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Cultivating Cultural Intelligence (CQ): Designing a pedagogy for the 21st century

Roux, Petrus

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HEI
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                                                                CQ

        CQ

The program was successful in developing CQ in participants. It highlighted the importance of needs analysis during program construction, building motivation and curiosity in participants through course design, and the results emphasized the need for critical thinking development in participants.

Globalization and technological advances are disrupting educational systems everywhere and higher education institutions (HEI) are under pressure. Specifically, Higher Education (HE) pedagogies that utilize technologies for intercultural learning remain underdeveloped. Combining instructional design (ID&T) and educational technologies in a hybrid format, it investigated online learning technologies and experience-based learning to develop the cultural intelligence (CQ) of participants. This investigation delivered an integrative hybrid pedagogy that successfully developed intercultural learning, or CQ for learning at university.

Educational Technology

cultural intelligence learning design

１．研究開始当初の背景

Background: Cultural diversity within countries globally is increasing (Fischer, 2011) as is evidenced by global migrations, tourism, and technological advances. Most organizations – educational systems, businesses, and governments – now have a growing multicultural workforce. This increasing diversity is also apparent in Japan, where government immigration policies and a tourism boom are changing the service and hospitality industry and fueling construction. Increasingly, foreign workers are employed in factory jobs, nursing care, agriculture, and small enterprises. Significant here is that the pace and scope of these changes raise challenges for local educational systems to prepare students for the future.

The popularity of the terms 'global-minded' and 'global citizen' encapsulates the flexible skillset required today. Intercultural competence, or cultural intelligence (CQ), is now recognized as vital for the modern global workforce (Fischer, 2011). CQ is the 'capability to function effectively in culturally diverse settings' (Early & Ang, 2011). Forbes magazine (2010) writes that people with high CQs understand how to manage new cultural situations, evaluate what is happening, and make appropriate adjustments to understand, behave, and relate effectively. Research has shown that this skill set has to be actively cultivated through a focused education (Leung, Ang & Tan, 2014). CQ is improved through a study of intercultural behavior and strategies, exposure to various personal cross-cultural experiences, and structured reflective practice to support skill development. CQ is a fast-growing research area and is now measured through standardized means and international norms (Van Dyne, Ang & Tan, 2017).

As connectivity increases and media reaches deeper into communities, traditional educational borders are crossed. These trends have forced corporations and educational systems worldwide to utilize some form of computer-assisted, online, or blended learning to educate, train, and develop their members and students. These advances brought about the further internationalization of teaching and learning through technology available through the internet, as seen in the proliferation of e-learning, the gamification of learning, MOOCs, and the fast-paced development of smart devices, machine learning, and artificial intelligence.

The noted trends suggest two central issues: (1) educational institutions and learning environments need to be cognizant of cultural diversity, and its pervasive influence on learning (Clem, 2004; Thomas, Mitchell & Joseph, 2002); and (2) technology is radically changing both traditional learning environments and teaching paradigms (Alonso, López, Manrique & Viñes, 2005). Due to the speed and breadth of technological advances, educational institutions and instructors have not (yet) comprehensively incorporated or adapted pedagogical principles accordingly (Alonso et al., 2005). There is thus a demonstrable lack of sufficient pedagogy and its associated technological support for realizing the goal of developing intercultural competence and the related CQ that underpins global citizenship. As diversity increases, it is vital to understand how education could/should adopt the best technologies for pedagogy. This project is focused on designing instruction to address intercultural learning by developing an appropriate and technologically supported CQ pedagogy for HE.

２．研究の目的

The project applies ID theory and methods to intercultural learning and develops a blended and hybrid pedagogical approach to cultivate CQ. This approach combines a unique set of ideas and circumstances:

2.1 Practically: this project designs and develops a pedagogy that prepares and educates learners – digitally and interculturally – for the expectations of tomorrow. It specifically addresses the CQ development of learners through a unique combination of online and traditional classroom materials and methods.
2.2 Theoretically: it addresses a gap in the current scientific ID literature by integrating CQ and ID&T theories. There are very few reported studies that explore these combined theories and their application to online learning, making this project unique.
2.3 Creates impact and influence: This project is interdisciplinary and connects academic and industry specialists outside Japan. The CQ concept is still relatively unknown and/or underutilized in Asia, so the project is creating potential advantages for future ASEAN educational systems and economies. The project framework presented here has been prototyped and tested on a small scale and is ready to be expanded on a larger scale.

