Developing cross-cultural awareness through foreign immersion programs

Implications of university study abroad research for global competency development

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Abstract

Purpose – The purpose of this paper is to investigate the efficacy of foreign immersion programs in terms of increasing cross-cultural awareness among university students in business, accounting, human resources and agriculture. The authors extrapolate from their population to the practice of developing business professionals on international assignments.

Design/methodology/approach – This paper presents findings of a four-year, government-sponsored university exchange program involving 40 professional management and agriculture science students from four US and Brazilian top research universities who participated in a semester-long study abroad experience. Pre-departure and post-exchange data were collected using the well-established Intercultural Development Inventory (IDI). In addition, the authors collected academic performance data and verbal mid- and end-project personal assessments. Two of the authors of this paper served as project directors, the third as evaluation specialist.

Findings – Despite intensive pre-departure preparation, in-country support and cultural immersion, the research subjects failed to attain significant and consistently higher levels of intercultural awareness. Students tended to overestimate their own level of cross-cultural competence both before and after the program. While students tended to perform well academically and voiced high levels of satisfaction with their own overseas stay, objective measures of cross-cultural awareness did not mirror these outcomes.

Research limitations/implications – Multiple measures of cross-cultural competence exist, and it is possible that the development in areas other than those measured by the IDI did take place. It is also sensible to assume that cognitive development might take longer and was not captured by the post-test right after return.

Practical implications – The paper suggests that cross-cultural development requires carefully designed interventions, feedback and mentoring/coaching. Simply sending individuals on overseas assignments, no matter how well prepared and supported by the institution, does not guarantee the development of multi-cultural attitudes and cognitive frames of mind.

Social Implications – The development of cross-cultural competence has been described as a central concern for universities and workplaces alike. The burgeoning research literature on cross-cultural development reflects not only the importance of the topic but also the struggle to find effective

pedagogical and andragogical approaches to fostering such development in university students, expatriate managers, working professionals and members of the workforce in general.

Originality/value – The paper presents evaluation findings of a carefully designed and well-supported exchange program over a period of four years and involving three cohorts of students. These students are at the cusp of moving into the workplace, where many will assume professional and leadership positions in international settings. Given the high failure rate of international development and placement and the increasing global interconnectedness of academic and business organizations, the paper suggests the need for carefully designed and well-supported overseas programs to maximize cross-cultural development.

Keywords Cross-cultural development, Expatriate development, Foreign immersion programs, Intercultural development inventory, Study abroad programs, USA – Brazil

Paper type Case study

Introduction

The development of cross-cultural competence is being seen as a central concern for universities and workplaces alike. In a globalized economy, the job responsibilities of university graduates in fields like business, engineering, agriculture and education are likely to require the ability to form effective working relationships with individuals, groups and institutions from other cultural backgrounds. For working adults, the quality of interaction with colleagues, customers, suppliers and stakeholders from different cultures often determines the success or failure of projects, initiatives, contracts and other business interactions. Intercultural encounters, once the rare exception in organizational settings, have become commonplace not only among professional populations, such as researchers and engineers, but also among those working in customer service, supply chain management, product development and other functions. As Holmes and O'Neill (2012, p. 702) observed: "As people become citizens of the world for the purpose of work, education, and business, they are required to span boundaries of language, ethnicity, and nationality".

The burgeoning research literature on cross-cultural development not only reflects the importance of the topic but also emphasizes the struggle to find effective approaches to foster such development in university students, expatriate managers, working professionals and members of the workforce in general. Research indicates that on average, employees receive little more than a cursory introduction to a host culture; a majority of cross-cultural encounters in organizational settings, as a consequence, are fraught with difficulties in adjusting and establishing effective communication patterns (Ang and Van Dyne, 2008). Eisenberg and colleagues investigated the effectiveness of cross-cultural management courses of some 300 business students and concluded that classroom training is more effective in fostering metacognitive and cognitive cross-cultural competence than it is in fostering motivational and behavioral competence (Eisenberg *et al.*, 2013). Osman-Gani and Rockstuhl (2009) pointed to the importance of cross-cultural training for expatriate managers in multinational and international organizations. The failure to adjust and function effectively in the host culture, they note, carries high personal and career-related costs, repatriation expenses and can lead to the delay or even termination of critical business initiatives and strategic projects. Chua (2013, p. 1573) investigated how the effects of beliefs about ideas from different cultures affected individual performance in three studies and found that "ambient cultural disharmony decreased individual effectiveness and creativity".

