The McNair Scholars Research Journal is the official annual publication of the McNair Scholars Program at Boise State University. The McNair Scholars Program is housed in the Center for Multicultural and Educational Opportunities within the College of Education. The program is funded by a $225,000 Ronald E. McNair Post-Baccalaureate Achievement Program grant from the US Department of Education.
MESSAGE FROM PRESIDENT BOB KUSTRA

It is with real pleasure that I write to introduce this ninth volume of the McNair Scholars Research Journal. The papers contained in this volume represent a remarkable breadth of scholarship that encompasses some of the best of what Boise State University has to offer. The Scholars, their faculty mentors, the staff of the McNair Program, and all of us at Boise State are very proud of this work.

Congratulations to all of the 2013 McNair Scholars for your achievements over the past year. In particular, I want to acknowledge the hard work and accomplishments of the senior Scholars whose research is represented in the papers in this publication. McNair scholars work with faculty mentors who are committed to the rigors of scholarship—a working relationship that both students and faculty describe as unique and beneficial. I also want to recognize and thank all of the faculty mentors who have worked with our McNair Scholars. It is your patience, guidance, and encouragement that facilitates the transformation of these students into scholars.

The Ronald E. McNair Post-Baccalaureate Achievement Program honors the memory and achievement of the late Dr. Ronald E. McNair, a physicist and NASA astronaut. Its goal is to encourage undergraduates from underrepresented backgrounds to emulate the academic and professional accomplishments of Dr. McNair by facilitating their pursuit of doctoral degrees and academic careers in teaching and research. The McNair Scholars Research Journal is evidence that the McNair Program provides a valuable opportunity for these students to explore research on significant issues. The McNair Program also provides students access to nation-wide conferences and graduate schools where they can present their original projects and meet doctoral faculty. Completing its tenth year on our campus, the program’s formula for helping students gain access to graduate school programs has proven very successful for a vast majority of those who have participated since its inception.

The research presented here signals the arrival of a new group of rising scholars who will carry their talents, enthusiasm, and hard work ahead into graduate programs here and across the country. I hope that you will continue to aspire, achieve, and pursue your dreams.

Again, congratulations and best wishes.

Sincerely,

Bob Kustra
May 2013

We are delighted to present our ninth issue of the Boise State McNair Scholars Research Journal. First published in the McNair Program's second year at Boise State, this journal continues to demonstrate the excellent undergraduate research that can be conducted when students are provided meaningful support through collaborative efforts. The collective excellence of these projects is a testament to the hard work of our Scholars and the tremendous support of faculty mentors who supervised these projects over the last one to two years.

The McNair Scholars Research Journal is the culmination of the research component of the McNair Scholars Program. The primary goal of this component is to engage students in the research enterprise at the undergraduate level in order to develop the analytical and methodological skills, academic sophistication, and confidence that will make them successful students in graduate school. It also provides an opportunity for students to publish their research and gain an early understanding of the critical role that publishing will play in their academic careers.

Maintaining a high standard of excellence for themselves, this year's McNair Scholars developed this research proving that each is ready to engage in the demands of graduate school. Being especially proud to see how these students have grown as researchers, it is fitting that all these efforts culminate in their deserved recognition through this journal. Thank you for allowing us to be a part of that process and for participating with us.

We also extend our deepest gratitude to all the faculty mentors who have guided and supported Scholars throughout our ten years, allowing them to grow in very significant ways. You have been instrumental in providing a solid research foundation from which they can enter graduate school with confidence. A final thanks to Jon Schneider, who pleasingly took it upon himself to edit the journal again this year.

Gregory Martinez
Director

Helen Barnes
Program Coordinator
## Boise State University McNair Scholars Graduate Institutions

### Class of 2004

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<td>Christine Pearson</td>
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<td>Luis Rosado</td>
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Social Supports for Multilingual Students in the University Setting

Max Badesheim: McNair Scholar

Gail Shuck: Mentor

Abstract

Research suggests that students’ social engagement, both on and off campus, plays a significant role in their academic performance. This research has been conducted in various settings including institutionally provided social programs (Browne, M. N., & Minnick, K. J., 2005), student organizations (Nunan, D., 1992), as well as interpersonal relationships (Cumming, A. H., 2006). These social supports are especially essential for multilingual students who potentially lack some of the interconnecting support networks of students raised in the United States in English speaking households. Despite the established connection between social engagement and academic performance, social programs on campus are often under-utilized. This study found that students participating in the Student Success Program (SSP) at Boise State University ranked the social aspects of the program significantly lower than the academic aspects, in terms of the positive impact on their academic performance. These findings may help to account for the lower utilization of the social support services of the SSP, and potentially, other programs offering social supports across campus.

Introduction

The population of multilingual students in U.S. college campuses has been on the rise for decades. To give an average of the number of these students in U.S. colleges would be deceptive, with some institutions serving only a small percent of multilingual students while others are serving a population of more than 50% who do not speak English as their first language. Across the country, the population of multilingual students in college classrooms is on the rise. These students help to diversify college campuses and bring with them experiences and insights that their monolingual peers may not have developed. Along with these values, multilingual students also bring with them unique learning issues. As college campuses support the varied learning needs of different populations, with such services as math tutoring centers, writing centers, counseling, and a multitude more, both general and specific, they can also provide great supports for multilingual students to help them overcome their unique learning challenges.

Campuses have not been sitting idly on this matter. English language support programs exist in a variety of forms across the nation, from pre-college intensive English programs and English language support classes taken to supplement writing intensive classes during students’ regular semesters, to things such as one-on-one tutoring, social groups, student organizations, and other less structured social supports. The issue that is at stake here is not necessarily what is being offered, so much as how students use the supports that are available to them. Research has extensively proved that social engagement is an important factor in academic performance, but attendance of institutionally provided social programs and events remains low. This research seeks to discover why attendance remains low for such programs. This paper will first establish the issues of low attendance at these various programs. Next, it will investigate current literature regarding both social and academic supports provided by institutions to serve their multilingual populations and the effectiveness of those supports to determine the value of these under-attended social programs. Finally, it will share the methodology, results, and conclusions to a research study conducted on student perceptions regarding social support programs in an attempt to discover the reasons for this low attendance. The goal of this study is to provide evidence for the low attendance and participation in social programs despite the value of such programs as noted in the work of many current scholars in the fields of education, sociology, and linguistics, and in turn, it will seek to offer suggestions to directors and staff at programs that provide social support services to increase attendance and use of their programs.
Literature Review

Social engagement

The positive results seen on students’ academic performance from social engagement has been established in numerous studies. Studies have been conducted on everything from interpersonal relationships and student-student and student-teacher relationships, to social groups like learning communities, student organizations, fraternities and sororities, volunteer organizations, and social media—Facebook, twitter, MySpace, even online gaming such as World of Warcraft and Second Life. These studies generally lead to the same assessment: “Whether the research is on psychological well-being, physical health, or student success in college, most studies conclude that relationships play an important role in positive life outcomes” (Schreiner, 2010). This paper will be focused primarily on research conducted on institutionally-provided social supports and their links to academic performance.

Language acquisition

Theories of student investment regarding second language acquisition attempt to provide a comprehensive theory of social identity “that integrates the language learner and the language learning context” (Norton Peirce, 1995). This theory has been built upon since Norton Peirce first offered it as a response to the theory of student motivation, which ignored the language learning context in favor of looking at the learner as the sole agent of language acquisition. Looking at both the learner and the context in which learning happens is critical in developing support structures that lead to learning and fluency rather than simple translation.

Translation is not necessarily a negative, but setting aside the learning context and looking only at the language learner, the only assessment or measure of success that can be employed is how effectively learners translate, whereas considering the context—assessment can be conducted based upon a multitude of areas which have been shown to lead to true proficiency (Price, 1996).

Common institutionally provided social supports

Many institutions provide their students with various support programs. The most common social support programs on university campuses are living learning communities. These run from rather casual organizations that live in the same dorm and participate in a few events together, to those that have their entire class schedule structured for them. They share the same classes, the same dorms, and they often eat and go on trips together. Such communities have had varied levels of success in improving academic performance.

Universities also provide less structured supports; they encourage student clubs, offer free events, provide conversation groups for multilingual students, and volunteer opportunities, among many others. In between the institution-structured and the student-centered programs are the more specialized programs that often work with specific populations and mix both academic and social supports. These include things such as the various TRiO programs, the College Assistance Migrant Program, community writing programs, and several others. These programs offer a mix of supports from exclusive classes to advising, and they also offer social supports such as group events and parties.

Boise State University’s Center for Multicultural and Educational Opportunities hosts the Student Success Program (SSP), one of several TRiO programs on the campus. Since 1984, the SSP has served students with documented disabilities, who were first generation college students, or who were classified as low income. This program is primarily an academic support service. It provides numerous supports such as free tutors, advising, academic skills workshops, and a program specific computer lab. In addition to these services, the SSP also strives to build a community among students and staff. It offers free tickets to cultural events, hosts open houses and provides refreshments at the end of the semester. It also has recently put together a semester orientation for students to meet each other and become more familiar with the program and their peers. These services are generally provided based on the theory of best practice—that is, programs that are successful do these kinds of things; therefore, we should as well. The SSP and programs like it rarely consider the direct impact such events have on their students’ academic performance, sometimes going so far as to say it is stress relief, but most often simply seeing it as a nice thing to do a couple times a year. These sorts of events though tend to be the least utilized services that the SSP provides.
Current Research Study

This research study was developed in response to the low attendance of social support programs on university campuses. While many students may find these social programs enjoyable and entertaining, most do not realize the academic benefit that the programs provide, which might account for the low attendance. Therefore, this study was designed to assess student perceptions regarding social support services.

Methodology

Students in the Student Success Program (SSP) at Boise State University were invited to respond to a short survey which had them rank the impact that they felt various aspects of the program had on their academic performance. The SSP was selected for a number of reasons. It has a varied population of both linguistic minority students—those who speak a language other than English in their homes—and linguistic majority students. The SSP serves roughly 180 students a semester and provides a variety of services, both academic services—one-on-one tutoring, academic advising, computer lab access, and academic workshops—and social services—graduation parties, free tickets to cultural events, and local outings as groups. The SSP was used for this study because it is a developed program and students are aware of the available services, which helped limit variables such as students being unfamiliar with the social services provided or not knowing how to access them.

The survey used in this study was developed by the primary and co-researcher based upon other student perception surveys, such as class evaluations. The questions were designed to elicit two key points: how students rank the various SSP services and what aspect of the SSP has the most impact on their academic performance. This second point was targeted using a fill-in-the-blank question to gather a more qualitative response.

Results

The initial response to this survey was limited. The entire population of the Student Success Program, roughly 180 students, was invited to participate via email during the summer semester of 2012. Of those students, 15 responded and 14 completed the entire survey. Four of these participants responded that they speak a language other than English in their home. Students ranked seven different aspects of the program and were allowed to write-in and rank an optional eighth aspect. These services were categorized as academic services, which included one-on-one tutoring, advising, computer lab access, and workshops, and social services, which included free tickets to cultural events, graduation banquets, and semester orientation.

The academic services were ranked by the majority of participants as having significant positive impact or some positive impact. Only two participants selected that they had not used the workshops provided by the SSP, and only one hadn’t used one-on-one tutoring. However, less than half of participants selected the social services as having either significant or some positive impact. While more than half either had not used those services or ranked them as having minor positive impact. Nine participants ranked “other” services, however only five wrote in their responses. These responses can be categorized as primarily social, with answers like “a refuge from stress,” “fellowship with others from similar backgrounds,” “networking,” and “They have faith in you.” This suggests two things. First, as it was established in general contexts above, the social support services being offered by the SSP are used much less frequently than the academic supports. Second, even when considering only those who had used social support services, the majority of participants did not note social supports as having any significant impact on their academic performance.

The ranking that participants conducted, though, only assesses surface level considerations. When asked why they would recommend the SSP to new incoming students, participants often pointed to the supportive staff and how the staff positively affects their spirits. This suggests that while participants do not realize that their social engagement on campus has a direct positive correlation with their academic performance, they do still realize the importance of relationships and their emotional states.

In considering participants’ written answers, rather than the simple ranking, we can establish that they do in fact value social engagement. They are not, however, linking it to their academic performance in regards to their moods or educational investment.
Conclusion

The importance of social engagement in regards to academic achievement cannot be understated, especially in regards to at risk populations, such as multilingual students. Students who are not engaged socially on campus are less likely to complete their college education. Many students create their own social support networks among friends and peers, student clubs and organization, or class study groups, yet many more seem to view college as they might a job—somewhere they have to show up to, but get to leave as soon as possible. These students lack the social connections that help promote their graduation. It seems clear that students are aware, at least conceptually, of the emotional weight that school places upon them and of the valuable role that their peers and friends have in balancing that weight.

It seems that this emotional weight is obscured and even ignored when compared to a looming mid-term exam or term paper. To better help their students succeed, programs such as the SSP that provide social supports to help lessen the emotional burden on students, need to raise awareness in their students regarding this issue. Often times, such programs appear to be operating under the “best practice” theory—that is, they offer these social supports because other programs offer them. There is little attention paid to the academic value of social services in these programs, and therefore students are likely seeing these services as distractions from their academic endeavors rather than a necessary facet of their academic success.

By first changing the perceptions of staff and faculty in these programs, it is likely a change will happen in student perceptions as well. When programs see themselves as providing free food for their students at the end of the semester, students come for the free food, but when programs see themselves as providing a community of support and a chance for students to set aside, for a moment, their tests and papers and be more than just students fulfilling the requirements of their degrees, the students will likely change their perspectives as well.

References


Analysis of Gender Differences in Self-Statements and Mood Disorders

Robert DeVore: McNair Scholar
Mary Pritchard: Mentor
Psychology

Abstract

Over 25% of adult Americans suffer from a mental disorder each year, with depression and anxiety being some of the most commonly reported issues. Researchers estimate that between 10% and 50% of adult Americans will suffer from a depressive episode at some point in their life, and cognitive theorists argue that mental states, including disorders, are generated and maintained by personal, subjective beliefs, and that events can only be appropriately labeled by the individual experiencing them. Thus, cognitive theorists suggest a strong link between self-talk (ST) and behavior and note that the automatic use of ST is associated with disordered thinking. Researchers further suggest ST may differ between those suffering from anxiety and those suffering from depression. However, studies have yet to examine whether ST in men suffering from depression or anxiety differs from that of women.

Keywords: self-talk, depression, anxiety, gender difference

Introduction

An estimated 58,000,000 adult Americans, over 25% of the adult population, suffer with a mental disorder each year, with depression and anxiety being some of the most common mental health issues (Prah, 2006). Although most studies of depression have indicated that 10% to 20% of adult Americans will suffer from the disorder at some point in their lives, some studies have found rates of nearly 50% (Clemmitt, 2009). Major depression affects between three and five percent of the population, whereas bipolar disorder affects around one percent (Clemmitt, 2009), and anxiety disorders affect 17% of Americans (Prah, 2006). Combined, major depression and bipolar disorder affect 75% of people with severe mental disorders (Clemmitt, 2009).

Although many factors contribute to the development of mental health issues, studies have shown significant differences in the prevalence of mental disorders between men and women (Eaton et al., 2011). For example, women are almost twice as likely as men to suffer from depression (Clemmitt, 2009). Women are also twice as likely to have an anxiety disorder, with 3.1% of women suffering with general anxiety in the last 12 months and 5.8% over the course of their lives, compared to 1.4% in the last 12 months or 3.1% over a lifetime for men (Eaton et al., 2011). Various explanations for why these differences exist have been theorized (Eaton et al., 2011), including response bias, as depression is considered unmanly (Clemmitt, 2009), and possible biological, demographic, and/or psychological explanations (Eaton et al., 2011).

Although the diagnostic criteria for each of these disorders differ, they do share some symptomology. For example, pervasive negative thoughts are a part of both depression and anxiety. With depression, a person is likely to believe they are incompetent or that life is hopeless; with anxiety, a person is likely to have negative thoughts about what might happen or about threats in the future (Safren et al., 2000). Despite these differences, some have argued that they are in fact the same disorder with different presenting symptoms (Safren et al., 2000). This is supported by the high comorbidity of depression and anxiety, and high concordance between parents with both depression and anxiety and children with both depression and anxiety (Lerner et al., 1999). However, in individuals diagnosed with depression alone, serotonin levels have been found to be lower than those of the general population, whereas in people diagnosed with anxiety alone, serotonin levels have been found to be higher than those of the general population (Prah, 2006).

