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Do college athletes learn from racial diversity in intercollegiate athletics? A study of the perceptions of college athletes from the state of Michigan

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### **Abstract**

The purpose of this study was to investigate whether college athletes perceived that their exposure to racial diversity from within intercollegiate athletics was an important part of their education. Two NCAA Division I and one NCAA Division II institution in Michigan were surveyed, with 188 athletes participating. Athletes were asked to respond to 15 questions intended to measure perceptions of racial diversity within athletic teams and as athletes within the college environment. The results demonstrated that racial diversity within intercollegiate athletics was an important part of the education of student-athletes, both on teams with significant racial diversity (men's football, men's basketball) and for athletes on teams largely homogeneous in membership (such as men's golf or women's field hockey). Intercollegiate athletics is a useful way to provide opportunities for quality interracial interaction, which helps students to learn about multiculturalism and functioning in a diverse society. The unique nature of athletics with its common goals and cooperation provides an opportunity for individual athletes to be perceived as teammates first, and not first as members of a racial group. Looking at intercollegiate athletics through the lens of internalization and social contact theory helps us to learn that quality interracial interaction experiences from athletics can enhance cognitive development and provide new ways for athletes to learn about people who are different, to reduce prejudice, and to improve interracial understanding. This study demonstrated that higher education institutions should support intercollegiate athletics as a learning environment with potential for quality interracial interaction. Colleges and universities should consider maintaining, or enhancing, the recruiting of minority student-athletes to create additional opportunities for quality interracial interaction. In sum, the racial diversity of a college athletic team can positively impact each athlete's cognitive development and academic success.

Intercollegiate athletics is a magnet to discussion about the positives and negatives of higher education in society today (Knight Commission on Intercollegiate Athletics, 1991; Sperber, 1990; Thelin, 1994; Toma, 2003). Many feel there are certain learning skills and other benefits for college athletes including leadership, interpersonal skills, social-self esteem, discipline, personal health, motivation, dedication, and “life-lessons” (Astin, 1993; Childs, 1987; Miracle & Rees, 1994; Pascarella & Smart, 1991; Pascarella & Terenzini, 2005; Ryan, 1989; Sack & Theil, 1979; Shulman & Bowen, 2001). There are also those critical that college athletes spend extra effort toward athletic pursuits at the expense of academic performance (Bower, 1998; Meggyesy, 2000; Moore, 1989; Sack & Staurowsky, 1998; Sperber, 1990) or at the expense of preparing for non-athletic careers after college (Blann, 1985; Mangan, 1995; Meggyesy, 2000; Sowa & Gressard, 1983). Other research compared the cognitive outcomes of athletes to non-athletes (Bowen & Levin, 2003; Pascarella & Terinzini, 2005; Shulman & Bowen, 2001). However, there has been little discussion about how quality interracial interaction within intercollegiate athletics may provide additional cognitive or social benefits to the education of college athletes.

The purpose of this study was to investigate whether college athletes perceived that their exposure to racial diversity from within intercollegiate athletics was an important part of their education. Racial diversity is an important component of multicultural policy for higher education institutions because colleges need to provide opportunities for their students to learn about differences and commonalities among people and how to function in a diverse society (Gurin, Dey, Hurtado, & Gurin, 2002; Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Pike & Kuh, 2006). Athletics, with its common goals (“winning”) and intense cooperation within athletic teams, provides unique opportunities for individual athletes to be perceived as teammates

first, and not first as members of a racial group. Looking at intercollegiate athletics through the lens of social contact theory (Allport, 1954) and personalization (Miller & Brewer, 1984) helps us to learn if and how quality interracial interaction experiences from athletics may create new ways to learn about people who are different, to reduce prejudice, and to improve interracial understanding. And, the quantity of interracial interaction isn't enough: rather, quality is required (Pike & Kuh, 2006). This research considers quality interracial interaction, defined as contact between races leading to knowledge, acquaintance, and "reaching below the surface" in pursuit of common objectives (Allport, 1954, p. 276).

The next section of this study discusses the research questions, influenced by the groundbreaking U.S. Supreme Court case, *Grutter vs. Bollinger* (2003). A theoretical framework is built, using social contact theory, internalization theory, and social identity theory. A literature review follows, digging into existing research on racial diversity and socialization on campus and racial diversity within intercollegiate athletics. In an attempt to understand the link between quality interracial interaction in athletics and cognition, a survey of college athletes was conducted to learn about their perceptions of racial diversity within intercollegiate athletics. Perceptions lead to social cognition by constructing the meaning of the social environment through understanding people and social situations (Oskamp & Schultz, 2005, p. 26). Findings from this survey are provided to help us learn if college athletes perceive their interracial interactions from athletics are important to their education. This study concludes with a discussion of how the racial diversity of an athletic team may positively impact each college athlete's academic success.

### Research questions

The primary research question of this study was to learn if quality interracial interaction from within the intercollegiate athletic experience positively affected the education of college athletes. The question was influenced by the work of Gurin, Dey, Hurtado, and Gurin (2002), in support of the University of Michigan's argument before the U.S. Supreme Court in *Grutter vs. Bollinger*. The authors demonstrated that quality peer interaction with people of other races outside the classroom experience was an important learning construct that provided significant cognitive learning outcomes and future contributions to society. Improving college students' cognitive skills to understand thoughts and behavior is an important goal of postsecondary education (Barrow, 1986). Astin (1993) demonstrated that students who respond positively to diversity experiences also reported increased satisfaction with their overall college experience. In a forward to the book, *What Makes Racial Diversity Work in Higher Education* (Hale, 2004), University of Maryland president William "Brit" Kirwan stated, "we can actually increase the learning of all students by subjecting everyone's provincialism to multiple perspectives [through cultural diversity]" (p. xxiii).

One way to improve these cognitive skills is through institutions creating more quality opportunities for interracial interaction in peer-to-peer settings outside the classroom. Guiffrida (2006) proposed that colleges should provide opportunities for students to gather in cultural groups because students tend to satisfy their needs for autonomy and competence by identifying with their cultural norms. Guiffrida found exposure to diverse socialization experiences improved motivation to academic achievement and persistence. Yet, while institutions could significantly impact students' behaviors with diverse peers by creating a structurally diverse climate, these effects on student learning are "frequently indirect and modest" (Pike & Kuh,

2006, p. 445). This led to an additional research question: did quality interracial interaction from college athletics positively impact the cognitive development of college athletes? When considering this question, it must be noted that the racial composition of a sport may also affect the degree of cognitive influence from quality interracial interaction within that sport experience; many college sports are mostly, or entirely, homogenous (such as field hockey, golf, or skiing) and college athletes in these sports may have less of a perception that racial diversity from athletics is an important part of their education.

### **Theoretical considerations of racial diversity in athletics**

Adequate theoretical insight can help set the stage for linking racial diversity in athletics to cognitive development, to learning, and to the educational experience. It involves an understanding of how cognitive abilities of learning are acquired, and if racial diversity enhances those abilities. In the end, this investigation will determine if athletics provides the place for quality interracial interactions to occur, and thus, the opportunity to enhance learning. Social contact theory provides a useful lens to see how the interconnections between different groups of individuals to a common goal impact the learning experience – namely, how college athletes of different races become knowledgeable about each other, and how they continue to develop their own racial identity, through their unique experiences and quality interracial interactions as members of an intercollegiate athletic team.

