Revising English Education at the University Level

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In this paper I address some of the issues outlined by the Ministry of Economics, Trade and Industry (METI) concerning the lack of "global human resources" in Japan. Two questions are addressed: *Is it necessary to teach English at the university level? and How can we use technology in the classroom to assist Japanese students?* I propose that by teaching skillsets using English as the communication medium, students will be able to learn how to use the language to communicate and collaborate, plus they will learn necessary skills that they can use once they enter the workforce. The technology issues are addressed so as to suggest ways to have students effectively collaborate using a learning management system (LMS) that simulates a working environment. Through these proposed teaching methods, Japanese students will be more prepared to be global human resources.

この論文で筆者は経済産業省が育成を推進している「グローバル人材」の日本での不足に関するいくつかの問題について述べる。主にふたつの疑問を取り上げる。「大学のレベルで、英語を教えるということが必要なのか?」そして「授業でどのようにテクノロジーを使えば日本人学生を支援することができるのか?」筆者は、ただ英語を教えるのではなく、コミュニケーション手段として英語を使うスキルを教えることによって、学生が意思伝達や共同作業に語学を使う方法を自ら学び、就職後に必要なスキルを学ぶことになるのだと提案する。テクノロジーの問題を述べるのは、作業環境をシミュレートするコース管理システム（LMS）を使って学生が効果的に共同作業する方法を提案するためである。ここで提案された教授法を通して、日本人学生はグローバル人材となるためのより効果的な準備ができるであろう。

The Japanese Ministry of Economics, Trade and Industry (METI, 2010) released a document in both Japanese and English outlining the problem of Japan's lack of "global human resources," global human resources being Japanese who can "be active in the global environment." In their document they outlined these issues:

1. Japanese enterprises are being overlooked in the world market.
2. Young Japanese people tend to stay in Japan.
3. Japanese universities require more globalization.
4. The largest problem in overseas development is "Human Resources."

English teachers in Japan, whether they are native speakers of English or nonnative speakers of English, have a significant presence in the classroom and although their focus is to teach English, they are in the best position to approach these issues. The Ministry of Education,

Culture, Sports, Science and Technology (MEXT) have also addressed these issues (2011), particularly the fourth one. The first three issues outlined by METI will not be addressed in this paper, but in addressing the problem of the lack of human resources, some benefit may emanate to them. In this paper I will examine the relationship between teaching English at the university level and the concept of global human resources. To do this I first turn to the document issued by METI and how they defined global human resources.

Global Human Resources

METI (2010, p. 6) stated their definition of what global human resources can do. In this world where globalization is in progress, global human resources can:

- think independently;
- make themselves easily understood by their colleagues, business acquaintances, and customers having various backgrounds;
- overcome differences in values and characteristics arising from cultural and historical backgrounds;
- understand others and consider their standpoints;
- further take advantage of their differences to build synergy; and
- create new values.

Stemming from this definition of global human resources, three abilities have been proposed that identify skillsets that young Japanese need in order to be competitive in the global market and therefore become global human resources. They are detailed in Table 1.

Table 1. Abilities Commonly Required for Global Human Resources (METI, 2010, p. 7)

Abilities required	Details	
Communication ability in foreign language	Particularly English, which is widely used in the world	
Ability to understand and take advantage of different cultures	To take actions while being aware of the existence of differences in values and communication methods on the basis of diversified backgrounds and histories (= cultural differences)	
	Not to judge cultural differences as good or bad, but to be interested in and understand differences and take flexible actions	
	To recognize strengths of diverse people with cultural differences and to use such strengths for the creation of new values through a synergetic effect	
Fundamental competencies for working persons*	Ability to step forward (action) Ability to try patiently even after failure	Identity Ability to take actual actions Ability to work on others
	Ability to work in a team (teamwork) Ability to cooperate with diversified people in achieving a goal	Ability to provide information Flexibility Submission to discipline Ability to listen carefully Ability to understand situations Ability to control stress
	Ability to think well (thinking) Ability to ask questions and think well	Ability to find problems Ability to plan Ability to create

Note. * This is a concept proposed by METI, for common abilities required for a person to work with various people in the workplace or local society.

