Experiential Learning in Blended Environments:
Exploring Activities that Develop Cultural Intelligence (CQ)

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Abstract: Technological evolution that supports learning remain a central concern for instructional designers. Practitioners continue to rely on existing learning theories, such as experience-based learning, to explore the utilization of new technologies, applications and tools. Simultaneously, relevant research suggests that an integrated and comprehensive pedagogy for the development of intercultural competence remains underdeveloped. As part of a larger project that applies instructional design theory to the development of cultural intelligence (CQ), this theoretical paper explores the rationale for, and utilization of experiential learning in a blended environment at a Japanese university. Following a focused discussion of the relevant theoretical underpinnings, we present preliminary data to support the current conjecture. The purpose of this paper is to consider the rationale for using experiential learning in blended environments and the consequent instructional considerations for the application of suitable technologies that can enhance intercultural competence or CQ.

Key words: cultural intelligence; experiential learning; blended learning; instructional design; Japanese higher education

INTRODUCTION

Advances in the application of technology to human learning continues to impact educational systems and institutions everywhere. The rapid and comprehensive nature of these developments pose a significant challenge to every level of the educational establishment, with indications that traditional pedagogies and learning methods are under strain to support or accompany the profusion of technological features (Alonso, López, Manrique & Viñes, 2005; 2008). While these trends perhaps call for a reconsideration of pedagogical practices, they have also reiterated the role of instructional designers in the facilitation of effective learning in this technologically bountiful era (Roux et. al., 2019). Computer assisted learning and the development of

concomitant online technologies – such as adaptive learning – have been hailed as a "savior" of the education system, given its potential to personalize and optimize the learning path for the individual learner (Alonso et. al., 2008). Given the plethora of learning technologies available however, some researchers have pointed to an accompanying relative loss of focus on the learning process itself (Pazos, Azpiazu, Silva & Rodriguez-Paton, 2002). This observation therefore also indicates that a renewed focus on pedagogies that incorporate learning with technology might be necessary.

Simultaneously, partially due to governmental requirements and international student migrations, competitive pressures on higher education systems have increased (Suharti, Handoko & Haruta, 2019). Accompanying these pressures are an expectation for universities to produce graduates with a so-called global mindset. This notion is generally understood to include a skillset comprising of digital literacy, a flexible, broad-minded disposition and intercultural competence or cultural intelligence (CQ) (Lovvorn & Chen, 2011; Roux, 2018). Although CQ and a global mindset have been recognized as an important capacity in the graduate skillset, the means to nurture and grow these complex set of skills is less clear (Fischer, 2011; Roux 2018). Studies from a number of disciplines have suggested a broad variety of learning interventions (lectures, skills-training workshops, human resource development, etc.) to cultivate such a skillset, but an overarching framework for a consolidated approach to this area remains absent (Fischer, 2011; Ang, Van Dyne & Rockstuhl, 2012). The present study forms part of a project that centralizes pedagogical considerations for developing CQ. Earlier research linking CQ development through applications of ID theory (Roux et. al., 2017, 2018, 2019) have pointed to a relative neglect in the application of culturally informed ID in the design of instructional systems and e-learning (Rogers, Graham & Mayes, 2007, Parrish & Linder-VanBerschot, 2010; Henderson, 2007; Clem, 2004; Thomas, Mitchell & Joseph, 2002).

Taken together, these introductory observations reiterate a refocused attention on the learning principles for intercultural competence development and the concomitant implications for an effective instructional approach. For this paper, we are therefore concerned mostly with the theoretical aspects of an approach that centralizes the learning that needs to take place in the development of CQ. We present and discuss (1) the features of, and rationale for choosing the experience-based (or experiential) learning (EBL) model, (2) how it links with CQ theory, and (3) how these are utilized in a blended environment that hosted an intercultural communication course for students at a Japanese university. Limited data is presented to explicate our methods, approach and findings. The purpose of this paper is to consider the rationale for using experiential learning in blended environments and the consequent instructional considerations for the application of suitable technologies that can enhance intercultural competence or CQ.

