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Can College Students’ Global Competence Be Enhanced in the Classroom?
The Impact of Cross- and Inter-Cultural Online Projects

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Can College Students’ Global Competence Be Enhanced in the Classroom?  
The Impact of Cross- and Inter-Cultural Online Projects

This study examines college students’ global competence acquisition at a U.S. and Korean university, and assesses the effect of cross- and inter-cultural online projects implemented simultaneously at both universities. The data were collected through a pre- and post-survey of the participating students. The findings were as follows: 1) overall, the projects significantly increased students’ intercultural communication skills and knowledge of the other country, 2) among three antecedents, the global mass media had mixed effects on the global competence and the effect of the projects, 3) mass migration was identified as a significant influence on students’ global competence and the effect of the projects, and 4) language barriers, technology, and time differences were found to be the main challenges of the project.

**Keywords:** global competence; cross- and inter-cultural online projects; international education; global mass media; mass migration; educational experience
Introduction

The apparel and textile industry is a truly global business that relies heavily on global production, sourcing, and marketing. Due to its nature, the industry is in particular need of globally competent human resources. To meet the need, apparel and textile courses strive to provide a variety of global educational opportunities (e.g., study abroad programs, field trips, etc.) to enhance college students’ global competence. To develop effective global educational programs, precise evaluations of current educational programs are necessary, and research should seek to improve them. However, there have been few systematic evaluations of these educational programs in the apparel and textile field (Jin, Swinney, Cao, Muske, Nam, & Kang, 2011).

As one of the tools for global education, cross/intercultural online projects offer students an opportunity to be exposed to foreign cultures and people while conducting projects in the classroom (Wang, 2011). Using technology, students from different cultures can collaborate on given projects. This is a relatively easy way to provide a global experience to students, as it requires no logistical step such as visiting a foreign country, and all those enrolled in a course can benefit from the experience. Considering these advantages, instructors at U.S. and South Korean universities collaborated to implement cross/intercultural online projects on their apparel and textile courses.

This study focuses on college students’ global competence acquisition and the effect of cross/intercultural online projects on their global competence. More specifically, it was designed to meet the following objectives: first, identify the antecedents of global competence in order to understand what/how students’ experience determines their global competence acquisition; second, evaluate the effect of the projects on the students’ global competence; and finally, analyse the benefits and challenges of the projects for improvement.
Based on previous research, exposure to global mass media, mass migration, and educational experience related to globalization are selected as potential antecedents of college students’ global competence acquisition. A series of surveys on students participating in the projects are conducted, and the collected data are analysed using qualitative and quantitative methods.

**Literature review**

**Global competence**

Global competence is defined as the comprehensive capability to live, communicate, and work in a multiculturally interconnected world. As such, being globally competent requires particular attitudes, skills, and knowledge (Hunter, White, & Godbey, 2006; Van Roekel, 2010; Ward, 2016). Although higher education has adopted a general consensus on the definition, there is an ongoing debate about the specific attitudes, skills, and knowledge. For example, Hunter et al. (2006) maintained that language learning was not necessarily at the core of global competence, while Van Roekel (2010) presented proficiency in foreign languages as a key requirement. In addition, Morais and Ogden (2011) emphasized the intercultural aspects, while Hunter et al. (2006) claimed that focusing on the intercultural aspects could raise the argument that intercultural competence represents only a part of global competence.

Although there is less concurrence about the specific requirements of global competence, we also found communalities in the current body of research on global competence, including 1) open attitudes towards difference and diversity in the multicultural and interconnected world, 2) intercultural communication skills, and 3) knowledge of other societies, cultures, and people. Therefore, this study postulated these three requirements as
Another issue pertaining to the concept and practice of global competence education lies in the fact that there is no well-established measurement of global competence grounded in sound research. Although Hunter et al. (2006) and Morais and Orgden (2011) have been striving to develop a multidimensional scale for global competence, the measurements are not widely accepted in global education literature. Therefore, it remains unclear what students should take away from their global education, and how to assess their level of global competence. To address this limitation, this study adopts/develops a measurement relevant to each sub-dimension of global competence based on existing literature in order to measure the global competence associated with the projects.

**Antecedents of global competence acquisition**

Global competence can be shaped and enhanced by the environments and experiences to which an individual has been exposed (Hannerz, 1990). Fisher’s (1988) intercultural communication theory confirms the impact of environments and experiences on intercultural competence. It asserts that when people are exposed to different cultures, they recognize and learn differences and diversity, which helps to build their communication skills and their ability to engage in cross-cultural encounters.

