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DELIVERING AND ASSESSING A CROSS-CULTURAL MODULE FOR SEAFARERS AND MARITIME UNIVERSITY STUDENTS

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Abstract. How can maritime educators and trainers meet the communicative and cultural awareness needs of current and future seafarers who will be part of diverse multicultural crews and business teams? This question is becoming increasingly important in today's rapidly globalizing maritime industry, and must be met head-on by maritime educators, trainers, and industry administrators in order to ensure continuing success and improved safety in the maritime sector. One method of addressing this issue is through the development and implementation of a cross-cultural module designed specifically for seafarers and maritime university students. This paper will outline the development, implementation, and evaluation of a short Maritime International Exchange (MIX) that was created to assess the cultural awareness needs of maritime university students and address them via a cultural exchange and reflection project. After taking part in the exchange project, student reflections showed that the participants experienced an increased in cultural awareness, not only of other cultures, but their own as well.

Key words: cross-cultural learning, cultural competency, maritime education and training, communication, e-learning

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1 INTRODUCTION

The importance of cross-cultural awareness has been highlighted during the last decade (e.g. Progoulaki, et al., 2012; Progoulaki & Roe, 2012; Javidan, et al., 2006; Chen, et al., 2010; Kahveci, Lane, & Sampson, 2002; Progoulaki, 2008; Rooks, 2008a; Rooks, 2008b), due to the dynamics of cross cultural teams in the different shipping and maritime environments that may jeopardize team cohesion, safety and other aspects of ship's operation and maritime business management (Javidan & Dorfman, 2006; Parsons, Potoker, & Progoulaki, 2011). Since maritime regulatory organizations have not yet developed a common standard for cross-cultural learning and development, cross-cultural competency development for maritime professionals and the delivery of such education and training programs rely on the training needs of the participants and the specific goals of the education and training provider (i.e. maritime institutions, private MET sector, and others (Parsons, Potoker, & Progoulaki, 2011). In response, a Maritime International Exchange (MIX) (Szwed & Rooks, 2014) was developed as a maritime education and training (MET) program designed, in part, to improve cross-cultural learning and competency by promoting meaningful opportunities for foreign language communication and intercultural exchange (e.g. Carney, 2006; Thorne & Payne, 2005; Okubo & Kumahata, 2001), which helps them succeed in a global environment and successfully cope with unfamiliar situations (Bachner & Zeutschel, 1994). The cross-cultural learning module, which is based on proven methodology (see Parsons, Potoker, & Progoulaki, 2011; Parsons, et al., 2010; KNOWME, 2015), is delivered in an interactive, online cross-cultural learning mode. This paper shares the delivery and assessment of that cross-cultural learning module to a cohort of maritime university students from Japan, China, and U.S.A.

In order to maximize the potential for intercultural exposure, the MIX program puts maritime students into global virtual teams (Phadnis, et al., 2013). To develop participants' cross-cultural competency (Koester & Lustig, 2012), the MIX program relies on activities that explicitly promote meaningful opportunities for foreign language communication and intercultural exchange (e.g., Carney, 2006; Thorne & Payne, 2005; Okubo & Kumahata, 2001) with the added objective of training them to succeed in a global environment and successfully cope with unfamiliar situations (Bachner & Zeutschel, 1994). The authors developed a prototype module of the MIX program and deployed it using based on Schwald's 2012 pilot study framework. At the core of the module was a battery of cultural exchange and reflection activities that were created in order to make participants more aware of their own cultures, knowledge gaps or incorrect stereotypes they may have of other cultures, and finally as a means to spur further cross-cultural learning even after the module ended (Bachner & Zeutscheul, 1994). The authors realize that designing, planning, and implementing such exchanges can be a time-consuming, difficult task, which is why the logistics of a shorter, online-based group project were so appealing.