Cognitive theorists argue that mental states, including disorders, are generated and maintained by personal, subjective beliefs (Kelly, Zurhoff, & Shapira, 2009), and that events can only be appropriately labeled by the individual experiencing them (Oliver, Markland, & Hardy, 2010). Monitoring changes in self-talk (ST) compared to symptoms is one way to measure the effectiveness of therapy (Lerner et al., 1999), as demonstrated by an analysis in which the benefits of cognitive-behavioral therapy (CBT) for anxiety patients were found to be mediated by changes.
in ST (Oliver et al., 2010). A study by Kelly et al. (2009) used ST interventions to test whether self-soothing and attack-resistant ST would reduce symptoms of depression, noting that self-criticism is associated with higher levels of depression and with longer periods of depression.

Numerous questionnaires have been made to gauge ST as cognitive theorists suggest a strong link between ST and behavior, and the deliberate use of positive ST has been successful in improving performance (Theodorakis, Hatzigeorgiadi, & Chroni, 2008). While the deliberate use of ST has been identified as an effective means of enhancing confidence, performance, mood, and attention, its automatic use is more commonly associated with disordered thinking (Theodorakis et al., 2008). Studies have been conducted to verify the validity of questionnaires for these automatic thoughts. For example, exploratory factor analysis of the automatic thoughts questionnaire-revised (ATQ-R; Hollon & Kendall, 1980) and the anxious self-statements questionnaire (ASSQ; Kendall & Hollon, 1989; Safren et al., 2000) produced four separate classes of ST, two correlating to anxiety, one with depression, and one with positive affect. Additionally, the three negative classes of ST were grouped as part of a general negative affect class in a hierarchical analysis. Calvete and Conner-Smith (2005) similarly reported a higher order positive ST class but only when more categories of positive ST were used. Safren et al. (2000) reported that Jolly and Dykman’s (1994) analysis of the cognition checklist supported a similar 3-factor model, and Lerner et al.’s (1999) analysis of the negative affect self-statement questionnaire produced a 4-factor model. These analyses all support the idea that there are significant and meaningful differences in ST between anxiety and depression (Safren et al., 2000).

There are still several questions one could ask about ST. Lerner et al. (1999) did not analyze their sample for differences based on gender, and Safren et al. (2000) used a sample composed entirely of women, making an analysis based on gender impossible. Recognizing that there are significant gender differences in the prevalence rates of these disorders (Eaton et al., 2011), one might wonder whether these gender differences are mediated by differences in ST. Do men and women rely on the same or different types of ST to express their anxiety and depression? The present study will address these questions. We hypothesize that women will use more negative ST than men, and that depression and anxiety scores will be best predicted by different types of ST depending on gender. In addition, we hypothesize that ST will mediate the relationship between gender and anxiety and depression.

**Method**

**Participants**

Three hundred nineteen students in an introductory psychology course at a public university in the Rocky Mountain region were surveyed (194 females, 125 males). The average age of those surveyed was 21.65 (SD = 5.99). The sample was 84.6% White/Caucasian, 1.9% Black/African American, 1.6% Asian, 9% Native Hawaiian/Pacific Islander, 3% American Indian/Alaskan Native, 4.1% mixed, and 6.6% other. The Institutional Review Board approved all study procedures before data collection commenced.

**Measures**

**Self-statements.** The anxious self-statements questionnaire (ASSQ) is a measure of the frequency with which a participant uses self-statements related to anxiety (Kendall, & Hollon, 1989). It is measured on a 5-point scale (1 = never, 5 = very often), and final scores are a sum of the item scores. The ASSQ consists of 32 negative self-statements related to anxiety. Factor analysis has shown that these self-statements are correlated with anxiety and consistent with the content-specificity hypothesis (Safren et al., 2000; α = .97).

The automatic thoughts questionnaire-revised (ATQ-R) includes 30 self-statements associated with depression and 10 positive self-statements inversely associated with depression (Hollon, & Kendall, 1980). The statements are measured on a 5-point scale (1 = never, 5 = very often), and final scores are obtained by adding the item scores for each category, positive or negative. The ATQ-R has shown moderate to high correlations with the MMPI-Depression scale (r = .45—.70) and acceptable reliability and validity (Hollon, & Kendall, 1980; α = .88).

The ASSQ and ATQ-R were combined and broken down according Safren and colleagues’ (2000) factor analysis. This created four subscales: depressive ST (27 items; α = .97), poor coping ST (i.e. ST regarding one’s inability to cope; 11 items; α = .95), uncertainty ST (i.e. ST regarding one’s uncertainty about the future; 8 items; α = .89), and positive ST (10 items; α = .90).
Depression. The Beck Depression Inventory (BDI) contains 21 sets of items regarding participants' mood over the last week (Beck, Rush, Shaw, & Emery, 1979). The BDI has been used extensively over the past 30 years and has shown good validity and reliability (Kendall, Hollon, Beck, Hammen, & Ingram, 1987; Safren et al., 2000; \( \alpha = .92 \)).

Anxiety. A measure of trait anxiety, the state-trait anxiety inventory (STA-T) consists of 20 items intended to measure a person's general feelings of anxiety (Spelberger, Gorsuch, & Lushene, 1970). The trait portion of the STA-T was used to gauge typical anxiety levels of participants. The trait portion of the STA-T has shown acceptable levels of validity and reliability (Spelberger et al., 1970; \( \alpha = .92 \)).

Results

\textit{t-Tests}

Before ascertaining whether there were gender differences in factors relating to anxiety and depression scores for men and women, we first needed to determine whether there were gender differences in anxiety and depression in our sample. To this end, we ran independent samples t-tests for all variables (see Table 1). As expected, women reported using more negative self-statements on the ATQ (Hollon & Kendall, 1980) as well as anxious self-statements (ASSQ; Kendall & Hollon, 1989) than men did. Women also reported significantly higher trait anxiety (STA-T; Spelberger et al., 1970) and depression (BDI; Beck et al., 1979) than men did, and women utilized more self-talk (ST) regarding one’s inability to cope. Finally, as hypothesized, relationships between all variables were significant at the \( p < .001 \) level for both men and women (see Table 2).

\textit{Stepwise regression}

\textit{Anxiety.} To determine which of our independent variables (IV) best related to our dependent variables (DV), we ran separate stepwise regressions for men and women for each DV. The stepwise method was chosen because we felt it was important not only to know whether different factors related to anxiety and depression in male and female college students, but also their order of importance. As shown in Table 3, in men, anxiety was best predicted by depression, \( F(1,120) = 360.93, p < .001, R^2 = .75 \). After depression was controlled for, there was an inverse relationship between positive self-statements and anxiety, \( F(2,119) = 195.22, p < .001, R^2 = .77, R^2\Delta = .02 \). Finally, self-statements regarding uncertainty about the future contributed a small but significant effect to the variance in anxiety score, \( F(3,118) = 138.77, p < .001, R^2 = .78, R^2\Delta = .01 \).

However, in women self-statements regarding uncertainty about the future did not contribute significantly to the variance in anxiety score. As shown in Table 3, anxiety in women was best predicted by depression, \( F(1,188) = 386.90, p < .001, R^2 = .67 \). After controlling for depression, there was an inverse relationship between positive self-statements and anxiety, \( F(2,187) = 268.13, p < .001, R^2 = .74, R^2\Delta = .07 \). Finally, for women self-statements regarding an inability to cope contributed to the variance in anxiety scores, \( F(3,186) = 185.61, p < .001, R^2 = .75, R^2\Delta = .01 \).

\textit{Depression.} Stepwise regression of depression scores for men, as shown in Table 4, determined that depressive self-statements best predicted depression, \( F(1,188) = 370.20, p < .001, R^2 = .66 \). There was also an inverse relationship between positive self-statements and depression score for men, \( F(2,187) = 208.54, p < .001, R^2 = .69, R^2\Delta = .03 \). Women's depression scores were also best predicted by depressive self-statements, \( F(1,119) = 182.36, p < .001, R^2 = .60 \), and an inverse relationship with positive self-statements, \( F(2,118) = 107.71, p < .001, R^2 = .65, R^2\Delta = .05 \).

\textit{Mediation.} To test whether ST mediated the relation between gender and mood disorders, we followed Baron and Kenny’s (1986) model for testing mediation. In step 1, the IV (gender) was regressed on each of the mediators (positive ST, uncertainty, poor coping, and depression). The model was significant for the relation between gender and poor coping, \( F(1,314) = 10.20, R^2 = .03, \beta = .18, p < .001 \). However, there was no relation between gender and positive ST, \( F(1,316) = 1.31, \) uncertainty, \( F(1,314) < 1 \), or depressive ST, \( F(1,317) = 2.39 \). As a result, we only tested mediation for poor coping ST. In Step 2 of the mediation model, poor coping was regressed on anxiety, \( F(1,313) = 530.43, p < .001 \), and on depression, \( F(1,312) = 405.02, p < .001 \). In the final step, gender and poor coping were
regressed on anxiety, $F(2,312) = 266.03, p < .001$, and depression, $F(2,311) = 201.94, p < .001$. As displayed in Table 5, poor coping did in fact mediate the relation between gender and anxiety and depression.

Discussion

General

Previous research on the relation between ST and mood disorders has failed to examine possible gender differences in ST (Lerner et al., 1999; Safren et al., 2000). Given that there are significant gender differences in the prevalence rates of these disorders (Eaton et al., 2011), the purpose of the present test was to examine whether these gender differences are mediated by differences in ST.

Similar to previous research, we found that women reported higher levels of both depression and trait anxiety (Eaton et al., 2011). We had hypothesized that women would use more negative ST than men. We only found one significant difference between the scores of men and women for the three kinds of negative ST measured: poor coping ST. Supporting our hypothesis, women had higher scores for all three measures of negative ST.

Previous studies on ST identified differences between anxious ST and depressive ST (Lerner et al., 1999; Safren et al., 2000) which our regression analyses support. Safren et al. (2000) further identified two sub-types of anxious ST: poor coping ST and uncertainty ST. We found significant correlations between both of these types of ST and trait anxiety scores; furthermore, our regression analysis of anxiety showed that these types of ST have are related to anxiety differently between men and women.

We also hypothesized that anxiety and depression would be predicted by different kinds of ST in men and women. Men’s trait anxiety scores were related to their use of uncertainty ST, whereas women’s anxiety scores were related to their use of poor coping ST. Additionally, both depression scores and anxiety scores were best be predicted by depressive ST and the absence of positive ST for both men and women.

We hypothesized that ST would mediate the differences between gender and depression and anxiety. We found a significant mediation effect from poor coping ST for both anxiety and depression scores for men and women. Thus, poor coping ST mediated gender differences in both depression and anxiety scores.

Limitations

The generalizability of this study is limited by its cross sectional nature. If we had surveyed students several times throughout the semester or over a period of years, our results may have been different. That our study is composed of college students is a mixed blessing. One previous study (Lerner et al., 1999) studied ST and mood disorders in children, whereas another (Safren et al., 2000) studied adult mothers. We have bridged that age gap by surveying young adults; however, since no one else analyzed for gender differences, it is impossible to tell if the differences identified are unique to a college population or not. All data was gathered via self-report surveys and thus was not viable as a diagnostic for the actual presence of any mood disorders. Finally, no analysis was capable of accounting for all of the variance in IV scores.

Conclusion

There are differences in the way each gender uses ST. Since ST, and changes in ST, has been used in therapy (Kelly et al., 2009; Lerner et al., 1999; Oliver et al., 2010), differences in the way men and women use ST may indicate that therapy should be different for men and women. Monitoring or attempting to change the most relevant kind of ST may prove more effective than monitoring the broader spectrums of ST. While men and women did rely primarily on the same types of ST for depression and anxiety, the amount of variance accounted for by each type was different for each gender. In addition, poor coping ST mediated the relation between gender and anxiety and depression. These differences may help explain the different prevalence rates for mood disorders between men and women and may be helpful to counselors treating men and women for depression.
## Appendix

Table 1. T-tests for Mood Disorders and forms of Self-Talk

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>t</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive ST</td>
<td>124</td>
<td>38.01 (6.31)</td>
<td>194</td>
<td>37.12 (7.05)</td>
</tr>
<tr>
<td>ATQ-N</td>
<td>125</td>
<td>59.63 (17.92)</td>
<td>194</td>
<td>63.39 (21.96)</td>
</tr>
<tr>
<td>ASSQ</td>
<td>125</td>
<td>64.48 (20.05)</td>
<td>191</td>
<td>70.49 (25.18)</td>
</tr>
<tr>
<td>STAI-T</td>
<td>124</td>
<td>18.76 (9.64)</td>
<td>194</td>
<td>22.45 (11.08)</td>
</tr>
<tr>
<td>BDI</td>
<td>123</td>
<td>9.40 (8.36)</td>
<td>194</td>
<td>12.11 (10.32)</td>
</tr>
<tr>
<td>Poor Coping</td>
<td>125</td>
<td>20.71 (7.43)</td>
<td>191</td>
<td>24.03 (9.92)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>124</td>
<td>17.75 (5.73)</td>
<td>192</td>
<td>18.22 (6.53)</td>
</tr>
<tr>
<td>Depressive ST</td>
<td>125</td>
<td>51.42 (15.62)</td>
<td>194</td>
<td>54.66 (19.81)</td>
</tr>
</tbody>
</table>

Notes: Significance is indicated by * = p < .05, ** = p < .01. ST = self-talk, ATQ-N = Automatic Thoughts Questionnaire-negative self-statements, ASSQ = Anxious Self-Statements Questionnaire, STA-T = State Trait Anxiety Inventory-Trait portion, BDI = Beck Depression Inventory, Inability to Poor Coping = ST regarding one’s inability to cope, and Uncertainty = ST regarding one’s uncertainty about the future.
Table 2. Summary of Correlations

<table>
<thead>
<tr>
<th>Predictor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Positive ST</td>
<td>-</td>
<td>-.76</td>
<td>-.68</td>
<td>-.75</td>
<td>-.73</td>
<td>-.69</td>
<td>-.77</td>
<td>-.53</td>
</tr>
<tr>
<td>2. ATQ-N</td>
<td>-.78</td>
<td>-</td>
<td>.87</td>
<td>.87</td>
<td>.75</td>
<td>.88</td>
<td>.99</td>
<td>.68</td>
</tr>
<tr>
<td>3. ASSQ</td>
<td>-.73</td>
<td>.92</td>
<td>-</td>
<td>.83</td>
<td>.68</td>
<td>.93</td>
<td>.87</td>
<td>.89</td>
</tr>
<tr>
<td>4. STAI</td>
<td>-.80</td>
<td>.82</td>
<td>.81</td>
<td>-</td>
<td>.82</td>
<td>.81</td>
<td>.87</td>
<td>.67</td>
</tr>
<tr>
<td>5. BDI</td>
<td>-.74</td>
<td>.81</td>
<td>.77</td>
<td>.83</td>
<td>-</td>
<td>.69</td>
<td>.76</td>
<td>.49</td>
</tr>
<tr>
<td>6. Poor Coping</td>
<td>-.71</td>
<td>.91</td>
<td>.95</td>
<td>.78</td>
<td>.77</td>
<td>-</td>
<td>.88</td>
<td>.74</td>
</tr>
<tr>
<td>7. Depressive ST</td>
<td>-.78</td>
<td>.99</td>
<td>.92</td>
<td>.82</td>
<td>.81</td>
<td>.90</td>
<td>-</td>
<td>.67</td>
</tr>
<tr>
<td>8. Uncertainty</td>
<td>-.63</td>
<td>.79</td>
<td>.92</td>
<td>.71</td>
<td>.62</td>
<td>.80</td>
<td>.79</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: Scores for males are presented above the diagonal line; scores for women are presented below the diagonal line. All scores are significant at the \( p < .001 \) level. ST = self-talk, ATQ-N = Automatic Thoughts Questionnaire-negative self-statements, ASSQ = Anxious Self-Statements Questionnaire, STAI-T = State Trait Anxiety Inventory-Trait portion, BDI = Beck Depression Inventory, Coping = ST regarding one’s inability to cope, and Uncertainty = ST regarding one’s uncertainty about the future.

