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Ethnic-related diversity engagement differences in intercultural sensitivity among Malaysian undergraduate students

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This survey examines the association of ethnic-related diversity engagement with three interrelated dimensions of intercultural sensitivity among students in a public university with a multi-ethnic, multi-religious student population. A total of 447 respondents provided the data for analysis. Using multivariate analysis of variance (MANOVA), the findings suggest that the level of intercultural sensitivity among students is positively associated with students' level of ethnic-related diversity engagement, and that ethnic-related diversity engagement relates differentially to interaction attentiveness, interaction openness and interaction confidence dimensions of intercultural sensitivity. In summary, the findings add to the literature by clarifying the strength of the relationship of ethnic-related diversity engagement and dimensions of intercultural sensitivity. Implications of the findings are discussed.

Keywords: interethnic communication; diversity engagement; intercultural sensitivity; university students; ethnicity

Introduction

Interethnic interaction, as a form diversity engagement, is fundamental to university students' growth and development (Bowman, 2010, 2011; Brennan & Osborne, 2008; Gurin, Dey, Hurtado, & Gurin, 2002; Milem, Chang, & Antonio, 2005). This is because engagement in interethnic interaction has been associated with a number of positive educational outcomes such as positive self-concept, problem-solving skills, growth in leadership and cultural awareness/understanding, as well as a high level of civic interest (e.g., Arellano, Torres, & Valentine, 2009; Bowman, 2010; Gurin, et al., 2002). However, past related studies have not specifically examined the link between engagements in interethnic communication as a form of diversity engagement with dimensions of intercultural sensitivity. Enhancing students' intercultural sensitivity is imperative in today's increasingly democratic and pluralistic society, where there is high demand for intercultural competency. Development of students' soft skills, including intercultural sensitivity, has received much attention because it is regarded as essential for the present and future workforce. In addition, intercultural sensitivity is seen as a necessary factor in effective intercultural communication and harmonious intercultural relations (e.g. Engberg, 2007; Summers & Volet, 2008). This makes ethnic-related diversity engagement through interethnic interaction and intercultural sensitivity not only theoretically relevant but also practically pertinent.

Although past related studies have independently and separately enriched the literature on the role of diversity engagement and intercultural sensitivity, there is a lack of

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empirical evidence linking ethnic-related diversity engagement with dimensions of intercultural sensitivity in a higher education learning context. By means of multivariate analysis of variance (MANOVA), the present study is an attempt to integrate diversity engagement with intercultural sensitivity literatures in higher education learning contexts by examining the association of different levels of ethnic-related diversity engagement with dimensions of intercultural sensitivity among undergraduate students of a university with ethnically diverse student body. The unique contribution of the present analysis is in providing insight into and clarifying the relative strength of association of ethnic-related diversity engagement with dimensions of intercultural sensitivity among students of different ethnic backgrounds.

Conceptualising ethnic-related diversity engagement

Much of the previous campus-based diversity research has focused on students' diversity experiences. Brennan and Osborne (2008), Denson and Chang (2009), Hurtado (2001), Gurin et al. (2002), Muthuswamy, Levin, and Gazel (2006), for instance, examined the educational outcomes of diversity experiences. Denson and Chang (2009), Mayhew, Grunwald, and Dey (2005) and Umbach and Kuh (2006) stressed that the amount of diversity experience seems to be an important area of investigation, as indicated by past campus diversity studies.

Although previous campus diversity studies vary in the way campus diversity is defined, a review of the literature revealed that campus diversity research has mainly centred around three forms of diversity – structural diversity, classroom diversity and informal interaction diversity (Gurin et al., 2002). Structural diversity in itself and by itself does not necessarily mean that the students are experiencing diversity; structural diversity is a necessary condition for students to experience diversity, but is not sufficient on its own (Bowman, 2010). It is classroom diversity and informal interaction diversity that directly impact on students' educational experiences (e.g. Bowman, 2010; Cole & Ahmadi, 2010; Gurin, 1999; Gurin et al., 2002; Muthuswamy et al., 2006). 'Classroom diversity' refers to the diversity-related initiatives that universities make available to their students (Cole & Ahmadi, 2010; Gurin, 1999; Gurin et al., 2002; Muthuswamy et al., 2006). These include discussing and learning about diversity in courses related to cultures, ethnicity or intercultural relations, with the intention of enhancing cultural awareness and understanding of ethnicity or ethnicity-related issues. 'Informal interaction diversity' refers to the extent to which the campus provides opportunities for students to interact with one another across racial or ethnic lines (Cole & Ahmadi, 2010; Gurin, 1999; Gurin et al., 2002; Muthuswamy et al., 2006).

