Japanese Government has been investing in English education. This has motivated most Japanese universities to implement curricula that can enable most of their students to acquire an acceptable level of English language and intercultural skills to improve their global participation. Particularly this concerns students of commerce or business universities who are usually assigned to sales,

marketing, management or finance divisions in companies that compete globally and work with people outside Japan. Most of these curricula are based on reading, writing, listening and speaking. To support the F2F English classes and encourage students' internet learning skills, some universities are motivated to complement the curricula with E-learning.

E-learning, generally, is the use of ICT to support education, and has evolved in many ways. These include the use of electronic resources such as television, radio, CD/DVD players, computers and learning management systems. Recently, the rapid growth of Internet technology and the move towards more knowledge-intensive, interdependent and internationalized societies create new challenges and opportunities for faculties to redesign the delivery of English education online. Online learning enables learners to use computer devices (mobile or smart phone, PCs, etc.), irrespective of space and time, to access content and interact with faculty members and peers. This time and space convenience offers learners from across the globe the opportunity to participate in a course organized and disseminated from a single location. This development has improved learner-centered learning in higher educational institutions (McCombs et al, 2005), and continues to shift the locus of control from the teacher to the learner. Learners generally enjoy online, self-paced learning whether on campus, at home, in the work place or during movement (either working individually or collaboratively). Online learning enables learners to acquire background and technical information to focus on applications, case studies, and develop decision making skills in the F2F classroom (Cottrell et al, 2003). This has resulted in richer in-class interactions among students in the form of increased class discussions and in-depth exploration of course concepts. Additionally, records of learners' learning can be stored for future review by the learners and their

instructors (Farouck, 2010).

　　Despite the advantages that technology brings to English education some English faculty members, by virtue of their background, do not have adequate motivation to use the technology (Jarell, 2002), especially in Japan where faculty members may not want to engage in any activity that will let them lose face before their students.　This is because, some of the faculty members, due to generation-gap, perceived the students to be more technologically skillful.　Additionally, the Japanese public views the TOEIC certificate as authentic proof of English ability (Rebuck, 2003). These two factors can be considered to motivate lot of the Japanese universities to invest in CALL classrooms with commercial drill-and-practice TOEIC preparation software for learner-centered learning. What is lacking in some of the commercial software is adequate consideration of business English and intercultural communication (Inoue, 2007), which can have a great impact on the students after graduation.

　　Therefore this study discusses a method that uses action research which is based on social constructivism to create a drill-based online content for Japanese university students by given attention to the required business English, Japanese social-cultural context and essential intercultural communication.

2. English Curriculum and Study Motivation

　　As English has become the lingua franca of the global economy, many industrialized but nonnative English speaking countries have pushed their universities to implement rigorous English curricula to enable their students to possess essential language skills.　As an example, Otaru University of Commerce, the subject of this study, has four types of

English classes in its curriculum.   These include communication classes, reading classes, elective classes and E-learning English classes or "E-learning classes".   The elective classes allow the instructor to determine some of the weaknesses of the students and implement adequate pedagogy to support the students.   This has given opportunity to some of the instructors to blend their classes with the use of technology, while other classes are solely conducted in a traditional F2F format.   The E-learning classes are conducted in a learner-centered blended learning format and use a CALL classroom on campus.   In this CALL classroom, each student has access to one computer that is connected to the Internet.   The main goal is to improve students reading and listening skills through business English and also to prepare them for the TOEIC IP test. Students get credit for this course after completing a certain number of E-learning lessons, and acquiring a TOEIC IP score of not less than 400 at the end of the semester.   The E-learning lessons are accessed through a drill-and-practice system.

In the beginning of this study the E-learning system was a commercial intranet system that allowed access within the campus only.   Thus there was a time and space limitation (More et al, 2002).   The use of TOEIC-style questions, in these commercial systems, do not adequately cover the required business English, are not context-based (Shibata, 2005), and do not consider intercultural communication, which have been observed to be essential in English education for EFL students (Inoue, 2007).