Table 3. Stepwise Regression of STAI-T Score

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \Delta R^2 )</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Step 1</td>
<td>.75</td>
<td>.67</td>
</tr>
<tr>
<td>Depressive ST</td>
<td>.87***</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>Depressive ST</td>
<td>.71***</td>
<td></td>
</tr>
<tr>
<td>Positive ST</td>
<td>-.20**</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Depressive ST</td>
<td>.61***</td>
<td></td>
</tr>
<tr>
<td>Positive ST</td>
<td>-.19**</td>
<td></td>
</tr>
<tr>
<td>Poor Coping ST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertainty</td>
<td>.15*</td>
<td></td>
</tr>
<tr>
<td>Total R^2</td>
<td>.78</td>
<td>.75</td>
</tr>
<tr>
<td>N</td>
<td>124</td>
<td>194</td>
</tr>
</tbody>
</table>

Notes: Significance is indicated by * = \( p < .05 \), ** = \( p < .01 \), and *** = \( p < .001 \). ST = self-talk, Poor Coping = ST regarding one’s inability to cope, and Uncertainty = ST regarding one’s uncertainty about the future.
Table 4. Stepwise Regression of BDI scores

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Δ R²</td>
<td>B</td>
</tr>
<tr>
<td>Step 1</td>
<td>.61</td>
<td>.66</td>
</tr>
<tr>
<td>Depressive ST</td>
<td></td>
<td>.78***</td>
</tr>
<tr>
<td>Step 2</td>
<td>.04</td>
<td>.03</td>
</tr>
<tr>
<td>Depressive ST</td>
<td></td>
<td>.53***</td>
</tr>
<tr>
<td>Positive ST</td>
<td></td>
<td>-.32***</td>
</tr>
<tr>
<td>Total R²</td>
<td>.65</td>
<td>.69</td>
</tr>
<tr>
<td>N</td>
<td>124</td>
<td>194</td>
</tr>
</tbody>
</table>

Notes: Significance is indicated by * = p < .05, ** = p < .01, and *** = p < .001. ST = self-talk.

Table 5. Testing mediation of Poor Coping on the Relation between Gender and Depression and Anxiety

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Depression</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R²</td>
<td>B</td>
</tr>
<tr>
<td>Step 2</td>
<td>.56</td>
<td>.63</td>
</tr>
<tr>
<td>Poor Coping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>.56</td>
<td>.63</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Coping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>313</td>
<td>314</td>
</tr>
</tbody>
</table>

Notes: Step 1 was reported in the text. Significance is indicated by * = p < .05, ** = p < .01, and *** = p < .001.
Winning in New Democracies: Why Some Parties Are More Victorious Than Others in Foundational Elections

Josue Gomez: McNair Scholar

Ross Burkhart, Allen Hicken, Mike Touchton, Jill Witrock: Mentors

Political Science

Abstract

There is a spectrum of parties that exist in foundational elections in new democracies, and this research will seek to identify why some parties are more successful than others, focusing on Latin America. These comparisons will highlight important characteristics of the parties that give them advantages and make them more likely to win. Subsequent studies will examine new democracies in other regions. A party can choose to embrace an idea or movement, such as the legacy of an old regime or a transition to democracy. Hypotheses are developed that will test variables that lead to a party increasing its vote share and share of seats in the country parliament. The variables are old regime alignment and opposition alignment. Within the countries’ foundational elections, the political parties will be identified. The case study compares Brazil and Mexico. The study shows a relationship with party alignment with old regimes and electoral success. The hypotheses will be tested in future research quantitatively throughout the region using multiple regression analyses, and a few cases will be more deeply explored qualitatively to further understand the insights from the statistical findings.

Research Question

Various waves of democracy have swept over the globe in the past fifty years. Examples span from the 1960s independence movements in Africa to the recent democratization in the Middle East in the wake of the Arab Spring. After periods where there have not been elections of any kind, or any competitive elections, there is great interest as to how countries embrace democracy subsequent to their foundational election. A possible result of having a democracy is the formation and the participation of political parties in government. Some parties may be new and some may have existed before the transition to democracy. This research will look at the spectrum of parties that exist in foundational elections and will seek to identify why some parties are more successful than others.

The research will focus primarily on the following questions: What characteristics allow parties to succeed more than other political parties in foundational elections? What allows parties to be competitive in these elections? When there are fundamental changes in a country adjusting to a new regime type, such as a country’s independence, there are interests within the country that compete for the opportunity to govern. The interests within a country can be numerous. Some of these interests are very likely to form political parties. Some will unite with other interests in a coalition to form a political party. In this sense, political parties can vary as much as the interests that form them. The number of party options presented can make it difficult for first time voters who want to select parties that represent their beliefs and have a chance of winning. If a party can successfully convince voters that their party will fulfill both goals, it gives them the opportunity to continue to be competitive in future election cycles. This research will focus on the new democracies’ first competitive election, and it will look at the characteristics of parties that win votes and shares of seats in parliament from foundational elections in several countries.

Latin American will be the focal region for this study. Despite achieving independence in the early 19th century, in most cases, the region has undergone long periods of dictatorships and military interventions. Democracy in this region is a fairly new concept since elections have only recently become competitive over the past few decades. This will be the first step in studying party success in foundational elections. Subsequent studies will hopefully look at the political parties in new democracies in other regions. It will be interesting to see if the same factors that lead to success in the political parties studied in this research will also appear in other regions.

This research will look at elections in both Latin America and the Caribbean that were held shortly after independence or after a country had a long period under a dictatorial government. Within those elections, the winning political parties will be identified. Comparing these winning parties will help in understanding why some
parties are more successful than others in founding elections. From these comparisons, some characteristics will be identified as giving the winning parties an edge. This research will give us insights into how political parties perform in young democracies, and it can also be used to identify which groups and parties are likely to win and govern during a country’s early years as a democratic state.

**Literature Review**

The concept of viability will influence a party’s initial success in a new democracy. However, viability is not easily determined in foundational elections. What is available to voters in these elections are the political parties that successfully make themselves familiar. Parties that are likely to be familiar are those with a historical presence in the country and who identify themselves with the issues that most concern voters: namely, the transition to democracy. There are other influences to electoral success that are discussed.

**Viability**

Several Latin American countries have had long instances of authoritarian governments after obtaining their independence. There have been few instances of competitive elections before the 1960s. After this initial wave of elections, countries went through periods where there were either civilian governments or military governments. This behavior occurred until the second wave of competitive elections swept the region in the 1980s. This political history is said to have influenced voter mobilization and allowed manipulation by elites to frustrate the democratization process (Kostadinova, 2007). Compared to other regions, Latin America has had a gradual democratization process, which in turn slowed party development and party system institutionalization (Dix, 1992).

When Latin American countries began to steadily democratize, voters within these countries faced what people in new democracies face. Voters would like to vote for a party that is deemed viable. Voters determine party viability as the historical electoral performance of the party (Tavits, 2008). Voters are inclined to vote for parties that are viable even if it results in them voting for a party that does not align with their views. They do this despite the presence of an alternative party that might align more with their views but might not be as viable as another party. When a foundational election takes place, party viability has not been established for the new parties. The chances for any new party to be successful in the first election are about the same as for any other new party. Usually, in a foundational election, voters do not have the democratic experience to easily determine which party is more viable than another in a competitive election.

**Political parties and the old regime**

In foundational elections, the only parties that may have a history are those that have a relationship with the old regime. Old regimes in Latin America were dictators and military rulers as well as the dominant parties that supported them. A party’s historical connections to an old regime can give them an advantage.

The advantage to being a familiar party in a foundational election stems from party institutionalization. Party institutionalization can describe a party that has developed its electoral history and legacy within a country. In Latin America, this has been a gradual phenomenon. Latin America in the 1990s had parties that could be seen as institutionalized or in the process of becoming so. Dix uses the criteria Samuel Huntington put forth: adaptability, complexity, autonomy, and coherence (Dix, 1992). Other items that link to this aspect of party development are party origins, resources, party leadership, factionalism, clientelism, and external sponsorship (Randall, 2002). Institutionalization takes time and ultimately gives the party or group recognition as a part of a country’s political identity. Party institutionalization helps parties appear viable to the voter.

When foundational elections occur, the only parties that have the possibility of being institutionalized are those parties that are linked with the previous regime. These parties may have political elites that were associated with the previous regime and are perceived to be so when the foundational election occurs. Another way a party is linked to the old regime is if the party existed prior to the first competitive election in the country. The parties would have participated in the legislatures under a military rule or dictatorship. At the time, these legislatures would have nominal influence in government. When the democracy experiences its first competitive election and these old regime parties survive the transition, they may participate. The party may be advertised as the only one with governing experience. Depending on the popularity of the old regime, a party’s relationship with the old regime may be beneficial to their success in the election.
However, the old regime may be unpopular based on its history in the country or how the transition from the old regime’s dominance to competitive elections took place. Opposition to the old regime may have been the catalyst for the transition to a true democracy. If this opposition manages to transform itself into a political party, the advantage may be theirs in a foundational election. If the opposition to the old regime had existed for a long period of time, it is possible that the opposition may have experienced institutionalization. If this is the case and the old regime is unpopular, the advantage the old regime parties had may instead go to the party viewed as the opposition. After the election, parties with strong party institutionalization can play a central role in future government policy (Randall, 2007).

The big issue

In foundational elections, according to Tavits, parties do not know the issues that will excite the electorate the most and their platforms can be broad at first. As time passes, parties can gain votes by politicizing issues and honing their platforms around issues that mobilize and gain the support of voters. It is not just a matter of a party presenting their core issues, but of taking on the issues that matter most to the electorate (Tavits, 2008). This increases a party’s competitiveness by signaling to voters what they represent, by shaping the issues that matter in the country, and by eliminating parties that are potential substitutes. Ideological consolidation in a party can be as helpful to the party system’s consolidation as the institutions of the democracy (Horowitz, 2005). It may be possible that politicizing issues can be beneficial for a party in a foundational election. The transition to democracy itself may be the issue of most concern in a foundational election. A political party’s relationship with the old regime is an issue that matters to voters in a foundational election. Will the party be the old regime’s legacy in the new democracy or is the party opposed to the old regime’s ideals? There may be other issues that can mobilize the electorate of a fresh democracy. If a party can successfully politicize these issues to its advantage, they can lead to the party’s success on Election Day.

Other influences on electoral success

The makeup of the election system and the election rules can influence party competitiveness in foundational elections. Election rules and the electoral system are considered costs in party formation. Party formation costs have fundamental effects on electoral competition (Birnir, 2001). These are costs that political elites have to weigh before they have a party enter the race. Requirements such as vote thresholds, signature requirements for registration, monetary deposits or fines, and post-election rules can shut out parties from early elections or make them noncompetitive in subsequent ones. Electoral rules can determine the fate of new parties that are especially sensitive to electoral barrier costs. Like electoral rules, the electoral system can also play a role in determining which parties win and lose. Proportional representation is ideal for smaller parties that are new, whereas other electoral systems favor larger parties that can afford national campaigns (Tavits, 2008). Proportional systems by nature have members elected by the amount of the total vote the party or party member gets. A party only needs to get a part of the vote versus a majority of the vote. This system allows for more parties to be represented, especially in multi-member districts. Both electoral regulations and the electoral system are factors that influence the electoral permissiveness.

It has been shown that culture can play a role in a country’s democratization; at times, it is a major role (Linder, 2005). Political parties can also use the cultural makeup of the country to their advantage. A part of a country’s cultural identity is the cleavages in it. These include socioeconomic groups and ethnic groups. Among ethnic groups, there are ethnic cleavages that vary by race, religion, language, and others. According to Birnir, ethnic cleavages can play a role in relieving the voter’s problem selecting a party. Despite voters having very little information to help them select viable parties in a foundational election, voters that identify with an ethnic group will seek a party that is friendly to that group. A party can decide to embrace an ethnic identity, which in turn signals a voter within that ethnic group to support that party. In a foundational election, this may lead to a party having an immediate share of potential voters. Not all ethnic cleavages yield the same level of immediate support, however. Language has been shown to stabilize parties in the more immediate term than religion and race (Birnir, 2007). Nevertheless, ethnic groups have been shown to identify with parties early on.
Literature review summary

The concept of viability does not explain party success in foundational elections. There are other ways that help a party appear to be viable. Parties that have undergone institutionalization and have received solid identities prior to the foundational election have an advantage. Parties that are likely to show this are parties that are linked to the old regime or a long-standing opposition to that regime. Parties that successfully identify themselves with the same social movement that lead to the transition to democracy or competitive elections may have an advantage, too. This sense of viability can serve as a comparative advantage in a field of parties trying to get the vote from an electorate that has never experienced competitive elections. There are factors that influence electoral success. A country’s choice of electoral system, proportional versus majority representation, sets the stage as to whether small parties or large parties will succeed. Parties who align with an ethnic or socioeconomic group may prove to be successful in certain electorates.

Hypothesis and Methodology

This research will attempt to identify the factors that lead to party success in foundational elections. This research considers viability to be an important concept that helps determine which independent variables lead to successful representation and vote share. The voter needs to know electoral history to determine the viability of a party (Tavits, 2008). In a foundational election, this is limited or not available to the voter. In two hypotheses, we look at two variables that will help parties overcome the lack of electoral history. These two hypotheses look at two variables that reflect groups that may have a political history prior to the foundational election. Therefore, viability can be considered a motivating concept for voters. The following hypotheses cover what this research sees as the important variables leading to some parties being more successful than others.

Hypothesis 1

If the political party is linked with the previous regime, and the government in the previous regime was popular, then the party will more likely be successful than other parties in the foundational election.

This hypothesis looks at one group that may have some electoral history or at least some political history. This allows a voter to view a party as potentially viable, and it gives the party an advantage over its competitors. Parties with a connection to the previous regime can tout their experience in governing the country as the reason to reinstate them into power. This likely will only have sway with an electorate that sees the outgoing regime and its leaders positively. A popular old regime will continue its legacy in the young democracy.

Hypothesis 2

If the political party is linked to opposing the previous regime, and the government in the previous regime is unpopular, then the party will more likely be successful than other parties in the foundational election.

This hypothesis looks at another group that may have electoral history or political history. Voters could view an organized opposition to the old regime as viable because this party/organization has had more time to be judged by the electorate. In a foundational election, this may give the party an advantage over other political parties who have not had time to establish their history. The advantage depends on the popularity of the old regime. If the old regime is viewed unfavorably, the opposition to the government will gain.

Methodology

A foundational election for this study is defined as the first election in the most recent series of competitive elections in the country. This can occur immediately after a country’s independence or after an authoritarian or military intervention (Birnir, 2007).

Party success will be defined as the vote share and the seat share in the parliament the party received in the foundational election. The greater the amount of votes and seats it receives in the parliament, the more successful the party. This research will examine the political parties that participated in the foundational election. Data for this will come from the Constituency Level Election Archive and from official election commissions.
Hypotheses 1 and 2 involve the popularity of the government in the previous regime. This will be decided on several fronts. If the transition to a democracy or a competitive election happened due to the old government’s own insistence, then the transition could have happened peacefully, and the government might be confident that it has the good will of the electorate. Otherwise, the transition can happen against the government’s wishes through violent means or by popular and foreign pressure. The tone of the media reports and campaign literature around the time of the foundational election can reveal whether the outgoing government is popular or not.

Determining the affiliation of a party to the previous regime will be decided in several ways. The party could have supported the previous regime and was kept in power through nominal elections. This qualification will be determined through analysis of the political history of the country. Another indicator is whether or not the party leadership contains members that have held high profile positions in the old government and are seen as continuing that government’s authority/legacy. This qualification will be identified through the party’s literature and the media at the time of the foundational election.

Hypothesis 2 mentions a party in opposition to the regime. The party could be one that has managed to embody the social movement that lead to the transition to a democracy or competitive elections against the old government’s wishes. This can be identified by looking at campaign literature and the media at the time. The party can also be perceived as having a history of opposition to the old government, whether as a formal political party during the old regime or not. This can be identified with a study of the political history of the country. Each case would qualify the party to be a party in opposition to the old regime.

**Two Cases: Mexico and Brazil**

Mexico and Brazil are appropriate places to test. They have been the two largest countries in Latin America in terms of population. Both foundational elections were recent and occurred within a few years of each other. To identify a country’s foundational election, I use the country’s POLITY score (Marsh, 2002), where a positive score indicates a more democratic country and a negative score indicates a more autocratic country. Brazil’s foundational election was in 1986 when its POLITY score was a 7. Mexico’s foundational election was in 1994 with a score of 4. Prior to these years, their scores were not positive numbers. They are also the first elections in the latest string of elections with positive scores.