In globalization literature, exposure to mass media and mass migration have been identified as two significant environmental factors that transform the nature of society and individuals’ lifestyles and ways of thinking in the global economy (Appadurai, 1990) and that influence consumers’ attitudes towards global consumption (Alden et al., 2006). Cleveland and Laroche (2007) also emphasized the impact of media exposure on the convergence of people’s lifestyles. Due to the increasing degree of global media exposure, most international consumers are now able to listen to the same music, wear the same clothes, drive the same
cars, etc. Furthermore, the widespread adoption of one privileged culture increases global citizens’ desire to find out more about other cultures, eventually broadening their cultural understanding.

According to Appadurai (1990), mass migration involves travelling in order to discover foreign cultures and having social contact with foreigners, suggesting direct and interpersonal exposure to foreign people and cultures. Cleverland and Laroche (2007) pointed out that mass migration enhances individuals’ global competence, as people who move around the world tend to immerse themselves in other cultures and develop the skills needed to do so. Moreover, they stated that individuals mostly develop cultural understandings and interpretations through direct exposure, such as via face-to-face relationships (Cleveland & Laroche, 2007). Based on literature, this study posits the exposure to global mass media and mass migration as potential antecedents of college students’ global competence acquisition.

The study also considers the educational experience related to globalization as a potential antecedent of global competence acquisition. Global education aims to prepare students to live in a progressively interconnected world by promoting critical engagement with a wide range of information and by increasing their knowledge of global issues, dynamics, and systems (Mansilla & Jackson, 2011). Existing studies (e.g., Wang, 2011; Ward, 2016) have demonstrated that college students’ understanding of other cultures, cultural behaviours, and multiculturalism increased after they took part in cross-cultural projects. Therefore, we expect global educational experience to contribute to students’ global competence acquisition.

**Cross-/intercultural online projects**

Cross/intercultural online education offers the advantage of allowing students to increase their interaction and discovery skills, thereby promoting the acquisition of new knowledge of
Cultural difference is another obstacle to the establishment of online collaboration classes. Students from different cultures exhibit different patterns in their online interactions with teachers and peers. Chen, Hsu, & Caropreso (2006) found that students of different ethnic backgrounds had different learning styles: Asian students tended to ask fewer questions and were less likely to use trial-and-error or experimental methods in their work processes. Wang (2011) suggested that in order to better prepare for cross/intercultural online projects, students should be aware of different communication styles across cultures, and should become more competent at understanding those differences and figuring out how to cope with them. This may lead them to respect these differences better, in turn eliciting better performances in the projects.

**Methods**

In spring 2014, a series of cross/intercultural projects related to the global fashion industry were developed to enhance the global experience of students on apparel courses at U.S./Korean universities. The projects comprised three main assignments and presentations. In the first step, the students uploaded self-introductory videos onto YouTube, and were required to watch the self-introductory videos to learn about other students. Next, students in each course formed groups, and each group selected an apparel brand from a given global cultural practices and the ability to apply this knowledge under real-time communication and collaboration constraints (Mughal, 2012; Wang, 2011). Although positive outcomes from these advantages have been reported for a number of practices, cross/intercultural online projects are not easy to implement, as they require students to handle remote collaborations that are cross-culturally and linguistically challenging due to language barriers (Davis, Cho, & Hagenson, 2005).
brand list. The student groups in each university conducted a consumer analysis in the second step, and a competitive analysis focusing on the brands of their choice in the third step. The students’ market research was conducted in their respective local market only (e.g., Korean consumers for Korean students). Afterwards, the groups from both universities gave presentations through an online meeting system, followed by discussions. English was used as the language for communication and classwork, including the guidelines and rubrics for assignments, presentations, and discussions.

Data were collected from the classes at two different time points: 1) a pre-test survey was conducted prior to the projects to measure the students’ global competence, global competence antecedents (i.e., their exposure to global mass media, mass migration, and educational experiences related to globalization), and project expectations, and 2) a second (post-test) survey was conducted following the two cross/intercultural presentations, one month after the pre-test survey. In order to evaluate the impact of the projects, the second survey included the same questions as the first survey for measurement of global competence, plus open-ended questions for evaluation of the projects. Both survey questionnaires were developed in English, and the same questionnaires were distributed to the students in the two classes at both universities in the class hours following the second presentation. After excluding the respondents who had only participated in the pre/post survey, the data from 51 students (27 U.S. students/24 Korean students) were analysed. The mean ages of the participants were 23.04 (U.S. students) and 23.41 (Korean students), respectively. The majority of the participants were female (100% of U.S. students and 75% of Korean students).

