

University of New Hampshire

University of New Hampshire Scholars' Repository

Kinesiology Scholarship

Kinesiology

5-1-2010

Contact Theory as a Framework for Experiential Activities as Diversity Education: An Exploratory Study

Jayson O. Seaman

University of New Hampshire, Durham, jayson.seaman@unh.edu

Jesse Beightol

Paul Shirilla

Bart Crawford

Follow this and additional works at: https://scholars.unh.edu/kinesiology_facpub

Recommended Citation

Seaman, J., Beightol, J., Shirilla, P., and Crawford, B. (2010). Contact theory as a framework for experiential activities as diversity education: An exploratory study. *Journal of Experiential Education*, 32(3), 207-225. <https://dx.doi.org/10.1177/105382590903200303>

This Article is brought to you for free and open access by the Kinesiology at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Kinesiology Scholarship by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.

Contact Theory: An Exploratory Study

Running head: CONTACT THEORY: AN EXPLORATORY STUDY

Contact Theory as a Framework for Experiential Activities as Diversity Education: An
Exploratory Study

Jayson Seaman
University of New Hampshire

Jesse Beightol
Eagle Rock School

Paul Shirilla
University of Wisconsin - River Falls

Bart Crawford
Project Adventure, Inc.

Correspondence concerning this manuscript should be addressed to Jayson Seaman; UNH NH Hall 202, 124 Main Street; Durham, NH, 03824. Electronic mail should be sent to jseaman@unh.edu. Fax: (603) 862-0154

Word Count: 6,896

Contact Theory as a Framework for Experiential Activities as Diversity Education: An
Exploratory Study

Abstract

Participation in experiential education is said to enhance people's appreciation for diversity. In this study, a pre-test/post-test design found significant changes in participants' attitudes, beliefs, and behaviors following a nonformal diversity education program using adventure-based and community service activities. Additionally, hypothesized program conditions, as outlined by contact theory, were significantly predictive of outcomes, although majority and minority participants differed on their perceptions of these conditions. These findings suggest that experiential activities may be considered a viable approach to diversity education in nonformal settings, assuming key conditions are met. Implications for practice and directions for future research are discussed.

Contact Theory as a Framework for Experiential Activities as Diversity Education: An
Exploratory Study

Participation in experiential education is believed to enhance people's appreciation for diversity. Adventure education and community service are two common types of activities that are said to be particularly impactful. Washington and Roberts (1999) state: "The attitudes we have about each other, especially those who are different from ourselves, can be addressed through adventure education" (p. 359). Billig (2000) writes that service has "a positive effect on ... the ability to relate to culturally diverse groups" (p. 661). Such explicit claims undoubtedly appeal to program designers wanting to achieve diversity-related outcomes, yet they have not been the focus of much empirical research. These claims are especially uncertain when they are stated without reference to any focused curriculum and when programs operationalize diversity only by recruiting participants of different racial and ethnic backgrounds. How, in such cases, does experiential education teach people about diversity? Do the claims apply uniformly to different participants?

These are important questions for experiential educators to consider as prejudice and racial isolation continue to be central issues in American society. The recent violence in Jena, Louisiana (Roberts, 2008) and the resegregation of public schools (Lutz, 2005) provide evidence that educational and community leaders will continue to need effective ways to foster positive relations among individuals and groups. Assessing the capability of experiential activities to improve people's attitudes, beliefs, and behaviors toward diverse others is an important and timely project.

The current study examined the claim that experiential activities can be used to achieve diversity-related outcomes in nonformal educational settings. Nonformal education involves

‘embedding’ learning content in different activities rather than ‘delivering’ a curriculum in the formal sense, providing wide latitude for self-direction and interpretation on the part of the learner (Grandstaff, 1976). Experiential activities—exercises and tasks that are intentionally designed to promote personal and social growth within a group of peers (see AEE, n.d.)—are seen as a promising way to achieve outcomes in nonformal settings (Kees, 2003). Importantly, although achieving diversity-related outcomes might be a main programmatic goal in these instances, participants’ efforts are typically focused on jointly solving contrived or real-world problems, thereby learning about diversity *indirectly*. The purpose of this study was to establish a stronger theoretical foundation for future practice and research on the use of experiential activities in this way as a means of diversity education in nonformal settings.

Experiential Activities and Diversity-Related Outcomes

Since adventure education and community service were the focal activities in this study, the literature review was limited to these areas. In the adventure education literature, two studies were found that directly examined how adventure experiences educate individuals about diversity. Of these, only one focused on racial and ethnic diversity, our primary area of interest. Green and Wong (2008) used contact theory to inform their study of racially tolerant attitudes among White teenagers following Outward Bound courses. Participants randomly assigned to racially heterogeneous or homogeneous groups were interviewed one month following the program. Participants in the heterogeneous groups (majority White with ≥ 3 African American youth) demonstrated greater levels of tolerance than those in homogeneous groups. However, the researchers did not systematically test whether or not the Outward Bound courses met the key criteria outlined by contact theory, so they could only speculate about the link between specific program conditions and outcomes. Also, since the authors did not interview African American

participants, their experience of the program is unknown. The second study is noteworthy in that it also used contact theory to examine adventure activities (Hersman, 2007), however, it focused on disability, not on race, so it is not reviewed here. These studies indicate the potential for contact theory to inform future research on diversity-related outcomes in adventure education.

