

**Science of Diversity**  
**Semester 2 Presentation**  
**May 2, 2013**



The Science of Diversity Project (SOD) brings together students, faculty, staff and administrators to consider how diversity works at Mason. The goal of this project is to promote evidence-based social justice activism. This student-centered project is enhanced by the personal experiences of the student researchers. Integrating these perspectives, we document how mentorship, intergroup relations, leadership roles and classroom dynamics shape the undergraduate student experience of diversity at Mason. We are conducting a multi-year, multi-method, multi-perspectival project.

[drg.gmu.edu](http://drg.gmu.edu)

Facebook: The Science of Diversity Project

Twitter: @MasonDiversity

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**Full Citation in APA Format:**

<http://ahistoryofmason.gmu.edu/exhibits/show/idea/contents/mann>

**In-Text Citation** (Author, Year): George Mason University Libraries' Special Collections & Archives Department and Digital Programs and Systems Division

**Population/Subjects:** individuals and groups from the period 1949-1954 involved in the founding of the institution that became GMU.

**Methods:** collected essays and photographs culled from GMU Libraries' Special Collections & Archives

**Main Findings:**

- The idea for the institution that became George Mason University began with a phone call in 1949 from University of Virginia President Colgate W. Darden, Jr., to C. Harrison Mann, Jr., an attorney practicing in Arlington, VA, who was the President of the Washington Chapter of the University of Virginia Alumni Association.
- Mann organized a group of citizens in northern Virginia to explore the idea of establishing a local institution of higher education, since there was not yet a state college system in Virginia.
- At that group's request, the University of Virginia established an extension program in northern Virginia in October, 1949, designed as a two-year program.
- UVA's Northern Virginia University Center/Extension Center held its first classes in winter, 1950, as evening classes at Washington & Lee High School in Arlington.
- Twenty credit and non-credit "enrichment" courses were offered and attended by 478 enrollees the first semester of operation.

**Summary statement:** The personal papers of C. Harrison Mann, Jr. were donated to GMU libraries after his death in 1977. These papers include a 150-page unpublished manuscript written by Mann in his later years, which described his involvement with establishing GMU, particularly from 1949 to 1957. Of particular note in this document is Mann's assertion of a prejudice "against the Northern Virginia region among members of Virginia's political elite in Richmond and in other parts of the Commonwealth, including certain members of the Board of Visitors of the University of Virginia."

Mann's papers are contained in Box 56 of George Mason University Special Collections & Archives.

**Full Citation in APA Format:** Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and Higher Education: Theory and Impact on Educational Outcomes. *Harvard Educational Review*, 72(3), 330-366.

**In-Text Citation:** (Dey, et al., 2002)

**Population/Subjects:** African American, Asian American, Latino/a, and White students at the University of Michigan and “...11, 383 students from 184 institutions who were surveyed upon entering college in 1985 and again four years later... [including] 216 African American, 496 Asian American, 206 Latino/a, and 10,465 White students attending predominantly White, four-year institutions (Dey, et al., 2002).”

**Methods:** The study uses both single and multi-institutional data from the University of Michigan and the Cooperative Institutional Research Program (CIRP). The Michigan Student Survey (MSS) was created to monitor students’ responses to the University’s diversity focus. The CIRP data came from a survey created by the Higher Education Research Institute at UCLA.

**Main Findings:**

- Given our country’s history of racial relations, a diverse student body is not sufficient to promote cross racial and ethnic interactions. Instead, the authors argue that informal interactional diversity is key to a meaningful diversity experience in college.
- To do this the authors look at two outcomes to measure the effectiveness of informal interactional diversity:
  - “Learning outcomes [which] include active thinking skills, intellectual engagement and motivation, and a variety of academic skills (Dey, et al., 2002).”
  - Democracy outcomes [which] include perspective-taking, citizenship engagement, racial and cultural understanding, and judgment of the compatibility among different groups in a democracy (Dey, et al., 2002).”

Drawing on the theories presented by psychologists such as Erik Erikson, Jean Piaget, John Bargh, and Ellen Langer the authors find that college years present the best time for the type of identity and cognitive growth that help shape an individual’s perceptions of the world:

- A curriculum that exposes students to diverse interaction in the classroom and which promotes informal interaction among that same group of diverse students outside the classroom is the best way to create a learning environment which supports active thinking and intellectual engagement.

The authors find that informal and formal interactions amongst students in universities where there is diversity in the student body creates individuals who are more likely to be involved in the democratic process and their communities:

- Drawing on Piaget's idea of perspective thinking the authors argue that an environment where a student is presented with views different from his own provides the best opportunity for that individual to develop his own moral framework.

In terms of the two data sets used (national and University of Michigan) the study found consistency in the results among the two, showing that the student responses at one university matched those of students from various other institutions

**Summary statement:**

In response to challenges to affirmative action and race based consideration in colleges and universities, the authors argue that the relationship between students and diverse peers are important, and find that informal interactions with students of different racial and ethnic groups have both cognitive and civic implications.

**Full Citation in APA Format:** Valentine, Kathryn, et al. "The Importance of Student Cross-Racial Interactions as Part of College Education: Perceptions of Faculty." *Journal of Diversity in Higher Education* 5.4 (2012): 191-206. Print.

**In-Text Citation:** (Arellano, et al., 2012)

**Population/Subjects:** Faculty members of a campus which houses a university and a community college. The campus was designated as a "Hispanic serving institution."