Both countries have political parties that participated in their foundational elections, which can clearly be identified as parties that represented the old regime prior to the foundational election. Mexico’s Partido Revolucionaro Institucional (PRI) had held power for over half a century in Mexico. The country was under single party rule with limited participation by other parties. Brazil, prior to its foundational election, was under military rule. The political party representing the interests of the military was named ARENA. When the foundational election occurred in 1986, ARENA renamed itself and was called Partido Democratico Social (PDS) (Comparative Political Parties, 2011).

There were several political parties identified as the opposition to the old regimes, but they were also political parties that managed to be identified as the primary opposition in both Brazil and Mexico. In Mexico, the PAN and the PRD are the opposition parties. The PAN had been around for several decades as well and became increasingly aggressive in elections in the 1980s. By 1994, the PAN is recognized as the primary opposition to the PRI’s rule in Mexico. The PRD is a political party that split from the PRI due to its different approach to economic matters. In 1994, it was seen as opposing the PRI. Brazil’s major opposition political parties are the PMDB and the PFL. Under Brazil’s military government, a token opposition party was allowed to exist and was known as MDB. When the old regime was removed and competitive elections allowed, the MDB changed its name to PMDB. During military rule and by the 1986 election, PMDB was identified as the primary party politically opposing the legacy of the military government. It is important to note that another party, the PFL, was made up of certain parts of the old ARENA party. However, by 1986 the PFL allied with PMDB and campaigned against the PDS and the military’s legacy.

I looked at different indicators of popularity for the old regime prior to the foundational elections in Mexico and Brazil. In Mexico, there was the Zapatista rebellion to the PRI and Mexico’s involvement in NAFTA. The PRI’s presidential candidate was assassinated and polls taken at the time showed the party mostly being viewed as unfavorable (McCann, 1998). Brazil’s old regime popularity could be seen through the election results of the two political parties allowed to exist. ARENA’s vote totals had been declining whereas the MDB vote total was increasing. Before Brazil transitioned to democracy, it seemed ARENA barely maintained a majority vote. The old regimes in Mexico and Brazil were both unpopular when their foundational elections occurred.

According to my hypothesis, if the old regime is unpopular, the political parties identifying themselves as the opposition party to the old regime should be the most successful. The election of 1994 in Mexico shows the PRI
winning 50.2% of the vote, the PAN 25.8%, and the PRD 16.7%. The PRI maintained the majority, but only barely. In Brazil’s election of 1986 the PDS received 7.9% of the vote, PMDB had 47.8%, and the PFL 17.7%. In Brazil, we see that the opposition was the most successful and the PFL, although it had ties to the old regime, received more vote share than the PDS (Nohlan, 2005).

Based on the results of these two foundational elections, we see that the hypotheses explain the results of Brazil but not of Mexico. In Brazil, we see that opposition party had a large vote share. Despite how a party originated, the parties that effectively campaigned as opposition parties had more votes. This was during a year when the old regime was unpopular. In Mexico’s case, the PRI retained a majority of the vote. However, the PAN had increased its vote share from previous elections and subsequently received the majority of votes in 2000. It can be said that the PRI, although unpopular, was still considered the only viable alternative by the voters. The voters did not realize the electoral system in Mexico would allow them to vote the PAN into power if they had wanted to.

**Future Directions**

The case studies show that the hypotheses could explain election success for political parties participating in foundational elections. The next step is to test these hypotheses in several countries throughout Latin America. It would be interesting to also see if this question can be applied to other regions in the world. The Arab spring has developed democracies currently or recently experiencing their foundational elections. Countries in Eastern Europe did not have competitive elections until the end of the 20th century. African nations did not declare independence until the 1960s and would also be regions to test the hypotheses. Most countries are new to democracy and information about their foundational elections is available, which makes exploring this research question possible. It would be interesting to see if the hypotheses can explain electoral success in subsequent elections beyond the foundational one.

There is a final hypothesis that should be explored in future research. If the political party seeks to align itself with an ethnic group (language, religion, race), and the electoral system is permissive, then the party will more likely be successful than other parties in the foundational election.

A party that aligns with an ethnic group helps voters who belong to that ethnic group (Birnir, 2007). The affiliation signals voters that despite not having an electoral history to judge the new parties viability, they will have a party that represents their interests based on a common affiliation. In the absence of electoral history, people may replace their search for a competent party to a search for a party that they share something in common with. Ethnic groups are important cleavages in society, and the cleavages can be extended politically. Political parties, especially new parties, may position themselves to claim a part of the vote share where ethnic groups make up a sizable amount of the population in a constituency.

However, ethnic populations may be small and concentrated in certain regions of the country. Because of this, it may be of little value for large national parties to court ethnic groups. The electoral rules may also be arranged in a way that dissuades parties to align themselves to particular segments of society. Proportional electoral systems are seen as friendly to smaller parties that can target regions. Proportional electoral systems are seen to also be more permissive than majority-based systems. These systems require fewer regulations, such as signature thresholds and monetary deposits, and encourage parties to compete nationally. So this hypothesis may be more suited to cases where the system is more permissive.

This research has focused on Latin America. Future research would include the Caribbean as well. The combination of the two regions will provide examples of proportional representation and majority representation. Within these two types, there are varying levels of permissiveness. A proportional system is regarded to be permissive to new parties and small parties. Therefore, it is important that both proportional systems and majority systems are included in the case selection.

This hypothesis concerns ethnic groups. Ethnic groups can be varied. It is a very broad term. This research will look at the main ethnic groups, namely ethnic groups based on language, religion, or race. Ethnic groups, though important segments of society, may not be encompassing enough in a country as a whole to constitute a majority of the population. Therefore, small parties that represent segments of the country can bring forth political parties that embrace ethnic groups. Future research may further support Birnir’s conclusions showing language to be a more immediate benefit to political parties than religion and race, which take more time to set in the electorate.

To determine if the party is affiliated with a particular ethnic group, future research can look at the campaign literature of the party. Finding news reports and public endorsements from the ethnic groups will further determine if the party was aligned with an ethnic group.

Democracy is a new living situation for millions in the world today. The vast majority of countries are democratic countries now. The democratization of the Middle East is the latest chapter of a world that is
increasingly democratic. As constitutions are ratified and elections are scheduled, political parties form and compete with one another for the privilege of forming a country’s first democratic governments. Of these political parties, it would be fascinating to know what winning formula a party must have to successfully convince a voting public with limited experience in democracies. This research identifies a party’s relationship with a previous regime as a path to electoral success. If there is a winning formula, political scientists can more easily determine likely governing interests from a foundational election and the future direction of young democracies.

Acknowledgments

The author wishes to express appreciation to Allen Hicken and Jill Wittrock at the University of Michigan for providing the expertise and resources to begin this research; to Ross Burkhart and Mike Touchton at Boise State University for their expertise, guidance, and help completing this article; to Helen Barnes, Greg Martinez, Scott Wilson, and the McNair program for their encouragement and support; to my closest friends Rhett Jones and Aubrey Brinton for recognizing my potential; and to my parents, Sotero and Cenaida Gomez, whose sacrifices on my behalf allowed me to become the person I am today.

References

Abstract

The purpose of this study is to ask whether graduate students who have finished their undergraduate study at Boise State University (BSU) feel they were adequately prepared to meet research writing challenges at the graduate level. Professors have also raised questions about the level of preparedness incoming graduate students should have. With BSU set to implement a new approach to learning writing across the curriculum, this study may aid in defining at-risk areas in research writing, identified by both graduate students and faculty. Surveys were given to graduate students who had completed their undergraduate degree at BSU as well as to faculty teaching graduate courses. The purpose of the survey is to get students to self-assess their level of preparedness and identify specific areas of research deficiency. The survey given to the faculty was much the same but with an emphasis on evaluating the writing of incoming graduate students in general. Follow-up interviews enabled a more in-depth exploration of topics covered in the surveys. Data from the surveys were analyzed and correlated with the outcomes of the new Communication in the Discipline (CID) courses to identify possible areas of writing need and to determine whether the new CID courses might fill those needs. I hypothesize that there will be areas in which both students and professors want improvement in the undergraduate teaching of research writing and that the CID course outcomes can specifically address some of the identified areas of need. This research project has the potential to identify areas of current need, as well as to provide a base from which follow-up research may evaluate the ongoing success of the Boise State CID courses from the student’s perspective.

Introduction/Background

In the progression of learning, each successive step is built upon prior learning. When the steps come too far apart, it becomes difficult for the student to transition and fully grasp the new material. This results in an incomplete and unstable foundation for future steps to be built upon. The transition from undergraduate to graduate research writing appears to be one such area where the transition step may be too great and causing undue difficulty. This is not to imply that the undergraduate research writing experience should come up to the difficult standards of the graduate level; many students enter the job market instead of pursuing graduate studies. However, for students who chose graduate studies, there may be unnecessary difficulty in the transition from undergraduate to graduate level research writing.

There may be those among us who don’t believe the transition to graduate level research writing is too difficult; however, first year graduate school attrition rates contradict this belief. Others may ask exactly how undergraduate education in writing is lacking or what, if anything, can be done about it. To answer these and so many more questions, we need an understanding of the “gap,” along with its constituent elements, that separates undergraduate research writing from the graduate counterpart.

In article after article, book after book, authors (who are often graduate faculty) bemoan the preparedness of incoming graduate students and the apparent lack of research writing skills. Certainly they acknowledge that there is a gap, but they generally fail to illuminate it in detailed or useful ways. Also, few authors offer solutions. The gap appears to be comprised of a dynamic set of elements which are under-addressed at the undergraduate level, yet are critical to success at the graduate level. In this context, I propose to answer the question of what actually constitutes the gap in research writing between the undergraduate and graduate levels.

In addition to looking at the transition from undergraduate to graduate level research writing, an opportunity has presented itself of some long-term value to Boise State University. The university is in the process of implementing a new approach to better prepare students for future study or employment specific to their chosen discipline. In the fall of 2012, Boise State restructured the degree requirements to include, among other courses, Communication in the Discipline (CID) courses. These are writing courses “[f]ocused on written and oral
communication as they are practiced within the discipline,” and will be taught by those respective departments (Boise State University, Communication in the Disciplines). This reinforces the University Learning Outcomes (ULO) one and two, which are written and oral communication, respectively (Boise State University, University Learning Outcomes). The classes propose to instruct students in the language, research, documentation, and writing formats of specific disciplines. The courses are fully supported, with instruction and additional resources for both students and instructors, including tutorial services for students through the writing center. All courses are approved and supported by a subcommittee of the Communications and University Writing Across the Curriculum Director (Boise State University, Communication in the Disciplines). The timing of this study is such that if a correlation can be made between the transition from the undergraduate to graduate research writing and the projected outcomes of the CID courses, it will provide a baseline from which further study can assess the value of the CID courses from the student’s prospective. While the school already tracks the success of individual courses through student and department evaluations, a research project involving a correlation of research writing transition and CID course outcomes could provide a different way of gauging the success of the CID courses. It could incorporate data from graduate students and faculty who have firsthand knowledge of the transition between undergraduate and graduate level research writing and how elements taught in the CID courses would influence the transitional gap. By looking at the CID courses from this perspective, this research could provide a current look at what graduate students and faculty feel are critical skills in research writing, as well as substantiate a longer-term look at the success of the CID courses.

**Literature Review**

There are few studies specific to research writing at the graduate level, and fewer still on the transition of research writing from the undergraduate to the graduate level. It is widely acknowledged that there is a need for improving research writing skill at the graduate level, and professors and mentors alike often lament the lack of preparation of incoming graduate students. Some institutions offer seminars or writing center help to students struggling to transition to the higher standards of graduate school writing (Switzer and Purdue, 2011; Rose and McClafferty, 2001), yet others rely on mentors to help students individually through research writing and dissertations. Lavelle and Bushrow (2007) break down graduate writing by the approach or strategy students’ use, and form a rubric correlating the approach to its relative success. But where do these incoming graduate students learn these approaches?

A study by Singleton-Jackson and Lumsden (2009) suggest that there is no significant difference in the overall writing skill of high school seniors and incoming graduate students. As tempting as it is to draw a connection and subsequently deduce that the writing approaches used at the beginning of graduate school were developed before exiting high school, this assumption may not be all that accurate. To make that assumption is to therefore question the responsibility of high schools to somehow prepare students for graduate level research writing. As ludicrous as it may seem to ask this question, perhaps the answer to another question is yet more extreme: How could those new graduate students pass through 4–5 years of college (undergraduate) and not have improved their writing ability? Because it is critical to center new learning upon previous learning foundations, the responsibility for graduate school preparation must squarely rest on the foundation of the undergraduate, not the high school. It is, therefore, within the undergraduate experience that we would expect a refining of writing approaches, proficiency, and diversity rather than trying to instruct high school students in collegiate writing theory.

The cause for variation and, apparently all too often, failure to advance student writing skill during the undergraduate experience, is often blamed on the inadequate writing skill of incoming freshmen. Peter Pappalardo suggests that in 2006 and 2007, as many as 46% of incoming freshmen in the entire California State University system needed to be remediated in English based on writing samples. He claims other states have similar rates of remediation in core courses, with almost one in three students taking classes below college level. This problem is, undoubtedly, as expansive in its effects as it is expensive in its solution, and certainly takes time during the undergraduate experience. Yet, it seems an all too convenient excuse to blame the incoming preparedness of students. Difficulties lie in passing the problem on; the problem must be addressed during the undergraduate years.

College students on the whole are bright. With sufficient motivation, writing deficiencies students enter with can be overcome and they can exit the undergraduate experience with the necessary writing foundation that will aid them in transitioning to the labor market or to graduate studies. Kellogg and Whiteford (2009) assert that practice is at the heart of learning advanced writing skills when coupled with instruction in writing theory. Without practice, the theory is meaningless. The National Commission on Writing agrees with Kellogg and Whiteford in a 2006 report which recommended that educators double the amount of time students spend writing, and do it across
the curriculum. While it may not be practical financially or logistically to incorporate double the amount of time spent writing, it certainly indicates at least one possible cause of writing deficiency at the undergraduate level.

If increasing writing practice is the key in acquiring advanced writing skills, proper direction in that writing is probably assumed. After all, what good would doubling the writing practice do, if there was little more in the way of additional instruction or theory?

At the heart of this study is the preparedness an undergraduate writing experience (specific to research writing) provides a student who is continuing on to graduate studies. If the preparedness is poor, success at the graduate level comes into jeopardy. Because graduate level research writing differs significantly from undergraduate writing requirements, objective identification and quantification of at-risk research writing elements is key to understanding the transition to, and success of, research writing at the graduate level.

Methods and Definitions

In an attempt to answer the question as to whether first year graduate students feel prepared for the rigors of graduate level research writing, it is important to define the various aspects of the question. The first definition required is of the term “gap.” The gap is a direct reference not only to the differences between undergraduate and graduate level research writing, but also to the context and understanding that one progresses to the other. There is interdependence between the two, and while the undergraduate may lead to the graduate, the graduate is dependent on the undergraduate. Not all undergraduates go on to graduate studies, but all graduate students must have passed through an undergraduate experience. This relationship, as viewed from the graduate side, illuminates the undergraduate research writing experience as the foundation of what is expected at the graduate level. Proficiency in research writing skills is expected upon completing graduate school. Time constraints in fulfilling all graduate requirements, therefore, necessitate a given starting point or proficiency level a student must enter graduate school with in order to successfully continue research writing skill acquisition. If the proficiency level obtained by the end of the undergraduate experience does not match the starting levels desired by the graduate institution, there exists a gap. Defining the gap in this way is not to imply that there should not be a gap, but that as the gap becomes larger, the ratio of students able to bridge the gap diminishes. The gap should also be viewed as dynamic with respect to individual students, the undergraduate institution, the graduate institution, the department in which the student is working, and even extenuating circumstances such as English as a second language. The scope of this definition is, therefore, broad and inclusive of the dynamic as a whole rather than exclusive or intensely focused. For this reason, the gap should be understood as across the curriculum, despite a given discipline’s or department’s ability to keep the gap narrow for its own ongoing students.