These situations have created a barrier between the business English that students learn in the F2F classes, and the English available on the commercial drill-and-practice system, and the required English essential for working in the business organizations (Koike, 2008).   Additionally some of these commercial English drill-and-practice systems

prevent adequate comprehension because they do not consider students' socio-cultural background, which has been found to improve schema. This has also led to difficulty in understanding the listening practice because of many unknown words, which can easily lead students to guess work (Iimura, 2010).　These problems could also be attributed to the lack of English instructors capable of understanding the fundamental problems of English learning in Japan vis-à-vis the instructional design of these commercial systems, as noted by (Reeder et al 2004).　These situations underpin the need to establish a new curriculum (Shibata, 2005), especially for Japanese commerce students in order to empower them with more business English as they engage in the TOEIC drilling practice.　Therefore this paper focuses on how a drill-based E-learning English content can be constructed for EFL students, and discusses the effects of the content on learning within different cohorts.　In particular the following questions were addressed:

i. Can drill-based E-learning English content that incorporates the Japanese social-cultural context and the business English taught in F2F classes improve Japanese students' TOEIC scores?

ii. What are some of the motivation and demoralizing factors that affect learning in an environment that uses such content?

3. The E-learning Content Creation Process

　　The drill-based E-learning English content creation process involves TOEIC-style question creation, audio conversion, proofreading, implementation and refining the content for reimplementation (fig. 1). The method uses action research (Stringer, 2007) and is based on social constructivism (Vygotsky, 1978) to enable a team of English faculty
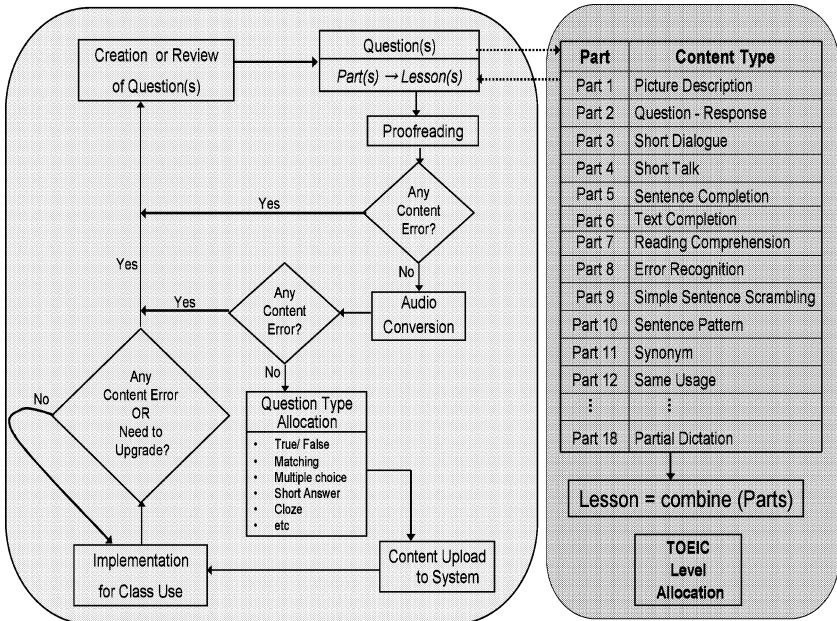
Figure 1: The Drill-Based E-learning English Content Creation Algorithm

members, E-learning specialists and students in the development and implementation of the drill-based E-learning English content for a commerce university.   The use of action research, according to (Hult et al, 1987), assists in practical problem-solving and expands scientific knowledge in an immediate situation using data feedback in a cyclical process aiming at an increased understanding of a given social situation, primarily applicable for the understanding of change process in social systems and undertaken within a mutually acceptable ethical framework.   It enables the learners and their instructors to explore the impact of their learning content and restrategize and refine it to reflect on the best practices, theories and methodologies (Farouck, 2010).

Social constructivists also view learning as a contiguous process

where people willfully interact with each other in the world around them. Vygotsky (1978), found that there is a distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.　This is what he describes as the zone of proxima development.　Several studies have also indicated that when people work together, there is a clear manifestation of metacognitive and cognitive strategies, intellectual aptitude and motor skills (Farouck et al, 2009).　To ensure success, an effective learning environment must be available to support participants to become part of a community of practice through communication and co-construction (Wenger, 1998).　As a community of practice, a member participates in actual practice and as such gradually learns how to think and act as a community member.　Thus social constructivism, in this context, will enable all members in the content development community to participate and co-construct a meaningful drill-based English content for Japanese university students while helping community members to improve their own skills.