Several additional articles were found that examined racial and ethnic differences in other outcomes of adventure programs. Orren and Werner (2007) and Rodriguez and Roberts (2005) found White participants scoring higher than minority participants on measures of self-concept and perceived quality of experience, respectively, following participation in wilderness and conservation/service programs. In contrast, Glass and Benschoff (2002) reported no significant differences among White, Black, and Latino/Latina youth on a measure of “group cohesion” following a short challenge course program, concluding that race did not significantly affect program outcomes.

Similarly, few studies were found on diversity programs designed primarily around community service projects. In one study, college students enrolled in an “interactional” diversity program involving a service project showed significant improvements in cross-racial knowledge, attitudes, and behaviors as compared with nonparticipating peers (Muthuswamy, Levine, & Gazel, 2006). Alternatively, a research summary of National Service programs reported no significant positive and some negative results on measures of attitudes and behaviors toward cultural and ethnic diversity (Jastrzab et al., 2007).

These mixed results indicate that current research: a) is inconclusive about the benefits of structured experiential activities for participants of diverse racial and ethnic backgrounds; and b) says little about the ability of these activities to positively affect participants’ appreciation for diversity. Moreover, several deeper issues further complicate efforts to design and evaluate

programs using experiential activities to achieve diversity-related outcomes. These interrelated difficulties are programmatic, conceptual, and methodological.

Programmatic difficulties. As stated earlier, experiential activities are typically intended to educate “indirectly by means of the environment” (Dewey, 1916, p. 19). In this approach, cooperative activities are purposefully designed to influence people’s interpersonal relationships and, consequently, their understandings of one another. This can be contrasted with a direct approach to diversity education, such as assigning curriculum materials that inform students about different ethnic practices and viewpoints (Banks, 1999). While experiential activities give participants the freedom to learn in highly personal ways, the absence of a focused curriculum can leave program designers unable to pinpoint the instructional techniques, key concepts, and program elements most responsible for participants’ learning about diversity. This can result in an idiosyncratic approach to program design and an inability to systematically explain how experiential activities function or tailor them to better target diversity-related outcomes.

Conceptual difficulties. Observing that different beliefs about the causes of prejudice logically lead to different interventions and research emphases, McKown (2005) reasons that a “theory of causation to guide inquiry and intervention” is required to avoid “unfocused and unproductive” research (p. 178). McKown outlines three of the most commonly held theories of causation regarding prejudice a program might target: as a social-cognitive problem related to faulty processes of categorization and generalization; as an interpersonal or intergroup problem arising from voluntary or involuntary segregation; and as a structural problem arising from historical and economic relationships of power, access, and identity that limit self-determination and social mobility.

These different beliefs about the causes of prejudice logically lead to different

programmatic emphases, each aimed at “substantially different levels of the social ecology” (McKown, 2005, p. 178): “Social cognitive interventions target individuals. Cooperative learning practices target the structure of interpersonal relationships. Liberation psychology targets the individual’s relationship to society” (McKown, p. 178). It has not been determined what underlying causes of prejudice experiential activities are meant to address, or which level of the social ecology they target. It does seem, however, that the central assumption underlying the use of experiential activities aligns with the “cooperative learning” level—that diversity-related outcomes can be achieved by altering the structure of participants’ interpersonal relationships. Gaining clarity on the benefits and limitations of this approach will help focus research and program design in the future.

Methodological difficulties. Referring specifically to adventure education, Baldwin, Persing, and Magnussen (2004) argue that many of the models guiding practice “are highly idiosyncratic, lack specificity, and rarely provide direct implications for measurement,” and conclude, “future research will require further development of the theoretical basis for each of the program components as well as the elaboration of specific activity conditions that produce particular experiences” (p. 172). More thoroughly designing and researching experiential activities as a means of diversity education therefore begins with establishing a clearer theoretical foundation for their use in this area, so design assumptions can be tested through suitable analytic methods. Quantitative methods were used in this study to empirically test contact theory (Allport, 1954/1979) as a possible theoretical framework for designing and evaluating programs wishing to use experiential activities a primary means of diversity education.

Conceptual Framework, Research Question, and Hypotheses

Contact Theory

As Green and Wong's (2008) interest in Outward Bound suggests, the use of an "indirect" approach to diversity education by experiential educators intuitively matches the programming methods prescribed under contact theory (see also Wright, 1994). Gordon Allport (1954/1979) was among the first to propose that prejudice can be reduced through cross-group participation in shared experiences, not just through a direct curriculum. Allport's proposition has become known as the *contact hypothesis*, which states that "actual face-to-face interaction between members of clearly distinguishable and defined groups" in situations involving certain "optimal conditions" will improve people's attitudes, beliefs, and behaviors toward diverse others (Pettigrew & Tropp, 2000, p. 95). Aware that cross-group contact could actually increase prejudice, Allport specified four conditions necessary for positive change to occur: 1) participants from different groups must perceive that they have *equal status* within the situation; 2) they must share *common goals*; 3) the tasks they face must stress *intergroup cooperation* (rather than competition); and 4) they must experience the *support of authorities, law, or custom* (Pettigrew, 1998). A fifth condition was later added by Pettigrew: 5) "*the contact situation must provide the participants with the opportunity to become friends*" (p. 76, italics in original). For reasons that will be described shortly, these five conditions were reduced to four in the current study.