The term ethnic-related diversity used in this study is related to but not inclusive of diversity in ethnicity. Formal and informal interethnic interaction and socialisation with ethnically dissimilar peers occurring within and outside of the classroom is conceptualised in this study as ethnic-related diversity engagement. In other words, ethnic-related diversity engagement is construed as a communication concept elicited through contact and interaction. This perspective echoes work conducted by Milem et al. (2005) and Muthuswamy et al. (2006). They argued that if diversity is not brought about through interaction between people who are ethnically different, it is meaningless to consider or claim a campus or classroom as diverse or having structural diversity. It is also important to note that contact and interaction across ethnic groups often does not occur naturally, as pointed by Avery and Thomas (2004). Therefore, interaction across ethnic lines must not be left merely to chance. Instead, it must be structured, regular and ongoing in order for it to be meaningful.

Conceptualising intercultural sensitivity

Intercultural sensitivity is generally viewed as a multi-dimensional construct. Past studies on intercultural sensitivity used different theoretical perspectives in conceptualising intercultural sensitivity. Bennett (1986, 1993), for instance, defined intercultural sensitivity as a development process in which one is able to transform oneself affectively, cognitively and behaviourally, moving through ethno-centric stages to reach ethno-relative stages. Bennett's developmental model of intercultural sensitivity provides the theoretical framework for understanding and assessing intercultural sensitivity within the framework of cross-cultural adjustment and adaptation. Chen and Starosta (1997, 2000) provide a conceptualisation of intercultural sensitivity that is distinct from but related to the concepts of competence and effectiveness, to offset shortcomings or confusion in the conceptualisation of the concept of intercultural sensitivity, and accordingly offer a theoretical model and instrument to measure the construct of intercultural communication sensitivity.

Chen and Starosta (1997, 2000) defined intercultural sensitivity as an individual's ability to develop a positive emotion toward understanding and appreciating cultural differences that promotes appropriate and effective behaviour in intercultural communication. Naturally, Chen and Starosta's (2000) conception of intercultural sensitivity seems relevant in Malaysia and fit into the present study because the focus is on interaction among people who are ethnically different but of same nationality. The intent of the present study is to measure intercultural sensitivity in general without identifying development stages of intercultural sensitivity. Unlike Bennett's developmental model of intercultural sensitivity scale, which is applied in cross-cultural adjustment and adaptation, Chen and Starosta's intercultural sensitivity scale measures intercultural sensitivity in general and is therefore more appropriate in the context of the present study.

In addition, intercultural sensitivity is highly valued in Malaysia because Malaysian society tends to be characterised as a collectivistic society (Hofstede, 2003). Collectivistic Malaysians identify the self as interdependent or dependent on the perception of others (Abdullah, 2001; Storz, 1999), and accordingly, it is natural to expect that social norms such as respect, harmony, reciprocity and mutuality in relationships and interaction are greatly emphasised in social relations.

Chen and Starosta's scale has been employed in a number of studies, such as Peng, Rangsipaht, and Thaipakdee (2005), Peng (2006), Dong, Day, and Collaco (2008), Fritz, Mollenberg, and Chen (2002), Fritz, Graf, Hentze, Mollenberg, and Chen (2005) and Tamam (2010). In a recently published article using the same data-set as the present analysis (Tamam, 2010), Chen and Starosta's scale was found applicable in the Malaysian context but with a modification to the factor structure of the scale. The resulting 20-item intercultural sensitivity scale was found satisfactory and reliable with the 20 items clustering into three interrelated dimensions – interaction attentiveness, interaction openness and interaction confidence (a detailed discussion on the results can be found in Tamam [2010]).