Global competence was measured based on three sub-dimensions. The first dimension, an open attitude towards differences, was measured with eight cosmopolitanism
items developed by Cleveland and Laroche (2007). An example item was, ‘I enjoy being with people from other countries to learn about their unique views and approaches.’ The second dimension (intercultural communication skills) was measured with three items adapted from Larke (1990). An example was, ‘I am uncomfortable with people who cannot speak and understand my native language.’ For the third dimension, five items were developed by the authors to measure the knowledge of the other country’s basic information, culture, university student life, fashion business/market, and consumers.

The measurement items for the exposure to global mass media and global migration were borrowed from Alden et al.’s (2006) scales, and were revised for this study. An example of the five items for exposure to global mass media was, ‘How often do you watch domestic TV programs containing foreign information?’ Six items were used to measure the exposure to global migration, including ‘I enjoy meeting people from other countries.’ The last measurement category comprised items related to educational experiences relevant to globalization. Four items were developed by the authors, including ‘How often are you exposed to class lectures containing information about peoples, cultures, or products from other countries?’ All the items were measured on a 5-point Likert scale (from 1 = nothing to 5 = very much, 1 = strongly disagree to 5 = strongly agree, or 1 = never to 5 = always). Several open-ended questions were also included to collect opinions about the projects, e.g., ‘What was your most/least favourite part/activity of the entire project? Why?’, and ‘What are the main challenges to making this project successful?’

**Results**

SPSS 22.0 and SAS 9 were used to analyse the relationships considered in the first and second objectives. For the analyses, we first checked the reliability and validity of the
measurements. The Cronbach’s alphas ranged between 0.76 and 0.94 for all the measurements in both the pre- and post-test. For validity confirmation, a confirmatory factor analysis was conducted for each measurement. Following Hair, Anderson, Tatham, and Black (1998), three of the mass migration items were deleted, as their factor loadings were below 0.6. After deletion, the construct reliability (CR) values ranged between 0.77 and 0.94, and the average variance extracted (AVE) values ranged between 0.53 and 0.77. As these values exceeded the recommended level (Hair et al., 1998), the validity of the measurements was confirmed. The qualitative data obtained from the open-ended questions were analysed by identifying the general themes in each student’s responses using the coding process suggested by Creswell (2014). A qualitative data analysis was used to answer the third objective.

**Antecedents of global competence acquisition**

We ran multiple regression models to identify the antecedents of students’ global competence acquisition (Table 1). The exposure to global mass migration was the only significant antecedent for the open attitude towards difference and diversity ($p<0.01$). This result was consistent with previous findings that exposure to mass migration increased individuals’ positive attitude towards globalization, promoting a mindset that facilitated immersion in foreign cultures (e.g., Alden at al. 2006; Cleveland & Laroche, 2007). The exposure to global mass media had a negative effect on the intercultural communication skills ($p<0.05$), but a positive effect on the knowledge of other countries, people, and cultures ($p<0.01$). These mixed results were partially consistent with previous research (e.g., Alden et al., 2006), suggesting that global mass media was the strongest medium for the delivery of information promoting convergent lifestyles and consumption. Interestingly, the educational experience did not significantly affect the global competence acquisition.

*Insert Table 1 here*
Effect of cross- and inter-cultural projects

A series of t-tests were conducted on the pre-test data to evaluate the level of global competence before the cross/intercultural projects. There was no difference in open attitude between the groups; both groups had an average of around 4.18, implying that they evaluated themselves as highly open-minded. Regarding intercultural communication skills, the U.S. students showed a significantly higher average (3.47) than the Korean students (2.26) \((p<0.01)\). This may be explained by the fact that Korean students might have felt less comfortable communicating with foreigners as the projects were conducted in English. For the knowledge construct, U.S. students showed a significantly lower average (1.96) than the Korean students (3.28) \((p<0.01)\). This may be because American culture is well-known and popular in Korea, while the opposite is not true.