The abilities outlined in Table 1 provide an overall picture of what is needed to provide the students with the tools to become global human resources for Japan. To summarize, global human resources as outlined by METI should be able to communicate in a language such as English, be able to work in teams with people of different cultures, and to be able to come up with new ideas and know how to act on them in a global setting.

As EFL educators, we have inadvertently chosen to educate these future Japanese workers only in the first ability of being able to communicate in a foreign language, particularly English. Yet, I propose that this is not enough. Actually, I nominate that this is not what we should be teaching. When students enter university, they already have a basic knowledge of English, having studied at the junior high and high school levels. This can be used to the advantage of the teachers who are responsible for furthering their English education. At the university level, the mandates by both METI and MEXT should be carried out by English instructors who have a culturally rich background and the ability to assist young Japanese in all three skills listed in Table 1. To explain why I think this should be done, I will offer two questions to challenge the fundamentals of how and what we teach, to confront the mandate proposed by METI:

1. Is it necessary to teach English at the university level?
2. How can we use technology in the classroom to assist Japanese students?

Before moving on to these questions, I want to discuss the current situation of English in Japan.

English Education

English at the Junior High School and High School Levels

As teachers in Japan are aware, university entrance exams are a grueling experience for any high school student trying to enter university (Browne & Wada, 1998). Due to the high level of English required in university entrance exams, English curricula are designed to help the students prepare for them, and this is referred to as the "washback" effect (Bailey, 1999; Cook, 2013). Starting at the junior high school level and now even in elementary school, students are taught grammar and listening and there is very little focus on communicative abilities, a negative washback effect of the examination system (Bailey, 1999). Since there is no emphasis placed on communicative abilities in the university entrance exams, there is no emphasis placed on communicative abilities in the school curricula (Cook, 2013) and teachers may not feel comfortable teaching oral communication (Browne & Wada, 1998). Students have a minimum of 6 years of English, 3 years each in both junior high and high schools. Based on corpus studies of English textbooks used at the junior high and senior high school levels, Chujo (2004) determined that students should have the ability to pass the Practical English Proficiency Test (*Jitsuyō Eigo Ginō Kentei*, informally known as Eiken) Level 2 test by the end of high school, which is the equivalent of the Common European Framework of Reference for Languages (CEFR) level B1 (Eiken, 2013). This may not be the case in all schools throughout Japan, but based on this information, it can be concluded that the curriculum and focus of the education towards the university tests, students have been exposed to a great deal of English and do have an understanding of English to some degree, although their communication skills are lacking (Cook, 2013; Lam, 2012).

Misplaced Focus of University English Education

To understand the English education situation at the university level, I made inquiries of various publishers about the current popular textbooks for 1st-year university classes. I will not disclose the names of any of the publishers that I spoke to, nor will I reveal textbook titles out of simple courtesy, but similar inquir-

ies can easily be made. In these discussions with the publishers, I was directed to textbooks that had topics to do with vacations, directions, things people eat, and health issues. The textbooks include sample conversations, vocabulary lists, listening and writing exercises, as well as various grammar points. There are other textbooks that cover various environmental topics with fact sheets and comprehension questions. Even from personal experience I have seen handouts that teachers provide their students that are no more than a junior high school level of past participle rote memorization and drills. I am not advocating that this kind of curriculum does not have its place in classrooms, but I am suggesting that in the university level classroom there should be a greater emphasis on exposing students to language that is more compatible with their career tracks, the language that they will be exposed to upon graduating and entering a global market (deBoer, 2011). Above all, they should be learning the skills they will need to use that language. At the university level, the walls of the classroom need to come down and there needs to be a seamless integration of study and exposure to the outside world (Resnick, 1987; van Lier, 1996).