３．研究の方法

The proposed investigation followed an exploratory approach driven in principle by an action research strategy. It used a processual, and cyclical multi-phase, mixed methods design. Underpinned by a

theoretical framework, it generated quantitative and qualitative results, utilizing formative and summative learning assessments. The investigative process is visualized below (Figure 1).
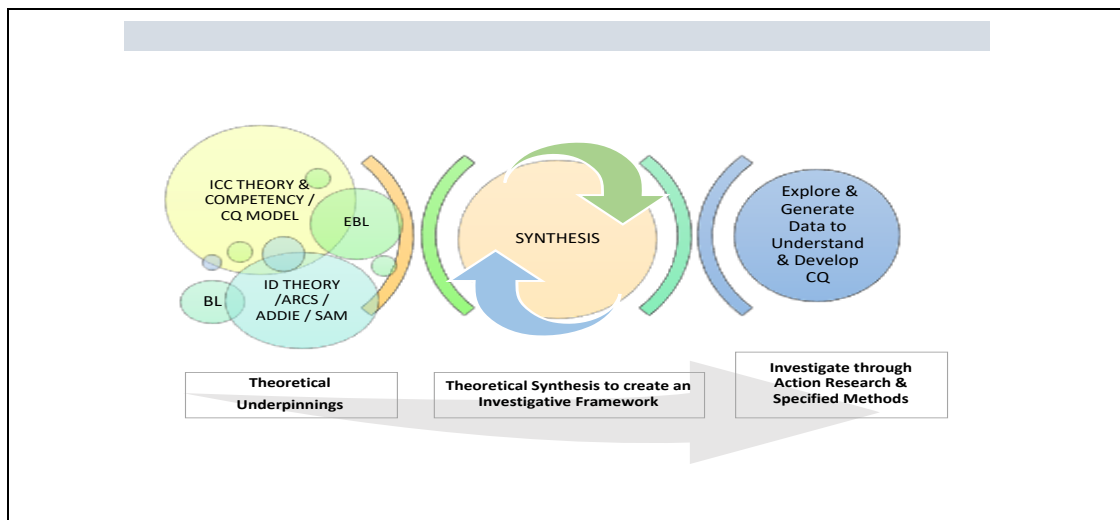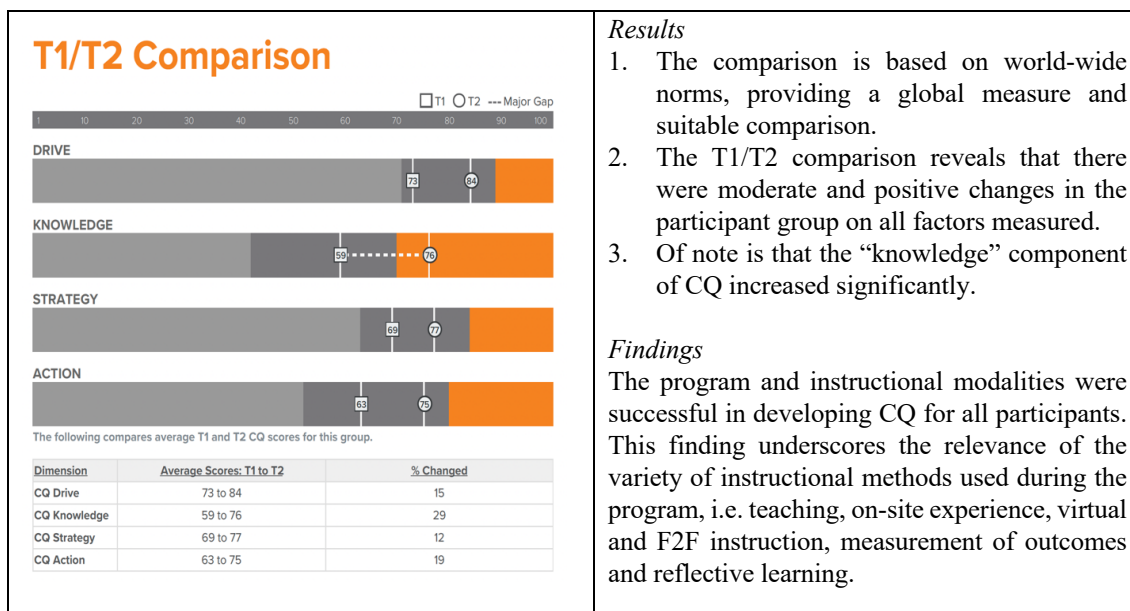

Figure 1. **A methodological approach for investigating CQ development**

４．研究成果

An initial theoretical design of intercultural learning was constructed to study CQ development. Based on this frame, a research design for incorporating CQ learning in three courses/programs, spanning two years was implemented. The results of these 3 data collection projects are presented below, each accompanied by a summary to illustrate the findings.