2 MARITIME INTERNATIONAL EXCHANGE (MIX) PROGRAM

The Knirk and Gufstason instructional design model (Knirk & Gufstason, 1986) was used as an organizing frame for developing the MIX program. The Knirk-Gufstason model is comprised of three phases: problem identification (assessing skills, creating goals, and organizing instruction), design (developing objectives, specifying strategies and context), and development (selecting materials, implementing instruction, analyzing results, revising materials). As Szwed and Rooks' 2014 paper described the first two phases of this program in detail, this paper will focus on the third phase after giving a brief overview of the first two in regards to the development and implementation of the MIX program. It is envisioned that additional evaluation, analysis, revision, and adaptation will continue as additional modules are integrated into MIX.

2.1 Problem Identification

The initial step in developing MIX was creating an instrument that could function as both a needs analysis tool and a way for students to track their own cultural competency development. After evaluating various cultural competency tests outlined by Matsumoto & Hwang (2013), the authors decided to make a new instrument that specifically addressed the key points of MIX by adapting Earley & Ang's Cultural Quotient (CQ) test (2003), which measures self-reported assessments of student motivation, cognition, metacognition, and behavior via a five-point Likert scale. The newly-adapted test was coined the Cultural Awareness Test (CAT), and it consists of five target areas of cultural competency, some of which retain the CQ's original aims but have been slightly changed and simplified in order to increase comprehensions levels of non-native English speaking participants (Figure 1).

For the initial pilot of the MIX project, 3 small groups of 3 students were chosen: 3 Americans, 3 Chinese, and 3 Japanese (n=9). This enabled the authors to keep the administrative logistics manageable, and also retrieve a practical size of data for quantitative and qualitative analysis. See Figure 2 for the full version of CAT prompts; see the figures details the results of 2015 MIX participant CAT.

CAT: Survey Domains				
Motivation: enthusiasm construct	Knowledge: cognition construct	Strategy: metacognitive construct	Communication: intercultural competence construct	Needs: Behavioral construct

Figure 1 The Five Prongs of CAT

Figure 1 illustrates some encouraging data, as there were no "disagree" answers from the Chinese, Japanese, or American participants regarding their motivation towards interacting with and learning about new cultures.

In Figure 2, we start to see some diverging trends in how the MIX participants viewed their own cultural knowledge. While the Chinese and American students seemed to have some relative confidence in their knowledge of other cultures, the Japanese students were much more diverse with their self-assessments, with some showing very little confidence in their knowledge of other cultures, and others showing much more self-assuredness.

The strategy section of CAT shows us more variance in participant self-assessments, with China and Japan showing neutral or positive awareness of cultural learning strategies, while the Japanese students again seem to be more dynamic according to individual answers.

Interestingly, the Chinese and Japanese MIX participants seem to be more sure of their cultural communication skills, specifically vocabulary and grammar, which are specifically mentioned in CAT, than the American participants are. Although the Japanese group appears to have some members who are less sure about their communicative abilities than their counterparts, the Chinese group seems quite sure of their foreign language abilities and communication skills.

Another strong piece of evidence for the validity of MIX is found in the needs awareness section of CAT, which is the where all participants did not answer negatively for a single prompt, and the overwhelming majority agreed or strongly agreed that they needed more exposure to foreign cultures, and see the need for increased cross-cultural awareness.

Figure 6 illustrates the Likert score response means (on the five-point Likert scale) for all three participating groups of students in each of the five prongs of CAT. With the exception of communication, US students generally assessed themselves higher on all skill levels of cultural awareness. The Japanese students rated their cultural knowledge the lowest out of each group, while the Chinese students' self-reported motivation