Inappropriate Use of Technology

Although technology is being accepted into higher education for teaching purposes, there are a number of issues in higher education that are centered on the improper use of technology and the lack of the process both in learning and teaching in education (Conole, Smith, & White, 2007; Engeström & Sannino, 2012). There has been a move to improve teaching and learning in higher education since the introduction of computers (McConnell, 2000) and the rapid development of the technology certainly influences the way we teach and learn, as suggested by policy makers (DfES, 2005). However, the side effect of rapid development has not been a healthy one. Löfström, Kanerva, Tuuttila, Lehtinen and Nevgi (2006, p. 37) stated that the educational solutions should guide the selection of technology and software, but this is not normally the case because the management of the technology constantly lags behind the technological changes (Conole et al., 2007). So while the emergence of technology brings about excitement regarding the possibilities for its use in the classroom, purchasing the latest technology becomes more important than incorporating it effectively into education solutions to advance the capabilities for learning. The Carnegie Commission on Higher Education stated that "technology should be the servant and not the master of instruction. It should not be adopted merely because it exists" (cited in Gentry, 1995, p. 3). From their perspective, new technology is a tool that should not stand in the way of students' learning, but should only be used as an accessory to allow them to do things that traditional technologies cannot offer (Laurillard, 2002). In a recent article, Brown, Castellano, Hughes and Worth (2013), introduced new technology into their classroom to measure the effectiveness of its implementation. The implementation itself seemed to have mixed reviews and although the authors may have meant well, the article focused little on the English education and the process of what the students were doing.

E-learning

Also, with the provision of e-learning, there seems to be little concern with design of e-learning courses (Conole, 2013; Laurillard, 2002; McConnell, 2006), and many courses online provide nothing more than reading material in the form of PDFs. Interaction between students is an important aspect of their development and that is a significant point underpinning networked collaborative e-learning (Banks, Lally, & McConnell, 2003). From the 1990s to the present, a vast array of technologies have emerged, and there was a shift from the focus of using technology as a tool for individual learning (using simple software packages) to one in which collaboration can occur through a

complex online learning management system (LMS) (Conole & Oliver, 2007; DfES, 2005) such as Moodle (Dougiamas, 2011). Activating students to collaborate does not happen automatically, so this requires advanced planning of courses and the roles of the individuals in the courses (Brooks, Nolan, & Gallagher, 2001; Laurillard, 2002). Despite the excellent advances of technology, the shift from textbooks and dedicated software packages to online collaboration has not happened because transferring textbooks to an online environment defeats the purpose of the technology. The implementation of technology should assist the process of education. As Stockwell, editor of the *JALT CALL Journal*, observed, "the learning process seems to come to a poor second to the affordances of the technology" (2010, p. 151). Engeström also commented that the process of learning or learning processes are pervasive throughout the literature yet there is no theoretical content behind this (Engeström & Sannino, 2012). In the second language learning environment, it seems that too much focus has been placed on the technology to facilitate language learning rather than on the process by which language is learned with technology used to assist. With this in mind, we should examine more of the process and how the process of learning can assist the mandate of METI.

Developing the Abilities Required for Global Human Resources

A Solution to the Problem: The ICT Contents Project

Students entering university potentially have an English ability that ranges from level 3 Eiken to level 2 Eiken. This is a good foundation to be able to build on, not necessarily to further increase vocabulary and grammar knowledge, but to teach the students the skills to use what they already have.

At Iwate University, we have implemented an Information and Communication Technology (ICT) program that is a potential solution to achieving the three abilities that METI has outlined for human global resources. I will outline the program briefly before detailing a segment of a course, which I will map against the abilities in Table 1.

Implementing ICT Contents

The ICT Contents project at Iwate University (deBoer, 2011) developed curriculum content packages that are based around the subjects of engineering, humanities, agriculture, and education. The packages consist of videos and quizzes. The videos are from different sources such as iTunesU, YouTube, and in-house student-created videos. The content of the videos was lexically analyzed using lextutor.ca (http://www.lextutor.ca) and from the resulting analysis, key words that were deemed academic or above the 1000 word level could be identified (Nation, 2001), as well as key phrases that were necessary for comprehension. Using these key words and phrases, questions were made that help students ascertain how the words or phrases are used in context. These questions were put into quizzes.