　　　　The membership of the community for the content creation was carefully designed to consist of participants with different knowledge backgrounds.　The first group of participants is the English faculty members (EFM) who have specialized in business English, sociolinguistic, intercultural communication, TOEIC-style questions making and E-learning, and consists of English native speakers and Japanese English instructors.　This group creates questions that usually have links to the content they use in their various classes, thus creating a kind of activity and media blending (Littlejohn et al, 2007).　An additional role played by some of the EFM is to ensure that some of the questions reflect the

Japanese socio-cultural context.   This is to help students to establish better retention, and to establish a high sense of the importance of some of the business words and expressions they learn in the F2F classes.   The second group of participants consists of two commercial partners.   One is a company (ACC) that converts the text content into audio versions, while the other is an application service provider (ASP) that provides and supports the drill-and-practice E-learning system (or the E-learning system).   The final participants consist of students with high level English abilities (SHEA).   These students help in proofreading activities after the content has been uploaded onto the system.

TOEIC-Style Question Creation

Questions were created in parts as shown in fig. 1.   The questions covered several situations that include job hunting, employment, work place and personnel; education, university and academic life; science and technology; tourism, travel and transportation; social issues, daily life, hobbies and entertainment; economics, banks and finance; politics and administration; culture and history; environment, health and medicine; foods and meals; communication and media; socializing and meetings; industries; sports; nature; shopping; directions; and others.   The domains are based on Japanese and International contexts.   Different parts are assigned to the EFM to create the questions.

The words used for the questions were carefully selected under certain considerations.   These include Japanese as EFL students; word conformity with the MEXT set of authorized words and JACET 8000 words; and some specific business jargon and expressions that have been considered appropriate for the business students.   After the questions were created the next activity was to assign TOEIC score levels.   This

was done by using the TSL function below that considers context background (Long, 1990), lexical features such as the word length and vocabulary difficulty (Hoshino et al, 2010), and linguistic features such as word recognition time and reading time (Katunori et al, 2010) of each sentence.

$$\text{TSL} = f(\text{C}, \text{L}_1, ..., \text{L}_n)$$

Where TSL= TOEIC Score Level;

C = Context background (Long, 1990), i.e. Japanese or Foreign context in relation to situation (e.g. general words, culture words, business words, economic & law words, etc;)

L_1 = Lexical features (Hoshino et al, 2010), e.g. Word length and Vocabulary difficulty; and

L_n = Linguistic features (Kotani et al, 2010), e.g. Word recognition and Reading time.

Audio Conversion

This involved converting all the text questions into audio versions for listening lessons, and was done after all content had been proofread by the EFM.　It is usually outsourced to an external company (i.e. ACC).

Proofreading

The content goes through three levels of proofreading activities. The first level is where the content is distributed among the EFM for proofreading.　In this distribution, an important condition is that, an EFM proofreads the content created by another EFM.　After this level is completed the content is sent to the ACC for audio conversion.　The second level occurs during the audio conversion.　It is not uncommon for the ACC to find some errors during audio conversions.　The content with

errors is sent back to the EFM for correction. After corrections are made, the content is sent to the ACC for continuation of the audio conversion. The ACC sends all the text files and the corresponding audio files to the EFM for review after the audio conversion activities are complete. The EFM organizes the files and forwards them to the ASP for content upload onto the E-learning system. The third level of the proofreading commences after an upload-completion signal is received from the ASP. The SHEA goes through the system with some EFM to ensure the correctness of text and audio matching, and checking for any missed errors. If errors are found then the content with errors are corrected through appropriate stages of the content creation algorithm (fig. 1), and re-uploaded onto the system.

Implementation and Refining

The system is implemented in the E-learning class after the uploaded content is checked for certain quality level considered appropriate for learning. Students access the content through the drill-and-practice E-learning system. The students' learning progress is monitored to find out which questions are too easy or too difficult for the students. Additionally, suggestions from students that can improve the content are solicited through questionnaires and interviews. Moreover, in some very rare cases, some perceptive students can identify errors that might have managed to reach the implementation stage. The students report these errors because they have been asked to report any English that they did not understand or looks "abnormal". All these are used as inputs to refine and re-implement the system where and when necessary.