Another term of note is “at-risk.” At-risk is used to classify elements from the original comparative analysis which were deemed critical to successful research writing at the graduate level but may be under-addressed, or not addressed at all, during the undergraduate experience. This term is useful in my correlation of study findings with the outcomes of the Communication in the Discipline course at Boise State University, which began in the fall of 2012.

The Communication in the Discipline (CID) course mentioned above is actually a general term for a series of courses which began in the fall of 2012 at Boise State University. Part of an aggressive new approach designed to immerse students in their respective disciplines, the CID courses are focused on written and oral communication specific to the discipline. Though writing intensive, they are taught by respective departments and not the English Department. This allows an immersion by the student in the language, writing format, readings, and citation of their respective fields. This new course is required of all undergraduate students in catalog year 2012-2013 and forward. While some departments already had a course similar to this in place, others did not, and in any event courses were not available or required across the curriculum. The CID is a sophomore level course, and it was not intended as a graduate prep course or as a single course responsible for teaching research writing skills. It is a course designed to prepare students for later undergraduate courses requiring senior or capstone projects. While the capstone projects certainly involve research writing growth, they are the practical application of research writing skills acquired during CID courses. Thus, while some may rightfully challenge the applicability of analyzing the CID course as a means of graduate research preparation, I maintain that the CID course may well represent the highest level of formal research writing instruction many students will receive as an undergraduate, and is therefore worthy of scrutiny.

To define the gap, an original comparative analysis of research writing of both the undergraduate and graduate levels was conducted through the reading of journal articles, informal interviews with Boise State University faculty, and personal experience. Separate lists of research writing elements were compiled for each level of education, compared, and the differences noted. The individual elements were then separated into two categories:
elements in general and at “risk elements.” It can be assumed, for the purposes of this study, that general elements (see listing in “results” section) are those necessary to success at both the undergraduate and graduate levels of research writing, and that a student meets at least a bare minimum of proficiency in these areas, by the completion of the bachelor’s degree, so as to minimize a part of the transitional gap. The at-risk elements, on the other hand, are elements critical to success at the graduate level, yet are under-addressed (or not addressed at all) at the undergraduate level, which directly affects the success ratio of incoming graduate students (see listing in “results” section). These elements affect students in all disciplines generally and therefore were examined in a broad sense rather than scrutinizing a single field or demographic of students, which might favor or minimize specific research writing elements.

A mixed-method approach was used to collect data. After the original comparative analysis of undergraduate and graduate research writing, internet-based surveys were administered to obtain quantitative data. Follow-up interviews were also conducted which provided qualitative data. The survey was administered through Qualtrics, and a basic analysis of the results was done using the same software.

The quantitative data was collected through an internet-based survey using Qualtrics, and given to both graduate students and graduate faculty. Each question was designed to gather specific information regarding what they felt were the most important research writing elements of both graduate and undergraduate levels, or to elicit information on a specific at-risk element. The questions provided to the graduate students were framed in such a way so as to discover their opinion on the differences between what was needed to be successful in undergraduate research writing, and what additional elements or proficiencies were needed for successful research writing at the graduate level. Questions posed to the faculty covered the same basic elements, yet were worded to allow observation of graduate students as a group rather than individuals. This combination allows the perspective of an individual experience in connection to the generalization of many graduate students as they experience the gap.

In addition to quantitative data, qualitative data was collected via follow-up interviews with a limited number of volunteer participants recruited from the on-line survey. The participants had the option of doing the interview via email or in person; all but one chose to respond through email. The interview questions were designed to explore the gap in greater depth, in the hope of understanding why the gap is harder for some students to transition than others. They deal with many of the same at-risk elements as the survey, but allow for additional information and experiences of the interviewees to be considered. This additional data not only provides a larger picture of the gap, but also of contributing factors. By exploring what characteristics change the width of the gap, and the subsequent difficulty in bridging it, it informs the later assessment of the CID courses as well as provides valuable data, which graduate prep courses can incorporate into their curriculum.

Results

Comparative analysis

As noted before, an original comparative analysis of research writing of both the undergraduate and graduate levels was conducted through the reading of journal articles, informal interviews with Boise State University faculty, and personal experience. Separate lists of research writing elements were compiled for each level of education, compared, and the differences noted. Though the writing elements cover the breadth of research writing elements, the four main groupings which emerge are writing and organization; citation; collaboration; and argument and discipline.

Undergraduate research writing elements.

1. Writing and Organization
   a. Five paragraph (+) format
   b. Writing and revision skills (basic)
   c. Grammar and composition skill (basic)

2. Citation
   a. Finding relevant citation sources
   b. Citation source evaluation: quality (basic)
   c. In-text citation, work cited page, evaluation of sources for relevance (basic)
   d. How to incorporate relevant sources in-text
3. Collaboration
   a. Knowledge of and how to work with project support personnel (other researchers, librarians, mentors, instructors [at a basic level])
   b. Group project or research skills (basic)

4. Argument and Discipline
   a. Forming relevant thesis statements
   b. Understanding and using discipline theory (basic)
   c. Constructing and supporting a reasoned argument

Graduate research writing elements.
1. Writing and Organization
   a. Five paragraph (+) format
   b. Writing and revision skills (advanced)
   c. Grammar and composition skill (advanced)
   d. Organizing and completing literature reviews (advanced)
2. Citation
   a. Finding relevant citation sources
   b. Citation source evaluation: quality (advanced)
   c. How to incorporate relevant sources in-text
   d. Discipline specific citation (in-text and end)
   e. Work cited page
   f. Annotated bibliography
   g. Evaluation of sources for relevance (advanced)
   h. Source organizational software (such as End Note Web)
3. Collaboration
   a. Knowledge of and how to work with project support personnel (other researchers, librarians, mentors, instructors [at an advanced level])
   b. Group project or research skills (advanced)
   c. Faculty mentor navigation
   d. Presentation and publication
4. Argument and Discipline
   a. Forming relevant thesis statements
   b. Understanding and using discipline theory (advanced)
   c. Constructing and supporting a reasoned argument
   d. Interest and individual effort in the subject and/or research project
   a. Discipline specific format (as seen in academic journals)
   b. Framing a viable research question (includes narrowing)
   c. Original data collection procedures (includes IRB, research training certifications, institutional permissions, and departmental navigation)
   d. Data evaluation (includes evaluation software like Qualtrics or SPSS)
   e. Reading or familiarity in discipline

Elements found to be in common.
1. Writing and Organization
   a. Five paragraph (+) format
   b. Writing and revision skill*
   c. Grammar and composition skill*
2. Citation
   a. In-text citation
   b. Work cited page
   c. How to incorporate relevant sources in-text*
   d. Finding relevant citation sources*
3. Collaboration
   a. Group project or research skills*
4. Argument and Discipline
   a. Constructing and supporting a reasoned argument
   b. Forming relevant thesis statements

   Elements noted by the asterisk (*) are elements which are used at both levels with an expected growth in difficulty as students advance to the graduate level. These elements, while progressive with respect to proficiency, change little in their fundamental approaches and are therefore classified as “elements in common.”

At-risk elements

At-risk elements are deemed critical to successful research writing at the graduate level, which may be under-addressed, or not addressed at all, during the undergraduate experience.

1. Writing and Organization
   a. Organizing and completing literature reviews (advanced)
   b. Advanced writing and revision skills

2. Citation
   a. Discipline specific citation
   b. Finding and evaluating quality sources (advanced)
   c. Evaluation of sources for relevance (advanced)
   d. Source organizational software (such as End Note Web)

3. Collaboration
   a. Knowledge of and how to utilize project support personnel (other researchers, librarians, mentors, instructors [advanced])
   b. Faculty mentor and networking navigation
   c. Presentation and publication

4. Argument and Discipline
   a. Organization, formatting, and communication of ideas in larger more substantial papers specific to discipline
   b. Reading or familiarity with discipline
   c. Motivation and interest in subject or research topic
   d. Research design (project design to obtain relevant data)
   e. Understanding and using discipline theory (advanced)
   f. Framing a viable research question (includes narrowing)
   g. Original data collection procedures (includes IRB, research training certifications, institutional permissions, and departmental navigation)
   h. Data evaluation (includes evaluation software like Qualtrics or SPSS)

Surveys

The following section presents the data collected via internet-based surveys and is divided between the graduate student and graduate faculty responses. The participant totals are graduate students n = 217, graduate faculty n = 111. The answers maintain the same organizational groupings used in the original comparative analysis.
You can see from figure 1 and figure 2, most of the students are in their second year of graduate studies and a majority of graduate majors are in the social sciences. Of note is the distribution between the undergraduate and graduate majors.
Writing and organization.

As seen in figure 3, students overwhelmingly agreed that during their undergraduate years they were able to explore new ideas through the research model presented, received sufficient practice with that model to become proficient in it, and experienced growth through the research aspect of the experience. Despite agreeing that the undergraduate research writing experience produced growth through exploration and practice, when asked what elements of research writing they acquired during the undergraduate years that helped them at the graduate level, only about 27% of answers reflected writing and organization as skills developed sufficiently to help at the graduate level. As one student put the difference in research styles, “Undergraduate level writing assignments are more omnibus in nature, requiring a broad survey of a topic. Graduate level writing is more focused on a single aspect of a topic.” This difference was reflected by the 49% of students who cited writing and organization as important skills they wished they would have learned better to aid research writing at the graduate level. One student got very specific with an area of research writing they felt was lacking, “I would have liked more direct instruction on framing the writing process.” When students were also asked if they would have taken a writing intensive course like a CID course, 82% of students indicated they would have taken such a course voluntarily. In light of these comments, it is no surprise that 71% of students felt that taking a course like the CID courses would better prepare students for research writing at the graduate level, and in response to whether a course like this should be required, one student said, “Two of them!!!!”

Citation.

- Correct citation; discipline specific
- I read and understood cited sources
- Relevant source integration

Figure 4: Citation
As seen in figure 4, students felt strongly that during their undergraduate years they learned to read, understand, integrate, and cite sources correctly and specific to their discipline. They echoed this as 44% of students said this was one of the most important skills acquired at the undergraduate level which helped in graduate level research writing. Only 21% of students felt relevant source integration and discipline specific citation was a skill they wished, to some degree, they had learned better in the undergraduate years. One such student’s desire was to learn, “the importance of not just citing research but connecting it to current and trending research.”

**Collaboration.**

![Collaboration Graph]

In figure 5, we see that while some students were able to work with a faculty mentor on designing, refining, and writing a research project, there was a large percentage of students who did not have that experience. There is a split between students with faculty mentorship experience (and whatever degree that mentorship experience involved) and those who do not. Students are evenly split between those feeling there was not a lot of help available when they were struggling with research writing and those who felt there was. When asked what research elements were acquired during the undergraduate years which were helpful at the graduate level, only 3% indicated faculty mentorship or faculty networking. This is well below the 8% of answers indicating students did not learn much of what they wanted/needed to be successful in graduate level research writing. Further indication that faculty mentorship and networking were not viewed as critical skills needed at the graduate level are manifest in the mere 5% of students indicating such when asked what elements they wished they would have acquired at the undergraduate level in preparation for graduate level research writing. Of the students acknowledging mentorship and networking as critical, they desired “discipline hints,” and “future direction.”
Figure 6 indicates that 73% of students felt they were presented with a discipline specific research model, which they were able to use successfully in graduate level research writing. Of note on this question is that though the percentage indicating agreement is high, the majority of that number answered only “slightly agree” to this particular question. Also of interest is that all 33% of students only slightly disagreed to the statement that, as undergraduates, their research papers comprised simply coming up with a thesis and using outside sources to prove the thesis correct. When students were asked what research elements they acquired at the undergraduate level that helped them at the graduate level, argument and discipline elements comprised only 21% of responses, and similarly, 25% of responses when asked what they wished they would have learned better to help with research writing at the graduate level. Though several students indicated a need for more discipline specific experience, one student summarized it in this way, “In my undergraduate years it was mainly linked to researching based on others’ work, rather than conducting interviews, etc. As a result, I was much more competent in reading and analyzing multiple sources, but I was pretty unfamiliar with conducting first hand research of generating data through interviews, observations, etc.”

Faculty survey

Demographics.

The demographics in figure 7 indicate that faculty participants were represented across the curriculum, though most came from the social sciences.
In figure 8, we see a relatively even split in faculty opinion as to whether undergraduate students are able to explore new ideas and learn new information through research writing assignments. Faculty agreeing that undergraduate students learned new information in research writing assignments was 63%, as opposed to the 53% indicating agreement that undergraduate students were able to explore new ideas through research writing assignments.

When faculty were also asked what elements of research writing students learned as undergraduates that helped them at the graduate level, writing and organization skills were the top responses with 43%. However, while indicating writing and organizational skills as elements acquired prior to graduate school, the majority of responses qualify the level of writing and organization as basic or minimum levels. This qualifying of answers may be why 48% of faculty responses chose the category of writing and organization as skills they wish undergraduates were more proficient at in preparation for graduate level research writing. One faculty member clearly elaborated on the need for better writing and organization skills by desiring the following, “Grammar, usage, and punctuation rules. Students seem almost oblivious to how and when to use punctuation, to correct usage and verb tense, and to clean grammatical construction. Students also lack research writing skills. For example, many students write technical reports in a creative writing style. They use first person continually and try to be humorous or clever. They also lack an understanding of laying out a report in a logical, organized sequence.”

Faculty also affirmed (90%) that a course, such as the CID course, would significantly alter the transition from undergraduate level research writing to the graduate level for the better. Of those not in agreement, 6% chose “unknown” and cited qualifications such as, “that would depend on how the class was formatted, what the learning objectives were, and how students performed in the course.” Only 69% of faculty said they would, or possibly would, make such a course required. Reservations held about making such a course required at the undergraduate level were centered in two areas: reducing the credits required for graduation from 128 to 120 and requiring another discipline specific course would mean 12 fewer elective credits, and the concern that requiring such a formal academic writing course would not serve students in more application oriented disciplines or students not continuing to graduate studies.
Faculty views diverge significantly from students’ in the area of citation. Faculty felt that incoming graduate students struggle with reading, comprehension, evaluating, integrating, and discipline specific citation. Responses total 72% for faculty believing students are used to glossing texts and understand little of the sources they cite, 56% for those believing incoming students often cite sources that have little to do with advancing their topic, and 92% for those indicating incoming students often need direction in how to cite sources specific to their discipline at the graduate level. One respondent, when asked what three things they wished students would have learned at the undergraduate level to help them with graduate level research writing, said “Not in any order: correct citations, using citations to support their argument, determining good sources from questionable sources.” Of all answers given to this same question, 18% were in the area of citation.

When asked what are the most important research writing elements desired of incoming graduate students that they did not acquire sufficiently at the undergraduate level, 22% of responses indicated some aspect of source citation. The largest portion of responses was in the area of evaluation and meaningful integration of sources. One respondent wished incoming students knew “how to critically assess research sources rather than simply finding and citing them.”

Collaboration.

Students have rarely worked closely with a faculty mentor on research writing.

Incoming graduate students rarely know what institutional help is available for research writing.
Faculty felt that students were not too familiar to the close mentor relationships common at the graduate level (75%), and 86% felt incoming graduate students were unsure of what institutional help was available to them when struggling with research writing. Not a single participant responded that collaboration (including mentors, departmental networking, and institutional navigation) was an element acquired sufficiently to aid in graduate level research writing. Additionally, only 2% of faculty indicated anything in the area of collaboration as among the most important skills they desired incoming graduate students would have learned during the undergraduate years to help them at the graduate level.

**Argument and discipline.**

Faculty who thought undergraduate research writing consisted primarily of argument style essays (assignments are primarily a thesis statement, and outside sources are used only to support the thesis—no original data is collected through a carefully designed experiment/study) represented 65% of responses. A lack of knowledge and experience in diverse or discipline specific research was further illuminated by the mere 9% of answers relating to what research writing elements incoming graduate students learned as undergraduates that helped them at the graduate level. However, the number of responses rose to 28% when they were asked what were the most important things faculty wished incoming graduate students would have learned during the undergraduate years to aid them in transitioning to graduate level research writing.

**Interviews**

The interview questions were in areas consistent with the surveys but probed deeper into factors contributing to the success or failure in acquiring specific skills at the undergraduate level which would aid the transition to graduate level research writing. Total interviews: students n = 2, faculty n = 1. The interview questions can be found in faculty and student versions in appendix C and appendix D.