ICT Contents Into Courses

The videos and quizzes can then be implemented into courses inside an LMS, which in our case is Moodle (Dougiamas, 2011). The courses are designed to use the videos and quizzes to give students a starting point, then have them build on that to collaboratively produce posters, presentations, and reports. The syllabus is designed to put the onus on the students to learn and generate their own ideas and directions for their course work. Areas for collaboration are set up within the course space in Moodle and students can freely access the course using the Internet from any location at any time. In the following section I will outline a segment of a course to show how the students used the videos and the LMS to collaborate.

ICT Content Course Sample

Table 2 contains a 4-week excerpt from a course. The students used the videos as a starting point for information and vocabulary and then in groups they designed a PowerPoint presentation. The forums were used to share their scripts and slides with the group. Students in the groups provided feedback to each other to complete their presentations (deBoer & Townsend, 2013).

The students use the forums as a tool to collaborate; the focus of their communication is centered on the process of completing their presentation. In a recent publication, deBoer & Townsend (2012) showed how students can benefit from this type of classroom. There are guidelines when using the forums, for example students can use only English and they must communicate to the rest of their group any changes that were made to a slide or a script (deBoer & Townsend, 2013) rather than just upload a document without any explanation at all.

Technical Vocabulary

For some teachers, teaching English around a chemistry- or engineering-based curriculum would be difficult. Most of the words and phrases are academic or scientific as much of the content is centered on these contexts. In some literature the consensus is that it is not the English teacher's job to teach technical words (Cowan, 1974; Higgins, 1966) and others have noted that the "knowledge of the scientific language has given way to skill in maximizing restricted linguistic resources and the teacher's role has become more obviously that of an orchestrator of group activity" (Swales, 1984). Strevens (1973) points out that it is not necessarily the students who have trouble with technical words because it is their scientific field, rather, it may be the teacher who has difficulty. Removing responsibility from the teacher of having to teach the technical knowledge and putting the responsibility on the students to learn the technical language would

Table 2. Course Excerpt: The Process of Creating a Presentation

Lesson	Content	Details
1 face-to-face	Video and quiz package	Students watch the video and attempt the quiz and work in assigned groups to discuss the content and the vocabulary in the video. The teacher walks around the classroom and answers any questions the students may have.
1 (homework) on-line	Presentation preparation	Students use a forum in the LMS to begin discussing their presentation. The presentation information stems from the video and quiz, but also from other information students have sourced.
2 face-to-face	Script preparation	The class time is used to discuss the presentation scripts. The teacher circulates around the classroom answering questions and helping students with their English if necessary.
2 (homework) on-line	Presentation slides and script work	Students use the online forum to upload their slides and script and share them with the rest of their group.
3 face-to-face	Peer and teacher feedback on their presentations	During this face-to-face time, students take turns presenting to other groups and they can receive feedback on both their slides and their script.
3 (homework) on-line	Slide and script editing	Students use the online forum to help each other edit slides and their script based on the feedback they received.
4 face-to-face	Presentation	Students present to the class.

seem the most logical conclusion. The ICT Contents platform provides this arena for the students.

Creating a Strategy

Building an effective collaborative tool-mediated learning environment can be attributed to a simple rule. In Moodle, creating a course requires inputting resources and activities. (Resources are items that students see; activities are what students do.) Reducing the number of resources and increasing the number of activities puts more onus on the students to search for their own resources (Conole, 2007). This provides effective learning opportunities for the students (Vygotsky, 1926/1997). Building collaborative groups encourages the students to help and learn from each other (McConnell, 2000, 2006; Stahl, 2006; Vygotsky, 1930s/1978). A very clear course design is required to allow the students to focus on the content of learning (Laurillard, 2002), as is a constant evaluation of the process that the students are undertaking to make sure that they are meeting the goals set by the course design.