**Methods:**

- Five focus groups made up of 27 faculty members at the institution
- "qualitative inquiry"

**Main Findings:**

- The study looks at cross racial interactions (CRI) in the classroom, particularly through the lens of faculty
- 4 main ideas were presented as a result of the focus groups:
  1. Perceptions of the value of CRI's:
    - Faculty strongly valued CRI's as a way to help students understand other perspectives
    - CRI's prepare students for life after college
    - CRI's contribute to critical thinking
    - They provide a way for students to examine their own perspectives
  2. Perceptions of challenges in supporting CRI's
    - the majority of the faculty expressed the idea that they were unprepared or uncertain about what to do as instructors to promote CRI's
    - in this university in particular, a few faculty described the challenge they faced when white student in their classrooms would identify as minorities because this challenged the typical ideas of white privilege. However the students at this university did not see their whiteness as a form of privilege which the faculty suggested shows how social forces come to play when CRI's are used.
  3. Perceptions of responsibility and goals related to CRIs:
    - Half of the faculty members expressed a sense of responsibility in fostering CRIs and this shows a sense of efficacy on the part of faculty members to promote CRI in classrooms. Some faculty had the general goal of promoting CRI and making sure interactions occur while some had specific goals for interactions they wanted to take place
    - One faculty member discussed how she uses group work to promote CRIs
    - Three faculty members had strategies for promoting CRIs directly linked to a specific benefit
    - Notably, half of the participants did not express any goals or responsibility in promoting CRIs even though they valued it

- Conclusion: “..participants’ feelings of efficacy are greater when they, as instructors, have specific goals for supporting CRIs.”
- “Faculty who perceive themselves as explicitly responsible for facilitating class- room CRIs are, in the sociology of the class- room, developing “reciprocity and cooperation among students” (Arellano, et al., 2012).”

#### 4. Perceptions of student diversity and participants’ background experience

- One very prevalent result that came about was that there was the extent to which a faculty members background had an effect on their perception of student diversity-half of the faculty thought the school was diverse and half thought it wasn’t. This distinction is directly related to a faculty members previous experience in other parts of the country
- This is interesting because the institution is a designated HSI, with over one quarter of the students self-identifying as Hispanic of Latina(o).

**Summary statement:** By examining CRI’s in the classroom through the lens of faculty, the study found that faculty valued CRI’s, but also felt there were challenges regarding CRI’s. Faculty also expressed that they feel they play a role in fostering CRI’s and that a faculty member’s perception on diversity depends on their previous experiences teaching at different regions of the country.

**Full Citation in APA Format:** Arrona, J., Lynn, M., Morfin, O., Parker, L., Perez, V., Hiding the Politically Obvious: A Critical Race Theory Preview of Diversity as Racial Neutrality in Higher Education, *Educational Policy* January 2006 20: 249-270,

**In-Text Citation** (Arrona, et. al, 2006):

**Population/Subjects:** Colleges and Universities and their undergraduate admissions, undergraduate students

**Methods:** The study uses the Critical Race Theory which is defined as viewing “racism as a normal daily fact of life in society, and the ideology and assumptions of racism are so engrained in the political and legal structures as to be almost unrecognizable (Arrona, et. al, 2006).” Specifically the authors look at CRT by way of legal review to show that the law is developed and used to impact people of color.

**Main Findings:**

- Grutter v. Bollinger (2003) held that racial diversity was a compelling government interest and that state institutions of higher education should take affirmative measures to diversify their colleges.
  - In the early 1990’s the University of Michigan’s Law School implemented a series of admissions policies with the intent to diversify the student body. One of these policies wanted to achieve a critical mass of underrepresented students of color at the law school in the hopes that it would create a more diverse learning experience for the entire school. Barbara Grutter a white student with 3.8 GPA and a 161 LSAT score, was denied admission to the law school and filed a suit arguing that she was the victim of reverse discrimination and that lesser qualified students of color were admitted.

Gratz v. Bollinger (2003) held that it was a violation of the Equal Protection Clause of the 14th Amendment to assign additional points related to race when weighing admission decisions.
  - Jennifer Gratz a white female filed suit against the University of Michigan claiming she was the victim of reverse discrimination because the school added points to undergraduate applications if the student was a student of color.

By taking on a Critical Race Theory view, the authors argue that despite the call for diversifying schools that Grutter gave, institutions have imposed “a climate of racial neutrality.” “Students of color continue to remain significantly behind their white peers in enrollment, and completion.”

Conservative state and local political contexts present a danger to the diversity principle expressed in Grutter.

Institutions are missing opportunities to diversify their schools, and under the CRT, this may be done on purpose.

At the University of Michigan there is evidence to show that although the university has articulated this need to diversify student body and staff there are still instances of racism and hostility which contradict the push to diversify.

The authors give the example of the famous Brown v. Board of Education case to show that according to the CRT, the decision to overrule Plessy was only done to further the interests of the white majority and not to promote a more fair system.

The authors argue that students and parents of color should put more political pressure on higher education administrators to enforce the compelling government interest of diversity.

**Summary statement:**

In their study of the racial climate of institutions of higher education post Grutter and Gratz in 2003, the authors have found that by employing a CRT lens, there is evidence to show that institutions are more interested in race neutrality than they are in diversity as a compelling state interest.



**Full Citation in APA Format:** Kimmel, K., & Volet, S. (July 2010). University Students' Perceptions of and Attitudes Towards Culturally Diverse Groups Work: Does Context Matter? *Journal of Studies in International Education*, 16, 158-18.

**In-Text Citation:** (Kimmel & Volet, 2010)

**Population/Subjects:** Two classes of 2<sup>nd</sup>- year university students, science and business participated in this study. The two classes were chosen as their respective instructional environments displayed the characteristics of more and less enabling collaborative contextual conditions. Science students had a better base to work with (more student-teacher help, better relationship within the student population) compared to the business students who weren't familiar with each other.

**Methods:** Context was operationalized as two distinct study programs with contrasting organizational and instructional characteristics and diverse/non diverse groups embedded within each. The combination of a small longitudinal questionnaire study (Study I) and follow-up in-depth interviews (Study 2) provided valuable insight into the significance of contextual aspects of the learning environment for students' intercultural experiences and attitudes.

- **Study I:**
  - **Research Question 1:** How do students' attitudes towards mixing with peers from different cultural backgrounds develop over the duration of an actual group project completed in a culturally diverse or non-diverse group of peers, and to what extent does the broader instructional environment affect student' group work experiences?
  - **Research Question 2:** How do students' appraisals of multiple aspects of an actual group project experience develop in culturally diverse and non-diverse groups, and how does that experience relate to the broader instructional environment?
- **Study II:**
  - **Research Question 3:** How do students explain the process of self-selection into culturally diverse or non-diverse groups in their study context?
  - **Research Question 4:** Why do students who self-select into non-diverse groups become more negative towards working in diverse groups?

**Main Findings:**

- Language proficiency, academic competencies, and cohort characteristics play an important role for students' intercultural encounters.
- The results also suggest that students' own attitudes towards intercultural interactions may be affected by the quality of close peers' experiences in culturally diverse groups.
- Although students may experience difficulties when working with in-group members, they nevertheless find non-diverse group work less demanding than anticipated socio-emotional, sociocultural, and attitudinal challenges emerging in culturally diverse groups.