4. The E-Learning Classes from 2008 to 2010

This study spans three years where three cohorts of first year undergraduate commerce students have been studying in the E-learning classes.

First Cohort - 2008

In 2008, about 503 students were enrolled into the E-learning class. In this class each student used a commercial intranet system (CIS) whose license allowed access only within the university campus. In order to give students access outside the university campus and to expose them to more business English vocabulary (BEV), the university entered into a mobile learning project with an ASP. This is because many Japanese university students use mobile phones not only for communication, but also, for learning such as playing games (Wang et al, 2006). In this project the EFM of the university developed the BEV which was hosted and distributed by the ASP to the students mobile phones. Though some of the students were encouraged by mobile learning, most had problems such as access difficulties, limited or restricted learning time, unwillingness to engage in mobile learning, lack of knowledge of the total learning progress, and the indirect link between the BEV learned through the mobile learning and the TOEIC-style questions of the CIS learned in the E-learning class.

Second Cohort - 2009

In 2009, about 473 students were enrolled into the E-learning class. Because of the problems with mobile learning that were encountered in 2008, and the need to move from only BEV to more pragmatic TOEIC-

style preparation lessons, the university entered into another project contract with a new ASP.   The new ASP's system, known as Newton TLT, was to host both listening and reading lessons and allowed access to the content through the Internet both within and outside the university walls.   This development enabled the EFM to extend the content development job into providing content that also infused business English and intercultural communication, relative to Japanese socio-cultural context like that being taught in some F2F classes.   However this content could not be completed in 2009 therefore students in this cohort used only the CIS on campus to prepare for the TOEIC IP test.

Third Cohort - 2010

In 2010, about 465 students were enrolled into the E-learning class. In this year, the beginners level of the new TOEIC-style content to be hosted and distributed by Newton TLT was completed.   The students were asked to complete a certain number of lessons of the CIS and of the Newton TLT in the first semester.   However, the beginner's level of the original TOEIC-style content seemed very easy for the students.   Students used less time to complete a lesson when compared to the time they took to complete a lesson on the CIS.   This underpinned the need to upgrade the content to the intermediate level in the second semester. Additionally, during this year mini-tests were introduced to enable the students to keep track of their performance before they take the actual TOEIC IP test.   The mini test is a TOEIC style test that employs only half the number of listening and reading questions of the actual TOEIC IP test, usually organized by the instructor.

5. Data Collection and Analyses

　　The data used in this paper were retrieved from the system's log data, questionnaires, TOEIC IP scores and mini TOEIC-style scores. The questionnaire was given to students in the second semester of 2010, and the data used in this paper is that of students who filled in and returned the questionnaires. The author, as EFM, engaged in content creation, content proofreading, collaboration with the ASP on technical issues, and is also an instructor of the E-learning class. This helped in translating the implications and outcomes of each activity in the action research to ensure quality assurance of the system.

Analyses of TOEIC IP and Class Activity Scores

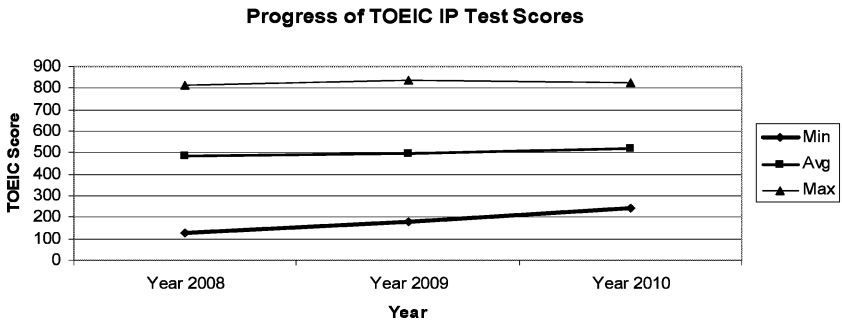**Progress of TOEIC IP Test Scores**

Figure 2: TOEIC Scores Performance from 2008 to 2010

　　An ANOVA test on the TOEIC scores of the E-learning classes in 2008, 2009 and 2010 yielded a significant result (F = 17.7, p = .000). The post hoc result shows that the TOEIC results of the students in 2010 outperformed those in 2008 (F = 35.4, p = .000) and 2009 (F = 23.6, p = .000). Figure 2 shows the descriptive behavior of the TOEIC scores in all the cohorts.