#### *Social contact theory*

Allport's (1954) social contact theory lends itself well to an investigation of racial diversity in athletics (Chu & Griffey, 1984; Pettigrew, 1998). In short, his theory on interpersonal contact between groups that work collectively to a common purpose (such as

athletes working together to win) can lead to positive outcomes. The interpersonal contact between groups requires certain conditions commonly found on the athletic field: equal group status, common goals, cooperation, and institutional supports (law, customs, or atmosphere). Lawrence (2004) related equal group status to the concern of White privilege with respect to the need for all races to be on equal footing so as not to create a “power dynamic that prevents productive understanding” (p. 2). To help understand the nature of social contact among individuals, Allport (1954) differentiates between in-group and out-groups, where those persons within in-groups self-identify as a homophobic, privileged group. Those individuals from out-groups are stereotyped by the in-groups, and considered as dissimilar, homogeneous, and not individualistic (Rogers, Henningan, Bowman, & Miller, 1984).

Yet, athletes seemingly have one thing in common, especially in team sports, and that is to work together in competition to win on the field or court (Lawrence, 2004; Pascarella & Terenzini, 2005; Wolf-Wendel, Toma, & Mophew, 2000). Togetherness regardless of race is an understanding of athletic team’s pursuit of common goals: “here the goal is all important; the ethnic composition of the team is irrelevant” (Allport, 1954, p. 276). There is an expectation that athletes of different races on the same team will work together, and look past skin color and cultural differences to achieve the common goal of victory (Brown, Jackson, et al, 2003). Togetherness on an athletic team can be seen to improve racial behaviors in the sense of improving interracial understanding (Murrell & Gaertner, 1992). Brown, Brown, et al (2003) articulated that “having individuals of different racial backgrounds interact with each other on sport teams can address racial antagonism” (p. 1400).

Another useful branch of social contact theory is personalization. Personalization includes the tenant that interaction with people who are different “promotes attention to

personalized information about others that is self-relevant and not correlated with category membership” (Miller & Brewer, 1984, p. 288). This theory proposes that permanent changes occur in the cognitive and motivational aspects of social interaction because individuals are learning about others outside of the stereotyped race-based norms. Personalization is particularly useful to quality interracial contact within intercollegiate athletics because college athletes often work closely together and often socialize as teammates, regardless of race. The togetherness helps to reduce prejudice and improve interracial understanding. Athletics provides the opportunity to personalize teammates, which can improve their cognitive abilities by enhancing their understanding of others.

Dual identification is also applicable to intercollegiate athletics. Dual identification occurs when a college athlete maintains attachment to their racial group (subgroup) at the same time identifying with a superordinate group (the team) (Stephan & Stephan, 2004). This phenomenon grows over time as part of an athlete’s development. When athletes join the team and meet others of a different race, they become friends through quality interracial interaction experiences. In turn, the positive nature of this relationship improves team dynamics by enhancing intergroup relations among the entire team, and allowing each person to also self-identify as a member of a team (Pettigrew, 1998; Stephan & Stephan, 2004).

### *The Gurin-Vygotsky connection*

Psychological development theories also allow us to learn if a college athlete can enhance his/her cognitive abilities through interracial interaction from within athletics. An integral piece of learning is to be challenged. To be challenged is to step outside the norm of common experiences and encounter or participate in new experiences. For young adults entering college, postsecondary education is a time when cognitive growth is the greatest through experimentation



of knowledge in the classroom, and more importantly by interacting with people of diverse racial and cultural backgrounds (Gurin, 1999). Such interaction moves students outside of their conventional norm and comfort zone. It challenges their thinking, thus providing an opportunity for cognitive growth. The greatest cognitive growth for members of all racial groups in college occurs through quality interracial interaction outside the classroom with one's peers (Gurin, 1999; Locks, Hurtado, Bowman, & Oseguera, 2008).

An individual's interaction with others has meaning through historical and cultural behaviors as constructed by society (Tudge & Winterhoff, 1993). Vygotsky's internalization theory considers that activities develop into new activities, and that later activities are contextualized by previous ones (Wertsch, 1985). Each of these activities is influenced by the social world. Of particular consideration for this study is that cognitive developmental processes operate at a higher level when interacting with others from a culturally different group (Wells, 2000). Cognitive development is situation-specific to the level of complexity of learning and changes through one's experiences (Barrow, 1986). Some athletic experiences are considered as social experiences, or may include social experiences, that provide unique opportunities for quality interracial interactions. Understanding how college athletes perceive these quality interracial interactions in the sport environment can help to tell us if those interactions are impacting their cognitive abilities.

### *Social identity theory*

Social identity theory is a useful tool to extend Vygotsky's theoretical approach from childhood to the social, peer-to-peer network environment of postsecondary education. Cognitive development continues through life as individuals further their own interests (Barrow, 1986; Turner, 1984). Social identity theories address the ways in which students think about their

development and construct their various social identities, including categorization by group membership such as race. Chickering & Reisser's (1993) *Seven Vectors* model of social identity theory tied socialization to cognitive improvement through students' experience of interpersonal and intellectual challenges over time. Tinto (1993) argued that the lack of social integration for students, especially for underprepared, marginalized, or minority college students, is a significant contributing factor to these students exiting college early. Thus, considering the situation-specific nature of cognition and social identity theory of college students, it is plausible to apply the context of Vygotsky's cognitive theory of internalization from children to college students in an effort to learn about quality interracial interaction from social (non-classroom) exchanges in college.

The academic nature of cognition is a different situational type of cognitive development, occurring in a different environment than the social form of cognition through athletics. Yet, each type of cognitive development (academic and social) is an important part of the holistic development of the college athlete while in college. King & Magolda (2003) refer to three domains of holistic student development, each of which are different but related: interpersonal (how to construct relationships with other people), cognitive (how one makes meaning of knowledge and constructs one's views), and intrapersonal (how one defines oneself and uses this as a guide to one's choices). In a similar vein, Kegan (1994) referred to the cross-categorical knowing of an individual's social-cognitive domain as one in which people have the ability to relate to others and to the larger community.

### Summary

The theoretical foundations of Allport's social contact theory are useful to understand how quality interaction between different racial groups can improve cognition. The greatest

cognitive growth for students is through exposure to quality interracial interaction with ones peers outside the classroom. Cognitive skills are most significantly impacted by social experiences. There is an inherent socialization aspect of intercollegiate athletics most visible in how athletes must work together to achieve the common goal of victory, regardless of race. As members of an athletic team, the interrelations required both on and off the field may provide a unique opportunity for quality interracial interaction, most significantly for racially-diverse sports. Athletics provide a socialization experience that allows college athletes to remove racial stereotypes and instead personalize each other, thereby learning more about each teammate as an individual. Intercollegiate athletics seems to provide an opportunity for substantial quality interracial interaction, depending on the racial diversity of the sport being played. Through the socialization of athletics in racially diverse sports, college athletes can learn from multiple cultural resources. These experiences are useful for holistic cognitive improvement (Gurin, 1999; Moll, 2000).

### **Additional literature**

#### *Racial diversity and socialization on campus*

The benefits to college athletes from quality interracial interaction in intercollegiate athletics can be reflected in the role that racial diversity has in higher education in general. In its defense before the U. S. Supreme Court in *Grutter v. Bollinger* (2003), the University of Michigan argued successfully that it was within the educational mission of higher education to create race-conscious policies, including in admissions, to improve “cross-racial understanding” (Marin & Yun, 2005).

College athletes consider themselves unique, with unique opportunities to learn about other races, and their interaction with other college athletes provides an important mechanism to succeed as a student. Socialization experiences of college athletes can have a profound effect on their educational beliefs. As a group, college athletes perceive their college experience differently than the remainder of the student body (Scott, 2002; Shulman & Bowen, 2001). Sedlacek (2004) categorized college athletes as a nontraditional group that could encounter prejudice similar to that of minorities, females, or gays and lesbians. The socialization of many college athletes (particularly athletes in football, basketball, and track and field) includes encounters with a variety of individuals with different racial characteristics and experiences. Since exposure to people of other races may have a profound influence on the shaping of cultural experiences (Rendon, Jalomo, & Nora, 2000), the multicultural climate of many intercollegiate athletic sports can improve college athletes' multicultural understanding. Baird (2000) proposed that a student's perception of a campus climate, and how they cope, influences their academic and social integration.