**Summary statement:**

In their study of *“University Students’ Perceptions of and Attitudes towards Culturally Diverse Group Work: Does Context Matter,”* Kimmel & Volet (2012) found that it is extremely important for teachers to be culturally aware of how difficult it is for students to work in diverse groups. I found this journal very interesting considering its aim is to understand why multicultural students do not have intergroup contact with one another. Diversity is apparent to outsiders when they see a bunch of multicultural students together, but where is that diversity defined? This journal suggests that teachers need to be more aware and educated on how to improve on this issue. Students should be practicing diversity more than they do now, and it is the educators who should be promoting this in a strategic manner.

**Full Citation in APA Format:** Villalpando, O. (2012). The Impact of Diversity and Multiculturalism on All Students: Findings from a National Study. *NASPA Journal*, 40, 124-144.

**In-Text Citation:** (Villalpando, 2012)

**Population/Subjects:** college students divided into racial groups (African, Asian, Chicano, White), and faculty from the institutions attended by the students in this study (Also divided into those same groups)

**Methods:** A survey distributed to 280,000 entering freshmen from 546 campuses in the year 1985. 192,453/280,000 of those students completed the survey. Followed by a survey distributed to 86,000 students in the year 1989. 27,065/86,000 students completed this survey. Also, 93,480 surveys were mailed out to individual faculty, who returned 51,575 useable surveys. Input-Environment-Outcome methodological framework.

**Main Findings:**

- This study compared the effects of emphasizing multiculturalism and diversity issues on differentiated racial groups of students.
- Colleges and Universities should/can enhance educational experiences of students by fostering and facilitating an environment, which promotes diverse communities.
  - Findings:
    - When it comes to attending a racial/cultural awareness workshop, all groups are positively affected
    - The effect of socializing with someone of a different race/ethnic group is positive for all groups except for African Americans
- Diversity and emphasis of multiculturalism will benefit all students as a whole.
  - Chicano/a students were the only group who failed to demonstrate a positive effect.

**Summary Statement:** According to Villalpando, he compares the effects of multiculturalism and diversity issues on differentiated racial groups of students. This study surveyed different racial groups of students on their achievements to see the how the effects of emphasizing diversity issues, and these students overall satisfaction with college. It also highlighted how faculty members feel about the multicultural emphasis that their schools have. All in all, the emphasis of diversity and multicultural issues will benefit Universities as a whole, with a few exceptions.

**Full Citation:** Bowman, N. A. (2010). College Diversity Experiences and Cognitive Development: A Meta-Analysis. *Review of Educational Research*, 80.1, 4-33.  
doi:10.3102/0034654309352495.

**In-Text Citation:** (Bowman, 2010).

**Population/Subjects:** The population of this study was college students, and the subjects consisted of undergraduate and post-undergraduate students in the U.S. It appears that the data used and the choice of subjects came completely from other articles; previous research studies on this topic.

**Methods:** Bowman sorted through many studies about undergraduate experience in relation to diversity, and narrowed down 17 which best fit their criteria; providing data from 77,029 undergraduate/post-undergraduate students. He then created a meta-analysis of models to compile and analyze students' diversity experiences in relation to their cognitive development, according to what was provided in the carefully selected articles.

**Main Findings:**

- Encountering diversity through interacting with diverse students and taking part in diversity-related activities correlates positively with improved cognition.
- Particularly, racial diversity amongst peers is a factor in this correlation.
- Across various types of studies and journals, it was found that diversity in general coincides positively with cognitive development in the college setting.

**Summary statement:** In their study of diversity engagement and cognitive development, Bowman (2010) found that interaction with diverse students (particularly of different race) and participation in diversity-related activities positively correlates with cognitive development in college.

**Full Citation in APA Format:** Bowman, N. A., & Denson, N. (2011). The integral role of emotion in interracial interactions and college student outcomes. *Journal of Diversity in Higher Education*, 4(4), 223.

**In-Text Citation** (Author, Year): (Bowman & Denson, 2011)

**Population/Subjects:** 607 First Year psychology students at the University of New South Wales. 625 female, 34% Anglo-Celtic, 38% Asian, 31% non-native English speakers, 9% international students, and had an average age of 19.7 years old (range 16-56)

**Methods:** Students were asked to complete an online survey at the start and end of their first semester. To measure the total of five dependent variables three factors were used from Chen and Starosta's(2000) Intercultural Sensitivity Scale: Interaction engagement, Interaction confidence, and respect for cultural differences. These factors extracted from the ISS measured intergroup attitude, the remaining factors Civic participation and Civic duty were used to determine civic engagement outcomes. The scale used to measure these e two factors was Bobek, Zaff, Li & Lerner's(2009) Civic Identity/ Civic Engagement scale. The independent variables, which were measured during the second survey, included: positive interracial interactions, interracial emotional connections, Negative interracial interactions, and Negative emotional reactions to interracial interactions. Both surveys included questions pertaining to demographics and background characteristic such as gender, residence status, and enrollment status. Single mediation analyses were conducted using bootstrapping methods. The analysis was conducted by using SPSS.

**Main Findings** (in individual bullet points list the main findings and contributions of the article; each of these ideas can stand alone and may contribute to different aspects of the overall literature):

- In all analyses, the path from positive interracial interactions to interracial emotional connections was strongly positive and significant.
- The path from interracial emotional connections to the relevant outcome variable was positive and significant.

- Results suggest that interracial emotional bonds are likely responsible for the effects interracial interactions that have been observed in previous research. Interaction of a social manner isn't what yields educational benefits but the sharing of feelings and problems from a position of a good standing relationship result in benefits.
- Interpersonal interactions often lead to the emotional connections that improve intergroup attitudes and civic engagement.
- Supports previous findings of precollege exposure to racial/ethnic diversity has a great effect on the relationship between frequency of college interracial interactions and numerous student outcomes.
- Suggests that disequilibrium is achieved not through superficial peer encounters, but deep emotional connections.
- Negative interracial interactions had a strong positive effect on negative emotional reactions to interracial interactions.
- Results consistent with contact hypothesis (Allport, 1954; Pettigrew, 1998). Intergroup interactions that occur under poor conditions may adversely affect intergroup attitudes.
- No significant relationship between negative emotional reactions and the two factors predicting civic engagement were observed.