A large body of empirical research supports the contact hypothesis. Pettigrew and Tropp's (2000) meta-analysis demonstrated that programs maximizing most or all of the contact conditions "yielded significantly higher reductions of prejudice" (p.108). Higher effect sizes were found particularly in situations that were carefully structured to meet contact conditions. A

goal of this study was to more systematically test the same assumption Green and Wong (2008) adopted, that the contact hypothesis can be applied to experiential activities. Specifically, we wanted to test whether or not a diversity education program designed primarily around the use of adventure education and community service activities satisfied these optimal contact conditions.

Universal/Diverse Orientation (UDO)

UDO was selected as the dependent variable in this study. It is defined as “an attitude toward all other persons that is inclusive yet differentiating in that similarities and differences are both recognized and accepted” (Miville et al., 1999, p. 292). Possession of high UDO is believed to help individuals interact with diverse others in a variety of circumstances. It was used in this study because of its alignment with program goals and with the principles of contact theory. This allowed the researchers to measure, in scientific terms, the programmatic goal of helping diverse young people value one another’s similarities and differences.

Three specific points of intersection between UDO and contact theory substantiate their use together. First, UDO is “best conceptualized as a unidimensional construct with cognitive, behavioral, and affective components” (Strauss & Connerly, 2003, p. 164), the three domains Allport (1954/1979) emphasized in his analysis of prejudice. Second, the concept of *universality* in UDO is premised on the idea that people can develop a sense of common, underlying humanity with all others, while still valuing each other’s differences. Likewise, Allport proposed that prejudice is ultimately reduced when people begin to see themselves as part of an ever-larger “in-group” that eventually includes all of humankind. In this respect, they share similar notions of a common humanity, while still acknowledging that differences between people are important. Third, scholars have begun to question contact theory’s historical emphasis on “prejudice reduction,” becoming more interested in cross-group contact and other, positively-framed

constructs such as enhancing people's appreciation for diversity (Paluck, 2006). For these reasons, we believed it was conceptually appropriate to treat the contact conditions as predictor variables and universal/diverse orientation as the dependent, or criterion, variable.

Research questions and hypotheses. The main research question guiding this study was: *How do people learn about diversity through participation in an "experiential" program?* Two hypotheses were tested and are discussed below:

- Hypothesis 1: Program participation will change participants' attitudes, beliefs, and behaviors toward diverse others as indicated by increases in Universal/Diverse Orientation;
- Hypothesis 2: Participants' perceptions of the key contact conditions, as measured by the School Interracial Climate Survey (Green, Adams, & Turner, 1988), will predict program outcomes.

Methods

Locus and Sample

The diversity education program we studied occurred in early summer, 2007 in Hartford, CT. The organizers' goals were to promote diversity, develop leadership, and provide community service among urban and suburban youth who otherwise have few opportunities to interact (see McDermott, Bruno, & Varghese, 2002). Although participants were recruited from area church groups, the program was ecumenical in nature. Eighty-two Black, White, Latino/Latina, and Asian youth, ages 13-19, participated in the program and lived together for one week at a retreat center just outside the city.

The program started with two half-days of adventure-based teambuilding exercises, followed by four days of community service projects. These major program components were interspersed with free time and other structured events such as a talent show, a basketball

tournament, an African drumming concert, and a contra dance. One open-ended evening discussion was planned so participants could talk about the social issues they face in their lives if they desired. The program was selected for inclusion in this study because it met the research goal of examining how experiential activities might serve as the primary means of diversity education in the absence of a direct curriculum.

Of the 74 youth that consented to participate in the study, 51 described themselves as White (69%), 15 as Black (20%), 7 as Latino/Latina (10%), and 1 as Asian (1%). These percentages reflected those of the overall program. Because of the low number of Black, Latino/Latina, and Asian youth, and following previous research (Pettigrew & Tropp, 2000; Rodriguez & Roberts, 2005), study participants were grouped according to racial majority (i.e., White) and minority (i.e., Black, Latino/Latina, and Asian) categories for analytic purposes.

Instrumentation

Two instruments were used to measure the extent to which contact conditions were perceived and predicted program outcomes. Their selection was based on five criteria: (a) correspondence with program goals; (b) reliability and validity; (c) grounding in established social science constructs (discussed above); (d) age appropriateness; and (e) relevance to qualitative data, which was collected as part of a larger study and is not discussed here (see Seaman, 2008).

The School Interracial Climate Survey (SICS, Green et al., 1988) is a 43-item survey that measures adolescents' perceptions of contact conditions on a 1-5 scale, ranging from "strongly disagree" to "strongly agree." In the survey's original construction, principle axis factor analysis revealed four separate contact conditions rather than the five described previously. The constructs *common goals* and *intergroup cooperation* were combined into one subscale:

interdependence. The survey's four subscales measure perceptions of: (a) interdependence ($\alpha=.74$), (b) supportive norms ($\alpha=.67$), (c) association ($\alpha=.68$), and (d) equal status ($\alpha=.66$). Overall internal consistency reliability was .89, and the scale was originally validated using related measures such as students' number of other-race friends and the extent to which Black and White students integrated during lunchtime (Green et al., 1988).

The survey was scored using the median-split method used initially by Green et al. (1998). In this method, the median score was calculated for each subscale, a value of 1 was assigned for scores above the median, and a value of 0 for scores below the median. Subscale scores were then summed, creating a total score for each participant ranging from 0 to 4. The lead researcher and the second author administered the SICS midway through the program to allow participants time to assess their environment and develop feelings about it.