#### *Racial diversity within intercollegiate athletics*

Little research has been devoted to racial diversity within college athletic teams (Oglesby & Schrader, 2000; Pascarella & Terenzini, 2005; Singer, 2005). Several qualitative studies have found some tension between different racial groups of college athletes (Lawrence, 2004; Singer, 2005; Stratta, 1995; Wolniak, Pierson, & Pascarella, 2001); other research contradicted these studies and instead found that athletes perceived themselves as "raceless" (Brown, Jackson, et al, 2003) or that athletics led to a sense of community on the team (Wolf-Wendel, Toma, & Morphew, 2000). However, there has been little quantitative investigation to

how college athletes perceive quality interracial interactions from within intercollegiate athletics impacted their educational experience.

Of particular interest is qualitative research by Brown, Jackson, et al (2003), which found nearly 500 freshmen athletes at 24 Division I institutions on average believed that their athletic identity superceded their racial identity. This differs from dual-identification because the athletes responded with perceptions that led to athletic identity replacing racial identity, stemming from the strong socialization impact of athletics which reduced racial distinctiveness and reduced racial antagonism.

### *Athletics as multicultural policy*

Before a brief review of the literature on multicultural policies, it is useful to share some statistics about the racial landscape of college sports. It should be noted that this research focuses only on the racial diversity (and not other forms of diversity) aspect of multiculturalism. College athletics participation, in aggregate, is as racially diverse as the nation's population, but the population is disproportionate to a few sports. White college athletes comprise 73.8% of the national populations in intercollegiate athletics at all levels (NCAA Division I, II, and III) (NCAA, 2006). But, there are significant differences in racial diversity by sport. For instance, 42% of men's basketball athletes in all three divisions are Black; 32% of those in football are Black; 20% of male and females in track and field are Black. In all other sports, less than 8% of male and female participants are Black. The disproportionably speaks to the opportunities (or lack thereof) for quality interracial interaction in certain sports. If a sport is already racially diverse (football, basketball, track and field), then the opportunities for quality interracial interaction may already exist. However, if a sport is racially homogeneous, then multicultural

policy for athletics should address improving racial diversity and thus providing more opportunities for quality interracial interaction.

Multiculturalism may be considered as knowing and developing an appreciation about individuals from differing backgrounds, and knowing about oneself in relation to others (DeSensi, 1995). Multicultural policies in higher education have been identified as integrating and processing diversity content, providing equitable pedagogy, implementing methods to reduce prejudice and improve cross-cultural understanding, and empowering social structures (Chepyator-Tomson, 1995). It is worth investigating if athletics can be considered a multicultural policy tool from its link between exposure to different cultures and cognition. Multicultural policies need to be synchronized “between academic and ethnic cultural context and cognition” (Ibarra, 2001, p. 131). The important point is that adding cultural practices and policies to the curriculum are important, but there is also a need to include quality interracial interaction (DeSensi, 1995). Otherwise, multicultural policies lead to knowledge without understanding. Diversity in intercollegiate athletics may provide the quality interracial interactions to make that synchronicity happen.

Whitla, Howard, Tuitt, Reddick, and Flannagan (2005) provide an effective outline for successful multicultural policies that promote and enhance diversity as policies from a school’s educational capital, institutional capital, and human capital. Successful multicultural policies overlap these three categories to reinforce the overall mission of promoting diversity. Those involved in athletics generally do not address race or include an educational component about race to complement the athletic experience (Edwards, 1985). College athletes get together, exercise, come up with a game plan, and work together to win. Athletics differs greatly from a program or event whose purpose is directed at diversity, such as campus multicultural centers,

ethnic group organizations, or college departments devoted to cross-cultural learning. Thus, while athletics may provide access to college for minorities and improve opportunities for quality interracial interaction, the lack of direct dialogue about race within athletics may limit its effectiveness as a multicultural policy tool.

### Summary

There has been a great deal of research on the impact of racial diversity within higher education, as well as theoretical understanding that social integration, quality interracial interaction, and cross-cultural understanding are important to help a college student succeed. Using intercollegiate athletics as a tool to improve racial diversity on campus is a daunting statement considering the prevailing wisdom that athletics isn't about race and that athletics is not the answer to solve racial tension. Because college is the first opportunity for many students to meet people who are different from themselves (Gurin, 1999; Tinto, 1993), institutions have directed multicultural policies to share cultural traditions and to help students learn about the differences of others. But, the policies must be coordinated with quality interracial interaction to be effective; and, intercollegiate athletics may be one way to provide that interaction.

Learning from perceptions of college athletes is one step to understanding if and how their quality interracial interactions can relate to multiculturalism policy. College athletes can tell us if they feel they are receiving important learning experiences from interracial interactions within athletics. A survey was conducted to help answer the hypotheses, that: (1) athletes' perceptions of racial diversity would benefit their education; and, (2) if quality interracial interaction from college athletics positively impacted athletes' cognitive development.

## Methods

### Sample

I conducted a quantitative analysis by using a Web-based survey (Appendix A) to gather data from college athletes at institutions from NCAA Divisions I and II in the state of Michigan. Personal data was requested to separate the responses by demographic group to learn if college athletes from different backgrounds perceived racial diversity within athletics differently. The remaining questions related to perceptions of racial diversity. The survey was pilot-tested for content and construct validity by two teams at a Division I institution. The pilot study included an open-ended question requesting feedback on the survey process and improvements to the questions. The feedback was used to improve the process for the study survey. The final study survey included teams at three athletic programs at Division I and II institutions that were different than one used for the pilot study.

A web-based survey and multi-step email invitation process was used to collect the data (Andrews, Nonnecke, & Preece, 2003). All three athletic departments agreed to distribute all communications by e-mail internally. An athletic staff member from each institution was the recipient of the researcher's e-mails and disseminated each email to the athletes at their institution. It was expected that this process would enhance the response rate because the e-mail would be received directly from someone they knew (an athletic staff member of their institution) instead of from someone they didn't know (the researcher). An initial e-mail (Appendix B) to each college athlete included a cover letter with a brief discussion of the study and requesting their participation. Within 24 hours, a follow-up e-mail (Appendix C) was sent to each student with an access code specific to the institution and the website address ([www.msu.edu/~hirkosco](http://www.msu.edu/~hirkosco)). Each college athlete was required to include the code when



responding to the Internet form; the code was provided to ensure a legitimate response from the college athletes and not the general population, as well as to control for “ballot-stuffing” (Andrews, Nonnecke, & Preece, 2003). Responses were requested with a deadline of one week. After six days, a reminder e-mail (Appendix D) was sent to each college athlete, with a specific request to respond to the web-based survey. This again included the web address and the access code. At the completion of the survey period, 188 responses were received out of 1,759 total college athletes at the institutions surveyed. The final response rate of 10.8% provided data from a sample that was at a greater than 90% confidence level according to the sample size formula (Lazerwitz, 1968).