### **Summary statement**

In their study of The Integral Role of emotion in interracial interactions and college student outcomes, Nicholas Bowman and Nida Denson found evidence for the importance of interpersonal emotional connections and reactions in explaining the link between interracial interactions and college student growth. They suggest related research should focus on emotion-based interaction instead of, or in addition to, measures of the frequency of interactions in the future.

### Sources:

Allport, G. (1954). *The nature of prejudice*. Reading, MAL: Addison Wesley.

Bobek, D., Zaff, J., Li, Y., & Lerner, R.M. (2009). Cognitive, emotional, and behavioral components of civic action: Towards an integrated measure of civic engagement. *Journal of Applied Developmental Psychology*, 30, 615- 627.

Chen, G., & Starcosta, W.J. (2000, November). *The development and validation of the Intercultural Sensitivity Scale*. Paper presented at the annual meeting of the National Communication Association, Seattle, W.A.

Nicholas A. Bowman. (Mar., 2011). Promoting Participation in a Diverse Democracy: A Meta-Analysis of College Diversity Experiences and Civic Engagement. *Review of Educational Research*, Vol. 81, No. 1, pp. 29–68.

**In-Text Citation:** (Bowman, 2011)

**Population/Subjects:** This is a study was conducted with volunteer undergraduate students in the United States.

**Methods:**

- Quantitative

**Main Findings:**

1. Students exposed to diverse people and perspectives are more motivated and prepared to participate fully in civic life.
2. Experiential diversity interactions introduce students to new ideas and challenge preexisting views regarding inequality and social injustice, resulting in an increase in community service and political activities.
3. Three types of diversity experiences: *Structural*: is the representation of diverse people with a larger group which is often operationalized as the proportion of students of color attending an university. *Classroom diversity*: is engagement in diversity related courses (ethnic studies, women’s studies) and involvement in a cocurricular activity (cultural awareness workshops, identity-based student organizations, multicultural campus events.) *Informal interactional*: is the frequency of quality interactions with diverse peers that occur outside of a formal curricular context.
4. College diversity experiences produce proximal outcomes of cultural knowledge/awareness, intergroup interaction and reduced prejudice.
5. Diversity experiences strongly influence tendencies or skills to effective leadership such as perspective taking and acceptance of diverse others.

**Summary statement:**

The study establishes a connection between college diversity experiences and civic growth. It shows consistent results, concluding that increased intergroup interactions and cultural awareness is beneficial for the academic and personal growth of students. What kind of programs can we implement at Mason to support intergroup engagement, build cultural awareness and celebrate diversity?

**Full Citation in APA Format** (for more on citation formats see - <http://owl.english.purdue.edu/owl/resource/560/01/>): Gottfredson, N., Panter , A. T., Daye, C., Wightman, L., Deo, M., & Allen , W. (2008). Does diversity at undergraduate institutions influence student outcomes?. *Journal of Diversity in Higher Education*, 1(2), 80-94. Retrieved from 10.1037/1938-8926.1.2.80

**In-Text Citation** (Gottfredson, 2012)

**Population/Subjects:** undergraduate and graduate student population

**Methods:** survey

**Main Findings:**

- When it comes to the benefits of diversity studies using varied methodology have drawn very different conclusions and policy implications.
- diversity aids in the “production of citizens for a multicultural society that can result in leadership with greater social awareness and the complex thinking skills to alleviate social problems related to complexities of inequality.”
- major study goal is to provide a methodologically rigorous study of educational diversity.
- Exploration of Contact Diversity vs. Classroom Diversity and how those favor cognitive openness and attitudes favoring equal opportunity.
- Contact Diversity measures the frequency with which an individual interacts with persons of different ethnic/racial background, such as roommates, romantic partners, study partners, and close friends.
- Classroom Diversity Classroom Diversity refers to student exposure to issues of multiculturalism (minority and cultural issues) in formal academic settings.

**Summary statement** In their study of diversity impact on undergraduate student outcomes Gottfredson, N., Panter , A. T., Daye, C., Wightman, L., Deo, M., & Allen , W. (2008). Our study findings underscore the importance of diversity in academic settings. Educational policies that support daily interactions of students with diverse peers and encourage curricular requirements for multicultural education are shown to have the benefit of producing academically stronger students (defined by students who are able to hold more complex viewpoints that take multiple perspectives in to account).



**Full Citation in APA Format** (for more on citation formats see -

<http://owl.english.purdue.edu/owl/resource/560/01/>): Ghosh, R. (2012). Diversity and excellence in higher education: Is there a conflict? *Comparative Education Review*, 56(3), 349-365.

Retrieved from <http://www.jstor.org/stable/10.1086/666545>.

**In-Text Citation** (Author, Year): (Ghosh, 2012)

**Population/Subjects:** underrepresented groups in higher education as defined by ethnicity/race and caste/tribe.

**Methods:** Case study

### **Main Findings**

- Equality is compatible with excellence
- Diversity is a multiplicity in ideas, structure, values, beliefs and people
  - A spectrum of perspectives derived from multiplicity and multidimensional differences
- Diversity shows up differently in different places
- Difference is often misconstrued as deviance.
- Excellence is a mark of privilege
- Diversity in gender, ethnicity, languages, cultures, and lifestyles does lead to intellectual diversity and excellence
  - Examples in mathematics, philosophy, and physics
- United States, Canada and India as democracies have allowed for systems/structures to compensate for inequalities of the past.

**Summary statement:** In their study of diversity, Ratna Ghosh postulates that diversity is not excellence but it enhances and enriches diversity. A case study of the United States, Canada, and India is the best indication that preferential cannot alone reduce disparities but can bring diversity into the mainstream.

Hurtado, S. (2001). Linking Diversity and Educational Purpose: How Diversity Affects the Classroom Environment and Student Development.