In this paper, we present the results of a project aimed at the intercultural development of professional students in the fields of management and sustainable agriculture, and we draw implications for the training of expatriate managers in business organizations. The program took place within the structure of the study abroad program at each university, which provided a mandatory set of pre-departure learning and support activities. Participants were required to have a minimum of four semesters of language training in Portuguese and English. They received multi-day pre-departure orientations and were supported by peers, faculty advisors and the international education offices in the host countries. Formal mid-semester and end-of-program reports were required and submitted to the program directors. The Intercultural Development Inventory (IDI) was administered to all students within three weeks before departure and again within four weeks after return to their university. All 41 students completed their abroad semester and 2 students even extended their stay for an additional term. Of all, 35 students completed both the pre- and post-IDI surveys: 16 female, 19 male, 19 from Brazil and 16 from the USA. The program was offered between 2010 and 2012. The analyses presented here is a comprehensive comparison of the group's results at the end of the study in which all students' pre-/post-survey data are analyzed for the group as a whole (Cohorts I, II and III). Because of the relatively small cohort size, results by cohort, university or country were not calculated. Study abroad programs of this type tend to be small, and the participation rates in this program were within the range of similar semester-long programs to other destinations. Additionally, because of the size of the study and the nature of the instrumentation, individual analysis is also presented.

Our findings contribute to and support existing research that posits that exposure alone is not sufficient to affect intercultural competence at cognitive, metacognitive, motivational and behavioral levels (Eisenberg *et al.*, 2013; Vande Berg *et al.*, 2012). Despite extensive educational and institutional support structures and processes, the immersive nature of the experience and overall highly positive subjective assessments, intercultural development, as measured by the IDI, fell short of the expectation of the researchers. Additionally, this study involved students in HRD studies, which previously was not available, and although not equivalent to studying HRD professionals in expatriate assignments, it does present a focus on HRD issues not present in other study abroad programs.

While of interest in the context of higher education, the findings of this study suggest the need for intensive developmental support for managers and professionals in intercultural settings. Business populations receive, on average, far less support than our student populations, and their cultural adjustment and competence, arguably, carries even greater importance in terms of career and organizational expectations. Extrapolating from our student population to cross-cultural managers, professionals and other employees, we point to the important task of ongoing, supported developmental activities to enable business populations to effectively engage in intercultural encounters and negotiate cross-cultural settings.

In the following sections, we review extant literature, define terms related to cross-cultural development, describe the methods used in this multi-year study exchange program and report the results from both quantitative and qualitative data. We conclude with insights and recommendations for intercultural competency development and applications to other contexts.

Review of literature, instrumentation and hypotheses

Given the dramatic increase in the importance assigned to the need to assess and understand cultural differences in people in the context of rapidly growing levels of economic interconnectedness and mutual dependence across countries, a voluminous literature has developed on the topic of cross-cultural competence and related concepts, such as intercultural competence, cultural intelligence and intercultural sensitivity (Budworth and Degama, 2012; Engle and Crowne, 2014; MacNab *et al.*, 2012). Although not synonymous, these terms are intricately connected. Earley and Ang (2003, p. 103), for example, define cultural intelligence ("CQ", alluding to the intelligence quotient, IQ) as "a level of consciousness of and body of experience in diversity issues in the USA workplace (helping to) produce a more diverse workforce over the years". They propose four factors, namely, metacognitive, cognitive, motivational and behavioral, as essential aspects of CQ. Thomas (2006, p. 78) proposed a somewhat different definition of this concept, stating that it is "meant to reflect the capability to deal effectively with people from different cultural backgrounds". Thomas emphasized the attentive and reflective aspects of CQ and discussed three components:

(1) knowledge and skills;
(2) mindfulness; and
(3) behavior.