### Respondents

Responses were categorized by demographics to understand different perceptions of racial diversity. Table 1 provides a definition of each variable and Table 2 provides the respondents within each category. Because socialization from racial group membership can influence interpersonal relationships, race was used as a variable (Helms, 1990). The

Table 1

### Independent Variables

Variable	Description
Sex	Male or female
Race	White or Minority (Asian/Asian American, Black/African American, Hispanic/Latino, Native American, Other)
Sport Type	Revenue (basketball, football, ice hockey) or Non-revenue (baseball, cross country, golf, gymnastics, Nordic skiing, rowing/crew, soccer, softball, swimming/diving, tennis, track and field, volleyball, wrestling)
Scholarship	None, partial, or full
Class	Freshman, sophomore, junior, or senior
Level of Competition	NCAA Division I or II

intent was to learn if White college athletes differed in their perceptions from minority college athletes. The survey requested athletic scholarship status to learn if those with scholarships perceived the values and effects of racial diversity within athletic teams differently from those without, or on partial, scholarship. Level of competition by NCAA Division was useful to consider how societal norms, as well as institution and national regulations, affect college

Table 2

*Respondents*

Variable	Respondents (N=188)			
Sex	Male 41.0%	Female 59.0%		
Race	White 80.9%	Minority 19.1%		
Sport Type	Revenue 18.6%	Non-revenue 81.4%		
Scholarship	None 46.8%	Partial 33.0%	Full 20.2%	
Class	Freshman 34.3%	Sophomore 20.1%	Junior 15.2%	Senior 22.5%
Level of Competition	Division I 69.1%	Division II 30.9%		

athletes (Shulman & Bowen, 2001; Wolniak, Pierson, & Pascarella, 2001). Sports were pooled into two categories: revenue (football, basketball, ice hockey) and non-revenue (all remaining sports). Categorizing sport by revenue/non-revenue status was necessary because the response rate within each sport team was too small on its own. Categorizing by sport was also useful because of evidence that college athletes within revenue-producing sports have a peer subculture that may impact student learning differently than the peer subculture in non-revenue sports (Shulman & Bowen, 2001; Pascarella, Bohr, Nora & Terenzini, 1995). The amount of experience in college by year, or “class,” provided insight if greater experience provided different perceptions on racial diversity than those with less experience (Shulman & Bowen, 2001). Class was also requested after considering the impact of social identity theory (Chickering & Reisser,

1993): as college athletes grow so does the opportunity for educational growth from racial diversity through athletic relationships. Including the response by class also responded to the limitations in the study by Brown, Jackson, et al (2003).

### Dependent Variables

The dependent variables consisted of 15 questions (Table 3) intended to measure perceptions of racial diversity within athletic teams and as college athletes within the college environment. The 15 racial diversity questions were determined internally reliable as a full measure of the perceptions of racial diversity in athletics (Chronbach alpha correlation of .833). Questions 1 through 5 were based on the “Openness To Diversity and Challenge” scale (Wolniak, Pierson, & Pascarella, 2001) and the research of Gurin, Dey, Hurtado, and Gurin (2002). These questions were asked to measure college athletes’ perceptions of openness to diversity outside of athletics and their openness to values and perspectives different from one’s own. Questions 6 through 15 were based on Sedlacek’s (2004) noncognitive variables and relate specifically to perceptions of racial diversity within intercollegiate athletic experiences.

## **Results**

Mean scores of each of the groups were compared and independent-sample t-tests were conducted to compare the independent variables race, sex, and revenue/non-revenue sport with each of the 15 diversity questions as dependent variables (Appendix E). A t-test is a common parametric analysis of data to compare the difference between the means of two variables (Wiersma, 1991). Analysis of variance (ANOVA) was used to compare the scholarship levels with each of the 15 diversity questions. ANOVA is useful to test the differences of the means of more than two variables (Wiersma, 1991). First is presented the aggregate mean result for each

Table 3

*Questions & Results. Total Means and Standard Deviations by Survey Question.*

Question	Mean	SD	N
1. I have been exposed to classes that have had an important impact on my views of racial diversity.	3.45	1.134	188
2. I have been exposed to activities outside the classroom and outside athletics that have had an important impact on my views on racial diversity.	3.68	0.967	188
3. I enjoy having discussions with people whose ideas and values are different from my own.	4.06	0.809	188
4. The real value of a college education lies in being introduced to different values.	3.66	0.986	188
5. Learning about people from different cultures is a very important part of my college education.	3.77	0.975	188
6. Racial diversity on an athletic team can help the team learn how to better communicate.	3.70	0.923	188
7. I wish there were more players on my team from different races.	3.28	0.898	187
8. Having players of different races is important to my athletic team.	3.00	0.925	188
9. Athletics is a good way for players of different races to "fit" in college life.	3.68	0.934	187
10. I can learn different ways to make decisions from teammates with different racial backgrounds.	3.43	0.801	188
11. A commitment to winning is more important to the team than the racial background of my teammates	4.43	0.835	187
12. My exposure to people of different races in athletics benefits my education	3.55	0.955	188
13. Working with people of different races in athletics to reach a common goal -- winning -- will help me after I graduate	3.98	0.859	188
14. I believe I receive more exposure to racial diversity in athletics than non-athletic college students	3.11	1.207	188
15. Racial diversity is important to intercollegiate athletics	3.56	0.998	188

*Means based on 5-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree*

question on the survey (Table 3). The means are notable in aggregate because the responses are positive (at or above neutral) for each of the 15 questions. Next, results are presented for each question where statistically significant differences were found between independent variables

(Table 4). These results are presented to learn about any different perceptions between groups within athletics in the same campus setting, and encountering similar campus environmental contexts.

Responses to four questions stand out when reviewing the aggregate mean responses. The strongest agreement in aggregate from all college athletes was their perceived commitment to winning as more important than the race of their teammates (question 11, mean 4.43). There was strong agreement for all groups that college athletes enjoyed having discussions with people who were different from themselves (question 3, mean 4.06). The least amount of agreement was an

Table 4

*Results. Significant Statistical Differences of Perceptions of Racial Diversity*

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Question & independent variable	T	Significance
Perceptions on campus		
Q1 & Division	2.530	p<.05
Q3 & Sex	-2.320	p<.05
Q4 & Race	-2.750	p<.01
Q4 & Sex	-3.794	p<.001
Q4 & Division	2.169	p<.05
Q5 & Race	-2.591	p<.01
Q5 & Sex	-3.274	p<.001
Q5 & Division	2.365	p<.05
Perceptions within athletics		
Q6 & Race	-3.236	p<.001
Q7 & Race	-2.740	p<.01
Q7 & Sex	-2.774	p<.01
Q9 & Sex	2.087	p<.05
Q11 & Sport	3.278	p<.01
Q14 & Sex	2.801	p<.01
Q14 & Sport	4.586	p<.001
Q15 & Sex	-2.163	p<.05

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*Responses based on 5-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.*

aggregate neutral response to the importance of having players of different races on the team (question 8, mean 3.00). A nearly neutral response from all the groups in aggregate was the college athletes' perception that they received more exposure to racial diversity than non-athletic students (question 14, mean 3.11).

The survey was constructed to consider perceptions of diversity based in two contexts: perceptions of racial diversity on campus (questions 1 through 5) and racial diversity within intercollegiate athletics (questions 6 through 15). Significant statistical differences are reported in these contexts. There was no statistically significant difference found between college athletes in levels of competition (Divisions I and II) relating to perceptions of racial diversity within athletics. The data supports the theoretical propositions in social contact theory in which in-group membership affecting racial prejudices should not be affected by level of competition or other external contextual categorization (Allport, 1954). Therefore, the analysis of data of all 15 questions included responses from both Division I and Division II college athletes pooled together.