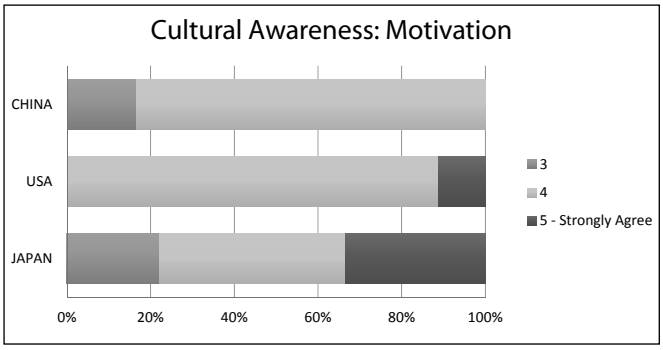

Figure 2 Cultural Awareness: Motivation

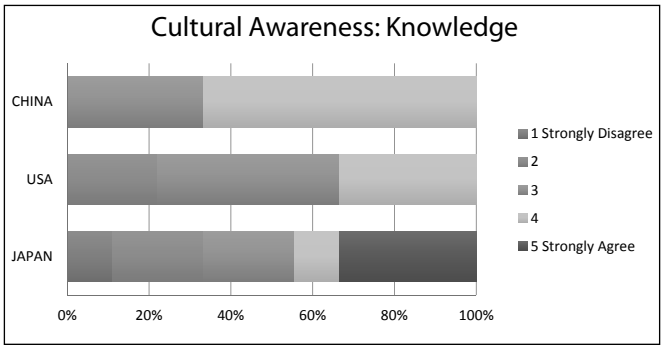

Figure 3 Cultural Awareness: Knowledge

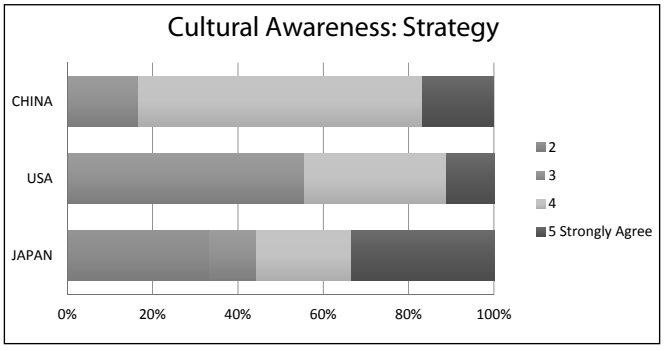

Figure 4 Cultural Awareness: Strategy

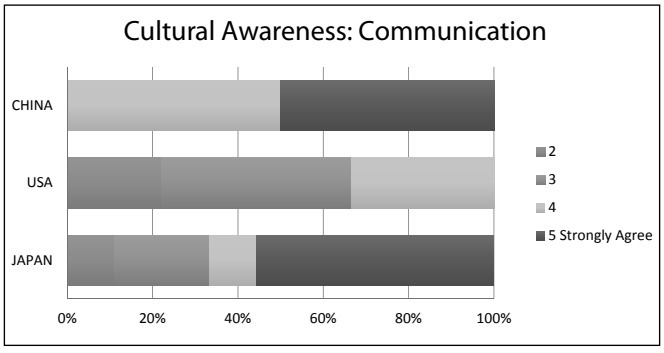

Figure 5 Cultural Awareness: Communication

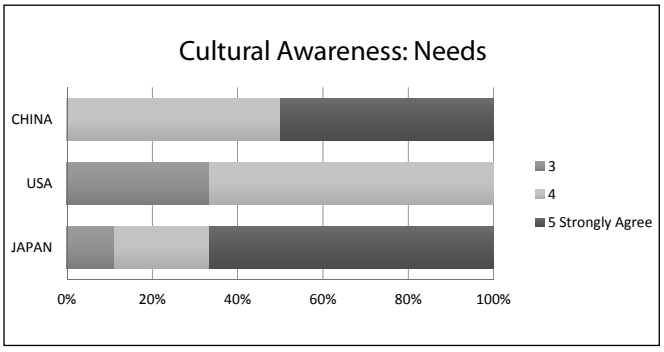

Figure 6 Cultural Awareness: Needs

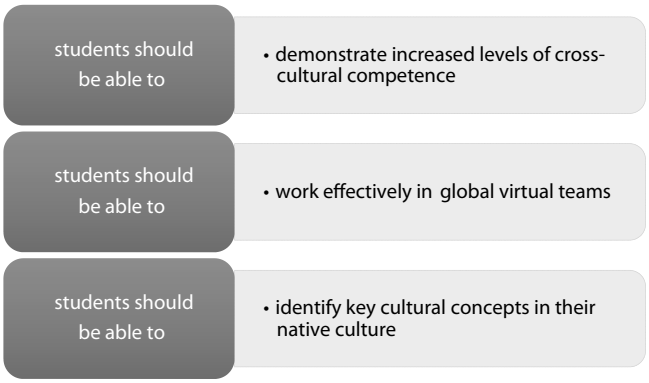

Figure 7 MIX learning objectives

was slightly lower than the other participants. Interestingly, Japan and China both reported a strong awareness that they needed to further develop their cross-cultural awareness, and while the USA participant scores were not as high, at a 3.7 means, they were still well above the neutral score of 3.

Table 1 Comparison of self-reported cultural awareness using CAT

	Japan	USA	China
Knowledge	3.3	4.1	3.8
Strategy	3.6	3.6	4
Communication	4.1	3.1	4.5
Motivation	4.1	4.1	3.8
Needs	4.6	3.7	4.5

The needs analysis provided by CAT painted a clear picture: students are aware of their needs as future seafarers to further develop their intercultural competency. The next step of the process was to design MIX to meet these needs in an efficient, adaptable methodology that can be flexible to suit the needs of various educational and training situations.

2.2 Program Design

After CAT identified the problem that needed to be addressed (i.e., insufficient cultural awareness and a need to improve competency), the authors confirmed that the underlying objectives of MIX, namely improving cultural competence, was valid. The next phase entailed designing the actual program via learning objectives, learning activities, and assessments.