Intercultural sensitivity, as defined by Bennett (1993), is a function of developmental stages based on relativistic realities of the individual and the nature of the current experience. Bennett (1993) posits in his developmental model of intercultural sensitivity (DMIS) that there is a progression related to exposure, one's intercultural orientation (mindset) and developmental support through the process. Intercultural competence, as outlined by Hammer (2009), draws on CQ and intercultural sensitivity to shift cultural perspective and adapt behavior to cultural commonality and difference to successfully accomplish cross-cultural goals. Thus, though closely tied and frequently used interchangeably, this study focused on assessing changes in students' intercultural competence as outlined by Hammer and measured by the IDI.

Numerous empirical studies have demonstrated that CQ was instrumental in promoting individuals' cultural adjustment during international assignments (Ang *et al.*, 2007; Budworth and DeGama, 2012; Groves and Feyerherm, 2011), ability to make decisions when working in intercultural contexts (Ang *et al.*, 2007; Imai and Gelfand, 2010) and overall performance in expatriate and international work (Groves and Feyerherm, 2011; Wu and Ang, 2011).

Tay *et al.* (2008) examined the influence of short-term business visits on the development of CQ and suggested that individual factors, for example, the need for control, and job-related factors, for example, multi-cultural experiences, serve as potential antecedents to travelers' CQ. The authors report that CQ alleviates burnout and promotes the perception of control over their work schedule. Elenkov and Manev (2009) tested the relationship between leadership effectiveness and cultural intelligence with data from 153 senior expatriate managers and 695 subordinates from companies in all 27 countries of the European Union. They found that CQ played a moderating role in the relationship of visionary–transformational leadership and the rate of organizational innovation. Heightened CQ was found to

magnify the positive effect of expatriate leadership on innovation. Senior expatriate managers with higher CQ were more likely to motivate, inspire and direct followers and more effective in overcoming organizational obstacles and promoting organizational innovation.

Engle and Crowne (2014) conducted an experimental study with undergraduate and graduate students to examine the impact of a short-term international experience on the development of CQ, as measured by the CQ instrument, developed by Ang and Earley. The study found a significant increase in all four elements of the CQ model in experimental groups of students who had a chance to participate in short-term (7 to 12 days) visits to different countries or cultural environments. In control groups (students who did not travel internationally during the period of the study), changes in CQ were not observed.

Tuleja (2014) conducted a study of a group of MBA students in the USA, utilizing Thomas's model of CQ, specifically focusing on the mindfulness component of the model. The students' level of mindfulness was assessed before and after pre-departure cross-cultural training and after a cross-cultural immersion trip to China. The assessment was based on the analysis of students' reflection papers. The study concluded that increased mindfulness was related to increased cultural sensitivity (Tuleja, 2014).

Our study adopted the IDI to measure intercultural competence development because it is the leading assessment of intercultural competence and has been extensively tested for validity and reliability (Hammer, 2009, 2011). The IDI profile presents information about how individuals make sense of and respond to cultural differences and commonalities. The IDI measures intercultural competence along a continuum of intercultural development using an invariant stage model of development. Higher stages providing more adequate and comprehensive approaches to acting and reasoning in intercultural encounters, particularly in conflict or emergency situations where quick responses are required. Individuals move through the stages one-by-one, and stage reversal is possible, though not as common. The five primary stages, or intercultural orientations or worldviews, measured by the IDI are denial, polarization (defense/reversal), minimization, acceptance and adaptation. Individuals move along a continuum in their development from a mono-cultural worldview at one end to a multi-cultural worldview at the other. Mono-cultural worldviews are indicative of a less complex interpretation of similarities and differences, while multi-cultural worldviews are more complex interpretations and allow for multiple perspectives and adaptive behaviors to be used. Minimization, which is in the center of the continuum, is a transitional orientation, with early minimization more mono-cultural in perspective and late minimization being more multi-cultural (Lokkesmoe, 2008).

In addition to the five primary orientations toward cultural differences measured by the IDI, distinctions are made between the orientations when a score falls close enough to the next orientation to warrant notice. Typically, when a score falls within a point or two of the next orientation score, the person's behavior is more consistent with the next orientation than with the current orientation. In this case, the developmental orientation (DO) will be designated as being in the cusp of the next orientation. For example, DO scores that are at the end of the range for minimization would be listed as being in the cusp of acceptance.