**(Hurtado 2001)**

**Populations/Subjects:** College faculty, college students

**Methods:** surveys

**Main findings:**

- There is a need to prepare students to interact w/ growing diverse American pop.
- Shortage of empirical evidence has left assumption about the utility of diversity in higher ed. to legal and political
- Students engage in racially diverse learning groups report cross-racial friendships outside of it
- Diversity gains in factual knowledge and higher order thinking skills
  - o When paired w/ interaction more effect
  - o Effects of diversity difficult to gauge because they're long-term and complex
- p.7 outlines standards/variables/control
- female faculty likely to use cooperative learning
- positive correlation b/n taking ethnic/women studies reporting improvement
- self-reported data at least that student don't feel academic skills compromised as a results
- positive civic and learning outcomes

**Summary statement:** In her study of diversity in higher education Sylvia Hurtado examines how the study of multicultural curricula and interaction affects the social and academic development of students. She also examines the implementation of non-conventional styles of teaching with regards to faculty race/ethnicity and gender and how those identities determine use of the aforementioned styles.

**Full Citation in APA Format:**

Hutcheon, E., & Wolbring, G. (n.d.). Voices of “disabled” post-secondary students: Examining higher education “disability” policy using an ableism lens. (2012). *Journal of Disability in Higher Education*, 5(1), 39-45.

**In-Text Citation:** (Hutcheon & Wolbring, 2012)

**Population/Subjects:** Disabled students

**Methods:**

The researchers recruited students from one institution. Participants self-identified as “disabled” and approached the researchers with their interest in assisting in the research. The study narrowed down to eight students who had significant experiences to reveal. The “disabled students” participated in semi-structured interviews from which the researchers were able to capture significant aspects of disability policy in higher education.

**Main Findings:**

The interviews revealed that the students did not approach disabilities accommodation at their institution because it is not an easy process. There are also confusing and sometimes discouraging terms used in policy such as “dual-disability”. These terms express institution-student power differentials which also prevent students from feeling comfortable within the institution if they reveal their disability. Therefore, the study asks for reasonable accommodations, awareness raising across the institution as well as media of expression, social outlets, or opportunities to embrace their identities.

**Summary statement:**

Though the study was very limited by only having eight students within one institution bring awareness to their experiences, the study brings to light the first steps towards progress in higher education policy regarding disabilities. The study makes an emphasis in the use of language that can affect the students’ experience on campus and the importance of bringing awareness to embrace their identity.

**Full Citation in APA Format:**

Dugan, J., Kodama , C., & Gebhardt, M. (2012). *Race and leadership development among college students: The additive value of collective racial esteem*. Manuscript submitted for publication, Loyola University Chicago.

**In-Text Citation:** (Dugan, Kodama & Gebhardt, 2012)

**Population/Subjects:** College students

**Methods:**

This research looked at the influences of race on socially responsible leadership development through a Multi-Institutional Study of Leadership. They used a quantitative cross-sectional design involving 101 institutions in 31 states. The surveys gathered questions that had the options of answering as *Not at all confident to very confident, strongly agree to strongly disagree* in regards to the students' involvement in the community, internship experiences, participation in leadership programs and frequency of mentoring by staff members, faculty, etc.

**Main Findings:**

The research found that for students of color the effective development of an internally validated racial self-concept was a significant contributor to leadership capacity. Also, the research confirmed that identity-based groups often serve as cultural enclaves providing critical support in negotiating the college environment. Organizations offer opportunities to affirm students' value contributing member of their racial groups as well as influence their leadership development

**Summary statement:**

The research used quantitative analysis to prove the importance of being racially conscious in order to understand and develop more community involved leaders among people of color. This work calls for the attention to racial consciousness among higher educational institutions.

**Full Citation in APA Format:**

Denson , N., & Chang, M. (2009). Racial diversity matters: The impact of diversity-related student engagement and institutional context. *American Educational Research Journal*, 49(2), 322-353.

**In-Text Citation:** (Denson & Chang, 2009)

**Population/Subjects:** College students

**Methods:**

- Used hierarchical linear modeling (HLM), testing both student and institution level effects associated with cross-racial interaction
- Two student surveys, one that was given to incoming freshman students. The sample size turned out to be 20, 178 students within 236 institutions.
- Assessed the personal and social domains
- Independent variables: curricular diversity, cross-racial interaction, and structural diversity

**Main Findings:**

- Confirmed previous studies on the benefits of cultural diversity provided on college campuses
- The effects of curricular diversity and cross-racial interaction are positive, shown consistently and significantly in the research
- Greater racial diversity in student body does not harm students' educational experiences and learning
- Campuses where students are more engaged with racial diversity through related knowledge acquisition or cross-racial interaction have measurable positive effects on all students regardless of a student's own frequency of engagement with diversity

**Summary statement:**

In their study of diversity and engagement on college campuses, Denson and Chang, 2009 found confirming evidence that cross-racial diversity and curricular diversity have significant positive effects on the experience of college students.

**Full Citation in APA Format:** Sorensen, N., Nagda, B., Gurin, P., & Maxwell, K. (2009) Taking a “hands on” approach to diversity in higher education: a critical-dialogic model for effective intergroup interaction. *Analyses of Social Issues and Public Policy*, 9, 3-35.

**In-Text Citation** (Author, Year): (Sorensen et al., 2009)

**Population/Subjects:** Seven Public Universities: Arizona State University, University of California-San Diego, University of Maryland-College Park, University of Massachusetts-Amherst, University of Michigan-Ann Arbor, University of Texas-Austin, University of Washington. Two Private Universities: Occidental College and Syracuse University. Approximately 1,500 students both white men and women and men and women of color.

**Methods:** 1,500 students were selected after completing an online application to participate and results were measured through a pretest and posttest.

**Main Findings:**

- There are many benefits to diversity in Higher Education which includes providing students with more complex views of the world encouraging intellectual stimulation and exploration.
- Interracial interactions can be challenging and can cause anxiety for both the majority and minority group members, because each party is worried about how the other is evaluating themselves. Research sustains that is possible to overcome this evaluative process, so it does not further hinder the interaction. A direct example of this is a study done on interracial college roommates where academic success is actually higher, but they are less likely to remain in contact after the semester ends.
- It was realized just creating a space for interracial relations to take place was not enough and students were not receiving the proper tools to deal with these interactions. Intergroup dialogue courses (IGD) are a great way for students to learn and practice such skills. The critical component of this examines identities within groups and then an emphasis is placed on dialogue and communication between members. This model focuses on three pedagogical processes; content learning, structured interaction and facilitative leadership.