Table 1: Class Performance between Students who scored
above or below TOEIC 400

		TOEIC score＞＝400 (N＝242)	**TOEIC score＜400** (N＝19)
E-learning lesson scores (100%)	**Mean**	61.4	55.4
	σ	13.6	16.9
Mini Tests (100%)	**Mean**	54	39
	σ	11.8	13
Class Attendance (Total ＝ 15)	**Mean**	10.8	8.8
	σ	2.8	3.0

Table 1 shows typical relationship between students in the second semester of 2010 who scored at least 400 in the TOEIC (i.e. TOEIC score＞＝400) and those who scored less than 400 in the TOEIC (i.e. TOEIC score＜400).　The variables considered include the scores of the E-learning lessons, the results of the mini tests and class attendance.

Measurement of Background Knowledge According to Students' Perception

Table 2 shows students' perception of the extent of Japanese culture and environment, and also, the business English that they studied in the F2F classes, in the E-learning lessons.　The data was ascertained through a questionnaire that uses a scale of "Very High" to "Not at All", as well as whether such presence improved their understanding or not.

Learning Motivation Factors in the E-learning Class

Table 3 shows two categories of some of the intrinsic and extrinsic motivation factors that encouraged students to engage in the E-learning class.　The first category, that is the learning goal, was a closed question

Table 2: Presence of Japanese Socio-Cultural Context
and Connection with F2F Class English

	Perception Rate	*What level of Japanese culture or environment have you found in the E-learning lessons?*	*What level of connection have you found between the lessons in other classes and the E-learning lessons?*
1	Very High	3%	3%
2	High	50%	63%
3	Low	39%	31%
4	Very Low	2%	1%
5	Not at all	7%	1%
Did the connection in (1) and (2) above improve your understanding?		**Yes** = 53% **No** = 4%	**Yes** = 65% **No** = 6%
For those who have answered (3), (4), and (5) above, do you think such a connection is necessary to improve your understanding?		**Yes** = 46% **No** = 9%	**Yes** = 35% **No** = 7%

and was ascertained before and after the learning began. Apart from item number 1 and 4 in this category, all other motivation factors can change with time. The second category, that is the In-class Learning Motivation, was ascertained at the end of the E-learning course. It was an open question that asked students to comment on what motivated them in the class. The author has eliminated factors connected to instructor's attitude since it does not have direct relationship with the content.

Detractors to Learning Motivation in the E-learning Class

These are factors that prevent students from focusing adequately in this E-learning class. This has been categorized into students and instructor perspectives respectively. Table 4 shows the students' perspective.

The instructor on the other hand observed that, a few students

Table 3: Motivation factors in year 2010 E-learning Class

No.	Learning Goal (N＝142)	%
1	To score higher on the TOEIC or TOEFL examination.	38.7
2	To communicate effectively with foreigners in English	21.2
3	To enhance job opportunities after graduation.	20.4
4	To get a high grade in the English Courses.	14.1
5	To get a scholarship and/or study abroad.	5.6
	In-class Learning (N＝69)	
1	I can use my time more efficiently.	46.4
2	The E-learning class sounds more exciting and more comfortable.	27.5
3	I can study whenever and wherever I want, and at my own pace.	18.8
4	I can feel that I'm learning English when I study with the E-learning system.	2.9
5	I can see the improvement in my English skill.	2.9
6	I don't confuse E-learning class with other English classes.	1.5