Linking ethnic-related diversity experiences to intercultural sensitivity

As the need and opportunities for contact and interaction with ethnically dissimilar others in university campuses increase, intercultural sensitivity as an aspect of social and communication ability has assumed a greater role. The literature on the benefits associated with students' diversity experiences generally documents a positive relationship between students' diversity experiences and elements of cognitive growth such as critical thinking,

problem solving and active thinking (e.g. Bowman, 2010). The theoretical explanation for the influence of diversity experiences on cognitive growth is that a culturally diverse learning environment provides the type of complex social structures that stimulate the development of active thinking processes (Denson & Chang, 2009; Gurin et al., 2002; Gurin & Nagda, 2006, Hurtado, 2001; Umbach & Kuh, 2006). In addition, the presence of ethnically dissimilar peers in the learning environment can improve mutual understanding by challenging students to refine their thinking by engaging in communication processes that involve exchanges of knowledge about different people and their cultures. These then would result in students gradually learning to challenge stereotypes prevalent in their environment (Engberg, 2007; Muthuswamy et al., 2006).

Previous contact hypothesis studies generally support the idea that intergroup contact and interaction – which satisfies Allport's conditions for positive intergroup contact – leads to a reduction in prejudice and greater intercultural understanding (Dovidio, Gaertner, & Kawakami, 2003; Pettigrew & Tropp, 2006). Cole and Ahmadi (2010) found that students involved in diversity-related activities benefited from these activities through increased openness to and a better understanding of diversity. Brunner (2006), similarly, found that when students are exposed to different ideas, views and cultures, they gain a greater understanding of other cultures. Muthuswamy et al.'s (2006) quasi-experiment on the positive effects of contact and interaction in a structured ethnic-relation programme found that students in the programme held more positive attitudes, expressed interracial behaviour more frequently, and possessed more accurate knowledge regarding issues related to ethnicity in comparison to the control participants in the study. Summers and Volet (2008) found that engagement in culturally mixed group assignments enhances students' intercultural competence. Avery and Thomas (2004) suggest that exposure to diversity content and structured contact with culturally dissimilar others enhances intercultural understanding.

Based on the cognitive growth perspective and contact hypothesis theory, engagement in ethnic-related diversity and intercultural sensitivity should be positively related. However, empirical evidence linking ethnic-related diversity engagement with intercultural sensitivity seems to be lacking. More importantly, intercultural sensitivity is a multi-dimensional construct and yet the nature of association between ethnic-diversity engagement and dimensions of intercultural sensitivity has not been addressed. In assessing the association and the presumed influence of ethnic-related diversity on dimensions of intercultural sensitivity, MANOVA should be employed because intercultural sensitivity is a multi-dimensional construct in which the dimensions are interrelated. Such statistical analysis is appropriate to address the stability and strength of coefficient estimates of multiple outcome variables (Gottfredson et al., 2008).

The aforementioned arguments and related literature thus provide the basis for the present analysis. It was hypothesised that there would be a significant difference in the level of interaction attentiveness, interaction openness and interaction confidence dimensions of intercultural sensitivity across different levels of ethnic-related diversity engagement. The theoretical contribution of this study is its clarification of the relationship between ethnic-related diversity engagements with different but interrelated dimensions of intercultural sensitivity among university students.

Research context

The present study was carried out in a public university with a multi-ethnic student body in Malaysia. Malays, Chinese and Indians are the three main ethnic groups. There are also

other smaller minorities. These ethnic groups have coexisted quite peacefully for the past 56 years since its independence. The Malays are the majority group (representing 50.1% of the 29.5 million population), while the Chinese and Indians are the minority groups (representing 22.0% and 6.6%, respectively) (Department of Statistics of Malaysia, 2012). Malays are the indigenous people categorised as *bumiputera* (son of soil); the Chinese and Indians are considered descendants of immigrants from China and Indian subcontinent. Almost all the Malays are Muslims and customarily speak the Malay language, most of the Chinese speak Chinese dialects and are Buddhists but some are Christians, and most of the Indians are Hindus and usually speak Tamil. Malay language is the national language and Islam is the official religion, as enshrined in the Malaysia Constitution. The Chinese dominate the economy although they are in the minority. The Malays have the majority voice in the political sphere and control a substantial portion of the economy attributed to affirmative policy favouring the majority Malay. The Indians hold the least amount of economic wealth and political power. Al Ramiah, Hewstone, Little, and Lang (2013) consider the affirmative policy in favour of the majority Malay affects the ways majority and minority groups view one another, and ingrain status differences arising from majority–minority status. This sociological factor is very pertinent in discussing the state of ethnic relations in the country. The distribution of social power, as a structural matter, affects patterns of opportunity and inequality and, in turn, the extent of social cohesion and harmony.