Table 2 shows the effects of the cross/intercultural online projects on changes in the students’ global competence levels. The results revealed that after implementation of the projects, U.S. students’ intercultural communication skills and knowledge of Korea had significantly increased \((p<0.1\) and \(p<0.01\), respectively), but no difference was found in their open attitude. Meanwhile, the Korean students’ open attitude and knowledge \((p<0.1)\) had improved. However, they showed no improvement in intercultural communication skills, possibly because the communication with others in a second language could not improve in a semester, suggesting that language proficiency may be a necessary element of global competence. This result contradicted Hunter’s (2006) assertion. Overall, the effects of the projects echoed previous research on cross-and inter-cultural projects, evidencing a positive association with students’ global competence (e.g., Mughal, 2012).

Insert Table 2 here
We further sought to identify which antecedents of global competence acquisition affected the projects (Table 3). The exposure to mass migration had a negative effect on the difference in open attitude ($p<0.1$), meaning that improvement was smaller in students who had a high level of exposure to mass migration before participating in the projects than in those with low exposure to mass migration prior to participation.

The exposure to global mass media had a negative effect on the difference in intercultural communication skills ($p<0.1$), meaning that the more students were exposed to global mass media before the projects, the less their intercultural communication skills were likely to improve. By contrast, the exposure to mass migration had a positive effect ($p<0.05$). Students with a high level of mass migration exposure before the projects were more likely to improve their intercultural communication skills during the projects than those with a low level of mass migration exposure.

Last, the mass media had a negative effect on the difference in knowledge ($p<0.05$). This result indicated that if students frequently consumed mass media containing information about other cultures and people, they already had knowledge of them, and therefore had less room for improvement. Conversely, this meant that the projects were most useful for students who did not use mass media to obtain information about other cultures and people. Notably, the educational experience did not significantly affect the differences in global competence.

*Insert Table 3 here*

**Evaluation of cross-cultural projects**

Overall, the students from both universities seemed satisfied with the projects. In particular, learning about different perspectives on the same fashion brands was considered an eye-opening experience.
‘Learning about all those different Korean brands and companies was really interesting.’ (U.S. case 5, 11, 12)

‘My favourite part was that we could communicate directly with students from the US while working on the same project, and we could compare each other’s points of view...something that we couldn’t achieve on our own.’ (Korean case 18)

Language barriers and technology were identified as the key challenges, with a difference between the students in the two countries: while Korean students evaluated the language barrier as the main challenge, U.S. students emphasized technological issues that affected online communication. Korea was ranked 27th out of 70 countries in the world for English proficiency, which places it relatively higher than other Asian countries (Education First, 2015). In addition, the Korean university at which the projects were conducted was one of the top schools in Korea, and all students knew the course ran in English. Nevertheless, the students felt a high level of challenge with communication in English.

‘I really want to speak English well and want to be familiar with assignments in foreign languages.’ (Korean case 25)

‘To interview in Korean and translate it into English, and search for information on Korean brands in Korean and translate it into English... That was hard.’ (Korean case, 22)

The 14-hour time difference between the two countries was also identified as a challenge to effective project management, as the class meeting hours needed to be rescheduled in the late evening for the online presentations and discussions. These findings paralleled Davis et al.’s (2011), which also identified language and time differences as the main challenges of cross- and inter-cultural online projects. The students’ suggestions for future projects revolved mainly around active collaboration and interaction. Students in the two countries did not have opportunities to work together and build interpersonal relationships. They suggested having more frequent individual communication with one
another before and during class meetings, using private communication channels such as email and online chatting applications.

‘US and Korean students should work together as a group rather than splitting parts of the project and working individually.’ (US case 4)

‘Not just for the presentation but also during the investigation, talking and sharing ideas would be fun.’ (Korean case 9)

Conclusion and discussion

The major findings of this study can be summarized as follows. First, the projects, as an educational tool, generally increased the global competence of the participating students but the magnitude of the impact varied across the sub-dimensions and countries. The level of knowledge of the other country, culture, and business-related information was significantly increased in both the U.S. and Korean students by the semester-long projects. However, the level of intercultural communication skills was significantly increased only in the U.S. students and the level of open attitude towards other cultures and people was significantly increased only in the Korean student group by the projects. More interestingly, the students’ previous educational experience related to globalization did not have any significant influence on formation of global competence in all sub-dimensions. The inconsistent effects of the educational endeavours including the semester-long projects and previous educational experience evidenced by this research may suggest that more specific goal-oriented projects directly linked to students’ majors and interests (e.g., comparison of similarities and differences in the U.S. consumers and Korean consumers toward global brands) may be more effective for the enhancement of their global competence.