The IDI profile captures the following information:

- *Perceived orientation (PO)* reflects where an individual places him or herself along the intercultural development continuum. The PO can be denial, polarization (defense/reversal), minimization, acceptance or adaptation.

- *Developmental orientation (DO)* indicates the individual's primary orientation toward cultural differences and commonalities along the continuum. The DO is the perspective one most likely uses in those instances where cultural differences and commonalities need to be bridged, in particular in situations that are stressful, conflict-laden or complex. The DO can be denial, polarization (defense/reversal), minimization, acceptance or adaptation.

- *Orientation gap (OG)* is the difference along the continuum between one's PO and DO. A gap score of seven points or higher indicates a meaningful difference between the PO and the assessed DO. The larger the gap, the more likely a person may be surprised by the discrepancy between the PO score and DO score.

- *Trailing orientations (TOs)* are those orientations that are in the back of the DO on the intercultural continuum that are not resolved. When an earlier orientation is not resolved, this trailing perspective may be used to make sense of cultural differences at particular times, around certain topics or in specific situations. TOs, when they arise, tend to pull an individual back from the DO for dealing with cultural differences and commonalities.

- *Leading orientations (LOs)* are those orientations that are immediately in front of the DO. A LO is the next step to take in further development of intercultural competence. For example, if one's DO is minimization, then the LOs would be acceptance and adaptation.

Based on the assumption that the immersive nature of the semester-long stay of six months or more in the host countries would develop student's cross-cultural competence, we expected a move toward multi-culturalism among our participants. Thus, two hypotheses were formulated:

- *H1*. Participants in the immersion study abroad program will show a change toward a more multi-cultural perspective (as measured by the IDI) between pre- and post-administration.

- *H2*. Participants will adequately judge their own level of multi-cultural development prior to and subsequent to the immersive study-abroad experience.

Method

This study was conducted in conjunction with a student exchange program among four universities, two in the USA (University of Minnesota and University of Illinois at Urbana Champaign) and two universities in Brazil (University of Sao Paolo and University of Brasilia). The two co-authors served as project directors and had responsibility for recruitment, selection, arrangement of pre-departure orientation and overall support and guidance during the stay. The first author was engaged as an expert in program evaluation and is certified to administer, score and interpret the IDI. The data reported here were obtained as part of the required accountability process of the

project and have been submitted to the US and Brazilian funding agencies as part of a more comprehensive project evaluation report.

Selection and background of study population
The program took place within the structure of the study abroad program at each university, which provided a mandatory set of pre-departure learning and support activities. Participants consisted of 41 students from four large research universities in the USA and Brazil and ranged in age from the early 20s to mid-30s engaged with the host cultures during a semester-long immersion program sponsored by their home universities. Students were rising seniors (past year undergraduate) and beginning graduate students in business administration and sustainable agricultural research. Participation in the exchange program was voluntary but actively advertised and recommended by their home departments as a part of the preparation for careers in international business and agriculture research.

Study interventions and data collection
We evaluated the cross-cultural development of our sample through quantitative and qualitative measures and approaches. A pre-/post-survey design was adopted using the IDI (Hammer *et al.*, 2003) over a period of six months. The IDI was selected because it is the most highly validated and reliability-tested measure of intercultural competence available (Paige *et al.*, 2003). In addition, we collected verbal and written qualitative information from each participant throughout the same period.

Participants were required to have a minimum of four semesters of language training in Portuguese and English. Our sample received extensive pre-departure preparation, far more than is often the case with practicing managers. The students participated in intensive language training and testing and were well versed through pre-departure academic training in the history, geography, economics and socio-political aspects of the host countries. Participants had peer support on arrival in the host country, had periodic contacts with the program directors at their home institutions, received advice from host university faculty advisors and were able to use the support structures of the international study offices of the home and host universities.

The researchers collected quantitative and qualitative data. The quantitative analysis involved analyzing the IDI scores and comparing before the departure and after the return from study abroad experience scores. The qualitative part involved analysis of written documentations, such as mid-term and final written reports, email exchanges, term and project papers and other materials such as short online videos and multimedia presentations created by students to document their abroad experience. As suggested by Celik *et al.*, 2012, multiple aspects of program training and participation are interrelated and difficult to separate into discrete factors and that attitude and motivation plays a key role in outcomes.