**Writing and organization.** In this portion of the interview there were expressions of either a lack of more advanced writing skill, or a lack of confidence in the skills that were acquired during the undergraduate experience. There was a clear consensus that there is a difference between what is acceptable at the undergraduate level and what is expected at the graduate level. One respondent believed the greatest help needed by incoming graduate students was in writing, but allowed that different disciplines prepare students differently. They also noted that many students change their graduate major from what their undergraduate major was, so it affects the style of writing and discipline specific preparation that undergraduates might wish to go through. When asked how long it takes to come up to speed with graduate level research writing expectations, another participant responded, “That depends on many factors: cognitive development, work ethic, desire to learn, goals (such as deep understanding vs. just enough to get by and get a degree), plans to apply to career outside of the program vs. just getting a degree, willingness to seek help and access resources/services available, attention span in courses, focus in class.” They went on to say that despite the discipline or the student’s future goals with the degree, “All students should be able to read critically, analyze, and synthesize. They should also be able to effectively communicate ideas in writing and speech.”
Citation. Citation was addressed by participants less as a skill, and more as a matter of attention to detail and an indication of personal excellence in writing. In one example, a participant mentioned a change in majors from the undergraduate to the graduate and therefore needed to change the citation style he used. He said, “I used MLA for undergrad and then needed to switch to APA for graduate because of the English—Education shift. However, since I knew how to access a handbook, it was fairly easy to familiarize myself with APA. It was more about knowing how to use the resource than knowing the specific style.” It was acknowledged that citation styles change with time, but spending the time to cite properly gives credibility to the writing and builds the knowledge base and background of the student.

Extended time between an undergraduate and graduate education was commented on as having an effect on the confidence of the student to cite properly, especially if there have been changes to the citation style or even a change in majors.

Collaboration. Collaboration at the undergraduate level was mentioned only a few ways, such as help for students wishing to take advantage of professor help, usually via email or office hours, when struggling with research writing. The other mention of collaboration was in peer reviewing of work in a writing class or group projects for others. Collaboration seemed to be viewed as less important until the graduate level. One student relates, “As a graduate student at BSU, one of the professors in the first course for the core classes took us to the library to meet Margie Ruppel. She familiarized us with the library site that is set up specifically for educational majors at the graduate level. We had a chance to utilize the resources and ask her questions while we were there. That was a key resource for accessing articles throughout my doctoral program.” There was no other mention of mentor relationships, departmental navigation, or professional networking.

Argument and discipline. The elements comprising argument and discipline go hand in hand with the elements of writing and organization. It seems the only distinction is the thought from the action, for instance, being able to think through a logical argument to a specific conclusion and being able to communicate that process through writing. While being able to communicate through writing was felt to be needed across the curriculum, the need to develop critical analytical, deductive and correlative research skills is every bit as necessary. The faculty member interviewed was in the process of designing a course similar to a CID course for their department and their criteria illuminated these very skills. “The idea is to create a course that is writing-intensive and gives students the opportunity to learn the draft revision process that professional academics undertake. Students will study essential concepts in [their discipline]. Students will learn about thesis statements, hypothesis formation, utilization of evidence to test hypotheses, and write precise conclusions based on the evidence. Learning these skills will serve students well in the graduate environment.”

While it was addressed that requiring courses intended for students pursuing professional academics was not practical for all students in all disciplines, it was generally noted that these same skills would serve those entering the job market after completing a bachelor’s degree, too. Continuing a student’s prior quote, “All students should be able to read critically, analyze, and synthesize. They should also be able to effectively communicate ideas in writing and speech. Students should be able to engage in debate linking arguments back to research, but also their own life experiences to analyze how research aligns with practice. Those are important research skills but also important life skills and foundations of a democratic society.”

Reading in the discipline was also mentioned in the interviews as a boon to graduate school success. One student said, “As an undergrad, I read only what I had to get by. That was mainly the sources I needed for what they called research papers in 102. When I got here to grad school, it was like being thrown into an ocean of new information, research methods, and understanding of just what the heck I was getting into. I had to make a huge decision early in my Masters if this’s really what I wanted to do with the rest of my life. Unless I was nearly drown in research articles that soon, I wouldn’t have really understood what my job was.” The faculty participant mirrored these sentiments by offering, “I am uncertain that students read enough of the literature. It’s all too easy with digital sources to glance through the literature without truly reading it and appreciating its [craft].”

Discussion

In examining the results of the surveys, it must be noted that though there were 217 students and 111 faculty participants, not all of these contributed to every question on the survey. The numbers represented as percentages are the percentages of those who contributed to that question. Participants who contributed to every question were: students n = 21; faculty n = 92. This is important because some of the survey questions received
opposing answers between students and faculty, and it is relevant to the extent that any interpretation of such contradictory answers may be due to a limited number of responses to that question. In the case of the student survey, and due to screening in the first section of the survey, the majority of questions in the later portion were answered by not more than 30 students. This may indicate that responses that diverge from faculty responses, especially strongly contrasting answers, may be caused by a narrow student demographic who are better prepared for research writing at the graduate level than the average student is.

Discussion of the comparative analysis

In the original comparative analysis, an attempt to break down college level research writing allowed four general areas of consideration and individual research writing elements to be categorized within them. By structuring elements in this way, additional information and patterns were able to be gleaned. The areas are more dynamic than absolute and many research writing elements overlap. One such example is that of the general outline or structure of a research paper. It is listed in the writing and organization section because understanding how to communicate an idea through writing is more or less effective depending on how the paper is written. However, because the conventions of the various disciplines differ in how they construct and present data in relation to the conclusions drawn, what constitutes effective organizational form overlaps significantly into the Argument and Discipline category. There are many such examples throughout this analysis, yet it was felt that the conclusions deduced from the analysis as a whole, and not the argument as to which category each element belonged to more, were of the most importance.

An area of importance illuminated by the analysis of undergraduate and graduate level research writing was the discovery of at-risk elements. By listing and categorizing research elements, then removing elements common to both levels of research writing, elements emerged which are specific to graduate writing. When examined, these elements were considered to be critical to the success of the graduate student yet were under-addressed or not addressed at all, at the undergraduate level. This discovery of defined at-risk research elements is of extreme importance if students and institutions alike desire a better level of preparedness in incoming graduate students. Some at-risk elements appear at face value to share an undergraduate counterpart, such as writing and revision skills, yet data from the surveys and interviews distinguish the clear difference between what is acceptable at the undergraduate and graduate levels. The elements of advanced writing and revision skills are therefore still considered at-risk elements because they are critical to success at the graduate level yet are not always required to earn a bachelor degree. There are at-risk elements in all four categories, but they are not distributed evenly between them.

A pattern emerged in the distribution of at-risk elements among the four categories. While the list of undergraduate level research writing elements was relatively evenly distributed among the four general areas of consideration, the graduate elements were not. They favored argument and discipline as well as discipline specific citation skills. When elements common to both lists were removed to reveal a list of at-risk elements, the distribution of elements heavily favored the argument and discipline grouping. The at-risk elements in this area now had twice the number of elements as the next largest grouping. This group includes such elements as being familiar with readings specific to your discipline, interest and motivation towards your research, and understanding and incorporation of discipline specific theory into your research writing. These elements can be found at the undergraduate level (every discipline prepares its students differently) but the majority of students can get by without them. On the other hand, these elements are critical to excellent graduate level research writing.

Discussion of writing and organization

The area of writing and organization overlaps with discipline probably more than any two other areas. It is almost impossible to separate the writing aspect of a discipline specific research paper from the discipline itself, because what constitutes good writing skill varies with the convention of the discipline. The distinction as to whether an overlapping element fell into the writing and organization category or the argument and discipline category was that of theory and practice. To know the applicable theory needing to be applied to data interpretation fell on the discipline side, whereas the actual practice of how to format, organize, and communicate those theories fell into the writing and organization category. The importance of this is recognizing that incoming graduate students may have an idea of what they want to communicate in a research paper, but not do it effectively because of a lack of writing or revision skill.
As a skill, it was the most desired element by both graduate students and faculty alike and represented the largest area of agreement between the two groups. Graduate students answered more than 3:1 above any other that they wished they would have acquired better writing and revision skills in preparation for graduate research writing. Similarly, faculty answered almost 4:1 above any other answer that better writing and revision skills were what they wished incoming graduate students would have learned as undergraduates. Some faculty, when asked what three things they wished incoming graduate students would have learned, said some aspect of writing for all three answers. If writing is so desired by both faculty and graduates, why isn’t the skill at the level where each desires it to be? In the student surveys, participants indicated strongly that they had undergraduate opportunities to explore new ideas, experience growth through research, and that they received sufficient practice to solidify the model of research writing being presented. If this is indeed the case, why would students feel so strongly that they wished they would have had better writing skills to prepare them for graduate level research writing? Perhaps the model of research being presented is not as beneficial to the student’s long term academic goals as it could be. It may also be that students only believe they have a grasp of the undergraduate model and only perceive themselves as practicing it well. Additionally, could it be that the undergraduate research writing model was open-ended so as to transition into graduate level research writing, yet students are less successful at recognizing it or transitioning? In the words of one interview participant, “Students don’t know what they don't know.”

In examining the original list of at-risk elements, the expectation might be that writing and organization would be lower on the list of desired skills since it only has two elements as opposed to the eight listed in another area. Why then is it the area receiving the most attention. It might not be that students did not learn writing or organizational skills at the undergraduate level, but rather there is so much needing to be learned between high school and graduate school that only a small percentage of students are truly prepared for graduate level research writing. If this is the case, perhaps more exposure and practice would bring a larger percentage of students up to the desired level prior to graduate studies. The cost of such a solution would unfortunately be fewer electives or more credits required for graduation.

Discussion of citation

Citation was the area of greatest disagreement between faculty and students. Students felt overwhelmingly (100%) that they read and understood the sources they cited in undergraduate research papers. Further, they strongly indicated that they only used relevant sources (95%) and that they cited them correctly, specific to their discipline (91%). On the other hand, 72% of faculty reported that incoming graduate students are used to glossing texts and understand little about the sources they cite. They also stated that incoming graduate students cite sources that have little to do with advancing their topics (56%), and students often need direction in how to cite sources properly, specific to their discipline (92%). When asked about such diverging answers during the interviews, all respondents felt the most likely cause was that as undergraduates, students are not aware of the higher standards required at the graduate level, and therefore felt they were doing better than they actually were in relation to graduate level requirements. On the surface this seems a plausible explanation, but that doesn’t account for the fact that these were graduate students who were aware of the higher requirements at the time of reporting. Thus, they were either reporting as though they were advanced undergraduates, aware of and (to some degree) completing graduate level work, or they really were advanced undergraduates and not representative of the average student which the faculty were reporting on.

Though the results of the surveys and interviews do not lead to a clear conclusion in regards to the disparity between answers about citation, in another section of the survey, students listed citation as the second most desired skill they wished to have acquired during their undergraduate experience, behind writing and revision skills. Faculty, when asked the same question, listed citation as the third most desired skill to attain in the undergraduate years. When estimating how important citation would be at the graduate level, it rated far higher as a desired element than anticipated. Perhaps, like writing, there are gradations of proficiency and students only progress so far along that path prior to graduate studies. In light of the many instances citation comes up on the list of important skills, perhaps the interviews leaned a little closer to the correct interpretation, in that memory can be a fickle thing when compared to a current, real desire for improvement in certain areas.

Discussion of collaboration

Collaboration is one of the smaller areas of emphasis being examined, yet no less important. In the original comparative analysis, almost nothing from the list of elements associated with graduate level research writing was
had in common with the undergraduates. Discussion about some of the items included in this area might even be brought into question as an actual “element” of research writing. This might include group project collaboration, mentor relations, or even institutional navigation. Just having the experience of doing this research project, I was thrown into what seems like the deep end of the pool. For the first time, I was introduced to faculty mentorship and worked with or had to navigate permission through the English and Education Departments, the Office of Student Affairs, the Office of the Provost, the office of Institutional Analysis, Assessment, and Reporting, the McNair Program, and the IRB. All this was necessary to collect original data for a single research project. The greater benefit was that I now realize that this really was not the deep end of the pool. There are far more complex research projects involving elements such as grant writing and corporate, governmental, or even multi-institutional rules and compliance. The crux of the matter is this: these are indeed elements of research writing because most research writing at the graduate level cannot be done without at least some degree of collaboration and navigation.

The research elements comprising this area are, by nature, not a requirement for the bachelor’s degree, and are therefore less available to undergraduate students. Although, there are opportunities for those students would like to have faculty mentors and to participate in institutional navigation to do so individually in preparation for graduate studies. It appears that some of the students surveyed had the opportunity to work closer than the average reported by the faculty.

Discussion of argument and discipline

Argument and discipline represent the largest area of at-risk elements. Like collaboration, few of the elements encountered at the undergraduate level adequately prepare students for the requirements of graduate level research writing. Part of this may be due to the difference between what gains a passing grade at the undergraduate level is a night and day difference from the graduate level. Passing grades at the lower level are represented by a “C” average (though it is unlikely that graduate programs are interested in such students), but many graduate programs require students to maintain around a 3.5 GPA to keep in good standing (with a greater workload of more complex work). Undergraduates can simply “get by” in classes not specific to their discipline, while every class is specific to your discipline at the graduate level.

One interview participant brought up that many graduate students change degree paths between the undergraduate and graduate levels, so discipline knowledge was even harder for those students. The demographics of the graduate student survey certainly indicate some shifting of majors between levels. However, that participant also brought up that there were many critical thinking skills which transfer readily across degrees. I would also suspect that skills such as critical thinking, analysis, integration of outside sources, and communication of specific conclusions drawn from data would transfer readily to any discipline. This would seem that developing a strong base in core areas would significantly aid all students and most especially those even remotely considering a degree change between their undergraduate and graduate studies.

While building a strong base in argument and analytic skills seems like sound advice, it still leaves the discipline specific elements to be obtained at the graduate level. If all other research writing skills were developed to a sufficient level so they wouldn’t require excessive time at the onset of graduate studies, becoming familiar with a discipline might not seem that daunting. The problem lies in the fact that the evidence shows that all other research writing skills are found wanting and require significant time at the onset of graduate studies. The logical solution then is for students to become more familiar with their discipline through readings, collaboration, and undergraduate research writing specific to that discipline. One might even posit that if more was done in the discipline as undergraduates, there would be less changing of majors at the graduate level.

Discussion of CID courses

The idea of a course like the CID course found favor with both the faculty and the students who see the value of it from the graduate student perspective. There are several concerns with developing and instituting a course like this. The first of which is application. One faculty survey participant objected to a course like the CID citing that putting a new name on an old course changed little. Others furthered the concern that instructors of certain disciplines were not prepared or motivated to teach a writing intensive course to students who would only have to take it because it was required. This does raise the question of how courses would be designed (from the ground up) or redesigned (from an existing course) to fit the outcomes of the CID course. It also brings to light the need for qualified professors in each department to teach these courses, and where those qualified faculty will come from. Boise State already has in place a faculty support network to ensure faculty are prepared to handle the CID courses, but some respondents remained skeptical.
Another concern in instituting the CID courses was whether or not they should be required. Though there was strong support for a class like this being offered, it was less supported that it should be required. Some cited that

Another concern in instituting the CID courses was whether or not they should be required. Though there was strong support for a class like this being offered, it was less supported that it should be required. Some cited that doing so would take away yet another three elective credits form students already complaining about how few they have left (especially in some of the stem fields). Others mentioned the proposed shift from 128 credits necessary to graduate down to 120. Assuming the eight credits being eliminated were elective credits, making the CID required and moving to 120 credits would take 12 elective credits form students.

Another concern is that of a graduate school grooming course being required by the approximately 75% of students who will not pursue graduate studies. Though this is intended as a discipline specific writing intensive course, this is not intended as a graduate grooming course. Remember, this is a sophomore level course intended as a prep course for senior research in finishing foundations courses. The intended skills learned and applied in this and the finishing foundation courses are not only applicable to graduate studies, but also provide a valuable platform of experience in applying critical thinking and communication skills in oral and written forms. This would certainly benefit those students moving into the job market as well as those pursuing graduate studies.

Additional advantages which may be offered in requiring a course like the CID include exposure to new and relevant readings in the discipline. These readings were certainly called for by study participants and would give students a better picture of what their chosen major entailed. It might be interesting to examine future data on the changing of majors for students who have just completed a CID type course. In the least, the additional discipline specific readings should ease the transition into graduate studies as it provides models of research writing and conventions of communication that the student can emulate in their own research papers.