Malaysia has been able to resolve ethnic relation issues through dialogues, consultations and consensus-seeking negotiations. Despite a peaceful coexistence, Malaysia is still divided along ethnic lines at all levels (Buttny, Hashim, & Kaur, 2013; Haque, 2003; Husin, 2008). The state of ethnic relation in the country is characterised as in a state of 'stable tension' (Shamsul, 2005). It is within this sociopolitical context that intercultural sensitivity must be fostered and practised. As such, public universities in the country must assume a greater role and responsibility in providing students with diversity experiences, particularly in terms of engagement in interethnic interaction and socialisation both in and outside of the classroom. University with a multi-ethnic student body is a microcosm of a larger multi-ethnic society and is the best place to foster intercultural sensitivity through ethnic-related diversity educational experiences.

The university under study had a population of approximately 19,000 undergraduate students at the time when the data were collected, and the population remains the same at the time of writing. It is one of the premier public research universities and has a multi-ethnic, multi-religions student population. The ethnic breakdown of the student population closely reflects the 5:3:2 national ratio of Malay–Chinese–Indian and other minority groups found in Peninsular Malaysia. The university not only is diverse in its student population but also has a varied and diverse population of faculty members. With regard to undergraduate academic offerings, all undergraduate programmes are of three years duration, except the engineering and medical programmes, which are of four and five years respectively.

Interethnic contact and interaction are strongly endorsed and promoted not only in the classroom through mixed ethnic group assignments but also during co-curricular activities organised by the student affairs development centre, in students' associations within the residential colleges and even at the faculty and department levels. All students are required to enrol in an ethnic relations course during the first or second year of study. Almost all undergraduate students live in residential colleges that conduct various activities to promote friendly ties among students of various ethnicities. The university under study thus attempts to provide its students with an environment that is conducive to ethnic-related diversity at many different levels and through multiple avenues.

Method

Sampling and data collection procedure

A total of 447 self-administered survey questionnaires from the 460 collected from the respondents were usable and included in the analysis. The respondents were randomly drawn from a list of undergraduate students living in the residential colleges on the university campus. Three residential colleges out of 17 were contacted for a list of students and their room numbers. Random sampling was conducted from the sampling frame, based on the last three digits of the students' matriculation (student identification) number. Trained research assistants met the respondents on an individual basis to invite their voluntary participation in the survey. Prior to data collection, approval to carry out the study was first sought from the residential college directors. As the university involved in the study did not require ethics approval for non-medical social science survey research at the time of the study, ethics approval from the college directors was sufficient following their review of the survey questionnaire contents. The respondents were encouraged to answer all questions on the survey but were also reminded that their participation was voluntary and that they were free to decline to respond to any question that they were not comfortable answering. Those who gave consent were requested to complete the questionnaires. They received a small amount of money for their participation. The sample consisted of 193 Malay, 165 Chinese, 72 Indian and 17 other ethnic minority students. There were more female (68.0%) than male respondents (32.0%). The respondents also varied in terms of the number of semesters they had completed at the university, ranging from two to eight semesters ($M = 4.15$, SD $= 1.72$). Respondents' ages ranged from 18 to 27 years, with a mean of 21.2 years (SD $= 1.44$). The sample represented all levels of undergraduate students from first- to fourth-year students, at 28.5%, 35.1%, 30.8% and 5.6%, respectively.

