Developing a Global Mindset: Designs for Blended Learning

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Abstract

This paper reports on the design of a blended learning course aimed at the development of a *global mindset* of students at a Japanese university. Principles of instructional design were utilized to combine several theoretical and practical learning elements in a blended learning framework to develop the cultural intelligence (CQ) of students, and in preparation for study abroad. Course content were specifically aimed at the expansion of cultural knowledge, to foster intercultural communication skills and to improve students' digital literacy and critical thinking skills. The blended learning format was characterized by synchronous and asynchronous online activities and further supported by in-class, group-centred activities with an emphasis on experiential learning. Cultural competencies, expressed in the form of knowledge, attitudes and self-perceived intercultural skills were measured before and after course completion. Course design, methods and a description of the course and its implementation are presented with a consideration towards the efficacy of the blended learning approach.

[Keywords] : *global mindset; Japanese university; instructional design; blended learning; cultural intelligence (CQ)*

Background and introduction

It is recognized today that to be able to navigate the ever-changing employment market, the modern employee requires a very diverse set of skills (Livermore, 2011). Young graduates now embark on a very different career path than their parents did, and companies expect sets of practical knowledge and skill that reaches well beyond what a traditional university education used to provide. In Japan, governmental pressure on universities have been increasing steadily, with expectations that they produce more internationally minded graduates who will be able to work in diverse environments, whether globally or locally (Normile, 2015).

In an effort to understand what might be required in terms of creating an international outlook in the mindset of today's graduates, the concept of *global-mindedness* was forwarded in recent years. The term has been described in a number of ways depending on the originating academic discipline; however, Rhinesmith (1995, p. 24) provides a useful initial description of a global mindset as:

> "... a way of being rather than a set of skills. It is an orientation of the world that allows one to see certain things that others do not. A global mindset means the ability to scan the world from a broad perspective, always looking for unexpected trends and opportunities that may constitute a threat or an opportunity to achieve personal, professional or organizational objectives."

Using a managerial perspective and suggesting the use of a two-pillared model that consists of knowledge and skill, Kedia and Mukherji (1999) argue that, in terms of knowledge, a global mindset means maintaining an appreciation for the existence of differences, while skills imply the ability to put knowledge into action. Combining relevant knowledge with appropriate skill and experience, managers develop a global mindset over time and learn to operate with, as well as manage and lead in groups or situations characterized by diversity. This global mindset, according to Kedia and Mukherji (1999, p. 239-240), connects and combines across three specific knowledge bases: (1) mastery over technology, information systems and telecommunications, (2) an understanding of the socio-political factors of the different countries in which the firm operates, and (3) an appreciation of the role of culture and cross-cultural issues that impact managerial decisions.

Importantly, Kedia and Mukherji (1999, p. 240) tie the development of a global mindset to practical and contextual situations that include: (1) foreign travel, where cultural and socio-political and economic issues can be experienced, (2) opportunities to work in teams comprised of members with diverse backgrounds and perspectives, (3) appropriate training that is specific, effective and provided in a structured learning environment, and (4) work transfer to foreign locations to live, work and learn from the experience. Their perspective strongly advocates an experiential, or learning-by-doing approach to the development of a global mindset. It further emphasizes the importance of understanding and experiencing socio-cultural issues through first-hand experience, which acts as the moderator for the development of intercultural skill development, or expressed in another way, the growth of cultural intelligence (CQ).

Early & Ang (2003, p. 26) define CQ as: "…a person's capability to adapt effectively to new cultural contexts". It is seen as a form of situated intelligence where behaviors are intelligently and fluidly adapted to the values, beliefs and customs of a given society or culture. Early (2002), building on previous theoretical work regarding intelligence measures such as cognitive intelligence (IQ), social intelligence (SQ), and emotional intelligence (EQ), proposed that the capacity to adapt to unfamiliar cultural environments is based on three basic abilities: (1) cognition, (2) motivation, and (3) behavior.

Later theoretical development (Early & Ang, 2007) expanded the cognitive ability to include the idea that a person must be able to detect and/or recognize and integrate different social and environmental cues in foreign or unknown situations or environments. This metacognitive ability develops over time and with a growing self-awareness; it is seen as a critical aspect of CQ since it encapsulates much of what is required when combining situated cues into a coherent whole - even if one is not sure what the eventual mental image will turn out be like. A key observation then, is that CQ could be seen as an emergent capability that is narrowly tied to the inclination and ability of a person to appreciate, formulate and behave in ways that are quick, smooth and sensitively accurate when confronted with a complex new situation.