Conclusions and Recommendations

What is reasonable to conclude from this study comes in two areas. The first is that of undergraduate to graduate level research writing disparity. There certainly exists a difference between the two, and the gap is significant enough to cause many students to be unsuccessful in graduate studies. This gap constitutes many at-risk areas of research writing and there are ways of narrowing that gap to allow lower attrition rates in first year graduate students. The gap appears to be caused, at least in part, by the quantity and quality of information and research writing skills which undergraduates must obtain during their short undergraduate experience. The more that is gained at the undergraduate level, the narrower the gap; undergraduate proficiency equates to more students finding success in graduate level research writing. If information, access to faculty, and the opportunity to practice reading, writing, and research in the discipline are placed in the direct undergraduate path, better prepared students are the logical result.

In order to better prepare students, additional exposure and opportunity to practice specific at-risk elements are critical. These elements, dispersed through the four areas of emphasis, often work in concert and don’t have to be addressed individually. For example, assigning one additional (longer) discipline specific research paper, with more citation sources and an oral presentation, could address the at-risk elements of: organization, formatting, and communication in larger more substantial discipline specific papers; readings or familiarity with discipline; framing a viable research question; organizing and writing a literature review; additional practice in writing and revision skills; discipline specific citation; finding, evaluating, and incorporating relevant sources into research papers; and presenting research findings in a public setting. Such an assignment might also include a library or writing center component to expose students to additional support personnel and help resources. Additional requirements could incorporate even more at-risk elements. Some disciplines may also include some degree of individual faculty advisement (mentorship) or simple elements of new data gathering, interpretation, and integration of that data into the project. The addition of original research elements could allow students the opportunity to design the research project around and use discipline theory as the foundation of their research. Viewed in this way, perhaps a single additional research assignment, complex and time consuming as it may be, would address the majority of at-risk elements comprising the gap and would give students a better idea of the type of work expected at the graduate level. Students then have the opportunity to make more informed decisions about graduate school and be better prepared should they decide to pursue it.

Conclusions can also be drawn about the CID courses. It was clear that students and faculty alike desired to have a course available like the CID, but many felt that it should not be mandatory. A strong positive response by students when asked if they would have taken a class, coupled with a similarly strong indication that such a course would better prepare students for graduate studies, clearly indicates their recognition of the value of information and practice contained in the course. Faculty also responded (90%) that such a course would ease the transition from undergraduate level research writing to the graduate level. The biggest reservations by faculty in making such a course required was the loss of elective credits and whether the course could actually function as designed. The loss.
of electives is a whole can of worms in and of itself, but to be succinct, is the trading of a single elective course worth the significant edge gained by taking a CID course? I suggest that it is, and that all students should be exposed to the information contained therein. After all, the process is about the education, and who says a student cannot voluntarily take the extra credits and graduate with 123 instead of 120 if the elective is that important.

In light of evidence and strong opinions voiced through this study, I agree that the CID courses should be mandatory for the benefit given to all students, not just to those going on to graduate studies. This endorsement comes with recommendations of its own. To address the concern raised by several faculty that the courses or instructors would not live up to the outcomes intended, there must be sufficient faculty training and support for those disciplines not accustomed to instructing reading, writing, and research intensive courses at the undergraduate level. There also should be a monitoring system set in place by each department to gauge if the course outcomes are being met.

From the beginning, BSU’s Center for Teaching and Learning (CTL), the Foundations Program, and the Writing Center have offered a significant amount of training and support for CID teachers. In the fall of 2010, faculty members were asked to collaborate on the design and outcomes of the CID courses in relation to, and as a component of, the Foundations Program. It was followed up by a series of retreats to help CID course instructors design a syllabus specific to each discipline. CID Institutes, a series of workshops aimed at faculty training and pedagogy, were in place and running by the summer of 2011. All these were mandatory and gave a small glimpse at the time, effort, and expense invested by the university in developing this series of classes. Ongoing support is offered by BSU through online resources and through the Writing Center. The Writing Center offers a virtual CID Coffee House as well as a real CID Coffee House. Writing Center Director Dr. Clyde Moneyhun even brings homemade muffins for those who attend the weekly CID Coffee House at the Writing Center. There is also a CID Mentors Program through the Writing Center. The strong foundation behind the CID course development, coupled with ongoing support and training, are a testament that this isn’t (as one faculty put it) putting a new stamp on an old course. The question is whether the CID courses maintain the high standards designed from the beginning.

It is understandable that there will be some growing pains and necessary adjustment when broadly instituting such a series of courses. Yet if there is reasonable attention given to the ongoing success of the course, it will be more than putting a new stamp on an old course, it will be giving students access to the information and experiences needed to succeed in research writing at the graduate level. As the courses began in the fall of 2012, the ongoing training of faculty and course evaluation is the responsibility of each department. I would recommend that departments commit to the ongoing training of CID faculty and make them aware of support resources (especially those offered by the Writing Center). In addition, there needs to be some departmental means of tracking course success for making adjustments to the courses over time. I recommend that administrators in the Foundations Program and in academic departments examine the CID course to see how it might address the gaps I have identified in this study and to use this information for the ongoing benefit of students seeking to be better prepared for research writing at the graduate level.

References


Appendix A

Faculty survey

Faculty Demographic:
1. Have you taught at least four graduate level courses?
2. Discipline in which you teach?
3. Are you currently, or have you ever been, a faculty mentor for a student working on a significant research project?
   Questions: Answered as “strongly disagree, disagree, somewhat disagree, somewhat agree, agree, strongly agree.”

   1. Incoming graduate students were asked to complete research writing assignments during their undergraduate years which allowed them to explore new ideas through the research aspect of the writing assignment.
   2. Incoming graduate students were asked to complete research writing assignments during their undergraduate years in which they discovered new information through the research portion of the writing assignment.
   3. Incoming graduate students were asked to complete research writing assignments during their undergraduate years which consisted primarily of a thesis statement then using sources to “prove the thesis right.”
   4. Incoming graduate students have already acquired a model of research writing which they will be able to successfully use at the graduate level.
   5. Incoming graduate students have had sufficient practice at the undergraduate level learning research writing.
   6. Incoming graduate students are used to glossing texts and understand little about the sources they cite for research papers.
   7. Incoming graduate students often cite sources which are have little to do with advancing the topic in their research writing assignments.
   8. Incoming graduate students often need direction in how to cite sources properly for research assignment specific to their discipline.
   9. Incoming graduate students rarely, if ever, have worked closely with a faculty mentor on research writing.
   10. Incoming graduate students rarely know what institutional sources are available to them to help with research writing.

Text Box Questions:
1. What elements of research writing did graduate students acquire during their undergraduate years which you find helps them at the graduate level?
2. What are the three most important things you wish graduate students would have learned at the undergraduate level to prepare them for graduate level research writing?
3. If graduate students could have taken a course as an undergraduate which taught language, research, documentation, and writing specific to their discipline, how significantly would this alter their transition to graduate level research writing?
4. Would you make such a course required for their Bachelor degree?

Appendix B

Student survey

Student Demographic:
1. Number of semesters of graduate school completed?
2. Average number of credit hours completed per semester during graduate school?
3. Have you completed, or are you currently working on, any significant research or writing projects which you are working on with a faculty mentor at the graduate level?
4. Undergraduate major?
5. Graduate major?

Questions: Answered as “strongly disagree, disagree, somewhat disagree, somewhat agree, agree, strongly agree.”
1. During my undergraduate years, I was presented with research writing assignments which allowed me to explore new ideas through the research aspect of the assignment.
2. During my undergraduate years, I discovered new information from the research portion of research writing assignments.
3. When I wrote undergraduate research papers, I was only coming up with a good thesis statement then using external sources to prove my thesis.
4. During my undergraduate years, a model of research writing was presented which I was able to later use successfully at the graduate level for research assignments.
5. During my undergraduate years, I was given enough research writing assignments to allow me to adequately acquire the research model being presented.
6. In my undergraduate research writing assignments, I read and understood the sources I was citing.
7. In my undergraduate research writing assignments, I cited only sources which were important to my research topic.
8. During my undergraduate years, I learned how to cite research sources correctly, specific to my discipline.
9. During my undergraduate years, I worked closely with a faculty mentor who helped me specifically with my research writing.
10. During my undergraduate years, I worked closely with a faculty mentor who helped me design or refine my research projects.
11. During my undergraduate years, I felt there wasn’t much help available to me, from the school, when I was struggling with research writing.

Text Box Questions:
1. What elements of research writing did you acquire during your undergraduate years which you find helpful at the graduate level?
2. What are the three most important things you wish you would have learned at the undergraduate level to prepare you for graduate level research writing?
3. If you could have taken a course as an undergraduate which taught language, research, documentation, and writing specific to your discipline, would you have taken such a course?
4. Would taking a course like the one mentioned previously significantly alter the transition to graduate level research writing?
5. Would you make such a course required for a Bachelor degree?

Appendix C

Faculty interviews

1. Compare research writing at the undergraduate/graduate levels in your discipline and identify what you feel are the main differences. When and how do grad students learn these main differences?
2. How well is the average incoming graduate student acquainted with the language, citation, and research methods of their chosen fields? Are they familiar with the process of organizing, conducting research, and
writing quality research papers when they first enter graduate school? If they aren’t well acquainted, how much time/effort does it take students to “come up to speed” in these areas?

3. What institutional/departmental help resources, specific to research writing, are available to grad and undergrad students? Do you think students at both levels are generally aware of these resources? Are these resources adequate for the success of each group? What research writing resources would you like to see for each and why?

4. Being as specific as possible, if you could design an undergraduate writing class that was specific to your field, and make it required for the bachelor degree in that field, what key elements would you include in its curriculum and why? How would these elements serve students going on to graduate school as well as those entering the job market after their undergrad?

5. Describe in as much detail as possible what you feel are the most common areas of graduate level research writing which incoming graduate students need the greatest help with. Would the class you designed in question five address these areas?

6. What other/outside/social elements adversely influence the quality of research writing at the graduate level?

7. Estimate the percentage of students you anticipate will conduct research for publication in your discipline after completing graduate school. How does this number correlate with the difficulties students have with research writing during graduate school?

8. There is considerable debate over what should be taught in undergraduate writing courses because only about 25% of undergraduates go on to graduate school. What can/should be taught in the area of research writing at the undergraduate level which would benefit all students despite their diverse professional or academic direction?

9. When examining what should be taught at the undergrad level, what/where is the balance between where it currently is, general familiarity with graduate level research writing, and trying to teach proficiency before they get there?

10. During the survey portion of this research, there seemed to be disagreement between the grad students and faculty surveyed with respect to the level of incoming grad student preparedness. Many of the students (most students surveyed are currently in their second or third years of grad school) felt they were personally prepared to a greater degree in research writing than faculty thought the average incoming graduate student was. What could explain so many students having a retrospective feeling of preparedness when most faculty thought the average student was less prepared? For instance, 72% of faculty thought graduate students (while as undergraduates) were, to some extent, used to glossing texts and understood little about the sources they cite. On the other hand, 100% of students (to some degree) agreed that as undergrads, they read and understood the sources they cited.

Appendix D

Student interviews

1. Compare research writing at the undergraduate/graduate levels in your discipline and identify what you feel are the main differences. When and how do grad students learn these main differences?

2. How well is the average incoming graduate student acquainted with the language, citation, and research methods of their chosen fields? Are they familiar with the process of organizing, conducting research, and writing quality research papers when they first enter grad school? If they aren’t well acquainted, how much time/effort does it take students to “come up to speed” in these areas?

3. What institutional/departmental help resources, specific to research writing, are available to graduate and undergraduate students? Do you think students at both levels are generally aware of these resources? Are these resources adequate for the success of each group? What research writing resources would you like to see for each and why?

4. Being as specific as possible, if you could design an undergraduate writing class that was specific to your field, and make it required for the bachelor degree in that field, what key elements would you include in its curriculum and why? How would these elements serve students going on to graduate school as well as those entering the job market after their undergrad?

5. Describe in as much detail as possible what you feel are the most common areas of graduate level research writing which incoming graduate students need the greatest help with. Would the class you designed in question five address these areas?

6. What other/outside/social elements adversely influence the quality of research writing at the graduate level?
7. Estimate the percentage of students you anticipate will conduct research for publication in your discipline after completing graduate school. How does this number correlate with the difficulties students have with research writing during graduate school?

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11. Do you anticipate conducting research for publication after completing graduate school? How many of your fellow students do you think will do research for publication after graduation? Does this number correlate with difficulties students have with research writing during graduate school?
Assessment of Surface Energy Balance in Southern Idaho

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Civil Engineering

Abstract

Proper management of water resources is always a matter of concern in arid regions like southern Idaho such as the Snake River basin where rainfall is limited and the moisture level of atmospheric air is below threshold level most of the time throughout a year. For the proper assessment of water resources it is necessary to quantify the Evapotranspiration (ET) loss in this region and use the available water resources efficiently. A vast quantity of water is moving in the atmosphere under the direct influence of solar energy. So, in order to characterize the behavior of the water cycle, it is important to understand the energy balance of the Snake River basin. ET is an important phenomenon in the water cycle for the estimation and evaluation of the available water resources. If we understand how ET is changing over space and time, then we can more accurately calculate the crop water requirement (CWR) at a high resolution for that region. This study can help water managers and farmers to manage water resources very efficiently. Current research has difficulty projecting how ET is going to change over different locations in the future. Therefore, through this research we are trying to understand the partition of the energy balance components and quantify them to help the water management in southern Idaho. To support this research, we will use the data from both Land Surface Hydrology Model and field observations and present the trends in surface energy balance components.

Introduction

The driving input in the surface energy balance is the net radiation. The net radiation is partitioned into different components at the earth’s surface. The three major components of net radiation are; latent heat flux, sensible heat flux and ground heat flux. The largest fraction of the net radiation available at the earth’s surface is used to evaporate water from the surface back to the atmosphere. This fraction of net radiation is called latent heat flux (λE). Unlike precipitation (x-mm of rain), rate of evaporation is commonly measured in terms of energy flow leaving the evaporating surface in the form of latent heat of vaporization (Shuttleworth, 2012).

A second fraction of net radiation that carries the heat back and forth to the atmosphere from the surface is sensible heat flux. This fraction of net radiation is used by the atmosphere for the direct warming or cooling the atmospheric air. The third component of the energy balance is ground heat flux that conducts through the soil when the net radiation is positive and radiates out of the soil when the net radiation is negative (Gentine, 2012; Shuttleworth, 2012). Although every component of net radiation impacts the hydrological cycle, this study focuses on the quantification of latent heat flux and employs it to understand the anomalies of evapotranspiration (ET).

ET is an important process for the water exchange between the land surface and the atmosphere. ET plays an important role in the hydrological cycle, so it is essential to estimate ET accurately for the evaluation and management of available water resources. The difference between precipitation and evapotranspiration is the water available for use by animals and nature. Thus the quantitative assessment of ET is essential to maintain a balance between the available water and its consumption. Global warming and natural changes in climate can highly affect the ET process, so it is necessary to understand the interaction between the hydrological cycle and atmospheric parameters (Dingman, 2002; Brown).

The hydrological cycle is a complex process that involves a direct interaction between the atmospheric parameters and surface parameters. It is not yet understood how a reliable prediction can be made in this field (Devonec et al., 2002). One of the approaches researchers use to understand the hydrological behavior is the energy balance approach (Heerwaarden et al., 2010).

According to the first law of thermodynamics, for the energy balance closure the sum of latent heat flux (λE), ground heat flux (G), sensible heat flux (S), and other losses (storage) must be equivalent to net radiation (Rn) at the surface (Wilson et al., 2002). Assuming the change in energy storage is zero, the energy balance equation can...
be written as shown in Equation 1. Further details regarding the energy budget is explained by Franssen, et.al. (2010), Dingman, (2002), and Wilson et al. (2002).

\[ R_n = \lambda E + G + H \]  
Equation (1)

This study used the energy balance approach as explained above to simulate the surface energy fluxes that can be linked to various atmospheric processes. The goal of this study is to understand the partition of the energy balance components and use them to quantify ET in Southern Idaho.