The Miville-Guzman Universal-Diverse Orientation Scale, Short Form (Fuentes, Miville, Mohr, Sedlacek, & Gretchen, 2000) is a 15-item survey measuring the affective, behavioral, and cognitive dimensions of UDO: (a) comfort with differences; (b) seeking a diversity of contact with others; and (c) relativistic appreciation of oneself and others. Miville et al. (1999) reported that, on the initial full survey, correlations among the three subscales ranged from .65 to .69, supporting their incorporation into a singular overall construct. Internal consistency reliability for the full survey was tested in several studies, with Cronbach's alpha values ranging from .89 to .94. The initial 45-item scale was reduced to 15 items by Fuentes et al. (2000) to create the short form (MGUDS-S). Subscale and total score correlations between the full and short versions were: comfort with differences ($\alpha=.92$), diversity of contact ($\alpha=.82$), relativistic appreciation ($\alpha=.59$), and total ($\alpha=.77$). Questions were answered on a 1-6 point scale and summed to create an overall UDO score. The lead researcher and the second author administered the MGUDS-S on

the first morning and again on the final evening of the program.

Results

Data Screening and Sensitivity Analysis

Before any statistical analyses were conducted, data were screened to detect outside values. Box plots identified three outside values on the MGUDS-S pre- and post-test summed totals. Considering the relatively small sample size of this study, outside values were retained after sensitivity analyses revealed no substantive differences in analyses of three iterations of the data: 1) unadjusted; 2) with outside values removed; and 3) Winsorized, where extreme values are adjusted to match the next inside case (Warner, 2008).

Hypothesis 1: Program participation will yield changes in appreciation for diversity as measured by UDO. A paired samples t-test was conducted to evaluate changes in UDO. For the whole group, results indicated that the mean post-test score ($M=72.47$, $SD=7.98$) was significantly greater than the pre-test ($M=69.34$, $SD=7.81$), $t(73)=-4.77$, $p<.001$. The standardized effect size ($d=.56$) indicates a medium effect (Cohen, 1988). Data was then split by majority/minority membership, and the test was repeated. Results are shown in Table 1. Although differences were found, an independent samples t-test on MGUDS-S change values showed non-significant differences between the groups, $t(72)=-.97$, $p=.34$.

INSERT TABLE 1 HERE

Hypothesis 2: Perceptions of contact conditions predict program outcomes. Multiple regression analysis was conducted to evaluate how well overall contact conditions predicted post-test scores on the MGUDS-S. A number of predictor variables were entered in one step and were gradually removed from the model if they did not significantly predict the variance in the criterion variable. Anticipated predictors included sex, age, and responses to questions about the

number and quality of preexisting cross-race friendships. Only two predictor variables, MGUDS-S pre-test and SICS total, remained in the final regression equation. The results of this regression analysis indicated that the best-fitting regression equation was significantly predictive of MGUDS-S post-test scores; $R=.76$, $R^2=.58$, adjusted $R^2=.57$, $F(2,69)=47.67$, $p<.001$. The raw coefficients for the predictive equation were as follows:

$$\text{MGUDS-S post-test score} = 24.09 + .67(\text{MGUDS-S pre-test}) + 1.08(\text{SICS total})$$

Therefore, when controlling for the effect of perception of contact conditions (SICS total), there was, on average, a .67-point change in students' MGUDS-S post-test score for every 1-point change in their MGUDS-S pre-test. Additionally, when controlling for the effect of students' MGUDS-S pre-test, there was, on average, a 1.08-point change in MGUDS-S post-test score for every 1-point change in their SICS total score.

The squared semipartial correlation for MGUDS-S pre-test as a predictor of MGUDS-S post-test scores was $sr^2=.36$; meaning that 36% of the variance in MGUDS-S post-test scores are uniquely predicted by the pre-test scores. The squared semipartial correlation for SICS total as a predictor of MGUDS-S post-test scores was $sr^2=.04$; meaning that 4% of the variance in MGUDS-S post-test scores are uniquely predicted by SICS total scores.

Differences between majority/minority students on SICS subscales. In their meta-analysis of contact theory research, Pettigrew and Tropp (2000) suggested that majority and minority group members might differ in their perceptions of contact conditions. A one-way ANOVA was used to test this proposition. Significant differences between groups were found only in the equal status subscale ($p<.01$) but not for the overall score, even though the difference approached

significance ($p=.10$). Furthermore, the effect size index (η^2) indicates that 10% of the variance in equal status scores is due to between-group differences. Between-groups ANOVA results are shown in Table 2. This finding raised questions about the possible moderating effect of equal status on program outcomes.

INSERT TABLE 2 HERE

Interaction between majority/minority membership and equal status on MGUDS-S post-test scores. An ANCOVA was used to investigate the possible moderating effect of *equal status* on post-test scores. The purpose of this test was to examine possible interaction effects for majority/minority group membership and the equal status subscale on the post-test score, while controlling for pre-test scores. The interaction between majority/minority group membership and equal status approached significance at the $p<.05$ level ($F(1,67) = 3.46, p = .07$). While this interaction was not statistically significant, closer examination of trends in the data illuminates the interactional relationship between these two variables. As shown in Figure 1 below, the relative perception of equal status among majority participants, controlling for pre-test scores, had a minimal effect on their post-test scores. For minority participants, however, the relative perception of equal status had a noticeable effect on their post-test scores. This is exemplified in the considerably lower post-test scores of minority participants whose equal status scores were below the median and the higher post-test scores of minority participants whose equal status scores were above the median, versus the near identical post-test scores of majority participants regardless of equal status values.