Experiential learning

The roots of experience-based learning (EBL) are traced back as far as Aristotle and have been shaped over centuries by many notable educational thinkers and philosophers (Andresen, Boud & Cohen, 1995). The ongoing interest in EBL for adult educators lies in the fact that it encompasses such a broad range of learning: formal and informal types of learning, as well as incidental, lifelong and workplace learning (Andresen et. al., 1995). These authors further draw attention to the set of underlying assumptions that inform learning from experience (p. 225):

(1) Experience is the foundation of, and the stimulus for, learning;

(2) Learners actively construct their experience;
(3) Learning is a holistic process;
(4) Learning is socially and culturally constructed;
(5) Learning is influenced by the socio-emotional context in which it occurs.

At its most succinct, learning was defined by Kolb (1984, p. 38) as: "… the process whereby knowledge is created through the transformation of experience." Despite the brevity of this statement, there is a recognition that learning is not easily reducible to a single set of methods, strategies or formulas. Instead, as highlighted by Andresen et. al. (1995, p. 226), three underlying and complex distinctions mark EBL as a unique approach:

(1) An involvement of the whole person – intellect, emotions and senses (such as in role-plays, games, etc.);
(2) A recognition and active use of all the learner's relevant life experiences, which, when included through new learning, is likely to be much more meaningfully and effectively integrated into the learners' values and understanding;
(3) A continued process of reflection upon earlier experiences that can deepen understanding.

Ultimately, EBL therefore aims to foster the integration of learning material in such a way that it becomes personally meaningful. Designing a learning experience that envisages this as an outcome therefore requires the cognizance of a few essential elements that should be present in the instructional process: (i) learners' personal engagement; (ii) debriefing and reflection as required stages; (iii) learning involves the whole person (affect, cognition, senses, etc.); (iv) a recognition of what the learner brings to the learning process; (v) a basic ethical stance toward the learner that includes values of respect, validation, trust, etc. (Andresen et. al., 1995).

Despite the laudable features of EBL, a review of research studies in the areas of experiential methods and computer-based simulations (Gosen & Washbush, 2004), points to an essentially complex finding in consideration of its effectiveness as a learning approach. In essence, learning remains an intensely personal and internal mental process; and, to create an instrument that is capable of capturing this unique complexity is easier said than done (Gosen & Washbush, 2004). Their findings highlight that it is very difficult (based on their research review) to prove the effectiveness of these approaches. However, the established level of acceptance that the methods enjoy in various fields, as well as the agreement amongst practitioners that supports its satisfactory utilization, points to a verified credibility for continued use in education.

Cultural Intelligence (CQ)

The need for a continued comprehension of cultural diversity and intercultural competence in recent years saw the introduction of the notion of CQ. This concept is defined as 'an individual's capability to function effectively in culturally diverse settings' (Ang, Dyne & Tan, 2011). Exponential growth in this area has assisted in the integration of the somewhat fragmented field of intercultural studies and helped clarify the type of personal capacities that would be necessary to bridge cultural differences (Ang, Van Dyne & Rockstuhl, 2012). According to the Cultural Intelligence Center, four CQ capabilities characterize the intercultural capacity of a person: (1) CQ drive, which is related to a person's motivation, interest and confidence in settings with cultural diversity; (2) CQ knowledge, which implies sets of knowledge about how cultures are similar or different; (3) CQ strategy, which describes how a person makes sense of culturally

diverse experiences and social situations; and, (4) CQ action, which signifies a person's capability to adapt their verbal and non-verbal cultural behavior to appropriately suit a particular context.