Measurement

An index of ethnic-related diversity engagement was specifically developed for the purpose of the study. The index consisted of six questions related to ethnic-related diversity experiences. Respondents were asked: 'How much opportunity have you had to engage in contact and interaction with others of different ethnic groups in classes?' and 'How much opportunity have you had to engage in contact and interaction with others of different ethnic groups in campus?', both with five-point response options: $5 =$ very much, $4 =$ much, $3 =$ some – not much, $2 =$ little and $1 =$ none. They were also asked: 'How frequently do you interact with peers from different ethnic groups on this campus?' and 'How frequently do you socialise with peers of different ethnic groups on this campus?' Both questions have a five-point response option: $5 =$ every day, $4 = 3–5$ days per week, $3 = 1–2$ days per week, $2 =$ once every week and $1 =$ less often or never (less often and never were collapsed into one category in the analysis). The respondents also responded to the questions: 'Overall, how do you rate the quality of your interaction with someone of a different ethnic in this campus?' with response options: $5 =$ very meaningful, $4 =$ meaningful, $3 =$ quite meaningful, $2 =$ somewhat superficial and $1 =$ superficial. 'Since coming to this university, I have enjoyed learning about the experiences and perspective of the other ethnic groups,' with a five-point response option: 5 (strongly agree) to 1 (strongly disagree). The question on 'How much exposure have you had in classes relating to information/activities devoted to the understanding of others from a different race/ethnic background?' with response options ranging from 5 to 1 ($5 =$ very much, $4 =$ much, $3 =$ some – not much, $2 =$ little, and $1 =$ none) was eventually dropped from

the initial pool of items because of poor factor loading less than the cut-off of 0.30. Principal component analysis produced one factor with internal consistency (α) of 0.76 and explained 52.87% variance. The items loading on the factor ranged from 0.45 to 0.80. Composite scores on the index indicated levels of ethnic-related diversity engagement. From the composite scores, three groups were created by breaking the overall sample into three equal segments according to mean scores (33% and 66 %, respectively) – low ($n = 149$), moderate ($n = 1\ 64$) and high levels ($n = 134$) – of ethnic-related diversity engagement.

Intercultural sensitivity was measured using an adapted version of Chen and Starosta's (2000) intercultural sensitivity scale as reported in Tamam (2010). The scale comprised three interrelated factors: interaction attentiveness and respect (7 items; $\alpha = 0.85$); interaction openness (8 items; $\alpha = 0.89$); interaction confidence (5 items; $\alpha = 0.84$). The three dimensions were used as dependent variables for the study. The respondents were asked to indicate their degree of agreement on a five-point scale (from strongly disagree to strongly agree), to the items on the scale. Sample items for interaction attentiveness and respect include 'I often give positive responses to my culturally different counterparts during our interactions with each other' and 'I respect the ways people from different cultures behave.' Sample items for interaction openness include 'I think people from other cultures are narrow-minded' and 'I find it's very hard to talk in front of people from a different culture.' Sample items for interaction confidence include 'I enjoy interacting with people from different cultures' and 'I can be as sociable as I want to be when interacting with people from different cultures.' Composite mean scores were computed for each dimension. Higher mean scores indicated higher ability.

The respondents were also required to state their year of birth and the number of semesters they had completed at the university, and to mark the appropriate category pertaining to their gender and ethnicity.

Data analysis

Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance–covariance matrices, and multi-collinearity prior to MANOVA. Cases with Mahalanobis values exceeding the critical value were deleted from the data-set. Box's *M* significance value was 0.020; this is larger than 0.001, and therefore did not violate the assumption of equality of covariance matrices (Tabachnick & Fidell, 1996). Levene's Test of Equality of Error Variances produced non-significant results, suggesting that the error variances of the three dependent variables were equal across groups (interaction attentiveness and respect [$F(2,\ 444) = 0.303$, $p = 0.739$], interaction openness [$F(2, 444) = 1.112$, $p = 0.330$], interaction confidence [$F(2, 444) = 0.073$, $p = 0.929$]). The Bonferroni adjustment method was used in the tests of between-subject effects to reduce the chance of Type 1 error, giving an α level of 0.017. The results were considered significant if the probability value was less than 0.017 (Tabachnick & Fidell, 1996). A follow-up post-hoc analysis of comparison using a Bonferroni test was performed to determine which differences were significant.

Results

Table 1 summarises the descriptive statistics for respondents' ethnic-related diversity engagement, interaction attentiveness and respect, interaction openness and interaction confidence, as well as zero-order correlation coefficients among the independent and the

Table 1.   Ranges, means, SDs, and Pearson correlation coefficients.