To analyze the quantitative data (the pre- and post-IDI scores), group analyses were run to determine overall changes among the participants as a group as well as an analysis of each students' pre/post scores to determine the nature of the specific shifts in IDI scores. Because of the individualized nature of each students experience and the nature of the IDI itself, looking at individual changes for this group is more useful than median changes in pre/post scores. Qualitative data were analyzed to determine themes

and points of interest among the students' evaluations, reports and post- and on-program communications with team leaders.

Findings

The pre/post group analysis demonstrated little variation in IDI scores. As shown in Figures 1 and 2, there was a slight decrease in the raw scores for the group, but not enough to change the primary orientations of the group profile. The pretest PO for the group was *acceptance* (122.20) and the DO was *minimization* (95.41). The post-test PO for the group, again, was *acceptance* (122.89) and the DO was *minimization* (94.77). The shift in the group's DOs indicated a small negative change of less than one point (0.54). Such a small change is not significant, and one can say that overall, there was no change in the group's overall DO between the pre- and post-tests. Based on the group mean scores, one might conclude that there was little to no impact on the students' intercultural

Perceived Orientation
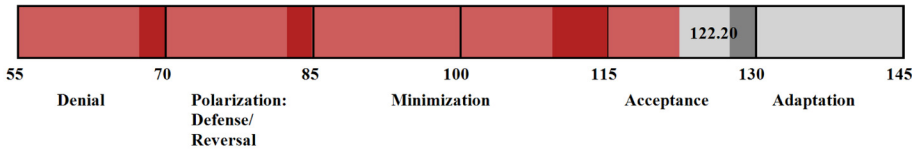
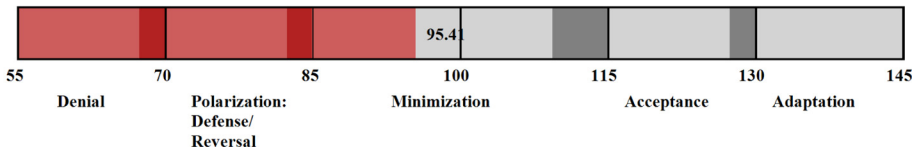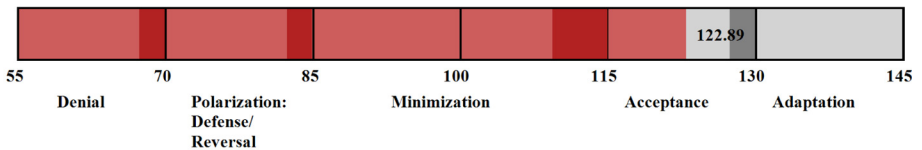### Developmental Orientation

Figure 1.
Full group
PRETEST – group
profile

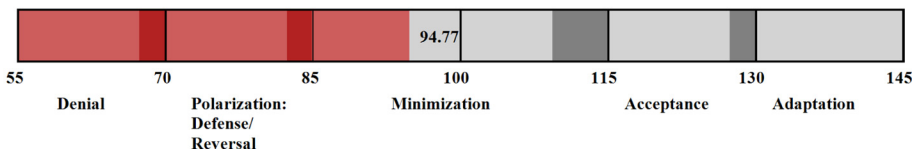### Perceived Orientation

Developmental Orientation

Figure 2.
Full group post-test –
group profile

competence as a result of their exchange experience. However, if one analyzes the individual results, then the conclusion would change.

Another way to examine the data is to compare the distribution of orientations among the pre and post results. As detailed in Table I, there is no definitive pattern in the change or the distribution of the IDI scores. This is consistent with the previous analysis in that there is little overall change in the group and both increases and decreases in IDI scores are evident.

Individual results
As noted above and in Table II, the group as a whole saw very little change in the pre-/post-IDI scores, which could indicate that the program had little impact on students' intercultural competence. At the individual level, however, a marked degree of variation became apparent. In all, 20 students saw an increase in their developmental orientation, while 15 saw a decrease (Table I). Eight students' DO increased sufficiently to reflect a change in their developmental orientation[1] (denoted as +1, +2). Seven students' DO decreased sufficiently to shift their DO to the previous orientation (denoted as −1, −2, etc.). Of the 15 students who experienced a shift in their DO, 8 shifted more than one orientation (4 increased and 4 decreased by two or more orientations). For these 15 students, the exchange experience was quite impactful and highlights the importance of looking at the changes on an individualized basis.