Using English as the medium for teaching and learning and introducing skills that help students understand the use of the language are the ideal solutions. As outlined in the following section, I have mapped the abilities commonly required for global human resources as mandated by METI to an ICT contents-based lesson.

Mapping METI Mandates to ICT Content

To compare the role of the ICT Contents to the METI mandates, Table 3 briefly outlines each part of the ICT Contents that is covered in this course and matches it to the corresponding METI mandate. By providing these details it will make it easier to see the links between what is being mandated and how the course was designed to follow the mandates.

Table 3. Mapping METI Mandates to ICT Content

METI Mandate	ICT Content	Details
Communication ability in foreign language	Content based lessons	Students work on presentations with content they have researched from the web.
Ability to understand and take advantage of different cultures	Introducing content that comes from other countries and cultures	Students are exposed to content from other countries and cultures.
Ability to step forward (action)	Presentations, posters, reports	Students need to plan and take action to get things done with their groups. These goals are clearly identified in the course design.
Ability to work in a team (teamwork)	Group collaboration in forums, presentations, posters, reports.	Students need to work in groups to get their projects complete. Deadlines are set by the course design.
Ability to think well (thinking)	All projects	Students have to think through their projects, determine steps, and carry those steps through to the end of their projects. Mediation with the teacher is also essential for guidance and for the teacher to determine the effectiveness of the course design.

METI—Communication Ability in a Foreign Language; ICT Content—Content-Based Lessons

Since the focus is not on the language, but instead on using the language to convey meaning, share thoughts, and develop argu-

ments, students are learning how to use the language in a way that teaches them to learn how to convey meaning (Halliday, 1975; Stahl, 2006; Wells, 1999). They can communicate through the forums in the LMS or in the face-to-face environment (de-Boer & Townsend, 2013; Stahl, 2006).

METI—Ability to Understand and Take Advantage of Different Cultures; ICT Content—Introducing Content That Comes From Other Countries and Cultures

Both the videos that the students watch to gain information as well as the sites on the Internet that students find to gather more information are primarily from North America and Europe. Students observe different ideas, cultures, viewpoints, and opinions from these outside sources. Some students send inquiries to companies and universities outside Japan, which gives them experience in sending emails to get information. Different opinions and thoughts come from members inside the group and this introduces students to different peer-culture or the workings of a composite repertoire of culture within a community of practice (Wenger, 1998). Learning to interpret different opinions (that other members have shared) and then adapting them as a part of one's own intellectual repertoire is a fundamental part of the learning process (Stahl, 2006).

METI—Ability to Step Forward (Action); ICT Contents—Presentations, Posters, Reports

To complete projects, students must plan, take initiative, and start to work on their projects with the understanding that the onus is on them. Students working on projects encounter setbacks, disagree with others, and also have to take responsibility for their own part of the project (Engeström, 1999), which helps them understand the process of learning. They learn to make schedules, to work with others towards a deadline, and to work out their differences in order to meet requirements. In other words, they learn to take action and determine a division of labor within the group to focus on the process that will assist them toward completing their projects (Engeström, 1996). Using these types of learning objects to enhance the student's learning (Ravenscroft & Cook, 2007) provides them with the opportunities for collaborative team learning.

METI—Ability to Work in a Team (Teamwork); ICT Contents—Group Collaboration in Forums, Presentations, Posters, Reports

In many of the ICT contents lessons, teamwork plays a vital role during the process of completing a project (Engeström, 1996). Delegating work (the groups are required to choose a group leader), working through schedules, sharing the workload, and learning to work through ideas and disagreements are valuable skills that students would not otherwise learn by merely doing pair-work (Stahl, 2006). Learning to collaborate is vital to learning what can be done as a team (Resnick, 1987).

METI—Ability to Think Well (Thinking); ICT Contents—All Projects

In order to create a presentation or poster, students need to clearly create a plan, go through the logistics of completing the plan, and know what kinds of questions to ask to get help or information. Rote process, or following a manual, has its place, yet learning how to adapt and learning how to think using the information that has been given can create a much richer learning environment (Engeström, 1996) and teach students to be expansive learners.