CQ is therefore similar to, but distinctive from, IQ (general mental ability) and EQ (emotional intelligence) in that it signifies a set of capabilities necessary for personal and professional success in multicultural contexts. CQ has been demonstrated to predict adjustment, well-being, cultural judgment and decision-making, as well as task performance in culturally diverse settings (Ang et. al., 2012). Research suggests that CQ retains predictive validity regardless of demographic characteristics, personality, general mental ability, emotional intelligence, cross-cultural adaptability inventory, rhetorical sensitivity, cross-cultural experience, and social desirability (Ang et. al., 2012). CQ as an encapsulating construct for intercultural training and competence development is thus very appealing, since it is a practically useful understanding that explicates the capacities required to be successful in culturally diverse situations, regardless of their domestic or international locality.
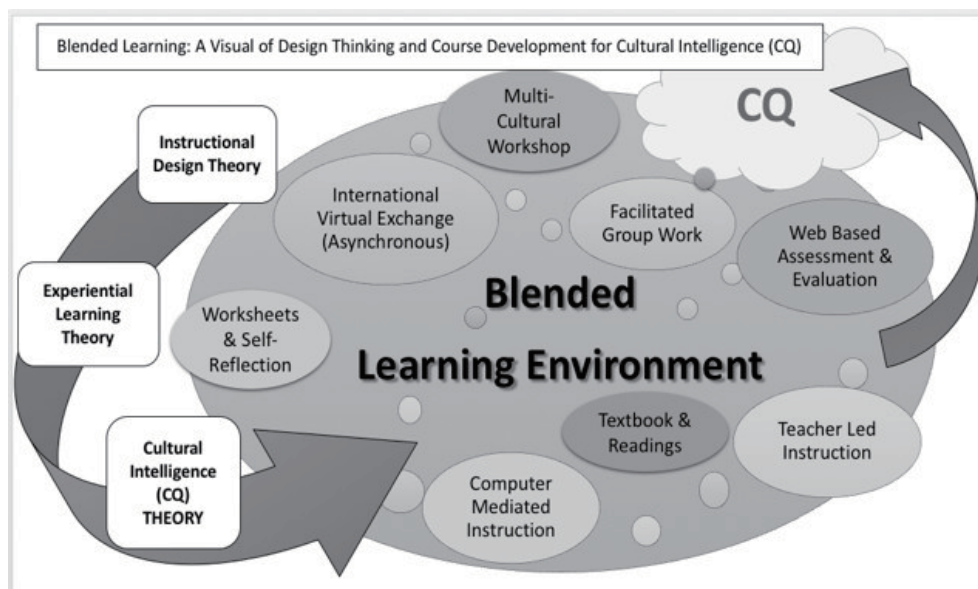

Figure 1. A blended learning model for developing cultural intelligence (CQ) (Roux et al., 2018)

EBL, CQ development and Blended Learning

In essence, CQ theorists therefore adopt the position that individuals can be educated and trained to develop their intercultural competence over time, and that this growth is a mental process encompassing knowledge, personal competencies and actionable behaviors. Returning to earlier discussions involving suitable approaches to learning, it should be clear that there is considerable potential for EBL to employed as an instructional practice to achieve the desired CQ education. Both EBL and CQ education is primarily concerned with the learner as a whole person at the centre of learning, while allowing the learning to enfold through an active and engaged process, culminating in an integrative and transformative experience for the individual. In terms of methodology, structured learning and training are seen as essential components in the development of intercultural skill (Kedia & Mukherji, 1999) and is employed in our project at the center of instruction in conjunction with educational technology to support the blended learning format. Blended learning is a method that mixes various event- or experience-based activities and may include live e-learning (synchronous), self-paced learning (asynchronous)

and face-to-face classrooms (Alonso et. al., 2005; Watson, 2008). Defined as "a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically advanced possibilities of the online environment…" (Dziuban et. al., p. 3), it has potential for bringing together advantages of both worlds, as learners and instructors grow new roles in the learning process.