Variables	α	Range	Mean	SD	IAR	IO	IC
Ethnic-related diversity engagement	0.76	1.20–5.00	3.67	0.845	0.25*	0.23*	0.37*
IAR	0.86	2.43–5.00	3.72	0.589	–	0.44*	0.60*
IO	0.90	2.63–5.00	4.07	0.573	–	–	0.41*
IC	0.85	2.20–5.00	3.56	0.645	–	–	–

Note: IAR, interaction attentiveness and respect; IC, interaction confidence; IO, interaction openness.
*$p = 0.000$

three dependent variables. As shown in Table 1, there is a variation in ethnic-related diversity engagement (scores ranged from 1.20 to 5.00, $M = 3.67$, SD = 0.845), interaction attentiveness and respect (scores ranged from 2.43 to 5.00, $M = 3.72$, SD = 0.589), interaction openness (scores ranged from 2.63 to 5.00, $M = 4.07$, SD = 0.573) and interaction confidence (scores ranged from 2.20 to 5.00, $M = 3.56$, SD = 0.645). The mean scores of the three dependent variables were above the theoretical midpoint, suggesting that in general the respondents fare quite well in intercultural sensitivity. In addition, the correlation analysis supported the assumption that the dimensions of intercultural sensitivity were correlated with each other. Interaction attentiveness and respect was correlated with interaction openness ($r = 0.44$, $p = 0.000$) and interaction confidence ($r = 0.60$, $p = 0.000$), and interaction openness was correlated with interaction confidence ($r = 0.41$, $p = 0.000$). The high correlation between openness and confidence was offset by the discrete factor structure as reported in the Tamam (2010) study. Furthermore, it is understood that multi-cultural sensitivity is a multi-dimensional construct in which the dimensions tend to be interrelated (Tamam, 2010). All three dimensions of intercultural sensitivity were also significantly and positively correlated with the independent variable, ethnic-related diversity engagement.

A bivariate correlational analysis between ethnicity and ethnic-related diversity engagement was also performed to see whether there was any correlation between engagement levels and ethnicity. Being Malay and Chinese was not correlated with level of ethnic-related diversity engagement ($r = -0.05$, $p = 0.252$; $r = 0.04$, $p = 0.370$, respectively). Being Indian was significantly correlated ($r = 0.18$, $p = 0.000$) with level of ethnic-related diversity engagement. The reason for the relationship is unclear. It could be that the Indians being a smaller minority (make up about 6.6% of the population) see the need for and benefit of greater engagement in ethnic-related diversity.

The aim of the present study was to investigate differences in the relationship between ethnic-related diversity engagement and the interaction attentiveness and respect, interaction openness and interaction confidence dimensions of intercultural sensitivity. The results in Table 2 show a statistically significant difference between low, moderate and high levels of ethnic-related diversity engagement on the combined dependent variables [$F(6,884) = 11.827$, $p = 0.000$; Wilks' $\lambda = 0.857$; partial $\eta^2 = 0.08$]. When the results for the dependent variables were considered separately, all three dependent variables reached statistical significance using a Bonferroni adjusted α level of 0.017 [interaction attentiveness and respect, $F(2, 447) = 16.16$, $p = 0.000$, partial $\eta^2 = 0.068$; interaction openness, $F(2, 447) = 10.96$, $p = 0.000$, partial $\eta^2 = 0.047$; interaction confidence, $F(2, 447) = 33.06$, $p = 0.000$, partial $\eta^2 = 0.130$]. The findings showed that 13.0% of the variance in interaction confidence is explained by ethnic-related diversity engagement, while 6.8% of the variance in interaction attentiveness and respect and 4.7% of the variance in interaction openness is explained by ethnic-related diversity

Table 2. Mean (SD) values of intercultural sensitivity by dimensions across three levels of ethnic-related diversity engagement.

Dimension of intercultural sensitivity	Level of ethnic-related diversity engagement			Partial η^2
	Low ($n = 149$)	Moderate ($n = 164$)	High ($n = 134$)	
Interaction attentiveness and respect[a]	3.58 (0.570)	3.68 (0.556)	3.93 (0.595)	0.068
Interaction openness[b]	3.91 (0.499)	4.04 (0.474)	4.29 (0.496)	0.047
Interaction confidence[c]	3.33 (0.585)	3.55 (0.586)	3.86 (0.655)	0.130

[a] $F(2, 447) = 16.16$, $p = 0.000$.
[b] $F(2, 447) = 10.96$, $p = 0.000$.
[c] $F(2, 447) = 33.06$, $p = 0.000$.