(4.1) Study 1: Externship program with a partner university

A group of students (10 participants) joined a 3-month study-abroad and externship program with a partner university in the US. Pre-departure preparation included cultural training (based on the CQ model), English language study, and foreign adjustment instruction. A pre/post-research design was utilized to measure the CQ development of participants.

Dimension	Average Scores: T1 to T2	% Changed
CQ Drive	73 to 84	15
CQ Knowledge	59 to 76	29
CQ Strategy	69 to 77	12
CQ Action	63 to 75	19

Results
1. The comparison is based on world-wide norms, providing a global measure and suitable comparison.
2. The T1/T2 comparison reveals that there were moderate and positive changes in the participant group on all factors measured.
3. Of note is that the "knowledge" component of CQ increased significantly.

Findings
The program and instructional modalities were successful in developing CQ for all participants. This finding underscores the relevance of the variety of instructional methods used during the program, i.e. teaching, on-site experience, virtual and F2F instruction, measurement of outcomes and reflective learning.

(4.2) Study 2: A short-term training program with managers of a global company

A training was conducted to introduce the managers of a global company to the CQ framework. A baseline CQ profile of the entire group was obtained to help the design for sufficient and appropriate training. Once completed, managers underwent comprehensive training aimed at the expansion of appropriate CQ strategies within their organization.
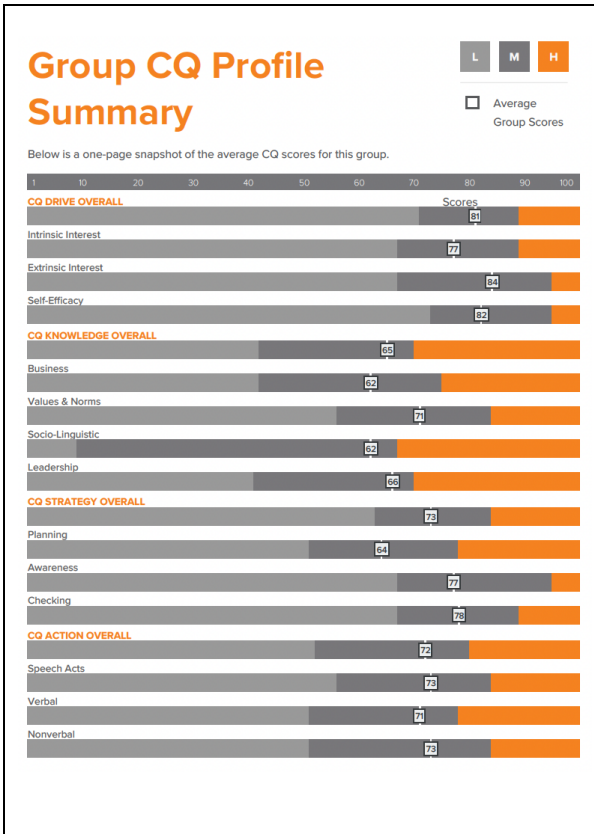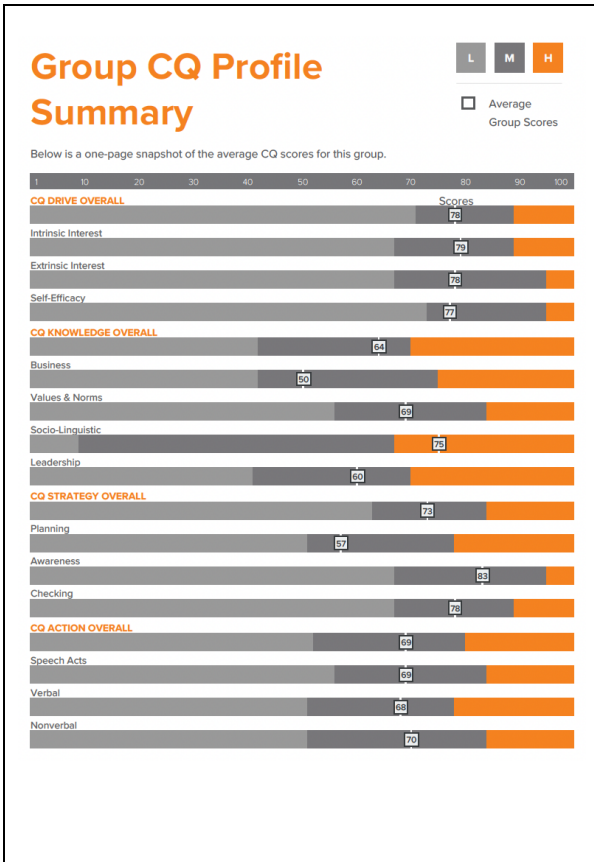
Results