As an increasingly popular instructional format, blended learning offers alternative possibilities to traditional ways of learning and is well suited to accommodate the variable influences brought about through the continuous introduction of new technologies (Dziuban, Hartman & Moskal, 2004). Earlier research using a blended model (Roux et. al., 2018) indicated that this format was particularly useful in conjunction with EBL, since it allowed for a facilitated, variable and alternately focused manner of instruction in a F2F classroom context. If CQ education is considered from an instructional design perspective, EBL offers clear benefits through its focus on learner development. The theoretical and instructional support of EBL is very considerate: the learner is placed in a central position through the emphasis on the whole personhood, i.e. experiences, knowledge, capacities, emotionality, etc. – all which ties very well with the notional factors that underly the CQ construct. Utilizing a blended model as a general tool within the instructional framework of a CQ educational course, the tripartite arrangement of these three constituents would be a formidable combination to realize the desired CQ outcomes. Similar to EBL, blended learning thus has potential capacity to impact higher education in a positive way, since it hosts the foundation of a transformative model that can change the expectations and practice of all the relevant learning participants: students, faculty and administrators (Dziuban et. al., 2004).

DESIGN, METHODS & PROCEDURES

The design of our framework is cognizant of the research contention that intercultural training needs a pedagogy that can support the development of CQ (Roux et. al., 2017, 2018; Fischer, 2011). Our framework (Roux & Suzuki, 2017) therefore integrated ID principles and models, EBL and CQ theory, aiming to ensure effective learning, track and evaluate the learning process (in summative and formative ways), and to deliver sufficiently rich research data for a learning analysis. The framework was activated through an undergraduate, intercultural learning course to foster a CQ education that would support the formation of a global mindset.

The course contained three broad organizing elements: 1) learning content; 2) assessment and evaluation; and 3) research. These domains were further divided into segments, to indicate and realize the relevant learning considerations for CQ development. Learning content included the following: (a) textbook studies; (b) classroom worksheets; (c) a series of mini-lectures; (d) experience-based classroom activities (in groups/pairs); (e) online media (videos, audio, readings, public lectures); (f) one multi-cultural workshop; (g) a Moodle-based international virtual exchange with students in a foreign setting; and (h) homework, based on a flipped model of instruction (Roux et. al., 2018). Figure 1 displays our model.

Procedures

Thirty undergraduates (2nd and 3rd year) participated in the 15-week course. The course typically prepares students for a short- and/or long-term study abroad experience, but often include students who maintain an active interest in developing their English literacy. The gender

balance was 63% female and 37% male and except for one Taiwanese student, all participants were Japanese. The majority of the group (64%) reported limited to moderate prior intercultural experience. Figure 1. A blended learning model for CQ (Roux et al., 2018)

Classes were conducted weekly in a F2F blended environment and instructional methods included variations of facilitated group- and/or pair work, engaging with online media (on PC or smart devices) and lectures. A further component included an online Moodle-based, asynchronous exchange with a group of Colombian college students. Weekly learning reflections designed to track course engagement were recorded online through Google forms. These learning reflections included structured feedback and 'free comments' sections to gather both structured and non-structured learner feedback, on the premise that these would invite targeted and unsolicited learning observations and self-reflections that could link to the goals of our investigation. A selection from these datasets form the basis of the learning analysis that is the focus of the current paper.

RESULTS

We present limited results from the learning feedback for this group. Analysis were based on four staggered reviews that were conducted during the course to assess learning progress and the results presented here include learning insights from the structured formative assessments. Summative results from this course indicated a generally positive learner uptake and were presented elsewhere (Roux et. al., 2018). The focus here is to glean learning insights pertaining to the impact of cultural, experience-based learning that constituted the main form of in-class instruction.

Assessing learning impact

Four self-assessed structured learning reflections were utilized to gain insights into participant learning (Figure 2).