There most significant differences in response to the questions were between male and female athletes, and between Whites and minority athletes, than any of the other dependent variables. Minority and female athletes responded more significantly in favor than White and male athletes to: the real value of a college education lies in being introduced to different values (question 4); learning about people from different cultures is important to college education (question 5); and, whether the athletes wished they had more racial diversity on their team (question 7). Female athletes on average also were significantly more favorable than males in response to: enjoying having discussions with people whose ideas and values are different from my own (question 3); and, that racial diversity is important to intercollegiate athletics (question

15). Male athletes on average were significantly more favorable than females in response to: believing athletics is a good way for players of different races to fit in college life (question 9); and, believing they receive more exposure to racial diversity in athletics than non-athletic students (question 14). Nearly half the questions (seven of 15) significantly differed between the sexes. Minority athletes responded more significantly in favor that racial diversity can help the team better communicate (question 6).

More minority college athletes than White athletes agreed that racial diversity improves team communication (question 6) and more minority athletes wanted more diversity on their athletic team (question 7). Minority college athletes agreed less significantly than Whites that a commitment to winning was more important than the race of their teammates (question 11). In terms of college athletes' exposure to racial diversity on campus, more minority athletes than White athletes perceived that the real values of education lies in different values (question 4) and that learning from cultural values is important to education (question 5).

Findings from two questions were significant for college athletes in revenue/non-revenue sports. College athletes participating in revenue sports responded more favorably on average than those participating in non-revenue sports about the commitment to winning being more important to the team than the racial background of teammates (question 11) and receiving more exposure to racial diversity in athletics than non-athletic students (question 14).

The analysis of variance conducted for scholarship level found a significant difference only in response to the question posed about athletics being a good fit into college for players of different races (question 9,  $F(2, 184)=5.078, p=.007$ ). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for those without scholarship ( $M=3.51, SD=0.858$ ) was

significantly different for those on partial scholarship ( $M=3.98$ ,  $SD=0.914$ ), but did not significantly differ from those on full scholarship.

There were no significant differences among any of the classes of college athletes to any of the questions in this study.

### **Discussion**

This study found that college athletes perceive quality interracial interaction from within the athletic experience positively impacted their education. All groups on average felt racial diversity on campus and within athletics were important. The results supported the theoretical framework of the social contact theory that intercollegiate athletics provides the opportunity for quality interracial interaction because of its unique nature of team cohesion and socialization. While some groups may have had a stronger perception than others, the results also answered the second research question that college athletes receive opportunities for cognitive growth from quality interracial interaction within the athletics experience.

Females and males had greater differences than any other group. In five of seven questions reporting significant statistical differences, male college athletes had a lower perception of racial diversity than females. This supported the conclusions by Davis (2002) in his study of the construction of college male identity that both racial and gender identity were not an expressive aspect of males' self-concept. Gender and race are not salient issues in the masculine athletics environment.

There were statistically significant differences by race to questions relating to racial diversity on campus and quality interracial relations within athletics. In five of the questions, minority students had a stronger perception of racial diversity than White students. Helms and



Cook (1999) theorized through the premise of White superiority that White students do not perceive themselves in a racial context. The results in this study supported the premise that White, male college athletes developmentally do not have as strong perception of the role of race or gender in their education as minorities or women. As noted with social contact theory, personalization, and dual identification, the opportunity that college athletes have to interact with those of other races in the unique athletic environment provides the opportunity to reduce these differences.

Greater pressures to win may explain the differences between revenue/non-revenue college athletes. Those in revenue sports may consider winning more important than race of their teammates more than non-revenue athletes because there are greater pressures to winning in the high profile sports of football and basketball. Some of the pressures include community or campus expectations, the impact of the potential loss of an athletic scholarship for poor athletic performance, and media publicity. Shulman and Bowen (2001) demonstrated that “high profile athletes are likely to be more focused in their athletic pursuits” (p. 256). It is important to also consider that a greater percentage of revenue sport athletes are minorities than in non-revenue sports. When considering this finding in relation to the research by Brown, Jackson, et al (2003), that athletic identity replaced racial identity among freshman athletes, it was not surprising to learn that race was not a factor in response to revenue athletes believing winning was more important than the race of teammates. Again, because minorities are in greater numbers in football and basketball, it follows that revenue sport athletes responded in greater numbers than non-revenue college athletes about having more exposure to racial diversity than non-athlete students.

Interestingly, social identity theory was not reflected in any significant difference by class. Although social identity theories provide the premise that exposure to diversity makes greater impressions on cognitive development over time, the findings in this study fail to make that connection. All classes of athletes – freshmen, sophomores, juniors, seniors – agreed similarly to all 15 questions that racial diversity was important to their education. The longer a student was involved in college athletics seems not to have had as much of an affect on their perceptions of racial diversity within athletics.

The results in this study demonstrated a connection between perceptions of racial diversity in athletics, the exposure to quality interracial interaction from athletics, and perceived educational benefit. This research found, on average, college athletes perceived they had an important opportunity to learn from racial diversity, and that this learning benefited their education. The opportunities to experience quality interracial interactions through athletics were important to improve social cognitive growth, reduce prejudice, and produce greater interracial understanding. While athletics may have not directly included dialogue about race and culture, athletics provided the opportunities for quality interracial interaction that is necessary for any multicultural policy to be effective. It is this opportunity for greater interracial understanding that is an important cornerstone of multicultural policy. The impact that athletics makes on college athletes' cognitive growth from quality interracial interaction is an important finding that colleges should consider as an example of effective multicultural policy.

### **Conclusions & Recommendations**

There is a call for colleges and universities to improve cross-cultural understanding through enhanced quality interracial interaction, both in the curriculum and elsewhere on campus through social opportunities. The American corporate sector is concerned that postsecondary education will not meet the need to educate an increasingly more diverse workforce necessary for the employment pipeline (Duderstadt, 2003; Duderstadt, 2005). Racial diversity in postsecondary education should not be seen as adequate just for the sake of meeting political race-based quotas that reflect the population. Rather, businesses and organizations see racial diversity as the answer to help solve problems. Cox (1993) stated, “diverse groups have a broader and richer base of experience from which to approach a problem, and that critical analysis in decision groups is enhanced by member diversity” (p. 33). Further, Oblinger & Verville (1998) challenge both business and postsecondary education: “it will be up to us and our institutions whether we see our changing population as an opportunity” (p. 41).

Athletics plays a unique role in the mission of American postsecondary education, and it can play an important role in creating opportunities for quality interracial interaction. Regardless of whether or not faculty or others feel athletics should be a part of the higher education mission, the fact is that athletics has been a part of the socialization of college athletes in some form for 150 years. Over this time, scholars have broadly studied the benefits from athletics on its participants, including teamwork, time-management, respect, and physical health. However, it is only in last 30 years that higher education scholars have more thoroughly investigated the social effects of athletics on college athletes. These investigations include race relations and understanding the theoretical connections of identity development, social contact, and making meaning of one’s experiences.

The composition of athletic teams, their operation, and their mission is distinct to postsecondary education. The fact that all members of the team and coaches are to focus on accomplishing the same task – winning through physical competition – allows for the opportunity to drop pre-conceived stereotypes and instead learn more from others who are different. Although discrimination exists in athletics, the socialized nature of athletics has the ability to eliminate prejudice and help foster interracial understanding. By connecting quality interracial interaction in athletics to cognition, we can learn if athletics is a useful tool for postsecondary educational institutions to provide the value-added to education that society is calling for, and that society needs.

These findings tie the perceptions of college athletes from their experiences of racial diversity in athletics to cognitive learning outcomes. Previous studies found that perception is both a product of the environment and a potential determinant of future interactions and outcomes (Astin, 1968; Berger & Milem, 1999; Tierney, 1987). The dual lens of social identity theory and Vygotsky's theory of internalization help us see how the socialization experiences of college athletes can reduce prejudice while also improving cognitive development.