1. The one-time measurement provided a snapshot of average CQ capabilities for this group of students.
2. The results show a "moderate", self-assessed score across all capabilities when compared to world-wide norms. This indicates that managers registered a desire for further growth in the mentioned areas of CQ.
3. Of note is that managers registered a desire to develop CQ strategies within their group or organization, indicating a further area for development.

Findings

The analysis provided a baseline for managerial training within the larger organization. It highlighted the need for appropriate needs-analysis in program construction, specifically with an emphasis on developing strategic CQ capabilities for this group. The latter finding points to the necessity of developing meta-cognitive thinking in managers, who are often tasked with decision-making at the leadership level.

(4.3) Study 3: Designing a multi-cultural leadership course for undergraduate students

Results

1. The measurement provided a snapshot of average CQ capabilities for this group.
2. The results show a "moderate", self-assessed score across all capabilities when compared to world-wide norms. This falls within the middle 50% of the norms. This indicate that participants registered a desire for further growth in the mentioned areas of CQ.
3. Areas of note (a score of 60 or below) include CQ knowledge (business & leadership) and CQ strategy (planning). These results reflect the participant assessment at the start of the course, thus highlighting the learning needs.
4. Further noted was that the overall ratings for CQ motivation and CQ strategy were below world-wide norms.

Findings

The analysis provided a snapshot of the course participants' CQ capabilities. It highlighted the need for a clear needs-analysis with an emphasis on cultivating motivation & cultural curiosity, while giving attention to developing critical thinking through the course.

(4.4) Summary of Results

- The overall program was successful in developing CQ for all participants. This finding underscores the relevance of the various instructional methods used during the program, i.e., teaching, on-site experience, virtual and face-to-face instruction, measurement of outcomes, and reflective learning.

- Results provided a baseline for managerial training within the larger organization. It highlighted the need for appropriate needs analysis in program construction, specifically emphasizing developing strategic CQ capabilities for managers. This points to the necessity of developing meta-cognitive thinking in managers, who are often tasked with decision-making at the leadership level. Managers expressed a desire to enhance CQ strategies within their group or organization, indicating a further area for development.

- The analysis provided a snapshot of the course participants' CQ capabilities. It highlighted the need for a clear needs analysis that would assist program design. The results highlighted focusing on enhancing motivation and cultural curiosity while giving attention to developing critical thinking through participating in the course.

Recommendations:

1. **Enhanced Instructional Methods**

   - Continue leveraging diverse instructional modalities (e.g., teaching, on-site experience, virtual and face-to-face instruction) to cater to varied learning preferences and enhance program effectiveness.

   - Integrate case studies and practical exercises focused on real-world applications of CQ knowledge and strategy.

2. **Meta-Cognitive Skills Training**

   - Introduce training that focuses on meta-cognitive skills development, enabling managers to enhance their decision-making capabilities, take leadership, and adapt more effectively to diverse cultural environments.

   - Promote reflective practices that encourage the critical analysis of experiences in CQ growth.

3. **Needs-Analysis Implementation**

   - Conduct thorough needs-analysis assessments before program design to ensure that the training content aligns with the specific CQ development requirements of the participants.

   - Regularly update and refine the needs-analysis process to keep pace with evolving organizational and cultural demands.

4. **Ongoing CQ Development:**

   - Establish a continuous learning framework that allows participants to engage in ongoing CQ development beyond the initial training program.

   - Create a mentorship or peer-coaching system where participants can share experiences and insights, fostering a collaborative learning environment.

By addressing these recommendations, educational organizations can foster more culturally intelligent learners, thus educating a workforce capable of navigating and thriving in diverse global environments.

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