INSERT FIGURE 1 HERE

It is important to note that the minority group who scored above the median on equal status was quite small ($n = 5$). This might explain why the interaction between majority/minority

membership and equal status was not statistically significant even though the differential effect of equal status between the two groups seems to be quite pronounced.

Discussion

This study examined a nonformal program using experiential activities as the primary means of diversity education. The purpose was to establish a clearer theoretical foundation that links program conditions with diversity-related outcomes. Specifically, the researchers used validated surveys to test the viability of contact theory as a framework for program design and evaluation by determining the extent to which contact conditions were perceived, as well as the extent to which they predicted program outcomes. This purpose was largely achieved; however, it also led to several important findings and questions.

Program Outcomes

Participants' MGUDS-S post-test scores increased significantly over their pre-test scores. This suggests that participants were more able to appreciate one another's similarities and differences following the program. The non-significant difference between majority and minority students' change values supports an aggregate interpretation of the data; this and the medium effect size encourages us to positively interpret the program's ability to achieve its goal in cognitive, attitudinal, and behavioral domains. This finding can be taken as support for the claim that participation in adventure and service activities can lead to positive diversity-related outcomes in nonformal settings. However, although the differences were not significant, participants of color did differ perceptibly on their mean MGUDS-S change values as well as in effect size when compared with their White peers. This finding was not particularly surprising; White participants from relatively homogeneous suburban communities might have experienced their encounters with non-White peers as novel, whereas participants of color might encounter

White people more throughout their day-to-day routines, minimizing feelings of novelty in the program (cf. Green et al., 1988; Pettigrew, 1998).

Contact Conditions

Over other anticipated predictors, participants' total SICS scores significantly predicted MGUDS-S post-test scores. This adds further support for the contact hypothesis, which proposes that cross-group interaction under "structured optimal conditions" leads to favorable results. Additionally, it indicates that the hypothesis can be applied to experiential activities. Therefore, it might be productive to view programs using experiential activities as a contact-style approach to diversity education, which functions primarily by altering the structure of interpersonal relationships under certain prescribed conditions. Assuming this analysis is correct, careful attention to the four optimal conditions of *interdependence*, *supportive norms*, *association*, and *equal status* would be important in achieving desired results from experiential activities.

The most interesting finding occurred with respect to the equal status condition. It is important to note that raw subscale scores indicated that participants generally "agreed" or "strongly agreed" that the equal status condition was satisfied (minority $M=4.28$; majority $M=4.57$; overall $M=4.49$). By dichotomizing subscale scores, however, the median split scoring technique positions participants relative to one another in terms of how they perceive conditions. On the basis of the raw scores, then, it may be said that the program satisfied the equal status condition. On the other hand, participants' dichotomized scores differed significantly by majority and minority groups. Given the high raw scores, this finding may not otherwise be notable except for the proportion of minority participants in the sub-median group (70%), versus majority students in the sub-median group (41%) as well as the dramatic post-test difference between minority participants who scored above the median versus those who scored below the

median, compared with White peers.

Small sample sizes, non-significant differences between majority and minority groups on MGUDS-S change values, and non-significant interactions between majority/minority groupings and the equal status subscale prevent us from making strong claims about the moderating effect of equal status on program outcomes. However, the interaction between majority and minority group membership and equal status scores, although falling just short of the $p \leq .05$ level, suggests that equal status was particularly salient for minority participants and may have affected their experience in such a way as to accentuate or temper their appreciation for diversity in heightened ways, whereas for majority participants it did not have an equivalent impact. This finding adds greater specificity to previous meta-analytic results showing that majority participants experience greater reductions in prejudice from contact situations than minority participants (Tropp & Pettigrew, 2005).

One obvious interpretation of the finding here is that the sheer ratio of White participants (69%) to participants of color (31%) itself may have negatively affected minority perceptions of the conditions. This also may have led to further, exacerbating factors; White participants may have visibly performed important roles more than peers of color because there were a relatively fixed number of opportunities throughout the week, and, proportionally speaking, a greater number of White participants were available to fill them. Here we should also acknowledge that the category of “minority” might hide important differences in participants’ interpretations of status, making it impossible to determine whether participants of color can be considered a homogeneous group (Gunaratnam, 2003). For instance, it is not possible to determine whether Latino and Latina youth would categorize themselves as a smaller subgroup of seven, or part of a larger minority group of 23. More fine-grained research techniques would help understand these

nuances.

Other interpretations are also possible. Ethnic minority youth may be more attuned to the critical contact conditions—especially equal status—given their prior experiences with discrimination, whereas White youth may not experience status differences in the same way if they recognize them at all. This phenomenon was recognized in early research on contact-style interventions. Robinson and Preston (1976) commented that (a) Black participants might perceive as “laden with racial and prejudicial cues” contact situations that Whites view as equal, and (b) short-term interventions “cannot be isolated from the total black experience with white America” (p. 922). These insights, as well as the pattern observed in this study, suggest that the contact situation cannot be conceived as one-dimensional or somehow separate from the persons constituting it. Stated differently, even though contact conditions were found here to predict outcomes, it is probably false to conclude that the decision to use experiential activities unproblematically and uniformly satisfies the contact conditions. Here, one might consider Pettigrew and Tropp’s (2000) speculation that contact conditions are products of interaction and are not fixed, as if one could characterize a situation absent the people who populate it. If experiential activities can be considered equalizing at all, then, this condition might be situational in nature: something participants must work collaboratively to achieve rather than being an inherent or static feature of the activities themselves. More process-sensitive research methods would be useful in exploring this possibility.