The results demonstrated that all college athletes perceived racial diversity played an important role in college athletics and their overall education. Campus climate and socialization are crucial constructs for all college students (Tinto, 1993), and athletics provides positive social experiences, leadership skills, and interpersonal relationship skills (Pascarella & Smart, 1991; Ryan, 1989). Scholars have called upon higher education institutions to provide quality interracial experiences on campus (Pike & Kuh, 2006), and the results of this study demonstrate that college athletics can be one answer to that call. While athletic teams don't necessarily incorporate racial diversity policies that force dialogue about cross-cultural understanding, the

quality interracial interaction that does occur provides the synchronous link that leads to social cognitive development about racial diversity.

This study should help feed the belief by some in higher education that intercollegiate athletics can be a programmatic effort to build quality diverse learning communities (Smith, 1996) and that it does help to promote racial diversity (Shulman & Bowen, 2001). Higher education institutions should support intercollegiate athletics as a learning environment with potential for quality interracial interaction. These results demonstrated that even if there was a lack of racial diversity in a sport, and even if college athletes felt racial diversity within their own team was not as important as winning, they still believed that racial diversity within intercollegiate athletics was important to their overall education. Higher education should enhance their recruitment efforts of minority college athletes exactly because intercollegiate athletics provides an opportunity to improve multicultural understanding through quality interracial interaction opportunities.

There is one significant recommendation from this study. There is an opportunity to divert some of the athletic scholarships, especially in non-revenue sports (not football and not basketball) at Division I and II, from White students to minorities. This is cost-effective in the sense that this is a transferable cost, and not a new cost. This would be particularly effective for non-revenue sports, in which 79% of females and 73% of males are White (NCAA, 2006). Institutions should consider developing youth sport development programs for non-revenue sports targeted at minorities. On the surface, this may pose problems because many minorities create a self-schemata that categorize their abilities into particular sports (Harrison, Lee, & Belcher, 1999). Yet, several programs have proven this model successful – such as the National Youth Sports Program, Lacrosse for Life, and USA Swimming. Brown, Brown, et al (2003)

similarly recommended increasing the number of Black athletes playing individual, non-team sports. There are far more scholarships and opportunities to develop minority recruitment programs in non-revenue sports because there are far fewer minority athletes competing in these sports at a younger age (Lawson, 2006). With more athletically gifted minority students in the pipeline of non-revenue sports, coaches could recruit minority athletes to win as much as they currently recruit White athletes.

Few scholars and administrators may perceive athletics as a tool to increase cognitive development, improve interracial understanding, and enhance a college student's holistic educational experience. Considering that most higher education institutions have mission statements aimed at improving diversity and multicultural understanding, colleges need to revisit the role of their athletic program as an effective multicultural tool in the greater campus climate.

### **Limitations and Future Research**

Beyond quantity of interaction, more research into the extent, type, and quality of the interracial interaction (Pike & Kuh, 2006) would provide additional insight about how intercollegiate athletics may impact diverse learning outcomes and cognition. For instance, how does the amount and type of interracial interaction on the playing field differ from interactions in the locker room, or in other social settings with teammates?

Michigan's geographic region may also impact college athletes' exposure to racial diversity. For instance, although the number of ice hockey players responding to this survey was low (N=5), ice hockey was included as a revenue sport because it is revenue generating in Michigan. While this may not be generalizable to other states, other sports (baseball, lacrosse) than hockey may be revenue generating elsewhere; therefore, minorities may make a more

significant representation in revenue teams than non-revenue teams. It is conceivable that other states have a greater proportion of minority college athletes in other sports that could impact the cognitive and social outcomes of all teammates. Additionally, there are new challenges from the passage of Proposal 2 (the Michigan Civil Rights Initiative) in Michigan in 2006, as well as proposals in other states (such as in California, Washington), which limit the ability of educational institutions to consider race in policy decisions. Although these challenges were not considered in this study, any policy outcome should carefully consider these laws and the growing national trend against institutional policies that consider race.

Intercollegiate athletics is contextually a diverse and unique situation that likely impacted the college athletes to respond in favor of the environment in which they were already participating. While the tenants of social contact theory were confirmed by this study, another study designed to pull the impact of racial diversity away from the immediate athletics environment may provide a more direct measurement of the true attitude and behavioral intent of college athletes.

Finally, the response rate was limited by the recruitment and institutional review board process. Several institutions contacted by the researcher either did not respond to repeated requests or denied access to the college athletes in an attempt to protect the athletes' time commitments. Further, relying upon each athletic department to disseminate the emails to the athletes reduced the number of follow-ups possible for fear of antagonizing the athletic staff assisting with the study. While the method of indirectly contacting college athletes through the athletic staff may have enhanced the response rate by providing college athletes with a message coming from a known source, it reduced the opportunity for potentially more effective pleas to participate.

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## Appendix A

### Perceptions of Racial Diversity Among College Athletes in Michigan

web-based survey

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This web-based survey has been constructed to solicit responses about the perceptions of racial diversity among college athletes in the state of Michigan. It is part of a study to learn how college athletes feel their lives are impacted by exposure to people of different races through sports. Your participation will contribute to our knowledge of the college experience of student-athletes and to assist higher education practitioners in better understanding how to support students. This study is being conducted by Scott Hirko, a graduate student in Michigan State University's doctorate program in Higher, Adult, and Lifelong Education, under the supervision of Dr. Matthew Wawrzynski, Assistant Professor in Educational Administration at Michigan State University.

This survey contains 23 questions and should take no more than 10 minutes to complete. Your participation is voluntary. You may refuse to participate at any time. You indicate your voluntary agreement to participate by completing and submitting this questionnaire.

The only identifying information obtained from the survey will be from the survey code. However, this code will be destroyed upon receipt and will not be included with the data analyzed for this study. The survey code is useful to help enhance the response rate and to reduce unsolicited responses. Destroying the code will ensure your confidentiality. There are no known risks associated with participation in this study. You will not benefit from your participation in this study. A final copy of this study will be available for your review at the same website URL address used for the survey. In addition, the final report will be turned in as a class assignment for EAD 966: The College Student.

Your privacy will be protected to the maximum extent allowable by law.

If you have any questions about this study, please contact Scott Hirko (517-203-4992, [hirkosco@msu.edu](mailto:hirkosco@msu.edu)) or Dr. Matthew Wawrzynski, [mwawrzyn@msu.edu](mailto:mwawrzyn@msu.edu), (517) 355-6617, Assistant Professor in Educational Administration, 426 Erickson Hall, Michigan State University.

If you have any additional questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - Dr. Peter Vasilenko, Director, Human Research Protection Programs at Michigan State

University by phone: (517) 355-2180, fax: (517) 432-4503, email address: irb@msu.edu, or postal mail: 202 Olds Hall, East Lansing, MI 48824.

Thank you for your participation!

**DIRECTIONS:**

1. Please enter the code included in your email on the first line below.
2. Fill out the form below by choosing one response for each question.
3. When completed, please hit "submit" at the end.
4. After submitting the information, a "thank you" page should be displayed.
5. Please complete this form before 5 p.m. on April 7, 2006, at which time the survey period will conclude.