Table 4: Demoralizing factors in 2010 E-learning Class

Demoralizing factors (N＝19)	%
I cannot improve my speaking skill in the E-learning class.	47.4
I am not good at E-learning systems or computers.	26.3
Studying only one pattern is boring.	15.8
The PC makes my eyes tired.	10.5

accessed different websites (e.g. entertainment, shopping, job hunting, checking mail, etc). Though this can be considered to be learning, it is not part of the goal of the E-learning class. The students would usually close such websites when they saw the instructor approaching their seats, or would give excuses such as being tired or sleepy. A few students fell asleep in the class. These occurred towards the end of the semester when some students have completed the required number of lessons, engaged in rigorous and time consuming extracurricular activities or part

time jobs, or prepared for final examinations, etc.　The instructor would wake them up.　In waking the students, care had to be taken because some of them would not like to lose face in front of their peers.　These attitudes rarely happen in a more sophisticated CALL classroom where the instructor can monitor each student's screen and communicate with each student through a headset.　In such CALL classrooms a soft motivational word through the students' headsets can keep them active. Finally, there was an average of 5% dropout rate.　Illness, extracurricular activities, personal issues, part time jobs and interviews were some of the contributing factors to the dropout.　Such students will have to register for the E-learning course again to get the credit.

6. Discussion and Conclusion

　　　Most drill-and-practice systems are evaluated by finding the number of questions learners have attempted, and comparing the number of questions they have answered correctly and wrongly (Reeder et al, 2004). This study has used TOEIC results (fig. 2) and class activities (tab. 1) as authentic measures to evaluate the effect of the drill-based E-learning class environment on students.　From the statistical analyses done in this paper, the successive rises in the minimum and average TOEIC scores over the years have been influenced by some characteristics of the content used in each cohort.

　　　The minimum and average TOEIC scores in 2008 were the lowest because a lot of the students did not have enough motivation to engage in mobile learning due to technical problems and a lack of adequate feedback, in addition to other factors mentioned earlier and also noted in (Wang et al, 2006).　In 2009, the minimum and the average TOEIC scores

improved because the students' learning cognitive load was reduced (Mayer et al, 2003).　This is because students could focus on only the commercial intranet system (CIS) which is designed for TOEIC preparation.　The best minimum and average TOEIC scores were observed with the 2010 cohort.　This improvement can be attributed to the following four factors: (1) The background knowledge and the context-based nature of the in-house content (tab. 2).　According to Long, (1990) and Shibata, (2005), background knowledge and context-based content enabled better comprehension and retention.　(2) A very high number of students also indicated that the in-house content acted as a bridge to a better understanding of the content in the CIS.　(3) The two mini-tests before the TOEIC IP test enabled the students to measure their learning progress and understand the system and what is expected.　(4) The intrinsic and extrinsic motivation factors (tab. 3) that complement each other to sustain learning.　This is because when learners' intrinsic motivation fades away the extrinsic motivation will sustain their learning (Sumida, 2010). The motivation factors should have greater weight to overcome the negative effect of the demoralizing factors such as those in (tab. 4). Orientation for computer learning must be given adequate attention. This is not only to enable students to gain expertise in using the computers to achieve the E-learning goal, but also to expose them to internet learning skills to utilize the vast information such as examples, meanings and applications.　These skills are essential in the global economy.

Despite the growth in the minimum and the average TOEIC scores in 2010 compared to previous cohorts, there was a decrease in the maximum TOEIC score.　The author thinks that, the behavior of the maximum score is due to the English knowledge gap between students that can be observed in a typical Japanese university English class.　This

is because the author observed that all the students with the higher scores in all the cohorts were those with exceptionally high English skills who have had exposure to authentic English, and were either motivated by improving their job chances after graduation or the need to further their education abroad (tab. 3).

Therefore, as the TOEIC score remains an authentic tool for measuring the English skills of Japanese university students in Japan, there is a need to reconsider the contents that come with some of the commercial drill-and-practice systems used for TOEIC preparation because the TOEIC style questions do not prepare students for authentic English. To enable the use of such TOEIC style content for reasonable authentic English learning, the content should be prepared by experts who understand the fundamental problems of English education in Japanese universities. Such consideration will enable the development of context-based materials that consider the Japanese socio-cultural environment, and facilitate the connection between the business English taught in some F2F classes and the English lessons on the drill-and-practice E-learning systems. This will improve the students' motivation and save them from engaging in a kind of "Alien" English (mechanical and abstract) for TOEIC preparation, leading them to a more meaningful and authentic English that gives them the opportunity for application in their daily lives in the continuing effort to improve their English knowledge.

References

Chen, W. and Looi, C., (2007), Incorporating Online Discussion in Face to Face Classroom Learning: A New Blended Learning Approach, *Australian Journal of Education*, vol. 23, no. 3, pp. 307–326,.
Cottrell, D. and Robison, R., (2003), Blended learning in an accounting course,

Quarterly Review of Distance Education, vol. 4, no. 3, pp. 261–269.