Limitations and Directions for Future Research

Despite these initial findings, several limitations are noteworthy. The first limitation is the methodology adopted by the researchers. Studies treating race as a fixed category rather than a fluid, social construction effectively reify what they purport to investigate (Lee, 2003). Future

research might examine the ways in which participants engage in *racialized practices* during their involvement in different experiential programs, the ways these practices are situated in a larger social context, and the ways such practices evolve under different circumstances. Contact theory—the specification of conditions under which new, shared practices and understandings can develop—might help frame such research.

A second limitation is the lack of long-term follow up, which was beyond the scope of this study. We did not determine if the program helped attendees achieve greater success in school, their families, or their communities. Future research might investigate the ways UDO helps youth as they move into and between other settings following their participation in nonformal programs using experiential activities. This limitation also reflects a broader issue with contact theory, known as the “generalization of effects” problem, in which it is unclear how or to what extent people’s improved attitudes extend beyond the few diverse individuals they came to know in a structured program (Pettigrew, 1998, p. 80). Experiential educators motivated to use contact theory to understand and justify their programs should heed this limitation until longitudinal effects are studied.

A third limitation is the possible self-selection bias of participants, who entered the program voluntarily; in a previous study, Strauss and Connerly (2003) found “agreeableness” to be a factor in Universal/Diverse Orientation. Future researchers might consider the role played by attendees’ psychological characteristics or investigate programs where attendance is compulsory. These methods could help assess the fit between contact theory and experiential activities under different programmatic circumstances.

Finally, this study examined a nonformal program that combined adventure-based teambuilding activities and community service projects. We did not determine which of these

activity types better satisfies the “optimal contact conditions.” Taken together, however, the overall experiential approach used in this program seemed to satisfy optimal conditions, suggesting that this combination might be effective elsewhere. Future research could study adventure activities or community service projects independently, as well as examining how individual activity components (e.g., problem solving initiatives versus high adventure experiences, or different types of service projects) may enable certain contact conditions more effectively than others.

Conclusion

This exploratory study measured the outcomes of a program that used experiential activities to teach about diversity and attempted to address some of the conceptual and methodological problems that have limited studies to date. Our positive finding regarding the outcomes of the program and the predictive value of contact conditions establishes a potential direction for designing and evaluating programs that adopt experiential activities instead of a formal curriculum, and that operationalize diversity primarily by recruiting participants of diverse racial and ethnic backgrounds. In such cases, program organizers striving to achieve diversity-related outcomes are encouraged to consider the ways their activities initiate, achieve, and maintain the optimal conditions of *interdependence*, *supportive norms*, *association*, and especially *equal status*.

Further research and practical testing of contact theory will afford new insights into how experiential activities can better achieve diversity-related outcomes for all participants. However, several additional points are worth considering. Most notably, even if contact conditions are deliberately structured into a program from the point of view of its designer, participants might still experience program conditions in heterogeneous ways. For instance, if White participants

from racially homogeneous communities experience cross-group contact as novel while participants of color do not, differentiated instructional strategies may be required for all participants to “appreciate diversity” in new or enhanced ways. Molina and Wittig (2006) propose that

... there needs to be coordination between program goals and the respective contact conditions intended to ensure their attainment ... knowledge of which contact conditions are optimal for achieving which outcomes, as well as knowledge of what subgroups are most responsive to these strategies, are likely to improve the success of a given program. (p. 506)

Experiential educators skilled at using cooperative activities are surely familiar with some of the instructional techniques that help create a positive interactional climate. These include openly discussing group norms, fostering a spirit of cooperation rather than competition, and planning meaningful roles that allow people to extend their learning in a supportive environment (see Stanchfield, 2008). These important principles intuitively match the optimal conditions prescribed by contact theory. However, some scholars (e.g., Nagda & Zúñiga, 2003) have suggested that the contact conditions by themselves might be insufficient to substantively address the racial and ethnic differences that are salient for participants and that appear to be shaping program outcomes. Especially in programs where diversity-related outcomes are a primary goal, educators might be prepared to make matters of race, ethnicity, and status the explicit objects of mutual awareness and exploration. In these cases, common experiential activities could be supplemented with materials and techniques drawn from other diversity education traditions that raise these topics more explicitly. Conversely, experiential activities that emphasize shared responsibility and mutual support could supplement direct curricular materials

when it is desirable for people to informally explore the interpersonal, communicative, and affective dimensions of diversity. Such an integrated approach might address some of the acknowledged limitations of different diversity education methods (Nagda, Tropp, & Paluck, 2006). At least, contact theory might offer program designers, instructors, and participants a useful set of minimum conditions for achieving diversity-related outcomes from experiential activities even if they are secondary to other goals.

In conclusion, Baldwin, Persing, and Magnussen (2004) argued that “explaining how programs work requires more than good research design. It requires specific explanatory theories tied to a detailed understanding of the program components and context” (p. 174). This article presented further evidence that contact theory might be a viable framework for using experiential activities as a means of diversity education. Further exploring the links between contact conditions, experiential activities, and different educational settings will be a promising, and socially valuable, direction for future research and practice.