From the preceding discussion it should be clear that the notions of *global mindset* and *cultural intelligence (CQ)* are conceptually closely connected. For the current purpose, a useful way of tying these concepts together is to propose that a person with higher CQ are more likely to develop a global mindset, as is suggested by Lovvorn & Chen (2011). Exposure to meaningful experiences foreign to our usual situations help to instill new ways of responding and learning to the diverse stimuli that unknown environments, languages, traditions and values provide. With time and repetition, the adjustment required in response to the continued exposure to such changes foster the growth of CQ and gradually assist in the formation of a global mindset.

In earlier discussion, aspects and experiences that support the development of CQ and the eventual formation of a global mindset were highlighted. With the pressures on higher education to inculcate a global mindset in graduates in mind, the question of how to design learning for such a requirement comes to the fore. Simultaneously, the need for training and structured learning as components in the development of CQ (Kedia & Mukherji, 1999), and the increasing use of technology to support and augment learning raise additional issues,

namely, how technological tools can assist in the training and development of CQ. These questions are central to the present project, which is concerned with how a blended learning paradigm might inform university classrooms to enable the development of a global mindset.

Blended learning is increasingly used in educational sectors across the world and according to Watson (2008, pg. 3), it... "combines the best elements of online and face-to-face learning... and is likely to emerge as the predominant model of the future". Watson (2008), quoting Dziuban, Hartman and Moskal (2004) continues:

> "Blended learning should be viewed as a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment, rather than a ratio of delivery modalities"
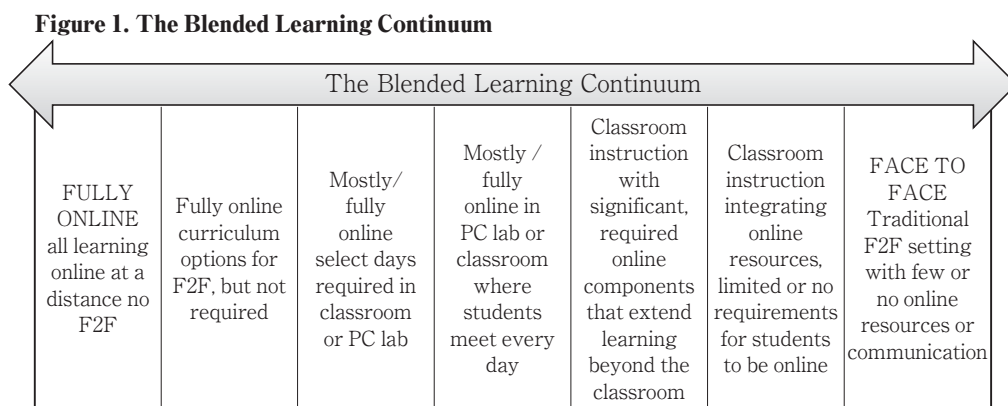
Blended learning should be seen as a fundamental redesign of the instructional model. Quoting from Dzubian et. al. (2004), Watson (2008) describes this model of learning in the following manner (pg. 5):

- "It constitutes a shift from lecture- to student-centered instruction in which students become active and interactive learners and is a shift that should apply to the entire course, including face-to-face contact sessions;
- It increases interaction between the following groups in the course: student-instructor, student-student, student-content, and student-outside resources;
- It integrates formative and summative assessment mechanisms for students and instructor."

Watson (2004) continues by pointing out that blended learning represents a shift in instructional strategy – one that is similar to online learning – and representing a fundamental shift in the delivery and instructional model of distance learning: "blended learning offers the possibility to significantly change how teachers and administrators view online learning in a face-to-face (F2F) setting" (pg. 5). He asserts (quoting Bonk & Graham, 2004, writing in the Handbook of Blended Learning) that digital learning technologies are ever widely available, which has increased the adoption and integration of computer mediated instructional elements into traditional F2F settings.

Figure 1. The Blended Learning Continuum

Taking these points into consideration, it is clear that a fundamental shift has been occurring in education as a whole, affecting institutions and learning everywhere. Figure 1 below provides a depiction of the blended learning continuum, ranging from the traditional F 2 F classrooms, to fully online learning experiences.
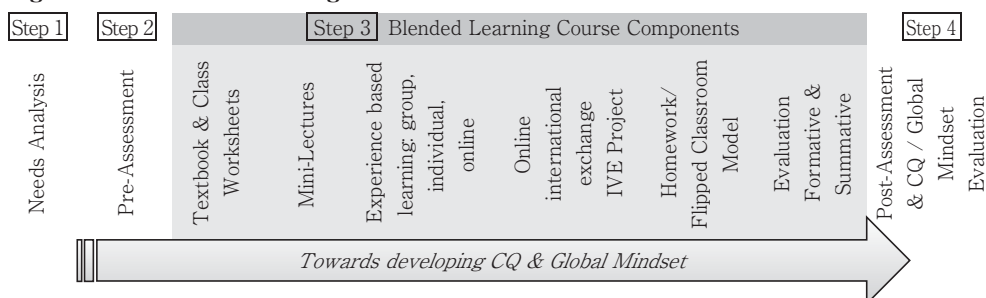
Figure 1. The Blended Learning Continuum