Farouck, I., (2010), A Case Study of the Effect of Online Content Difficulty in Collaborative Learning Communities in College Education, *Proceedings of ELEARN 2010*, Florida, USA. pp. 475–483.

Farouck, I. and Watanabe, S., (2009), Amalgamated Learning Framework- A Pedagogical Solution and Social Incentive Mechanism for College Learners in Evolutional Blended Learning, *The International Journal of Information and Systems in Education*, vol. 8 no. 1, pp. 36–47.

Hoshino, A. and Nakagawa, H., (2010), Predicting the Difficulty of Multiple-Choice Cloze Questions for Computer-Adaptive Testing. *11th International Conference on Intelligent Text Processing and Computational Linguistics* (CI-CLING2010), Iasi, Romania.

Hult, M. and Lennung, S., (1987), Towards the definition of action research: A note and bibliography, *Journal of Management Studies*, vol. 17, no. 2, pp. 241–250.

Inoue, Y., (2007), Cultural Fluency as a Guide to Effective Intercultural Communication: The Case of Japan and the U.S, *Journal of Intercultural Communication*, no. 15.

Iimura, H., (2010), Factors Affecting Listening Performance on Multiple-choice Tests: The Effects of Stem/option Preview and Text Characteristics, *Language Education and Technology*, vol. 47, pp. 17–36.

Jarrell D. S., (2002), Network-Based Language Teaching in the Japanese Context in the Changing Face of CALL: *A Japanese Perspective*, Swets & Zeitlinger, pp. 176–186.

Koike, I., Terauchi, H. and Takada, T., (2008), 企業が求める英語力調査報告書 第二言語習得研究を基盤とする小，中，高，大の連携をはかる英語教育の先導的基 礎研究. Urayasu: Meikai University.

Kotani, K., Yoshimi, T. and Isahara, H., (2010), A prediction model of foreign language reading proficiency based on reading time and text complexity, *US-China Education Review*, vol. 7, no. 10.

Long, D. R., (1990), What You Don't Know Can't Help You: An Exploratory Study of Background Knowledge and Second Language Listening Comprehension., *Studies in Second Language Acquisition*, vol. 12, no. 1, pp. 65–80

Littlejohn, A. and Peglar, C., (2007), Preparing for Blended E-learning, *Routledge New York USA*.

Mayer, R. E. and Moreno, R., (2003), Nine Ways to Reduce Cognitive Load in Multimedia Learning, *Educational Psychologist*, vol. 38, no. 1, pp. 43–52.

McCombs, L. B. and Vakili, D., (2005), Learner-Centered Framework for E-learning, *Teachers College record*, vol. 107, no. 8, pp. 1582–1600.

More, M. M. and Tait, A., (2002), Open Distance Learning: Trends, Policy and Strategy Considerations, *UNESCO France*.

Rebuck, M., (2003), The Use of TOEIC by Companies in Japan, *NUCB JLCC*, vol. 5, no. 1, pp. 23–32.

Reeder, K., Heift, T., Roche, J., Tabyanian, S., Schlickau, S. and Gölz, P., (2004),

Toward a theory of e/valuation for second language learning media. *In: S. Fotos & C. Browne (Eds.), New perspectives on CALL for second language classrooms*, NJ: Lawrence Erlbaum Associates, pp. 255–278.

Stringer, E. T., (2007), Action research-Third Edition, SAGE

Sumida, A., (2010), Motivational Orientation of College Students Who Self-Select to Study English, *JACET Journal*, vol. 50, pp. 35–47.

Shibata, J., (2005), A Development of a Context-based Curriculum for TOEIC Level D Students of Kosen, *The Institute of International Business Communication*.

Vygotsky, L. S., (1978), Mind in Society: The Development of Higher Psychological Processes, *Harvard University Press*.

Wang, S. and Higgins, M., (2006), Limitations of Mobile Phone Learning, *The JALT CALL Journal*, vol. 2, no. 1, pp. 3–14.

Wenger, E., (1998), Communities of Practice: Learning, Meaning and Identity, *Cambridge University*.