References

- AEE. (n.d.). AEE Definition of Experiential Education. Retrieved November 22, 2005, from <http://www.aee.org/faq/nfaq.htm#ee>
- Baldwin, C., Persing, J., & Magnuson, D. (2004). The role of theory, research, and evaluation in adventure education. *Journal of Experiential Education, 25*(3), 167-183.
- Banks, J. (1999). *An introduction to multicultural education* (2 ed.). Boston: Allyn and Bacon.
- Billig, S. (2000). Research on K-12 school-based service-learning: The evidence builds. *Phi Delta Kappan, 81*(9), 658-664.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2 ed.). Hillside, NJ: Lawrence Erlbaum Associates.
- Dewey, J. (1916). *Democracy and education*. New York: Free Press.
- Fuertes, J. N., Miville, M. I., Mohr, J. J., Sedlacek, W. E., & Gretchen, D. (2000). Factor structure and short form of the Miville-Guzman Universality-Diversity Scale. *Measurement and Evaluation in Counseling and Development, 33*(3), 157-169.
- Glass, J. S., & Benschhoff, J. M. (2002). Facilitating group cohesion among adolescents through challenge course experiences. *Journal of Experiential Education, 25*(2), 268-277.
- Grandstaff, M. (1976). Nonformal education: Some indications for use. *Comparative Education Review, 20*(3), 294-304.
- Green, Adams, A. F., & Turner, C. W. (1988). Development and validation of the School Interracial Climate Survey. *American Journal of Community Psychology, 16*(2), 241-259.
- Green, D. P., & Wong, J. S. (2008). *Tolerance and the contact hypothesis: A field experiment*. Unpublished manuscript, Yale University, New Haven, CT.

Gunaratnam, Y. (2003). *Researching 'race' and ethnicity: Methods, knowledge and power*.

Thousand Oaks, CA: Sage.

Hersman, B. L. (2007). *The effects of adventure education on the social interactions of students with disabilities in general physical education*. Unpublished Doctoral dissertation, The Ohio State University, Columbus, OH.

Jastrzab, J., Giodorno, L., Chase, A., Valente, J., Hazlett, A., LaRock, J., R., et al. (2007).

Serving country and community: A longitudinal study of service in AmeriCorps.

Washington, D.C.: Corporation for National and Community Service.

Kees, N. (2003). Creating safe learning environments. In W. M. Timpson, S. S. Canetto, E. A. Borrayo & R. Yang (Eds.), *Teaching diversity: Challenges and complexities, Identities and integrity* (pp. 55-64). Madison, WI: Atwood Publishing.

Lee, C. (2003). Why we need to re-think race and ethnicity in educational research. *Educational Researcher*, 32(5), 3-5.

Lutz, B. F. (2005). *Post Brown vs. the Board of Education: The effects of the end of court-ordered desegregation* (Staff working paper in the Finance and Economics Discussion Series No. 2005-64). Washington, D.C.: U.S. Federal Reserve Board.

McDermott, K. A., Bruno, G., & Varghese, A. (2002). Have Connecticut's desegregation policies produced desegregation? *Equity and Excellence in Education*, 35(1), 18-27.

McKown, C. (2005). Applying ecological theory to advance the science and practice of school-based prejudice reduction interventions. *Educational Psychologist*, 40(3), 177-189.

Miville, M. L., Gelso, C. J., Pannu, R., Liu, W., Touradji, P., Holloway, P., et al. (1999).

Appreciating similarities and valuing differences: The Miville-Guzman Universality-Diversity Scale. *Journal of Counseling Psychology*, 46(3), 291-307.

- Muthuswamy, N., Levine, T. R., & Gazel, J. (2006). Interaction-based diversity initiative outcomes: An evaluation of an initiative aimed at bridging the racial divide on a college campus. *Communication Education, 55*(1), 105-121.
- Nagda, B. A., Tropp, L. A., & Paluck, E. L. (2006). Looking back as we look ahead: Integrating research, theory, and practice on intergroup relations. *Journal of Social Issues, 62*(3), 439-451.
- Nagda, B. A., & Zúñiga, X. (2003). Fostering meaningful racial engagement through intergroup dialogues. *Group Processes & Intergroup Relations, 6*(1), 111-128.
- Orren, P. M., & Werner, P. D. (2007). Effects of brief wilderness programs in relation to adolescents' race. *Journal of Experiential Education, 30*(2), 117-133.
- Paluck, E. L. (2006). Diversity training and intergroup contact: A call for action research. *Journal of Social Issues, 62*(3), 577-595.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49*(1), 65-85.
- Pettigrew, T. F., & Tropp, L. R. (2000). Does intergroup contact reduce prejudice? Recent meta-analytic findings. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 93-114). Mahwah, NJ: Lawrence Erlbaum.
- Roberts, N. (2008). 2007 Kurt Hahn address: How multiculturalism in a changing society can influence experiential education [Electronic Version]. *Horizons, the Newsletter of the Association for Experiential Education*. Retrieved February 16, 2008 from http://www.aee.org/horizons/site_images/Horizon/2007KurtHahnAddress_Roberts1.pdf.
- Robinson, J. W., & Preston, J. D. (1976). Equal status contact and modification of racial prejudice: A reexamination of the contact hypothesis. *Social Forces, 54*(4), 911-924.