The Blended Learning Continuum						
FULLY ONLINE all learning online at a distance no F2F	Fully online curriculum options for F2F, but not required	Mostly/ fully online select days required in classroom or PC lab	Mostly / fully online in PC lab or classroom where students meet every day	Classroom instruction with significant, required online components that extend learning beyond the classroom	Classroom instruction integrating online resources, limited or no requirements for students to be online	FACE TO FACE Traditional F2F setting with few or no online resources or communication

Adapted from: Watson, 2004.

Outline of the investigation

As outlined earlier, future workers need a global mindset characterized by a high cultural intelligence to function effectively in a diverse workplace. As a result of continued globalization, this requirement in the skillset is increasingly true whether employees work in local or international settings (Fischer, 2011). This project attempts to address this expectation at the university level by designing instruction for the development of CQ and the gradual formation of a global mindset in graduates. Specifically, a blended learning model was employed as foundation for the course, while course content was designed to: (1) expand cultural knowledge, (2) foster and nurture intercultural communication skills, and (3) improve students' digital literacy and critical thinking skills. The blended learning format utilized synchronous and asynchronous online activities that was further complemented by in-class, group-centred and/or individual activities that emphasized experiential learning. Cultural competencies, expressed in the form of knowledge, attitudes and self-perceived intercultural skills were measured before and after the course.

Figure 2. Outline of the investigation

Step 1 — Needs Analysis
Step 2 — Pre-Assessment
Step 3 — Blended Learning Course Components: Textbook & Class Worksheets; Mini-Lectures; Experience based learning: group, individual, online; Online international exchange IVE Project; Homework/ Flipped Classroom Model; Evaluation Formative & Summative
Step 4 — Post-Assessment & CQ / Global Mindset Evaluation

Towards developing CQ & Global Mindset

Participants, methods and procedures

As shown in Figure 2, a needs analysis (or audience analysis) of the student group was conducted at the outset. This analysis was based on earlier work (Roux & Suzuki, 2016, 2017a, 2017b) conducted with a similar group of students in the international study abroad course (ISAC), a preparation program at Saga University (Hayase, 2017). The audience analysis (using the ADDIE model) indicated a highly motivated, predominantly Asian group of mostly intermediate to advanced English second language learners, who placed into the program in their first year. This program provides higher-level, additional English-based content classes over 3 years which can include a short or longer sojourn abroad, depending on student preferences.

The present investigation was conducted with a class of 16 students (11 female; 9 male) with an average age of around 20. Two interesting exceptions were: one learner was a retired man in his late fifties who had undertaken further studies in economics and English in order to find work abroad; another learner was a Taiwanese exchange student who came to Japan for a year of study, in preparation for further study abroad. The course ran for 15 weeks during the 2nd semester and received funding support from the Organization for General Education (OGE) at Saga University, through a special educational development project. Students met weekly for a 90-minute, F2F class with the instructor in a computer lab equipped with Wi-Fi and other audiovisual support. Textbook study and worksheets consisted of academic readings with comprehension activities, linguistic support in the form of translations of word lists to Japanese, downloadable audio for the readings. Weekly homework used a flipped method of prescribing the reading, listening and comprehension check before class. Classroom work typically used a combination of learning modalities: topical mini-lectures prepared by the lecturer, facilitated group- and/or pair-work, online media (videos, surveys) and online, asynchronous language exchange with local and

international counterparts based at colleges in Tokyo and Colombia. This Moodle-based collaboration is part of a larger project based at the Muroran Institute of Technology, Hokkaido, Japan and supported by the Japanese government through a *kaken* research grant.