These learning objectives were created to meet the needs of the particular students involved in MIX vis-à-vis their respective institutions, although they were created with the pre-conceived notion that they could easily be adapted to suit the specific needs of virtually any institution or group of students who may want to take part in the MIX program. Retaining flexibility for a wide range of cultural and training needs is one of the strong points of MIX, as the potential for modules that can be plugged into it are virtually endless.

Through this design, the MIX program was shaped into a blended-learning program that joins maritime students from MET institutions in different nations for engaged cultural exchange and learning by bringing together various student groups and cultures both online, and then ideally in person in order to offer real-life cultural exchange for participants. This aspect of the program design takes advantage of both distance learning (with a specific focus on explicit cross-cultural/language learning) and problem-based learning (including working in global virtual teams and in-residence maritime consulting).

Although the initial pilot module only focused on an intensive 3-week cultural exchange process, in the future the authors hope to expand the MIX program to include wider-reaching learning activities. As MIX continues to grow and mature, various aspects can be measured by a variety of pre-existing instruments: virtual learning (Rovai, Wighting, Bake, & Grooms, 2009); team performance, conflict, and satisfaction (De Dreu & Weingart, 2003); trust and behaviors of the global virtual team (Phandis, Perez-Franco, Caplice, & Sheffi, 2013); language-learning (Allen, 2010) and cultural awareness using CAT (Szwed & Rooks, 2014).

3 METHODOLOGY

The MIX pilot module took place over 3 weeks. Figure 8 outlines the flow of the module.