The Role of the Teacher

The role of the teacher changes to one of a facilitator. Teaching at the front of the classroom or providing time for students to do pair-work is not as effective as providing the students with an opportunity to generate their own language, which in turn provides much more valuable information about their levels, their abilities (Kumaravadivelu, 2003; van Lier, 1996; Vygotsky, 1926/1997), and their individual opinions. The teacher walking around the classroom and answering students' questions provides the help that students need at any given moment and gives them direct feedback on their progress (Wells, 1999) and at the same time, teachers can identify gaps in language that can be discussed immediately (Kumaravadivelu, 2003; Poehner, 2008; van Lier, 2004). The online forums are also viewable by the teacher, who can help students work through their project, suggesting ways to help them move forward but still be thorough in their approach and process. Yet even without the teacher present in the online forums, students collaborate and share ideas as they work through the process of completing their projects (deBoer & Townsend, 2013).

Information and Communication Technology

Technology in the classroom is necessary, but it should not interfere with the educational process (Laurillard, 2002; Stockwell, 2010). Technology should be used as a tool to get the work done, not as the reason for the work itself. Computers are used to generate reports, or to make presentations, or to generate documents such as letters and user manuals. The Internet is used to search for information, send emails, and communicate. It would seem ideal to create an environment where the classroom looks like a work place and provide technology that supports it. Providing a student with technology and saying, "Let's use this to write something" is not as effective as saying, "Let's collaboratively make a presentation and here is some technology that is available to use." Technology can be used to enhance one's abilities and also to provide alternative mediums for communication.

In the ICT Contents section of the course outlined (see Table 2), students use a variety of tools that assist them in the completion of their presentations. This is detailed in Table 4.

Table 4. Details of the Technology Students Used in an ICT Contents Course

Technology	Details
Word processor	Students used Microsoft Word to create documents, such as reports or scripts for handing to other students.
PDF	When students are required to hand in a final report or any other final document, they are required to hand in a PDF.
Excel	Students used Excel to track data and to create graphs and charts for their presentations.
Internet	Students used the Internet to look up information, share URLs, and to access the LMS.
PowerPoint	Students were required to use PowerPoint to create their slides for a presentation. Other presentation software was also acceptable, such as Keynote for Apple computers.
Forum (LMS)	Students accessed the forum in the LMS to upload and download documents as well as share information and provide feedback to each other outside classroom time. A look at the log records shows that students did a lot of their online work late at night or on weekends.
Database (LMS)	Students used the LMS database to share and store information about their projects. The teacher set this up.
email	Students used email to gather information from companies or from professors about their project.
Phones	Students also communicated by phone. Smart phones were allowed in class so students also used their phones as dictionaries and Internet devices.

It is interesting to note that the software that students used during the course was not specific for learning English. This is similar to the findings in a recent study that showed that effective e-learning courses for English rarely use sites that are designed specifically for studying English (N. Cowie, personal communication, 1 June, 2013).

The teacher did not teach the students how to use the technology. Many students started the year asking questions about how to use the various pieces of software but as students worked in groups, the teacher redirected their questions to other group members. At the end of the first term, walking around the classroom, the teacher noticed that all the students were able to use the software adequately to do their work.

Conclusion

This paper proposes an alternative to the current practices of teaching English at the university level. The solution of implementing an ICT Contents type program as proposed here shows a very close correlation to what METI and MEXT have mandated in their documents. We need to realize that each student already has basic English upon entering university and we should use that to our advantage to give them the opportunity to study English better aligned to their own career paths. Teaching skillsets (such as giving presentations, making posters, and writing reports in a collaborative environment) and using English as a tool for collaboration teaches students how to use English for communication in their future as well as provides them the opportunity to understand the value and importance of teamwork. Using technology as a noninvasive tool to support their communication and collaboration also becomes important for their education as it simulates future activity in the work place. By providing a classroom that supports a work environment and uses English to communicate, we can assist METI in their goal to foster global human resources.