- The model was implemented at universities across the United States and consistently produced positive results and was found to be effective in the relationships as well as learning mediational practices.
- There are three policy areas that are continually questioned; higher education policy, institutional policy and programmatic policy. For institutional policy the goal is to learn the balance in creating meaningful interactions as opposed to superficial ones. Programmatic policy refers to the IGDs needs to have racial and gender diversity.

**Summary statement:** In their study of diversity in higher education, Sorensen et al (2009) found that universities need to take a “hands on” approach in regards to creating meaningful interactions between students of different identities and also equipping students with the tools required to successfully converse without high levels of anxiety.

Antonio , A. (n.d.). The role of interracial interaction in the development of leadership skills and cultural knowledge and understanding. (2001). *Research in Higher Education*, 42(5), 593-617.

(Antonio , 2001)

**Population/Subjects:** College Students from freshman cohort from 1991 to 1996.

**Methods:** The data for this study was collected during the 1991 to 1996 academic school years. It included precollege surveys and was followed up in 1996.

### **Main Findings**

1. Socializing across racial lines contributes to cultural awareness, but also enhances more inclusive leadership skills.
2. Formal cultural awareness workshops and trainings do not seem to be more effective than frequent causal interactions.
3. This study found that students with few friends of their same racial and cultural backgrounds had minimal impacts on their leadership ability.
4. Student who have a homogeneous group of friends are more challenged when encountered with interracial interactions. Therefore they are more likely to benefit from such interactions.

**Summary:** The results of this study are aimed at discovering and understanding the relationship between interracial interactions and leadership abilities. Student's surveys provided insight into what types of environments foster growth and development of racial and cultural awareness, such as formal or causal interracial interactions. This study also indicated what types of students would most benefit from interracial interactions. Overall the main goal was to provide higher education professionals with data that will help colleges and universities prepare their students to enter into a more racially diverse and global environment after college.



Bergerson, A., & Huftalin, D. (n.d.). Becoming more open to social identity-based difference: Understanding the meaning college students make of this movement. (2011). *Journal of College Student Development*, 52(4), 377-395.

(Bergerson & Huftalin, 2011)

**Population/Subjects:** College Students from diverse socioeconomic backgrounds.

**Methods:** The data for this study was collecting during the 2005-2006 academic school year. It included audio journals, focus groups and interviews.

### **Main Findings**

1. One becomes more open to diverse social identity groups through formal and informal interactions personal interactions.
2. Self-examination of ones own identity also causes people to become more open to diverse social identity groups.
3. There is not a single path to becoming open and accepting of different identities, rather it is a continuous process full of oscillations and challenges.
4. Becoming more open to social identities is not an easy process. All people are at different levels of learning and acceptance. Therefore, their tolerance of people different from themselves is varied.

**Summary:** This study explored how students become more open to those of diverse social identity groups. Students who participated in this study shared their personal stories to illustrate their feelings about becoming more open, how they became aware of social identity differences, and how it affects or does not affect their lives.

Syed . (2010). Memorable everyday events in college: Narrative of the intersection of ethnicity and academia . *Diversity in Higher Education* , 3(1), 56-69.

(Syed, 2010)

**Population/Subjects:** Two hundred eighty college students attending a public university in the state of California. Students were broken up into four major categories. White, mix-raced, Asian and Latino. Majority of students 60% were social science majors, 27% were sciences, 13% arts majors.

**Methods:** Surveys. Asked question about their view of their ethnicity and cultural awareness. There were six main themes what were explored learning about culture, sharing culture, experience of prejudice, difficult dialogues, awareness of diversity, and support and connection.

### **Main Findings**

1. Asian American students would emphasize stories about racism and confronting stories about their ethnicity.
2. Latino students were more likely to tell stories about diversity in the university and the lack of representation in the classroom.
3. Mix-raced student tended to tell stories about the benefits and prejudices of being mix-raced. Being denied their identity by both groups.
4. White students tended to share stores of being blamed for societal racism, over emphasis of ethnicity, becoming aware of their white privilege, or differences in opinions on the subject of privilege.

**Summary statement** (In their study of Memorable everyday events in college: Narrative of the intersection of ethnicity and academia, Moin Syed (2010) found that college students who come from diverse ethnicities face unique challenges relating to their ethnic identity and academics. It examines the role that developing identity plays in the life stories of college students, and the development of self. The stories of these college students will help professionals in high education to more effectively understand the needs of their students.)

## TEXTBOOK BRIEFS

**Full Citation in APA Format:** Creswell, J.W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4<sup>th</sup> ed.)*. Boston, MA: Pearson Education, Inc.

**In-Text Citation:** Creswell (2012)

**Main Points:**

- There are distinct steps in the research process – the broad topic, the research problem, the purpose or main objective, and the specific research questions.
- Even though a research problem exists, there are limits to whether it can or should be investigated.
- A problem **can** be researched if there is access to people and sites, and if adequate time, resources and skills are available to conduct the study.
- A problem **should** be researched if the study can contribute to knowledge or practice.
- Qualitative research is characterized by elements of exploration and quantitative research by elements of explanation.
- Five aspects should be addressed when writing the beginning of the research study report – the topic, the research problem, justification for the research problem, deficiencies in evidence, and identification of the audience(s).

**Summary statement:**

In Chapter 2, Creswell (2012) defined the research problem as “an educational issue, concern, or controversy that the researcher investigates” (p. 66). He explained a process of assessing whether a problem should be researched, how the research problem can be approached by quantitative or qualitative methods, and then provided strategies for writing the “Statement of the Problem” section of a research study. Examples of recently published studies were provided at the chapter’s end.

**Main Points:**

- The four most important elements in a study:
  - A purpose statement advances the overall direction or focus for the study.
  - Research Questions narrow the purpose statement to specific questions allowing the researcher to fully explore the topic.
  - Hypothesis are statements in quantitative research in which the investigator makes a prediction about the outcome
  - Research objectives are statements of intent used in quantitative research that specifies goals that the investigator plans to achieve in the study.
- These statements are important to state at the beginning of your study in order to highlight the central idea to keep the reader on track at all times.
- Quantitative seeks to measure differences and the magnitude of those differences.
- Qualitative seeks to create a deeper understanding of the views of one group of single individuals.
- In order to write a Quantitative purpose statement, research questions, and hypothesis, you need to understand the background information about variables, and be able to dissect theories.
- In order to write a Qualitative purpose statement and research questions, you need to explore/understand the central phenomenon in many different ways.