- o   Review 1: What is culture? Hidden culture & differences;
- o   Review 2: Conflict & identifying conflict;
- o   Review 3: Values and belief systems – role in conflict;
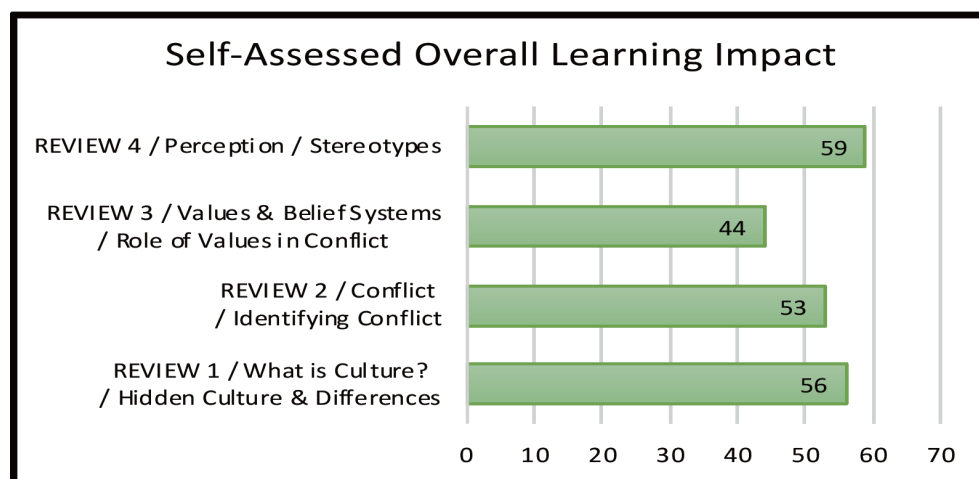- o   Review 4: Perception & stereotypes.

Self-Assessed Overall Learning Impact

- REVIEW 4 / Perception / Stereotypes: 59
- REVIEW 3 / Values & Belief Systems / Role of Values in Conflict: 44
- REVIEW 2 / Conflict / Identifying Conflict: 53
- REVIEW 1 / What is Culture? / Hidden Culture & Differences: 56

Figure 2. Self-assessed overall learning impact

This analysis presents a broad impact of learning based upon a single question in each learning reflection conducted at the end of a module. It shows the variable self-assessed impact that learning had on students and indicate (in %) a self-ascribed value. A further breakdown of the learning impact, as reflected through each separate learning review is presented below in figures 3, 4, 5 and 6. Students reflected on, and gave a self-assessed indication of their engagement with each course module. Selection choices to measure the impact were arranged on a sliding scale range: a little – somewhat – large extent – definitely. The structured reflection questions were:

o   I got new insights and it made me think deeply;
o   I will change my actions and behaviour towards other people;
o   I will change my thinking and behaviour in the future;
o   It made me question my identity.

(i) I got new insights and it made me think deeply; (ii) I will change my actions and behaviour towards other people; (iii) I will change my thinking and behaviour in the future; and (iv) It made me question my identity.These questions were broadly designed as reflective moments to assist understanding of student learning regarding the knowledge and content of the course, to gain insights about student thinking and behaviours, and a self-estimated impact of the learning on their future behaviours.
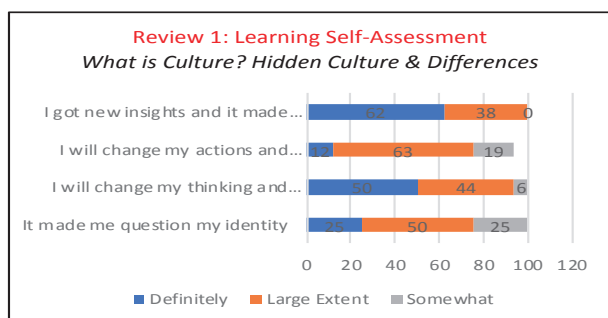
Figure 3. Learning self-assessment for review 1.

Figure 4. Learning self-assessment for review 2.
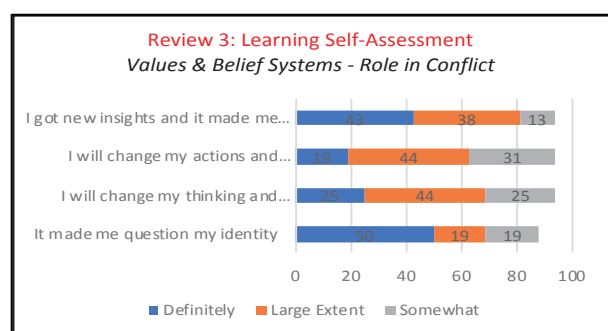
Figure 5. Learning self-assessment for review 3.
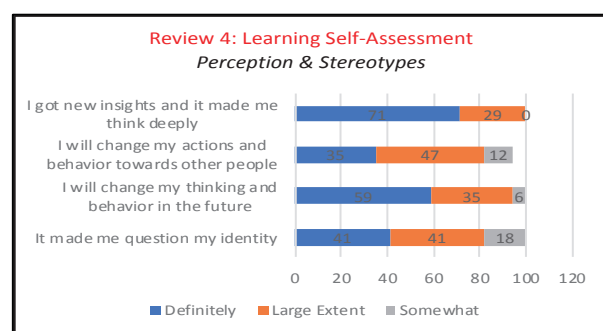
Figure 6. Learning self-assessment for review 4.