Bio Data

Mark deBoer is the ICT Contents project manager and academic researcher at Iwate University. He has an MA from the University of Birmingham in TESOL/TEFL and he is a PhD candidate at the University of Birmingham. His research is on tool-mediated learning and social interaction in English education. He is currently working on a book that will help bridge the practice with the theories of online education.

References

Bailey, K. M. (1999). *Washback in language testing*. Princeton, NJ: Educational Testing Service.

Banks, S., Lally, V., & McConnell, D. (Eds.). (2003). *Collaborative e-learning in higher education: Issues and strategies*. Sheffield, UK: University of Sheffield, School of Education.

Brooks, D. W., Nolan, D. E., & Gallagher, S. M. (2001). *Web-teaching: A guide to designing interactive teaching for the world wide web* (2nd ed.). New York: Kluwer Academic & Plenum.

Brown, M., Castellano, J., Hughes, E., & Worth, A. (2013). Integration of iPads into a Japanese university English language curriculum. *JALT CALL Journal, 8*(3), 197-209.

Browne, C. M., & Wada, M. (1998). Current issues in high school English teaching in Japan: An exploratory survey. *Language, Culture and Curriculum, 11*, 97-112. doi:10.1080/07908319808666543

Chujo, K. (2004). Measuring vocabulary levels of English textbooks and tests using a BNC lemmatised high frequency word list. In J. Nakamura, N. Inoue, & T. Tabata (Eds.), *Language and computers, English corpora under Japanese eyes* (pp. 231-249). New York: Rodopi.

Conole, G. (2007). Describing learning activities: Tools and resources to guide practice. In H. Beetham & R. Sharpe (Eds.), *Rethinking pedagogy for a digital age: Designing and delivering e-learning* (pp. 81-91). Oxon, UK: Routledge.

Conole, G. (2013). *Designing for learning in an open world*. New York: Springer.

Conole, G., & Oliver, M. (Eds.). (2007). *Contemporary perspectives in e-learning research. Themes, methods and impact on practice*. New York, NY: Routledge.

Conole, G., Smith, J., & White, S. (2007). A critique of the impact of policy and funding. In G. Conole & M. Oliver (Eds.), *Contemporary perspectives in e-learning research. Themes, methods and impact on practice* (pp. 38-54). New York: Routledge.

Cook, M. (2013). The multipurpose entrance examination: Beliefs of expatriate ELT faculty. *The Language Teacher, 37*(1), 9-14.

Cowan, J. R. (1974). Lexical and syntactic research for the design of EFL reading materials. *TESOL Quarterly, 8*, 389-399.

deBoer, M. (2011). ICT contents project at Iwate University. In A. Stewart (Ed.), *JALT2010 conference proceedings*. Tokyo: JALT.

deBoer, M., & Townsend, S. (2012). Tool-mediated collaborative learning: Peer assessment workshop case study. *JALTCALL Journal, 8*, 71-93.

deBoer, M., & Townsend, S. (2013). Forum collaboration analysis using Longacre's typology. Manuscript in preparation.

DfES. (2005). DfES e-learning strategy: Harnessing technology—transforming learning and childrens' services. Retrieved from https://www.education.gov.uk/publications/standard/publicationDetail/Page1/DFES-1296-2005

Dougiamas, M. (2011). Moodle (Version 2.1) [Computer software]. Perth, Australia.

Eiken. (2013). *Eiken: Test in practical English proficiency* Retrieved from http://stepeiken.org/grades

Engeström, Y. (1996). Non scolae sed vitae discimus. Toward overcoming the encapsulation of school learning. In H. Daniels (Ed.), *An introduction to Vygotsky* (pp. 151-170). London: Routledge.

Engeström, Y. (1999). Innovative learning in work teams: Analyzing cycles of knowledge creation in practice. In Y. Engeström, R. Miettinen, & R.-L. Punamäki (Eds.), *Perspectives on activity theory* (pp. 377-404). New York: Cambridge University Press.