engagement. An inspection of the mean scores indicated that the high ethnic-related diversity engagement group had higher levels of interaction attentiveness and respect ($M = 3.93$, SD $= 0.595$), interaction openness ($M = 4.29$, SD $= 0.496$) and interaction confidence ($M = 3.86$, SD $= 0.655$) than the moderate-level group ($M = 3.68$, SD $= 0.556$; $M = 4.04$, SD $= 0.474$; $M = 3.55$, SD $= 0.586$, respectively). The low-level group also had the lowest means on all the dependent variables (interaction attentiveness and respect, $M = 3.58$, SD $= 0.570$; interaction openness, $M = 3.91$, SD $= 0.499$; interaction confidence, $M = 3.33$, SD $= 0.585$).

Post hoc comparison across different levels of ethnic-related diversity engagement on interaction attentiveness and respect using the Bonferroni test indicated that the mean score for the high ethnic-related diversity engagement group was significantly higher than those of the moderate group ($M_{\text{diff}} = 0.259$, $p = 0.000$) and the low group ($M_{\text{diff}} = 0.389$, $p = 0.000$), as shown in Table 3. However, no significant difference was observed between the moderate- and low-level groups on level of interaction attentiveness and respect ($M_{\text{diff}} = 0.129$, $p = 0.149$). Similarly, the mean score for the high ethnic-related diversity engagement group was significantly higher than the score for the low-level group ($M_{\text{diff}} = 0.354$, $p = 0.000$) on level of interaction openness, and the mean score on interaction openness for the moderate level of ethnic-related diversity engagement group was significantly higher than the low-level group ($M_{\text{diff}} = 0.220$, $p = 0.008$). But no significant difference was observed between the high- and moderate-level groups ($M_{\text{diff}} = 0.134$, $p = 0.227$). For interaction confidence, the mean score for the high ethnic-related diversity engagement group was significantly higher than the scores for the

Table 3. Results of post hoc test of comparison.

Dimension of intercultural sensitivity	Comparison	Mean difference	Standard error	p
Interaction attentiveness and respect	High vs. moderate	0.259	0.068	0.000
	High vs. low	0.389	0.069	0.000
	Moderate vs. low	0.129	0.065	0.149
Interaction openness	High vs. moderate	0.134	0.075	0.227
	High vs. low	0.354	0.077	0.000
	Moderate vs. low	0.220	0.073	0.008
Interaction confidence	High vs. moderate	0.353	0.071	0.000
	High vs. low	0.584	0.072	0.000
	Moderate vs. low	0.231	0.069	0.002

moderate-level ($M_{\text{diff}} = 0.353$, $p = 0.000$) and low-level groups ($M_{\text{diff}} = 0.584$, $p = 0.000$), and the moderate-level group had a significantly higher mean score than the low-level group ($M_{\text{diff}} = 0.231$, $p = 0.002$).

Discussion and conclusions

This study was carried out to determine whether engagement in ethnic-related diversity engagement fostered intercultural sensitivity in undergraduate students at a local public university in Malaysia. The impetus of the study came from the gap in the literature on the relationship between different levels of ethnic-related diversity engagement on intercultural sensitivity, an educational outcome attributed to experiences in ethnic-related diversity through contact and interaction in and outside of the classroom. Intercultural sensitivity is assumed to be essential in increasingly democratic societies for preparing graduates to be culturally competent.

The findings are consistent with theoretical explanations found in previous studies that point to the positive role of diversity engagement on students' social and cognitive development (e.g., Gurin, 1999; Gurin et al., 2002; Milem et al., 2005; Umbach & Kuh, 2006) and are in line with the literature on social engagement influences on the personal and social competency of students (e.g. Avery & Thomas, 2004; Gurin & Nagda, 2006; Hurtado, 2001; Muthuswamy et al., 2006). The present analysis contributes to the body of knowledge by establishing empirical evidence linking ethnic-related diversity engagement and dimensions of intercultural sensitivity, and thus underscores the theoretical and practical significance of students' engagement in ethnic-related diversity activities to imparting intercultural sensitivity. The findings help to clarify the nature of the relationship between ethnic-related diversity engagement and the three dimensions of intercultural sensitivity by suggesting that the level of engagement is significantly associated with all three dimensions of intercultural sensitivity. As evidenced by the percentage of variance explained, however, ethnic-related diversity engagement was more highly correlated with interaction confidence than the other two dimensions.