**SURVEY:**

Your Survey Code (from e-mail): <input type="text"/>
<b>Demographic Questions</b> (please use drop down menus for selection)
Your Sex: <input type="text"/>
Your Race: <input type="text"/>
Your College Class Level (up to how many years of coursework have you completed?) <input type="text"/>
Your Sport (if multiple-sport athlete, select one): <input type="text"/>
Are you on scholarship? <input type="text"/>
What is the NCAA Division Level for your sport? <input type="text"/>

<b>Questions About Diversity</b> (provide answer at right; one answer per question)					
1. I have been exposed to classes that have had an important impact on my views of racial diversity	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
2. I have been exposed to activities outside the classroom and outside athletics that have had an important impact on my views on racial diversity	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
3. I enjoy having discussions with people whose ideas and values are different from my own	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
4. The real value of a college education lies in being introduced to different values	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
5. Learning about people from different cultures is a very important part of my college education	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
6. Racial diversity on an athletic team can help the team learn how to better communicate	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
7. I wish there were more players on my team from different races	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
8. Having players of different races is important to my athletic team	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
9. Athletics is a good way for players of different races to "fit" in college life	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
10. I can learn different ways to make decisions from teammates with different racial backgrounds	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
11. A commitment to winning is more	<input type="checkbox"/> 1-	<input type="checkbox"/> 2-	<input type="checkbox"/> 3-	<input type="checkbox"/> 4-	<input type="checkbox"/> 5-

important to the team than the racial background of my teammates	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12. My exposure to people of different races in athletics benefits my education	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
13. Working with people of different races in athletics to reach a common goal -- winning -- will help me after I graduate	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
14. I believe I receive more exposure to racial diversity in athletics than non-athletic college students	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree
15. Racial diversity is important to intercollegiate athletics	<input type="checkbox"/> 1- Strongly Disagree	<input type="checkbox"/> 2- Disagree	<input type="checkbox"/> 3- Neutral	<input type="checkbox"/> 4- Agree	<input type="checkbox"/> 5- Strongly Agree

Submit

## Appendix B

### Initial email

#### Perceptions of Racial Diversity Among College Athletes in Michigan

April 2, 2006

Dear Participant:

This is an invitation to participate in an interview for a class project, EAD 966 at Michigan State University, examining the perceptions of intercollegiate student athletes about racial diversity on their athletic teams. Your participation will contribute to our knowledge of the college experience of student-athletes and to assist higher education practitioners in better understanding how to support students. This study is being conducted by Scott Hirko, a graduate student in Michigan State University's doctorate program in Higher, Adult, and Lifelong Education, under the supervision of Dr. Matthew Wawrzynski, Assistant Professor in Educational Administration at Michigan State University.

Your participation is very important to this web-based survey. The survey contains 23 questions and should take no more than 10 minutes to complete. A follow-up email with the website URL address and an access code will be provided tomorrow. It would be appreciated if you would be able to complete the survey by April 10, 2006.

Your participation is completely voluntary. You may choose not to participate at all, or to answer some questions and not others. Your privacy will be protected to the maximum extent allowable by law.

The only identifying information obtained from the survey will be from the survey code. However, this code will be destroyed upon receipt and will not be included with the data analyzed for this study. The survey code is useful to help enhance the response rate and to reduce unsolicited responses. Destroying the code will ensure your confidentiality. There are no known risks associated with participation in this study. You will not benefit from your participation in this study. A final copy of this study will be available for your review at the same website URL address used for the survey. In addition, the final report will be turned in as a class assignment for EAD 966: The College Student.

If you have any questions about this study, please contact Scott Hirko (information below).

Again, you should receive another email within 24 hours to provide you entry into the survey.

Thank you so much for your participation!

Scott Hirko  
Doctorate Program  
Higher, Adult and Lifelong Education  
Michigan State University  
hirkosco@msu.edu  
(517) 203-4992

## Appendix C

### Follow-up email

#### Perceptions of Racial Diversity Among College Athletes in Michigan

April 3, 2006

Dear Participant:

This message is a follow up to my invitation to you yesterday, requesting your participation in a web-based survey for a class project for EAD 966 at Michigan State University. The project is titled "Perceptions of Racial Diversity Among College Athletes in Michigan"

This survey contains 23 questions and should take no more than 10 minutes to complete. Your participation is voluntary. Your privacy will be protected to the maximum extent allowable by law.

Your individual survey code (required to enter): em321

The web URL address link for the survey: <http://www.msu.edu/~hirkosco/survey.htm>

Your responses are very important to this survey! It would be appreciated if you would please complete the survey no later than April 10, 2006, by 5:00 p.m.

The only identifying information obtained from the survey will be from the survey code. However, this code will be destroyed upon receipt and will not be included with the data analyzed for this study. The survey code is useful to help enhance the response rate and to reduce unsolicited responses. Destroying the code will ensure your confidentiality. There are no known risks associated with participation in this study. You will not benefit from your participation in this study. A final copy of this study will be available for your review at the same website URL address used for the survey. In addition, the final report will be turned in as a class assignment for EAD 966: The College Student.

If you have any questions about this study, please contact Scott Hirko (information below).

Thank you for your participation!

Scott Hirko  
Doctorate Program  
Higher, Adult and Lifelong Education  
Michigan State University  
[hirkosco@msu.edu](mailto:hirkosco@msu.edu)  
(517) 203-4992

## Appendix D

### Reminder email

Perceptions of Racial Diversity Among College Athletes in Michigan

April 9, 2006

Dear Participant:

This message is a reminder to please consider filling out a web-based survey for a research project. The project is titled "Perceptions of Racial Diversity Among College Athletes in Michigan."

This survey contains 23 questions and should take no more than 10 minutes to complete. Your participation is voluntary. Your privacy will be protected to the maximum extent allowable by law.

Your individual survey code (required to enter): em321

The web URL address link for the survey: <http://www.msu.edu/~hirkosco>

Your responses are very important to me and to this survey! It would be appreciated if you would please complete the survey no later than (date two weeks from initial e-mail (3) above).

The only identifying information obtained from the survey will be from the survey code. However, this code will be destroyed upon receipt and will not be included with the data analyzed for this study. The survey code is useful to help enhance the response rate and to reduce unsolicited responses. Destroying the code will ensure your confidentiality. There are no known risks associated with participation in this study. You will not benefit from your participation in this study. A final copy of this study will be available for your review at the same website URL address used for the survey. In addition, the final report will be turned in as a class assignment for EAD 966: The College Student.

If you have any questions about this study, please contact Scott Hirko (information below).

Thank you for your participation!

Scott Hirko  
Doctorate Program  
Higher, Adult and Lifelong Education  
Michigan State University  
[hirkosco@msu.edu](mailto:hirkosco@msu.edu)  
(517) 203-4992

**Appendix E**

Mean scores of survey questions 1 - 15 categorized by independent variables

Variable	M	SD	N
Question 1: I have been exposed to classes that have had an important impact on my views of racial diversity.			
Total	3.45	1.134	188
Sex – male	3.30	1.193	77
Sex – female	3.55	1.085	111
Race – White	3.39	1.087	152
Race – non-White	3.67	1.309	36
Revenue sport	3.11	1.278	35
Non-revenue sport	3.52	1.089	153
NCAA Division I	3.58	1.091	130
NCAA Division II	3.14	1.176	58
No scholarship	3.41	1.131	88
Partial scholarship	3.55	1.097	62
Full scholarship	3.37	1.217	38



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Variable	M	SD	N
Question 2: I have been exposed to activities outside the classroom and outside athletics that have had an important impact on my views on racial diversity.			
Total	3.68	0.967	188
Sex – male	3.57	0.924	77
Sex – female	3.76	0.993	111
Race – White	3.65	0.972	152
Race – non-White	3.81	0.951	36
Revenue sport	3.69	1.022	35
Non-revenue sport	3.68	0.957	153
NCAA Division I	3.73	0.955	130
NCAA Division II	3.57	0.993	58
No scholarship	3.58	1.036	88
Partial scholarship	3.71	0.857	62
Full scholarship	3.87	0.963	38