To assess and track intercultural education and its influence on CQ development and the development of a global mindset, we surveyed participants pre- and post-course with the Cultural Intelligence Scale (CQS) using a 7-point Likert type scale. The CQS captures a self-rated ability to perform and adapt in environments characterized by diversity and has been used for research purposes as a diagnostic tool to measure intercultural success (Ang, Van Dyne & Tan, 2011). This pre- and post-assessment formed the basis to determine the extent of development of CQ, upon which the formation of a global mindset is based. In addition, further summative and formative evaluations took place over the course of the 15 weeks, together providing a sense of learner engagement, performance and feedback to help guide the course development. Table 1 below summarizes the course organization, cognizant of the underlying three course design elements, namely *learning content, assessment and evaluation,* and *research*.

Table 1. Course outline: Developing a global mindset through blended learning

Learning Content	○ Textbook (8 chapters)
	○ Classroom worksheets (instructor designed)
	○ Mini-lectures (topical contents)
	○ Online media, surveys, feedback
	○ International Virtual Exchange Project (4 topics / 8 weeks)
	○ Flipped method: textbook reading / comprehension / audio
Assessment & Evaluation	○ Online review quizzes (4)
	○ Online class feedback surveys (13)
Research	○ CQ Scale
	○ Online surveys (weekly)
	○ IVE Project

Adapted from Roux & Suzuki, 2017 (b)

Focusing further on the specific learning contents of the course, care was taken to specifically center learning around the development of CQ, keeping in mind the possible learning avenues that could lead to the formation a global mindset. A textbook with readings, supplemented by comprehension activities and downloadable audio anchored the course, providing a relevant theoretical base for cultural, as well as language learning. This was further supplemented by classroom worksheets and/or learning materials and activities adapted for classroom use, with an emphasis on experience-based activity for individual learning and/or small group learning. The lecturer also developed a series of mini-lectures to support and enhance textbook study, whereas topical online media (short video clips, talks)

were included to elucidate and/or expand learning.

Weekly learning feedback surveys (via Google Forms) added an online reflective learning element to deepen classroom learning and provide formative feedback to improve instructional design for subsequent classes. The online language exchange (International Virtual Exchange Project – IVE), based in Moodle, provided an online platform for linguistic and cultural exchange with international counterparts in Colombia and other local students at different colleges in Japan. Homework tasks utilized a flipped method by having learners prepare for class by reading/listening to textbook material in advance, familiarizing themselves with content, the linguistic demand and aiding comprehension.

Finally, the pre- and post-evaluations of the cultural intelligence (CQ) aspect, seen here as central to the growth of a global mindset, were conducted online with the support of the Cultural Intelligence Center. The CQ Center includes an educational division that aims to work together with and assist educators in the assessment of students' intercultural competence, improve study abroad programs, or develop a strategy for building a culturally intelligent campus, with a variety of research-based and customized solutions (https://

Table 2. Learning Content Descriptors

Textbook (8 chapters)	Prescribed academic text with Japanese language support and downloadable listening practice. To develop understandings of culture and cultural conflict, i.e. CQ knowledge/strategy.
Classroom worksheets (instructor designed)	A series of topical experience- and/or content-based worksheets to support or enhance the textbook. Developed by the instructor, attention is given to personal CQ development and linguistic support.
Mini-lectures (topical contents)	A series of short lectures developed and presented by the instructor to enhance the topics in question.
Experience-centered learning	A series of interactive experiences (group & pair discussions, mini-presentations, 'show-and-tell' activities, brainstorms, etc.) designed to enhance text comprehension and conceptual understanding of the topics.
Online media, surveys, feedback	Weekly learning feedback (via Google Forms) to deepen classroom learning/understanding and provide formative feedback.
International Virtual Exchange Project (4 topics / 8 weeks)	Moodle based, asynchronous online discussion exchange with international counterparts to develop linguistic skills (English as a 2nd language) and intercultural competence.
Homework	Assignments using a flipped method: textbook reading / comprehension / audio. Topical videos, talks provided by teacher and/ or by students. Examples: YouTube & TED Talks with subtitles.
Pre/Post assessment CQ Center	An online assessment with students, generating and individual CQ profile as well as a group report. Includes reflective writing activities regarding the personal development of CQ.

Adapted from Roux & Suzuki, 2017 (b)