During the first week of MIX, each respective group of participants first took part in the CAT assessment outlined in section 2 of this paper. In week 2, the respective Chinese, American, and Japanese groups proceeded to identify 3 stereotypes and 3 hidden aspects of their own native culture which they then made into short 3-5 minute video presentations to share with the other cohort groups. After watching the other groups' videos via online downloads, the participants were in-

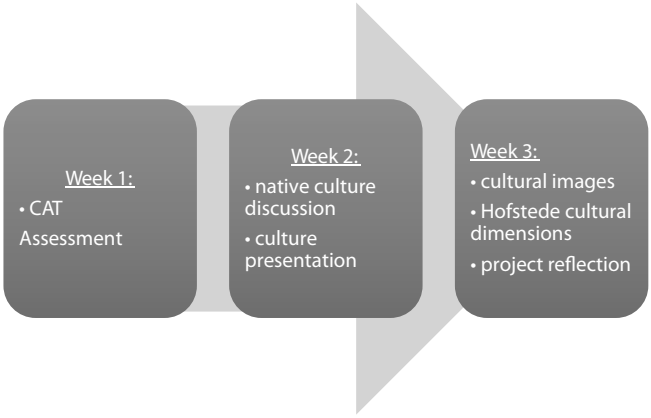

Figure 8 MIX pilot module flow chart

structed to think about their impressions of the videos, along with any other individual images and preconceptions of the other two cohort groups' cultures, and write up an essay outlining their cultural view or image of each other cohort group culture. Finally, in week 3, all participating students watched a short video outlining Hofstede's (1997) cultural dimensions theory (specifically: Power Distance, Individualism vs. Collectivism, and Masculinity), then read the official Hofstede cultural profiles (via the Hofstede Centre website) for each cohort culture before writing a final reflection paper noting how their cultural perceptions had changed during the course of the project.

4 RESULTS

An analysis of the student reflections showed that all participating students noticed a change in their cultural awareness. A majority of reporting students mentioned a noticeable change in not only how they viewed the other cohort cultures, but their own culture as well. All participants wrote that their preconceptions of the other participating cultures had changed. Student D from China wrote in her reflection paper "I realize there are several differences between the lives we have watched on TV series or news and the lives we really undergo in that culture." Surprisingly, some participants discovered negative aspects of their own culture that they had not noticed before. Student A from the USA group noted "I learned that my culture is often time conceited, proud, and more direct."

Other students reported that they had begun to see how stereotypes were often incorrect, as Student B from the USA group writes: **"**Most of all I learned that you can't judge an individual on their background, but how they interact and live their life on a daily basis.**"** Interestingly, the Japanese reflections placed a particular emphasis on the difference in communication styles that were evident through the culture videos that were shared online: Student H writes: **"**The American and Chinese presentations are good because they talk freely and in an interesting way,**"** while Student I from Japan noted **"**I should try to give presentations in a similar style**"** [to the Americans and Chinese]. Both the American & Chinese student presentations focused on what they wanted to say naturally, while we Japanese students read a lot from the scripts we prepared.

5 SUMMARY

The importance of developing cross-cultural competency for maritime students, seafarers and maritime professionals is an area of increasing importance due to rapid globalization. Crew cohesiveness and clear communication amongst multicultural crew members aboard maritime vessels is essential both for safe navigation and maximizing business potential. In this regard, the development and implementation of education and training programs that can meet the cross-cultural needs of current and future seafarers is a fundamental requirement of current MET practices. Alarmingly, the current overarching educational climate in which maritime regulatory organizations have failed to develop common standards for cross-cultural education.

The results of evaluation and validation of this MIX learning module can serve as an important feedback for improvement of the MIX module, as well as input to future such efforts for development of new courses in other maritime institutions or other industry stakeholders. The benefits of cross-cultural training for seafarers and maritime professionals are acknowledged at the industry level (Progoulaki, Theotokas, & Iakovaki, 2012), (Progoulaki, Potoker, & Parsons, 2013), (Progoulaki, 2008), however, based on this study, online cross-cultural learning might serve as an important supplement to shipboard and working experience, and should be explored further in order to give future seafarers and business workers a great chance of succeeding in the global workplace. Given these challenges and opportunities, it is envisioned that the MIX program will serve as a beneficial and economical way to help maritime students develop their cross-cultural awareness and maritime competencies.

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