H1 and *H2*, predicting a change toward multi-culturalism and realistic self-assessments of the developmental stage before and after the semester abroad, were not confirmed.

Qualitative data analysis
An analysis of the qualitative data gained from mid-semester reports and an end-of-program survey added additional information about the learning outcomes as perceived by the students.

Academic and professional development. The participants stated they had grown both professionally and personally because of their participation in the program. They were able to reinforce their knowledge and skills in their fields of study and careers (such as environmental studies, linguistics, tax laws and business). For instance, one respondent said that he was able to learn about the history and current business and socio-economic environment of Brazil, whereas another said that he was able to experience and understand the vast diversity in Brazil, as well as learn about various environmental issues and the wealth of natural resources available and in peril. Another respondent said that the program enabled her to follow her "dreams" and helped prepare her for an upcoming teaching position in another country.

Culture and new perspectives. One of the most significant values of studying and living abroad was being able to travel and experience new cultures. The respondents unanimously expressed their appreciation and gratitude for being able to meet new people, make new friends, obtain new perspectives and learn about the Brazilian culture. One respondent stated that she has gained a new attitude toward international students and found a "new love for traveling and new experiences". Another participant said that he had gained a new outlook about the developing world and understood the influence that the USA has on the culture and economy of other countries.

Acquisition of language. All of the respondents stated that they have improved their language skills, albeit their proficiency levels may vary. The respondents

	Denial	Cusp of polarization	Polarization	Cusp of minimization	Minimization	Cusp of acceptance	Acceptance	Cusp of adaptation	Adaptation
# of P's	1	2	7	1	15	4	3	2	0
% pre-test	3	6	20	3	43	11	9	6	0
# of P's	3	0	6	3	16	2	4	0	1
% post-test	9	0	17	9	46	6	11	0	3
Pre-/post-change	+	−	−	+	+	−	+	−	+

Table I.
Distribution of pre- and post-test Intercultural Development Inventory scores by development orientation–full group

Part #	Pre-DO	Post-DO	Increase/ decrease in DO	Change in orientations	# of orientations shifted*
1	60.49	63.34	2.85	Denial – denial	0
2	104.81	105.81	1.00	Minimization – minimization	0
3	71.34	83.33	11.99	Polarization – cusp of minimization	1
4	75.06	105.52	30.46	Polarization – minimization	3
5	119.39	123.98	4.59	Acceptance – acceptance	0
6	129.03	132.31	3.28	Cusp of adaptation – adaptation	1
7	111.97	92.96	**−19.01**	Late minimization – early minimization	**−1**
8	111.19	110.91	**−0.28**	Minimization – minimization	0
9	95.69	84.97	**−10.72**	Minimization – cusp of minimization	−1
10	83.63	95.54	11.91	cusp of minimization – minimization	**1**
11	71.88	81.27	9.39	Polarization – polarization	0
12	113.67	94.12	**−19.55**	Cusp of acceptance – mid minimization	**−2**
13	123.87	119.79	**−4.08**	Acceptance – acceptance	0
14	103.98	100.47	**−3.51**	Minimization – minimization	0
15	111.19	123.16	11.97	Minimization – acceptance	2
16	67.67	81.27	13.6	Denial – polarization	2
17	80.35	81.64	1.29	Polarization – polarization	0
18	97.09	105.94	8.85	Minimization – minimization	0
19	128.06	122.71	**−5.35**	Acceptance – acceptance	0
20	90.69	85.07	**−5.62**	Minimization – minimization	0
21	108.59	107.35	**−1.24**	Minimization – minimization	0
22	92.97	92.25	**−0.72**	Minimization – minimization	0
23	77.73	82.39	4.66	Polarization – polarization	0
24	108.83	109.7	0.87	Minimization – minimization	0
25	115.5	99.71	**−15.79**	Late minimization – minimization	**−1**
26	93.06	87.98	**−5.08**	Minimization – minimization	0
27	95.56	71.18	**−24.38**	Minimization – polarization	**−2**
28	88.99	97.4	8.41	Minimization – minimization	0
29	86.44	65.41	**−21.03**	Minimization – denial	**−3**
30	68.42	76.38	7.96	Cusp of polarization – polarization	1
31	101.92	104.85	2.93	Minimization – minimization	0
32	99.51	62.41	**−37.1**	Minimization – denial	**−4**
33	97.11	101.77	4.66	Minimization – minimization	0
34	81.19	87.23	6.04	Polarization – minimization	2
35	72.5	76.77	4.27	Polarization – polarization	0
Mean	95.41	94.77			