---

Variable	M	SD	N
Question 3: I enjoy having discussions with people whose ideas and values are different from my own.			
Total	4.06	0.809	188
Sex – male	3.90	0.788	77
Sex – female	4.17	0.808	111
Race – White	4.03	0.792	152
Race – non-White	4.17	0.878	36
Revenue sport	4.00	0.767	35
Non-revenue sport	4.07	0.820	153
NCAA Division I	4.03	0.853	130
NCAA Division II	4.12	0.703	58
No scholarship	4.07	0.841	88
Partial scholarship	4.06	0.827	62
Full scholarship	4.03	0.716	38

---

Variable	M	SD	N
Question 4: The real value of a college education lies in being introduced to different values.			
Total	3.66	0.986	188
Sex – male	3.34	1.059	77
Sex – female	3.89	0.867	111
Race – White	3.59	1.019	152
Race – non-White	4.00	0.756	36
Revenue sport	3.37	0.973	35
Non-revenue sport	3.73	0.980	153
NCAA Division I	3.78	0.900	130
NCAA Division II	3.41	1.124	58
No scholarship	3.65	1.040	88
Partial scholarship	3.69	0.934	62
Full scholarship	3.66	0.966	38

---

Variable	M	SD	N
Question 5: Learning about people from different cultures is a very important part of my college education.			
Total	3.77	0.975	188
Sex – male	3.49	0.982	77
Sex – female	3.95	0.928	111
Race – White	3.68	0.946	152
Race – non-White	4.14	1.018	36
Revenue sport	3.63	0.770	35
Non-revenue sport	3.80	1.015	153
NCAA Division I	3.88	0.957	130
NCAA Division II	3.52	0.978	58
No scholarship	3.78	1.011	88
Partial scholarship	3.77	0.931	62
Full scholarship	3.71	0.984	38

---

Variable	M	SD	N
Question 6: Racial diversity on an athletic team can help the team learn how to better communicate.			
Total	3.70	0.923	188
Sex – male	3.65	0.970	77
Sex – female	3.74	0.891	111
Race – White	3.60	0.908	152
Race – non-White	4.14	0.867	36
Revenue sport	3.83	0.857	35
Non-revenue sport	3.67	0.938	153
NCAA Division I	3.66	0.953	130
NCAA Division II	3.79	0.853	58
No scholarship	3.68	0.917	88
Partial scholarship	3.73	0.961	62
Full scholarship	3.71	0.898	38

---

Variable	M	SD	N
Question 7: I wish there were more players on my team from different races.			
Total	3.28	0.898	188
Sex – male	3.08	0.757	77
Sex – female	3.43	0.962	110
Race – White	3.19	0.836	151
Race – non-White	3.69	1.037	36
Revenue sport	3.06	0.765	35
Non-revenue sport	3.34	0.920	152
NCAA Division I	3.24	0.891	129
NCAA Division II	3.38	0.914	58
No scholarship	3.21	0.851	87
Partial scholarship	3.39	0.964	62
Full scholarship	3.29	0.898	38

---

Variable	M	SD	N
Question 8: Having players of different races is important to my athletic team.			
Total	3.00	0.925	188
Sex – male	3.03	0.986	77
Sex – female	2.98	0.884	111
Race – White	2.94	0.901	152
Race – non-White	3.25	0.996	36
Revenue sport	3.26	0.980	35
Non-revenue sport	2.94	0.905	153
NCAA Division I	2.98	0.885	130
NCAA Division II	3.05	1.016	58
No scholarship	3.03	0.823	88
Partial scholarship	3.10	1.020	62
Full scholarship	2.76	0.971	38

Variable	M	SD	N
Question 9: Athletics is a good way for players of different races to "fit" in college life.			
Total	3.68	0.934	187
Sex – male	3.86	0.875	76
Sex – female	3.57	0.59	111
Race – White	3.66	0.864	151
Race – non-White	3.81	1.191	36
Revenue sport	3.94	0.919	34
Non-revenue sport	3.63	0.931	153
NCAA Division I	3.65	0.957	129
NCAA Division II	3.76	0.885	58
No scholarship	3.51	0.858	88
Partial scholarship	3.98	0.914	62
Full scholarship	3.59	1.040	37



---

Variable	M	SD	N
Question 10: I can learn different ways to make decisions from teammates with different racial backgrounds.			
Total	3.43	0.801	188
Sex – male	3.45	0.836	77
Sex – female	3.41	0.779	111
Race – White	3.39	0.822	152
Race – non-White	3.58	0.692	36
Revenue sport	3.63	0.646	35
Non-revenue sport	3.38	0.827	153
NCAA Division I	3.40	0.832	129
NCAA Division II	3.48	0.731	58
No scholarship	3.41	0.783	88
Partial scholarship	3.44	0.781	62
Full scholarship	3.45	0.891	38

---

Variable	M	SD	N
Question 11: A commitment to winning is more important to the team than the racial background of my teammates.			
Total	4.43	0.835	187
Sex – male	4.46	0.807	76
Sex – female	4.41	0.857	111
Race – White	4.46	0.764	151
Race – non-White	4.31	1.091	36
Revenue sport	4.74	0.561	35
Non-revenue sport	4.36	0.872	152
NCAA Division I	4.50	0.782	129
NCAA Division II	4.26	0.928	58
No scholarship	4.45	0.774	87
Partial scholarship	4.35	0.907	62
Full scholarship	4.50	0.862	38

---

Variable	M	SD	N
Question 12: My exposure to people of different races in athletics benefits my education.			
Total	3.55	0.955	188
Sex – male	3.43	0.938	77
Sex – female	3.63	0.962	111
Race – White	3.53	0.949	152
Race – non-White	3.64	0.990	36
Revenue sport	3.54	0.852	35
Non-revenue sport	3.55	0.980	153
NCAA Division I	3.57	0.980	130
NCAA Division II	3.50	0.903	58
No scholarship	3.57	0.992	88
Partial scholarship	3.63	0.834	62
Full scholarship	3.37	1.051	38

---

Variable	M	SD	N
Question 13: Working with people of different races in athletics to reach a common goal -- winning -- will help me after I graduate.			
Total	3.98	0.859	188
Sex – male	3.91	0.906	77
Sex – female	4.03	0.825	111
Race – White	3.95	0.890	152
Race – non-White	4.11	0.708	36
Revenue sport	4.20	0.719	35
Non-revenue sport	3.93	0.882	153
NCAA Division I	3.97	0.844	130
NCAA Division II	4.00	0.898	58
No scholarship	3.94	0.793	88
Partial scholarship	4.11	0.832	62
Full scholarship	3.84	1.027	38

Variable	M	SD	N
Question 14: I believe I receive more exposure to racial diversity in athletics than non-athletic college students.			
Total	3.11	1.207	188
Sex – male	3.40	1.217	77
Sex – female	2.91	1.164	111
Race – White	3.13	1.194	152
Race – non-White	3.03	1.276	36
Revenue sport	3.91	0.951	35
Non-revenue sport	2.93	1.187	153
NCAA Division I	3.08	1.249	130
NCAA Division II	3.19	1.115	58
No scholarship	3.07	1.153	88
Partial scholarship	3.11	1.269	62
Full scholarship	3.21	1.255	38

Variable	M	SD	N
Question 15: Racial diversity is important to intercollegiate athletics.			
Total	3.56	0.998	188
Sex – male	3.38	1.026	77
Sex – female	3.69	0.961	111
Race – White	3.51	0.976	152
Race – non-White	3.78	1.072	36
Revenue sport	3.43	0.850	35
Non-revenue sport	3.59	1.029	153
NCAA Division I	3.53	1.013	130
NCAA Division II	3.64	0.968	58
No scholarship	3.58	0.979	88
Partial scholarship	3.73	0.908	62
Full scholarship	3.26	1.131	38

*Note. M = Mean. SD = Standard deviation. N = Number of respondent. Mean based on 5-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.*