**Summary statement:** In their study, Creswell wanted to emphasize the importance of highlighting the central ideas at the beginning of your study in order to keep the reader on track. He states that the most effective way to do this is to create a purpose statement, research questions, hypothesis statements, and research objectives. He highlights that these four terms can be used in either quantitative or qualitative research. The biggest difference between these two types of research are that quantitative seeks to measure differences and the magnitude of those differences, and qualitative seeks to create a deeper understanding of the views of one group of single individuals.

**Main Points:**

-This chapter surveys the basic procedures for collecting quantitative data. There are five steps which it walks the reader through; selecting participants, collecting permission, choosing information type, finding and evaluating instruments, and explaining procedures to be used in data collection.

-First, the researcher specifies exactly what population and sample they want to survey. There are various methods to select a sample from a population, and for the most part they fall into categories of “probability” and “non-probability”; referring to the intention of keeping the sample representative of the population versus creating a sample based on who is available and who the researcher might like to focus on (ie a certain characteristic). The different types of sampling include simple random, systematic, stratified, multistage cluster, convenience\*, and snowball. It is also important to determine sample size, preferably using a sample size formula.

-The next section in Chapter 5 reviews acquiring permission to collect research. Permission needs to be obtained from participants, as well as from authority figures and organizations. Permission from participants is termed “informed consent”; emphasizing that the permission given by the participant needs to be preceded by disclosure of research intentions, as well as the rights participants have to exit the procedure as they please.

-It is also crucial to carefully select what type of information will be collected in the research. More than anything else are variables, which need to be operationally defined; specified in definition and measure. Other components of a study include instruments with which to measure and collect data, as well as optional components such as performance measures, attitudinal measures, behavioral measures, as well as factual information (already documented data). When deciding which type of collection to utilize, one must go back to the purpose of their research; looking at what approach would be most relevant and advantageous to the study.

-Instruments for a study (used with attitudinal, performance or observational measures) must also be selected, and if necessary, modified. Prior to use, instruments should be evaluated on reliability and validity; in other words, consistency and alignment between measure and purpose. There are additionally many types of reliability, and lenses through which you can analyze validity through a study’s evidence.

-The book goes further into analyzing instruments, and can be further referenced between pages 165 and 167.

-Standards procedures, as well as code of ethics, is lastly quite necessary before data collection in research.

**Summary statement:** Creswell describes quantitative research as a five step process, focused on selection, evaluation and description to best prepare for data collection.

**Summary:**

This chapter of the textbook refers to qualitative data collection. Qualitative data collection is explained as a process with different sampling approaches, which require certain permissions, recordings, as we consider field issues and ethical aspects in research. In qualitative research, participants are identified through purposeful sampling. At the same time, qualitative research, in comparison to quantitative research, requires greater permissions as most of the time the research requires access to sites to do the interviews. The text explains the need to seek institutional review board approval, as we have done for our research at George Mason University. It suggests that the researchers make sure the Board is acquainted with the qualitative research procedure. There are also different types of qualitative data that we could collect. Among them are observations, interviews and questionnaires, documents and audiovisual materials. Each of these require a protocol with includes the interview questions that would be used. All these are explained in detail in order to understand how effective each could be in various aspects of data collections. Throughout the chapter, the authors emphasize the importance of awareness of the place and people we do research with. It is significant to make sure that we understand the environment in which the research is done and the effect that different types of data collection can have on the participants.

### **Main Findings**

- Investigators use a correlation technique to describe and measure the degree of association (or relationship) between two or more variables or sets of scores
- There are two types of correlational research: explanation and prediction
  - Explanatory—clarifies the degree of association among two or more variables at one point in time
  - Prediction—researcher identifies variables that will positively predict an outcome or criterion
- Two primary ways to display correlation scores
  - Scatterplots—allow for researchers to identify type of association among variables (positive correlation and negative correlation) while locating extreme scores
  - Correlation matrix—presents a visual display of the correlation coefficients for all variables

**Summary statement:** To interpret the correlations, researchers examine the positive or negative direction of the correlation scores, a plot of the distribution of scores to see if they are normally or non-normally distributed, the degree of association between scores, and the strength of the association of scores.



**Methods:**

Constructing/Analyzing a mail questionnaire:

The first aspect to constructing a mail questionnaire is making a cover letter highlighting: the importance of the participant, the purpose of the study, confidentiality/assurances, sponsorship, and completion time and returns. Then careful consideration needs to be taken into account when designing the form of the questionnaire. Background questions may be used to begin with to find information on the subject. The types of questions (e.g. open, closed) and what they measure (e.g. behavior, attitude, perception) needs to be taken into account in order to suit the research best. Layout is also important in order for the participant to easily and effectively read the questions and responses. Finally, when you have all the data is extracted then analyzing the data begins by identifying response rate and response bias. After wards, simple descriptive analysis is used to identify general trends. Lastly, using the descriptive data, researchers compare groups or variables and go into more advanced statistics, and then write their report on their findings.

Designing/Conducting an interview survey:

You begin by obtaining/designing an interview survey to use and training interviewers. After you have gained access to participants through a formal invitation (e.g. cover letter), you establish a time and place to meet. When the interviewer meets the participant it is the interviewers responsibility that the interviewee feels comfortable and sets the pace. After the interview the participant is thanked and any notes pertaining to the interview should be jotted down.

**Main Points**

- Steps for conducting survey research: 1. Decide of survey is the best design, 2. Identify the research questions/hypothesis, 3. Identify the population, the sampling frame, and the sample, 4. Determining the survey design and data collection procedure, 5. Develop or locate an instrument, 6. Administer the instrument, 7. Analyze the data to address the research questions/ hypothesis, 8. Write report
- Sampling from a population. (Population, target population, sample)
- Question construction

- Types of survey design (Longitudinal, cross-sectional) (Mailed, web-based, interview, group interview, telephone interview)
- Ethical issues in survey research

**Summary statement:**

In his chapter on research design, John Creswell (2012) identifies the process and the many considerations that need to be looked over in order to design a n effective survey.