Note: *In this table, the shift from the cusp to the next adjacent orientation is considered a shift of 1

Table II.
Pre- and post-test
Intercultural
Development
Inventory
developmental
orientation scores
and shift in
orientation, full
group

acknowledged that foreign language acquisition was of utmost importance to their career goals – the majority either are taking language courses or expressed their willingness to further strengthen their proficiency of the language.

Networking. A number of respondents also appreciated having the opportunity to network with other students, scholars and professionals. For example, one student said that she was able to build valuable relationships with Afro-Brazilian scholars. Another student met with and observed middle and high school math students and teachers.

Another participant said that the program helped connect him with many leaders in his field.

Cultural and social adjustments. The participants' prior experiences of traveling and living abroad played a crucial role in helping them adjust to this new environment. Whereas some participants had minimal adjustments, others found it harder to live in another country. One participant, in particular, had been to Brazil on business before and, therefore, was familiar with the cultural and social setting.

We compared individual IDI results with self-reports of the course grades, overall experience and perceived value for students' professional development. For those with a significant increase, one would expect reports of either a very positive experience or strong support and good learning during the exchange. For those with a significant decrease, one would expect to find that they faced significant challenges and did not have the support needed to process the experience into increased intercultural competence and growth. This analysis yielded tentative support for the hypothesis that those who report very positive experiences also adapted well to the host culture and, thus, increased their level of intercultural competence. Likewise, there was tentative support for the hypothesis that those who reported less satisfaction with the overall abroad experience due to difficulty adjusting to the host culture would also rate lower in pre-departure or difference scores. However, no clear picture emerged regarding which specific aspects of the abroad experience might contribute, or fail to contribute, to intercultural development, and additional investigation is needed in this regard.

Conclusion and discussion

Overall, the results of the study suggest that the exchange program participation had little effect on intercultural development scores of the group and the majority of individual students, even though self-reports of cultural learning indicated the opposite. This is consistent with recent research that posits that participating in an exchange program in and of itself is not sufficient to cause an increase in intercultural competence (Vande Berg *et al.*, 2012; Eisenberg *et al.*, 2013). However, how the experience is supported and interpreted can make a significant impact. Indeed, in our study, though the changes were minimal for most students, a few saw significant increases or decreases in their DO. One would expect to find that the experience of the exchange by these students would correlate to their score. Those with a significant increase in IDI scores would report either a very positive experience or strong support and good learning during the exchange. For those with a significant decrease, one would expect to find that they faced significant challenges and did not have the support needed to process the experience into increased intercultural competence and growth. Our findings mirror carefully designed studies in the management and cross-cultural psychology literature on expatriate development, cultural intelligence and intercultural competence (Ang and Van Dyne, 2008; Earley and Ang, 2003; Elenkov and Manev (2009); Sternberg and Grigorenko, 2006; Templer *et al.*, 2006). Overseas assignments alone rarely provide sufficient developmental support to increase intercultural competence in significant ways. While experienced managers, like our exchange students, might score high in terms of perceived orientation, an objective measurement of their development orientation can show dramatically lower levels of developmental orientation. Moreover, overseas stays can, indeed, improve developmental orientations toward a greater level of acceptance and, indeed, adaptation, but for some, a decrease

toward mono-culturalism and ethnocentrism may result. The need for specifically tailored interventions toward intercultural development is perhaps the most important outcome of our study. Such interventions need to move far beyond the standard pre-departure training and consist of in-country, real-time coaching and mentoring, focused on specific interactions and experiences and include feedback, probing and exploration of the cross-cultural dynamics of specific situations with the help of an experienced mentor. The tendency to stay confined in daily work interactions and during off-hours within the circle of colleagues from the same or highly similar cultural background may actually detract from the opportunity to experience culture-based disconfirmation of deeply held believes and values and lead to a lack of intercultural development.