The association between ethnic-related diversity engagement and interaction confidence is substantial. Those who are more highly engaged are more likely to develop interaction confidence than those at lower levels of engagement, while those with a moderate level of engagement will be more confident in interacting than the low-engagement group. However, those with a moderate- or low- level of ethnic-related engagement did not differ in their level of interaction attentiveness and respect, implying that engagement in ethnic-related diversity must be relatively high to have any relationship with interaction attentiveness and respect. Those at the high- and moderate-engagement levels did not differ in their level of interaction openness, but both performed better than the low-level engagement group. The findings thus indicate that ethnic-related diversity engagement differences have differential levels of influence on the interaction attentiveness and respect and interaction openness dimensions of intercultural sensitivity.

Although no causal claim is offered in these cross-sectional data, this study has suggested that the level of intercultural sensitivity among students at a multi-ethnic and multi-cultural public university in Malaysia is presumed to be influenced by the students' level of ethnic-related diversity engagement, and that ethnic-related diversity engagement influences differentially on the three interrelated dimensions of intercultural sensitivity. We cannot claim causal effects for ethnic-related diversity engagement on the dimensions of intercultural sensitivity, however, as it is possible that students who already entered the university with a high level of interaction confidence were more likely to seek out

opportunities for ethnic-related diversity engagement. As such, only a longitudinal design (e.g., one assessing the impact of specific ethnic-related diversity interventions on intercultural sensitivity over time) would allow more concrete conclusions about causality.

Despite these limitations, given the findings of the present analysis and past studies on the educational benefits of diversity engagement for students, academics and student development affairs administrators should make greater efforts to intensify interethnic interaction and socialisation both inside the classroom and outside in different co-curricular settings and student-development programmes. It is imperative to include policies of inclusion in students' diversity engagement, and this must be firmly institutionalised and supported in order to create the maximum amount of opportunities for students to engage in ethnic-related interaction and discussion on ethnic-related diversity issues.

This study raises a possible issue of disparity in students' intercultural sensitivity if students differ greatly in opportunity and the extent to which they engage in ethnic-related diversity. This must be taken seriously because if ethnic-diversity engagement disparity is not addressed in the formulation of policy and the design of instructional programmes, the aim of providing university students with a rich learning environment and educational experiences that prepare them to become part of a culturally competent society and workforce will be hindered. Therefore, university educators and administrators must ensure that greater and equal opportunities are provided to all students to engage in interethnic interaction and to understand the importance of ethnic-related diversity.

Support for the hypothesised relationship provides additional evidence for the value of promoting extensive engagement in ethnic-related diversity activities among students on campus. In terms of policy and practical implications, the study will be useful for educational and social intervention purposes, particularly at the tertiary institution being studied. One of the most fundamental obligations of any university is to provide a rich educational environment including ethnic-related diversity experiences that equip students with the relevant social and technical competencies required to lead productive lives in the increasingly pluralistic societies and workplaces that are common today.

Although this study takes a step in the right direction by raising important questions and issues about students' engagement in ethnic-related diversity and its association with intercultural sensitivity, generalisability of the findings is limited. The present study was carried out in one public university. In the design of the study, other demographic or personal factors that might moderate or confound the relationship between ethnic-related diversity engagement and intercultural sensitivity were not controlled for. Future studies should, therefore, look at the personal, contextual and institutional factors that promote and facilitate engagement in ethnic-related diversity both inside and outside classrooms in order to gain a better understanding of the drivers and barriers to ethnic-related diversity engagement and their relevant educational outcomes. Aside from a need for longitudinal research, specific questions posited for future research include how/why ethnic-related diversity engagement promotes intercultural sensitivity; what are the mediating processes between the two constructs; and what are conditions that may moderate the relationship (e.g. does participating in ethnic-related diversity interactions/programmes lead to greater intercultural sensitivity only under certain conditions). Finally, we underscore that the findings of the study should be interpreted and understood within the sociological context of ethnic relations in Malaysia and are limited to the interpersonal domain, excluding overarching structural issues such as social power relations between the three major ethnic groups. This should act as a word of caution for policy discussions. Future research should consider designs that incorporate these structural concerns into their respective analyses.

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