Engeström, Y., & Sannino, A. (2012). Whatever happened to process theories of learning? *Learning, Culture and Social Interaction, 1*, 45-56.

Gentry, C. G. (1995). Educational technology. A question of meaning. In G. J. Anglin (Ed.), *Instructional technology: Past, present and future* (pp. 1-10). Englewood, CO: Libraries Unlimited.

Halliday, M. A. K. (1975). *Learning how to mean: Explorations in the development of language*. London: Edward Arnold.

Higgins, J. J. (1966). Hard Facts: Notes on teaching English to science students. *ELT Journal, 21*, 55-60.

Kumaravadivelu, B. (2003). *Beyond methods. Microstrategies for language teaching*. New Haven, CO: Yale University.

Lam, W. Y. K. (2012). Promoting strategy teaching as an innovative practice in the Asian EFL oral classroom. In T. Muller, S. Herder, J. Adamson, & P. Shigeo Brown (Eds.), *Innovating EFL teaching in Asia* (pp. 127-134). New York: Palgrave Macmillan.

Laurillard, D. (2002). *Rethinking university teaching: A framework for the effective use of learning technologies*. Oxon, UK: RoutledgeFalmer.

Löfström, E., Kanerva, K., Tuuttila, L., Lehtinen, A., & Nevgi, A. (2006). *Quality teaching in web-based environments: Handbook for university teachers*. Helsinki, Finnland: University of Helsinki, Academic Affairs.

McConnell, D. (2000). *Implementing computer supported co-operative learning* (2nd ed.). London: Kogan Page.

McConnell, D. (2006). *E-learning groups and communities*. New York: Open University Press.

METI. (2010). *Release of report by global human resource development committee of the industry-academia partnership for human resource development*. Tokyo: Ministry of Economy, Trade and Industry. Retrieved from http://www.meti.go.jp/english/press/data/20100423_02.html

MEXT. (2011). *Five proposals and specific measures for developing proficiency in English for international communication*. Tokyo: Ministry of Education, Culture, Sports, Science and Technology.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Poehner, M. E. (2008). Both sides of the conversation: the interplay between mediation and learner reciprocity in dynamic assessment. In J. P. Lantolf & M. E. Poehner (Eds.), *Sociocultural theory and the teaching of second languages* (pp. 33-56). London: Equinox Publishing.

Ravenscroft, A., & Cook, J. (2007). New horizons in learning design. In H. Beetham & R. Sharpe (Eds.), *Rethinking pedagogy for a digital age: Designing and delivering e-learning*. Oxon, UK: Routledge.

Resnick, L. B. (1987). The 1987 presidential address: Learning in school and out. *Educational Researcher, 16*(9), 13-20.

Stahl, G. (2006). *Group cognition. Computer support for building collaborative knowledge*. Cambridge, MA: MIT Press.

Stockwell, G. (Ed.). (2010). Editorial. *JALT Call Journal, 6*, 151. Tokyo: JALT CALL SIG.

Strevens, P. (1973). Technical, technological, and scientific English. *ELT Journal, 2*, 23-55.

Swales, J. M. (1984). ESP comes of age? —21 years after 'Some measurable characteristics of modern scientific prose.' *AISED-LSP Newsletter, 7*(2), 9-20.

van Lier, L. (1996). *Interaction in the language curriculum: Awareness, autonomy and authenticity*. Essex: Pearson Education Limited.

van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective*. Norwell, MA: Kluwer Academic Publishers.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press. (Original works published 1930s)

Vygotsky, L. S. (1997). *Educational psychology*. Boca Raton, FL: St. Lucie Press. (Original work published 1926)

Wells, G. (1999). *Dialogic inquiry: Towards a sociocultural practice and theory of education*. Cambridge: Cambridge University Press.

Wenger, E. (1998). *Communities of practice. Learning, meaning, and identity*. New York: Cambridge University Press.