Figure 3. Visualizing Blended Learning for Developing CQ and A Global Mindset
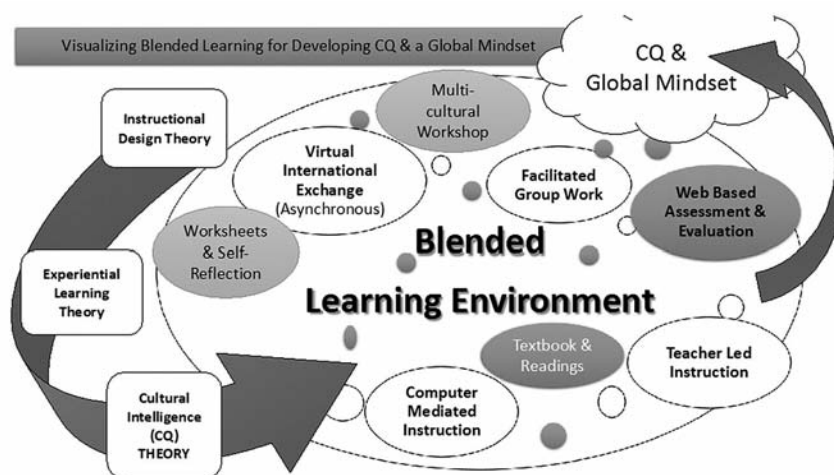
Adapted from Roux & Suzuki, 2017(c)

culturalq.com/, 2018). A summary of the learning content is shown in Table 2, while a depiction of the Blended Learning Environment follows in Figure 3.

Discussion

Central to this investigation is how the cultural intelligence (CQ) of university students might be developed through an application of instructional design, with specific reference to utilizing a blended learning approach to course design and implementation. As pointed out earlier (Figure 1), blended learning can be depicted on a continuum and, taking into account the design and delivery of the course in this project, the approach taken here aimed to create a true blend of traditional and modern educational techniques. The class was conducted in a weekly F 2 F situation, in a PC lab with the instructor present in a guiding, facilitating and/or leading capacity. Classroom instruction was further supported with required online components aimed to extend learning beyond the F2F situation.

This blending of teaching/learning modalities and techniques requires new methods of instruction, content development and professional development (Watson, 2004). This stance thus extends the role of technology beyond being merely a tool for instruction delivery, but as a thoughtfully integrated element that can optimize learning and help students take charge of their learning (Stan, Armat, Leigh, Rosser & Hayes, 2017). The course design presented here achieved an effective blend of *instructional modalities* (facilitator-driven, student-driven, peer/group activated and flexible learning delivery), using a variety of *delivery media* (lectures, workbook assignments, online reflective feedback, presentations and multimedia),

whilst also utilizing *web-based technologies* (Google forms, multimedia, CQ assessment and a virtual international cultural/language exchange) aimed at enhancing, supplementing and/or reflecting on classroom and individual learning. Stagner, quoted in Watson (2004) states that blended learning "… needs to stay student focused and avoid artificial, mandated boundaries", an observation that implies sustaining learning actively – regardless of where it happens. In this view, blended learning has numerous advantages and demonstrated benefit to the present project through the fact that learning could alternatively or simultaneously be student-driven, peer-driven, instructor-driven, and technology-driven. Such choices are increasingly available if the learning process itself remains central.

Key to the blended learning approach is that an easy, clear and dynamic flow remains between different instruction modalities, which require a thorough investment of planning time by the instructor. This is further aided (or diminished) by the accessibility and availability of online content, since text-based content is significantly enhanced with animation, audiovisual materials, simulations and other engaging content that convey concepts dynamically (Watson, 2004). A related and critical observation by the same author is that a course-management or learning management system (LMS) can be centrally important to help organize content and facilitate communication. This aspect may be the distinction between a truly blended course and a F 2 F course that incorporates a few digital elements. The present course is currently undergoing further development, which will see a transfer of learning contents to an appropriate online learning platform or LMS.

Conclusion

As part of a small-scale, specially funded educational project, blended learning was used as an instructional approach in this investigation to support the development of CQ and to assist in the formation of a global mindset in course participants. Theoretical aspects of CQ and the notion of global mindset were discussed, while the course design, methods and a description of the course implementation were presented with a consideration towards the efficacy of the blended learning approach. The course design and implementation achieved an efficacious blend of *instructional modalities,* used a variety of *delivery media,* and used *web-based technologies* that enhanced classroom, as well as individual learning. Further course development continues and will see adaptation and expansion with an online learning management system.

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Pledge of Authenticity

This paper hereby certifies that **Peter W. ROUX** is the only author of the article entitled:
Developing a Global Mindset: Designs for Blended Learning
submitted to the Organization for General Education on the date listed below.
All written work was done solely by the author unless otherwise cited within the article and in the reference section.

Author: Date: January 29, 2018
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Pledge of Authenticity

This paper hereby certifies that **Peter W. ROUX** and **Dana Lee ANGOVE** are the only authors of the article entitled:
Global citizenship in motion: Dance and dialogue for intercultural learning
submitted to the Organization for General Education on the date listed below.
All written work was done solely by the author unless otherwise cited within the article and in the reference section.

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