Second, global mass media was the strongest influence on students’ global competence acquisition and on the effects of the projects. It was positively associated with specific knowledge of other countries. However,

Note: More detailed measurement/questions and outcomes of analyses/answers are available on request.
this increased knowledge seemed to cause students to recognize the differences with other cultures and people and to decrease their comfort level in communicating with people who were not fluent in their native language and/or who had different values. Hunter et al. (2006) have explained this process as a self-reflective mechanism: when individuals encounter foreign cultures/people, they come to recognize their cultural barriers and boundaries first before stepping into others’ culture, and then seek to clarify their own cultural meanings and others’. Hunter et al. (2006) noted that this process is the most critical step before global competence acquisition. Previous exposure to global mass media may put students in this position, which should be regarded as a prior stage of global competence acquisition in future research. In addition, the more the exposure to global mass media, the more the effects of the projects weakened.

These mixed effects of exposure to the global mass media are important findings, as college students will increasingly access the global mass media through technology. The findings also indicate that educators need to design cross/intercultural projects to lessen students’ discomfort levels with working with foreign students to enhance global education. A possible solution may be to give the students more opportunities to develop personal relationships with their peers in other countries prior to the start of the projects, using social media to get to know each other personally.

Third, the exposure to mass migration was identified as a positive influence, particularly on students’ open attitude towards differences and diversity and the improvement of intercultural communication skills. The findings imply that exposure to mass migration could have a sequential effect: it first makes people more open to other cultures and people, and their intercultural communication skills are then increased by educational inputs such as cross/intercultural projects.
Finally, the language barrier was the most cited challenge, particularly by Korean students who used English. Physical environmental barriers including technology issues affected clear online communication and time differences caused the rearrangement of class hours in both countries. To mitigate the impacts of these barriers, we need to provide information about cultural differences, including the language, ways to communicate, and other possible challenges before the start of the project in order for students to expect these differences and to be open to them, as Wang (2011) suggested.

**Implications and limitations**

This study makes contributions to the existing literature on cross-cultural education and educators. First, it conducted comprehensive analyses and provided empirical evidence to enrich our understanding of college students’ global competence. The findings will contribute to the body of global research and the improvement of future cross/intercultural online projects. Second, it addressed two limitations in existing literature: weak consensus about the specific requirements for students to be globally competent, and the lack of well-established measurements. The study therefore makes a sound addition to the discussion on current limitations.

However, this study also presents several limitations. First, as an attempt at cross/intercultural online projects, it focused on the local performance of the projects and did not provide students with a wider range of tasks, such as active collaboration with students in another country. Hence, future research should consider projects with various levels of collaboration and interaction to enhance students’ global competence and evaluate the projects from different angles. The second limitation is sample size. As the study used a small sample, caution should be taken in generalizing findings. Finally, the projects investigated in
this research were only designed for students enrolled in apparel/textile marketing courses. In the future, cross-disciplinary global projects such as global apparel production and retailing projects with Chinese and U.S. students should be developed to expand the research on cross/intercultural educational efforts.
References


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Table 1. Antecedents of students’ global competence acquisition

<table>
<thead>
<tr>
<th>Sub-dimension of global competence</th>
<th>Model</th>
<th>B</th>
<th>Beta</th>
<th>R</th>
<th>F</th>
<th>R²</th>
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<td>5.61***</td>
<td>0.26</td>
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* p<0.1, ** p<0.05, *** p<0.01
Table 2. Effects of the cross-and inter-cultural online projects on students’ global competence

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<tr>
<th>Sub-dimension of global competence</th>
<th>U.S. students (N=27)</th>
<th>Korean students (N=24)</th>
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</table>

* p<0.1, ** p<0.05, *** p<0.01
Table 3. Determinants of the effects of the cross-and inter-cultural online projects on changes

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<th>Sub-dimension of global competence</th>
<th>Model</th>
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<th>Beta</th>
<th>R</th>
<th>F</th>
<th>R²</th>
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<td>-0.29*</td>
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* p<0.1, ** p<0.05, *** p<0.01