- Rodriguez, D. A., & Roberts, N. S. (2005). Understanding the influence of gender and ethnicity on evaluations of outdoor leader effectiveness. *World Leisure, 47*(1), 32-44.
- Seaman, J. (2008). *The ecology of contact: A mixed-methods study of “structured optimal conditions” in a nonformal diversity education program involving urban and suburban youth*. Paper presented at the American Educational Research Association Annual Meeting.
- Stanchfield, J. (2008). *Tips and tools: The art of experiential group facilitation*. Oklahoma City, OK: Wood 'n' Barnes Publishers.
- Strauss, J. P., & Connerly, M. L. (2003). Demographics, personality, contact, and Universal-Diverse Orientation: An exploratory examination. *Human Resource Management, 42*(2), 159-174.
- Warner, R. (2008). *Applied statistics: From bivariate through multivariate techniques*. Thousand Oaks, CA: Sage Publications.
- Washington, S. J., & Roberts, N. (1999). Adventure education for teaching cross-cultural perspectives. In J. C. Miles & S. Priest (Eds.), *Adventure Programming* (pp. 359-364). State College, PA: Venture Publishing.
- Wright, A. N. (1994). Multicultural education through shared adventure. In A. Ewert & L. McAvoy (Eds.), *Coalition for Education in the Outdoors Second Research Symposium Proceedings* (pp. 33-42). Cortland, NY: Coalition for Education in the Outdoors. (ERIC Document Reproduction Service No. ED 383 485).

Table 1*Paired Samples t-Test for Changes in MGUDS-S Scores, by Group*

Group	<i>MΔ</i>	<i>SD</i>	<i>t</i>	<i>d</i>
Whole group (n=74)	3.14	5.65	4.77***	.56
Majority (n=51)	3.63	5.11	5.07***	.71
Minority (n=23)	2.04	6.70	1.46	.30

Note. *** $p < .001$

Table 2*Between-Groups ANOVA on SICS Scores*

Scale	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Interdependence	1	.18	.003	.67
Norms	1	1.79	.02	.19
Association	1	.406	.006	.53
Equal status	1	7.72**	.10	<.01
Total score	1	2.74~	.04	.10

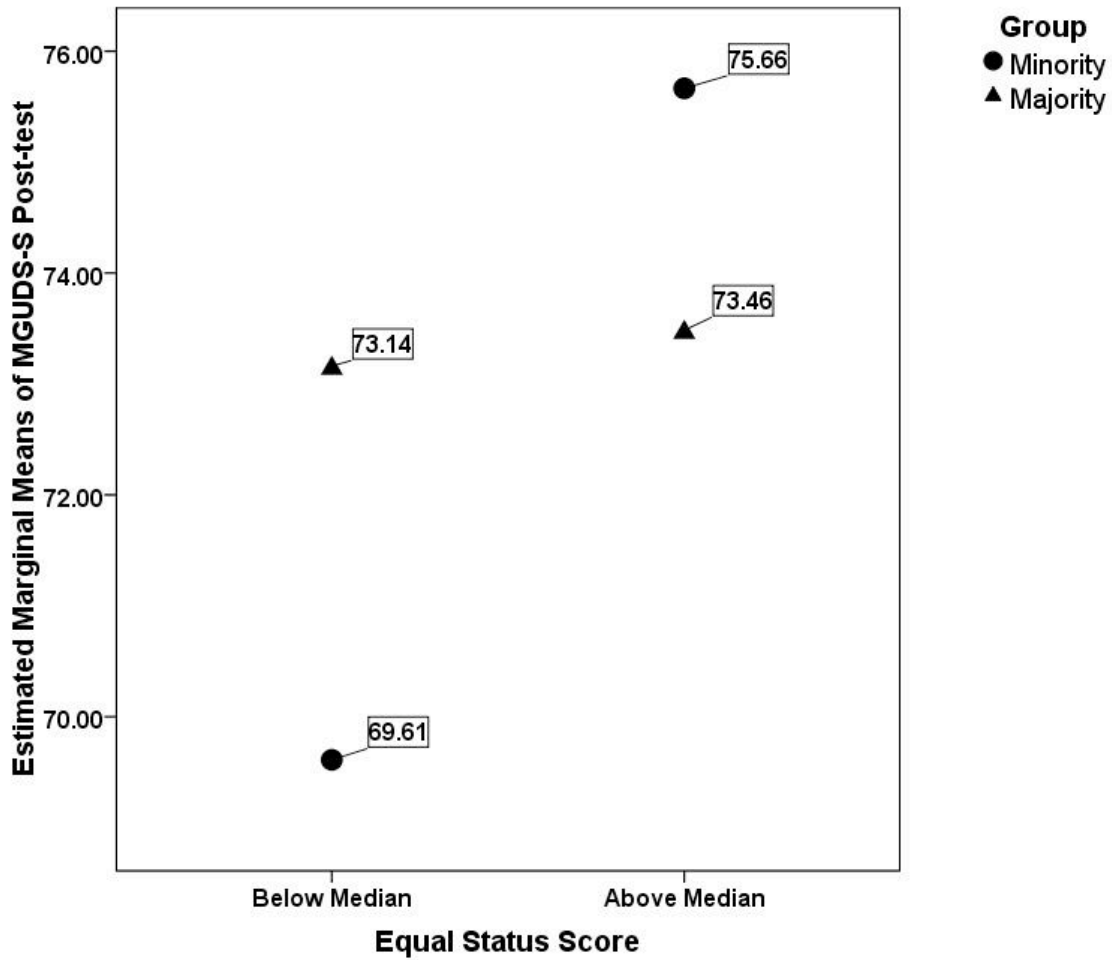
Note. ** $p < .01$; ~ $p \leq .10$

Figure Caption

Figure 1. Interaction effect of majority/minority group membership and *equal status* score on MGUDS-S post-test score.

IN PRESS

Figure 1: Moderating effect of equal status condition, by group



UN