Training should be customized to be developmentally appropriate. Those in denial and polarization should receive different types of training than those at minimization and acceptance. If our findings can be generalized to the level of developmental orientation of managers at large, then the discrepancy between self-assessment and actual level of intercultural sensitivity is striking. Where individuals overestimate their own competence, cognitive and cross-cultural blind spots are likely to lead to cultural misunderstandings and culturally inappropriate behaviors and interpretations that may have grave consequences in terms of business outcomes and personal effectiveness.

We believe that this study has a number of important implications for HRD research, teaching and practice. First, it contributes to a growing literature on intercultural competence development, both in academic settings and in industry. While changes in intercultural competence among study abroad students have been documented in numerous studies (Hammer *et al.*, 2003; Hammer, 2011; Paige *et al.*, 2003), to our knowledge, none of the existing studies focused on study abroad experiences of students in HRD. Second, the study results have implications for the design of university international study programs and teaching of international and cross-cultural HRD courses. Finally, while numerous MNCs are offering pre-departure training to their expatriate managers and are using foreign study trips and international experiential and action learning exercises as part of the management and international competence development programs (Litrell and Salas, 2005; Pless and Maak, 2011; Osman–Gani and Rockstuhl, 2009), these experiences are not, as a rule, accompanied by the assessment of intercultural competence and do not document changes in competence scores of participants. This is consistent with the research highlighting the difference in cognitive and metacognitive shifts (as reported by positive evaluations and perceived IDI scores) and motivational and behavioral shifts (as indicated by developmental scores on the IDI and lack of effectiveness at behavioral shifts). Therefore, based on study results and our own experience in conducting this study, we hope to be able to provide practical recommendations for HRD professionals in industry, working with expatriates and short time assignees and participants in international training experiences.

Finally, the study has several limitations that are worth noting. First, the sample size was relatively small, even though three cohorts were involved. The nature of the post-program qualitative data gathering needs to be more focused and specific with respect to intercultural interactions. Additional larger-scale research is clearly needed to confirm or modify our findings. More important, perhaps, is the timing of the post-survey. Development, as is well known, takes time, and it would be very interesting

to determine developmental scores change over time, for example, at six-month intervals after return to the home country. As many of our participants were ready to leave the university, and as funding was available only for one post-program survey, this information could not be gathered for our project. Longer-term follow-up, however, should be built into the design of future replication studies. A third limitation – and another recommendation for future research – is the fact that the study could not assess how participants might fare on the next overseas visit to the same or another cultural context. Might any lessons learned and insights gained from the six-month sojourn become salient only during another intercultural encounter? Finally, we need to point to the severe limitations to extrapolate from our population to expatriate managers. While we believe that sufficient parallels exist between the immersive experience in our study and the expatriate placement of business managers, we would be remiss to recognize the fundamental differences between these populations. As we pointed out, our student population received far greater levels of pre-departure preparation and in-country support than is reported in the expatriate management training literature for business professionals. On the other hand, expatriate managers' daily activity profile differs dramatically from that of our students, and one might speculate that business professionals on overseas assignments encounter cross-cultural situations in the course of their daily routines with host-country nationals far more intensely, leading to cognitive change more rapidly. However, most of our student participants expect careers in international business and expected that the participation in the exchange program would be advantageous for their changes to get hired and advance rapidly in their careers. Likewise, employers are known to look favorably on candidates' overseas experiences, presuming, as had been the belief of the authors of this paper, that an immersion experience will result in heightened intercultural competence. The fact that this did not ensue uniformly suggests the need to look again at ways of raising multi-cultural awareness among university graduates about to start their professional careers and to review university study abroad programs and support structures. The findings, given the limitations noted earlier, also suggest the need to further explore ways of preparing managers and business professionals for overseas appointments and to deepen the research of expatriate preparation in HRD and related fields.

Note

1. In this instance, a shift from the cusp of an orientation to the next adjacent orientation is considered a shift of one orientation. Therefore, a shift from the *cusp of polarization* to *polarization* is denoted on Table I in the # of orientations shifted column as 1.

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Further reading

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