Review 1, perhaps as expected given the theoretical nature of the module contents, show an accentuated element that links to knowledge building, critical thinking and consequent future behaviour (Figure 3). Review 2 indicates an emphasis on the student thinking and future behaviours, and to a lesser extent, the realization of new insights and potential actions toward others in the future (Figure 4). Review 3 shows clear impact on the self-assessed impact on learner identity and insights, as well as reflections on the possibility for future altered future

actions (Figure 5). Review 4 shows a clear impact on students' consideration of their identity, and also a potential impact on thoughts and behaviours in the future (Figure 6).

SUMMARY OF FINDINGS & DISCUSSION

Our current investigation aimed to broadly understand how EBL in a blended environment can support the development of CQ, and closely related, investigated what underlying pedagogical support might be necessary for a CQ education. A theoretical discussion indicated that the philosophical underpinnings of EBL and blended learning overlap in many ways, paving the way for a learning approach which, infused with ID theory, made it possible to construct an instructional framework. In fact, earlier results from our larger project (Roux et. al., 2017, 2018, 2019) indicated that CQ theory could be integrated with these learning approaches, allowing for the creation of a CQ pedagogy. The current set of preliminary results indicate an impactful learning experience as self-assessed by our participants. Moreover, these results could be broadly connected to the CQ concept, (in terms of knowledge, strategy, behaviour and motivation). Although it is difficult to assess the true impact of EBL since learning is such a personal endeavour (Gosen & Washbush, 2004), results from the self-assessments show a very engaged effect from our participants. We were able to discern this effect along four main themes gleaned from participants' reflective feedback: (1) insightful understanding and integration of new cultural knowledge; (2) a perceived potential impact on actions and behaviours toward other people as a result of the classroom learning experiences; (3) a forecasted impact on future thinking (strategies) and action with regard to new experiences; and (4) a clear and intense engagement with the classroom experience to the extent that participants felt they could relate it to their (personal/cultural) identity. Connecting these themes with the CQ seems appropriate at the current (relatively superficial) level of analysis, and they are encouraging enough to continue with further investigations in this line.

CONCLUSION

As part of a larger project that applies instructional design theory to the development of cultural intelligence (CQ), this paper explored the rationale for, and utilization of EBL in a blended environment. Research in this field have suggested that an integrated and comprehensive pedagogy for the development of intercultural competence remains underdeveloped. The current paper aimed to contribute towards a deeper understanding of the educational development of CQ instruction by considering two foundational instructional design elements: (1) the rationale for, and application of EBL in a blended environment to support our project goals; and (2) a limited and preliminary analysis of the self-assessed learning impact/outcomes of the course that sought to develop the intercultural competence of participants. Findings from the self-assessed learning reflection analysis indicate that's participants engaged with course content and instruction in a consistent and impactful manner. Measurements show that aspects of participants' perceived identity, their cognitive development, values and belief systems, as well as their behaviour towards others and potential future behaviours were impacted upon by the course. These findings could be linked to the underlying theoretical structure of CQ, and although preliminary at this stage, we conclude that the instructional design and methods applied, in particular EBL in a blended setting, were successful in meeting our stated project goals. We aim to continue with a more comprehensive analyses of the learning behaviours and outcomes, with a view towards deepening the pedagogical considerations for furthering a CQ education through an application

of instructional design theory.

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