**Main Findings:**

- A grounded theory design is “a systematic, qualitative procedure used to generate a theory that explains, at a broad conceptual level, a process, an action, or an interaction about a substantive topic (Creswell, 2012).”
- When do you use grounded theory: when you need a broad theory or explanation of a process, when an existing theory does not address your problem, or when you wish to study a process.
- The theory was created by sociologists Barney Glaser and Anselm Strauss in their book *The Discovery of Grounded Theory* (1967), in which they established the framework for major ideas of grounded theories today.
- Grounded Theory designs:
  - Systematic design: “emphasis the use of data set analysis steps of open axial, and selective coding, and the development of a logic paradigm or a visual picture of the theory generated (Creswell, 2012).”
    - Three phases of coding: open coding, axial coding, and selective coding
  - Emerging Design: Developed by Glaser as a critique of the Strauss method of design, this method focuses more on theory generation than on rules, procedures, theory verification, or a preconceived framework for categories (Creswell, 2012).
    - This design focused more on letting theories emerge from data rather than using specific preset categories. Additionally, this design stresses the importance of a “basic social process”.
  - Constructivist Design: Articulated by Charmaz as a political position, this theory lies in the middle of the traditional strictly qualitative methods and those adopted by post modern researchers which challenge the importance of methods (Creswell, 2012).
    - Main focus: the feelings, beliefs, vies, values, and feelings of participants
- Characteristics that grounded theory researchers use in their designs:
  - Process approach: “a sequence of actions and interactions among people ad events pertaining to a topic (Crewswell, 2012).”

- Theoretical sampling: researcher chooses forms of data collection that will generate texts and images necessary in creating a theory
- Constant comparative data analysis: comparing incidents in the data to other incidents and activities
  - A core category
  - Theory generation: an abstract explanation or understanding of a process to create a theory
  - Memos: notes the researcher writes throughout the process
- Potential ethical issues:
  - Interviewing as a main form of data collection in this theory presents possible issues of power and influence among interviewer and interviewee
- Steps in conducting grounded theory research (Creswell, 2012):
  - 1. Decide if the grounded theory design best addresses the research problem
  - 2. Identify a problem to study
  - 3. Seek approval or access
  - 4. Conduct theoretical sampling
  - 5. Code the data
  - 6. Use selective coding and develop a theory
  - 7. Validate your theory
  - 8. Write a grounded theory research report

**Summary statement:** Grounded theory design is a set of procedures used to generate a theory that explains a process about a substantive topic (Creswell, 2012). It is used to generate a theory for a topic or idea when one does not exist and to study a process, action or interaction. This type of design allows the researcher to stay close to the data and was developed by sociologists Barney Glaser and Anselm Strauss.

**Main Findings** (in individual bullet points list the main findings and contributions of the article; each of these ideas can stand alone and may contribute to different aspects of the overall literature):

- First one must define what ethnographic research is, and then understand when and how to develop it. As defined in the textbooks “An ethnography is a useful design for studying groups in education, their behaviors, beliefs, and language, and how they develop shared patterns of interacting over time” (Creswell 2002).
- There are three types of ethnographic designs.
  - Realist ethnographic design which is an unbiased account of a situations that is usually taken from the field site
  - Case studies use data collections to better understand and analyze a situation
  - Critical Ethnographies which is research that aims at advocating or helping marginalized groups
- It is important to address the ethical concerns of conducting ethnographic research. One must always take into account the methods used to gain access to the fields, staying in the field, gathering data, and ones interactions.
- Once one develops an interest in conducting ethnographic research one must then identify a potential populations to study and examine shared cultural patterns within the group. Before any research is done one must be specific clear in the questions one wants answered. Then create a model for data collections, which should relate to the research problem. While conducting research ethics and permission to obtain data is curial. After data is collection the researcher must then analyze his or her findings and create a report.

**Summary statement:** In this chapter Creswell wants readers to clearly understand the definition of an ethnographic study. As well as, differentiating between the three types of ethnographic designs. Ethics and proper procedure is of utmost importance when conducting ethnographic research. Most importantly this chapter outlines in detail the steps need to conduct and finalize an ethnographic study.

**Main Points**

- Narrative research describes the lives of individuals, collects and tells their stories and provides narratives on their experiences
- Typically this is studying one specific person for the purposes of telling a person's story when they are willing
- There are multiple types of narratives including life history, personal experience story and teachers' stories which examines who is telling the story
- It is important to explore the story as it is being told
- There are stages in this process of research such as collecting story then practicing restorying which is the process that occurs after the research is told the story and then rewrites the story placing it in chronological order
- Collaboration is the involvement of the participant throughout the research process
- There are five total steps
  - Identifying the problem
  - Selecting individual
  - Collecting the stories
  - Restory
  - Collaborate
  - Write the story
  - Validate
- Evaluating narrative research involves being mindful of its development, the ethical issues surrounding it and how the research was conducted

**Summary Statement**

- Narrative research is a form of research best used to study a specific person's personal stories. This process of research follows five specific steps and the reader must take into account many criteria when evaluating it.

**Main Findings:**

- This chapter describes the types of action research designs, how to identify steps in conducting the report and potential ethical issues of the study.
- Action research designs (ARD) are systematic procedures done by individuals in an institution to gather information to improve ways their educational setting operates their teaching and learning.
- ARD are used when there's a specific educational problem to solve.
- The types of action research designs are practical action research and participatory action research.
- Practical action research is to research a specific school situation with a view toward improving practice. It is studying local practices, involving individual or team-based inquiry, focusing on teacher development and student learning, implementing a plan of action and leading to the teacher as researcher.
- Participatory action research is research to improve the quality of peoples' organizations, communities, and family lives. It is studying social issues that constrain individual lives, emphasizes equal collaboration and focuses on life enhancing changes, resulting in the emancipated researcher. Emancipators help unshackle people from constraints of irrational and unjust structures that limit self development and self determination.
- The "interacting spiral" is a visual used to convey the action research process. It reflects a continual process of observing, thinking and acting.
- Characteristics of action research are to approach practical issues, engage in self reflective research, collaborate with others, engage in a dynamic process, identify a plan of action and share reports.

**Summary statement:** Creswell describes the two types of action research designs, how to identify each and conduct a report.