**Methodology**

**Study area**

This study was conducted for the Snake River basin in Idaho, which is a semi-arid region with a very low precipitation, concentrated in early spring. The most common land cover types besides farming are alpine forest, sage-brush, invasive cheat-grass, and other native grasses. Geographically, it is roughly located between 41.37° N and 43.75° N latitudes and 112.13° W and 116.15° W longitudes. In this study, the pixels from the model for two locations, Hollister Sagebrush (HL) and Raft River Grass-land (RR), are used. See Figure 12 (Jaksa, 2011; Mitchell, 2005).

![Figure 12: Snake River Plain, Southern Idaho (Jaksa, 2011)](image)

**Meteorological and satellite data**

A long term data from field observation available at ET Idaho (http://data.kimberly.uidaho.edu) was used for this study. This dynamic web page allows us to access historical ET data for the state of Idaho at various locations. These data are based on National Weather Service (NWS) and Agrimet weather stations. Hourly, monthly, and annual weather data for both of the sites discussed in this study are available at ET Idaho web site. For this study monthly data of last 80 years for potential and actual ET were used.
Model simulated data

The Noah Land Surface Model (Noah-LSM) is used to simulate the data using High Resolution Data Assimilation System (HRLDAS). Noah LSM model is a land surface algorithm widely used to simulate energy and water balance components. A working schematic diagram of the LSM is shown in Figure 13 (Jaksa, 2011; Mitchell, 2005).

![Figure 13: The Schematic Diagram of the Noah LSM (Mitchell, 2005)](image)

The model was validated by comparing the results obtained from the simulated data against the results from meteorological stations. More about the comparison is discussed in the results section.

Results

Comparison of ETs and PETs

Data analysis was performed by comparing ET and PET of both the Raft River and Hollister sites. First of all ET and PET from both field observed data and model simulated data were compared separately (see the top two panels of F), and then ET and PET from field observed data was compared against the LSM output (see the bottom two panels of F). This comparison helped us to validate the simulated data as well as to see how ET and PET changed in 2009 and 2010.
Figure 14: F-Graphs comparing the ETs and PETs from field observation and LSM model for two years (2009-2010) for Hollister site.

Energy balance closure

Average day and night energy budget for Raft River (Cheat Grass) pixel and Hollister (Sagebrush) pixel are given in Table 1 and Table 2, respectively. This average energy budget was computed from the two years of Noah-LSM simulated data.

| Table 1: Average Day and Night Energy Budget for Raft River (Cheat Grass) Pixel |
|-----------------|-----|-----|
| Day | Night |
| R_n | 222 | -74 |
| H   | 125 | -47 |
| G   | 37  | -35 |
| \lambda E | 60 | 9 |
Table 2: Average Day and Night Energy Budget for Hollister (Sagebrush) Pixel

<table>
<thead>
<tr>
<th></th>
<th>Day</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R_n$</td>
<td>177</td>
<td>-71</td>
</tr>
<tr>
<td>H</td>
<td>75</td>
<td>-36</td>
</tr>
<tr>
<td>G</td>
<td>46</td>
<td>-46</td>
</tr>
<tr>
<td>$\lambda E$</td>
<td>55</td>
<td>11</td>
</tr>
</tbody>
</table>

Comparison of energy fluxes between two sites

All four components of energy budget were compared between the Raft River and Hollister. The results showed that the net-radiation for Raft River (Cheat grass) was higher than that of Hollister (Sagebrush). See Figure 15. Contrary to the higher net-radiation, Rift River showed a lower intake of ground heat flux (G).

Historical trend of ET and PET in Southern Idaho

A long term data from field observation was plotted for various time intervals for both Hollister site and Raft River site. This historical analysis was started by plotting 80 years of data. A trend of increasing slope was observed (see Figure 16). Keeping time as a variable, several plots were observed. While doing so, a decreasing slope was obtained for the plot of ET after 1995 (see Figure 17).
Discussion

Model vs. field observation

As the first step of data analysis, comparison of ET and PET from the observed data against the LSM simulated data helped us to validate the Noah LSM model. As shown in F, good match for actual ET from field observation and the model output was evident, whereas we found that the model overestimated the PET for both of the sites.

Second, arithmetic average of hourly data for the energy fluxes from LSM was computed (see Table 1 and Table 2), and the result was used to check the energy balance closure. This showed us energy balance closure was possible with reasonable accuracy (off by ±1.5%). Positive fluxes during the day indicate that the space acts as a source of energy during the day were as negative values of the fluxes indicate that the space acts as a sink during night. During day short wave radiation from the sun and long wave radiations emitted by clouds and other components of the atmosphere combined and reach the earth surface. While during night the earth surface will radiate long wave radiation back to the space forming a negative net radiation.
Fluxes comparison

One of the main causes of a significant difference in net radiation between any two sites can be the difference in latitude. But in the case of this study, both of these sites are not that far from each other, so the difference in net-radiation might be due to the difference in vegetation type or moisture content of soil and atmosphere (Bagayoko et al., 2006). This argument is further supported by the higher ground heat flux (G) for Hollister, indicating that most of the soil is barren in this site. Lands covered by less vegetation contain less moisture in both soil and atmospheric air near the surface. Lower moisture content means that only a little fraction of net-radiation is used as latent heat flux (λE) and sensible heat flux (H), and there will be a larger fraction of net radiation available for ground heat flux (G).

Historical trend

A positive slope of the trend line in the historical plot ET for the last 80 years indicates a gradual increase in ET. An increase in ET can be mainly because of more availability of soil moisture. Due to increasing irrigated cropland surrounding these study sites, it is reasonable to assume that the moisture content for these sites has increased since 1930. But on the contrary, a decreasing trend was obtained for the time period after 1995 (see Figure 17). This decreasing trend of ET is further supported by lower ET and PET in 2010 compared to 2009 (see Figure 14). Precipitation is one of the driving factors of ET for non-irrigated land, so further study including precipitation is suggested for a better understanding of anomalies behind the variation of ET trend.

Conclusion

As a key component of the hydrological cycle, ET was analyzed using energy balance approach in this study. Net radiation and its components (latent, sensible and ground heat fluxes) were compared between the two study sites. From this comparison it was concluded that vegetation type controls the latent heat flux for that area. There will be higher moisture content in both land surface and atmospheric boundary layer for the area with fully vegetated land than there will be for land with bare soil surface. The higher the moisture content, the higher the latent heat flux, which results in higher ET.

As a residual component of net-radiation, latent heat flux was quantified by subtracting ground and sensible heat fluxes. The quantified latent heat flux was then used to estimate the ET losses from the surface.

Finally a historical trend analysis showed an interesting result of gradual increase in ET till 1995 and a decreasing trend after 1995. A deeper analysis including precipitation is required to understand the complex variability of ET.

Acknowledgements

I wish to express my appreciation to Dr. Venkat Sridhar for all his support and guidance, to Helen Barnes for her continuous supports and suggestions, to the McNair program, and to Greg Martinez. The author also would like to thank Thilini A. Jaksa and Manogya Khanal for their technical support, and finally, to my family for all their support and love.

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A Study of the Availability of Multicultural Children's Literature in Treasure Valley Schools: Quality, Access and Inclusion

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Bilingual Education

Abstract

The purpose of this study is to conduct an analysis of the availability of quality multicultural children’s literature in Treasure Valley elementary schools in Idaho. Current research suggests multicultural literature supports the psychosocial well-being of students in all classrooms. Exposure to a variety of cultures increases awareness and acceptance among students. In addition, reading multicultural literature encourages children to reaffirm the values of their own culture and come to appreciate those of others. Furthermore, multicultural literature, defined as literature that accurately portrays views and cultures of underrepresented populations, has a significant impact on students’ developing identities. For these reasons this study investigates and analyzes the quality and availability of, or lack of, multicultural literature in elementary school libraries in four different school districts in the Treasure Valley. The measure used to analyze the literature is composed of distinguished books that have received multicultural literature awards such as the Pura Belpre and the Coretta Scott King Awards. This study also takes into account the need for multicultural literature in the particular schools by comparing the demographic population of the schools and the relationship to the library's inclusion or lack of inclusion of multicultural literature. This study may be of particular interest to teachers, administrators, librarians, and parents, especially when making decisions in regards to literature purchases and donations for school libraries.

Introduction

Student engagement with multicultural literature promotes appreciation of diversity and encourages dynamic understandings of the world. As the changing face of our nation grows increasingly diverse, both students and teachers are completely immersed in cultural diversity in the classroom (Willis-Rivera & Meeker, 2002). Diversity is a reality of our nation and of the world, and with that reality comes the responsibility and opportunity for growth in order to create a more accepting and just world. Students and teachers can look to literature, particularly multicultural literature, as a part of a curriculum that actively participates in awareness of issues such as power, privilege, and oppression.

Quality multicultural literature demystifies race and culture by allowing students to gain greater perspectives of diversity. Multicultural literature promotes positive outlooks of other cultures for both dominant and non-dominant communities, which benefits all students. Cox and Galda claim:

“For mainstream children, these books can be a window, revealing a vista that juxtaposes the familiar and the less familiar. . . .” Multicultural stories can be a mirror, reflecting and validating familiar cultures and experiences for children who rarely have a ‘voice’ in the classroom (Amour, 2003).

In both cases, growth in the direction of embracing diversity is attained.

For students of non-dominant communities particularly, multicultural literature can be a means of embracing their cultural roots. A parent from a study done by Fernando Rodriguez-Valls (2011) states, “I wish all teachers would be like the teacher in this book; a teacher who creates an environment where the child and his family can be proud of their culture.” This feeling of acceptance and pride increases when students find and read books in which they see characters they can relate to, characters in whom they can see themselves. Multicultural literature not only works towards enhancing appreciation of other cultures but of one’s own. It creates a cultural bridge in which
similarities and difference are valued among the diversity in classrooms and beyond. The strong emphasis on learning and embracing diversity in quality multicultural literature strongly advocates for multiculturalism overall.

Among the advantages of incorporating multicultural literature in school libraries there exists yet a further layer of importance. In order to help students gain a more equitable opportunity in school and in society, they have the right to first learn of inequalities that have occurred in the past and ones that continue to exist today. Multicultural literature provides a means for students to recognize inequalities in our social structure and create alternative solutions (Amour, 2003). It promotes social justice through transformative means of eliminating oppression and injustice (Suh, B.K., & Samuel, 2011). Multicultural literature not only helps students gain knowledge about issues in society that directly affect them, but it can also help introduce principles of action to create change. Multicultural literature has the power to cultivate awareness in order to create change.

It is important to include multicultural literature in schools and school libraries because it allows students to make connections which facilitate improved academic performance and increase confidence in students. Elley (1992) examined the availability of books to children in 32 countries and found that nations with high reading achievement had large school and class libraries, whereas nations with low reading achievement had fewer books available to children (Holmes, K., Powell, S., Holmes, S., & Witt, E., 2007). Hunter (2004), citing a 2002 National Assessment of Education Progress report, stated that “classroom libraries can help to level the playing field for students who have limited access to books outside of the classroom” (Holmes, K., Powell, S., Holmes, S., & Witt, E., 2007). A larger variety of literature increases the chances that students will have the opportunity to have their own backgrounds represented in narratives (Amour, 2003). All students have the right to access adequate resources to ensure equity.

Though dialogue and understanding of diversity and issues of power, privilege, and oppression are lifelong processes, nonetheless it can certainly begin at a young age. Scholars argue that dialogue about culture should begin with school age children, or even younger (Harris, Taxel, Miller in Willis-Rivera & Meeker, 2002). Developing identities of students, from both dominant and non-dominant cultures, are directly affected by everyday messages of the role they play in society. The literature students have access to, or limited access to, can provide these messages. The school library has a unique role in schools: it’s one of the few places that all students and teachers visit on a regular basis. For this reason, it is crucial in helping students of diverse backgrounds feel like they are an integral aspect of schools, communities, and society as a whole by providing inclusive selections of quality literature. Exposure to quality multicultural literature in school libraries is an opportunity for students to explore types of text that they may not have access to in their home classrooms, depending on the ideology of the teacher, funding, donations, etc. These fluctuating factors make the accessibility to multicultural literature in school libraries all the more significant. For these reasons, this study takes a closer look at the content of school libraries in the Treasure Valley elementary schools in Idaho.

Methodology

For the purpose of my study, I have chosen to define multicultural literature as literature that accurately portrays views and cultures of underrepresented populations. It is a common belief that multicultural literature is a term used to only encompass literature that discusses various ethnic cultures or racial themes and foci. My study includes children’s literature from various cultures including the LGBTQIA culture, physically and mentally challenged culture, as well as diverse ethnic cultures.

To reliably measure the quality of multicultural books in the elementary school libraries, I have created a measure composed of awarded books. Thirteen different awards were chosen to be used based on the purpose and criteria for which they award children’s literature. The purposes of the 13 awards chosen are closely aligned to my definition of multicultural literature. The following are the awards that were used and a description of their objectives.

<table>
<thead>
<tr>
<th>Award Name</th>
<th>Purpose</th>
<th>Awarded Annually or Biannually</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian Youth Literature Award</td>
<td>This award was created as a way to identify and honor the very best writing and illustrations by and about American Indians. Books selected to receive the award will present American Indians in the fullness of their humanity in the present and past contexts.</td>
<td>Biannually</td>
</tr>
<tr>
<td>Award</td>
<td>Description</td>
<td>Frequency</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Dolly Gray Award</td>
<td>Recognizes authors, illustrators, and publishers of high quality fictional and biographical children, intermediate, and young adult books that appropriately portray individuals with developmental disabilities.</td>
<td>Biannually</td>
</tr>
<tr>
<td>The Jane Addams Children's Book Awards</td>
<td>Given to children's books that effectively promote the cause of peace, social justice, world community, and the equality of the sexes and all races as well as meeting conventional standards for excellence.</td>
<td>Annually</td>
</tr>
<tr>
<td>Mildred L. Batchelder Award</td>
<td>Awarded to an American publisher for a children's book considered to be the most outstanding of those books originally published in a foreign language in a foreign country, and subsequently translated into English and published in the United States. ALSC gives the award to encourage American publishers to seek out superior children's books abroad and to promote communication among the peoples of the world.</td>
<td>Annually</td>
</tr>
<tr>
<td>National Jewish Book Award</td>
<td>This award is designed to give recognition to outstanding books, to stimulate writers to further literary creativity, and to encourage the reading of worthwhile titles about the Jewish culture or by Jewish authors.</td>
<td>Annually</td>
</tr>
<tr>
<td>Schneider Family Book Award</td>
<td>Honors an author or illustrator for a book that embodies an artistic expression of the disability experience for child and adolescent audiences.</td>
<td>Annually</td>
</tr>
<tr>
<td>Sydney Taylor Book Award</td>
<td>Presented to outstanding books for children and teens that authentically portray the Jewish experience.</td>
<td>Annually</td>
</tr>
<tr>
<td>Tomás Rivera Mexican American Children's Book Award</td>
<td>Honor authors and illustrators who create literature that depicts the Mexican American experience.</td>
<td>Annually</td>
</tr>
<tr>
<td>Coretta Scott King Book Award</td>
<td>Given to outstanding African American authors and illustrators of books for children and young adults that demonstrate an appreciation of African American culture and universal human values. The award commemorates the life and work of Dr. Martin Luther King, Jr., and honors his wife, Mrs. Coretta Scott King, for her courage and determination to continue the work for peace and world brotherhood.</td>
<td>Annually</td>
</tr>
<tr>
<td>Pura Belpré Award</td>
<td>Presented to a Latino/Latina writer and illustrator whose work best portrays, affirms, and celebrates the Latino cultural experience in an outstanding work of literature for children and youth.</td>
<td>Annually</td>
</tr>
<tr>
<td>Asian/ Pacific American Award</td>
<td>Honors and recognizes individual work about Asian/Pacific Americans and their heritage, based on literary and artistic merit.</td>
<td>Annually</td>
</tr>
<tr>
<td>Américas Book Award</td>
<td>Given in recognition of U.S. works of fiction, poetry, folklore, or selected non-fiction (from picture books to works for young adults) published in the previous year in English or Spanish that authentically and engagingly portray Latin America, the Caribbean, or Latinos in the United States.</td>
<td>Annually</td>
</tr>
<tr>
<td>Carter G.</td>
<td>Recognizes distinguished social science books appropriate for</td>
<td>Annually</td>
</tr>
</tbody>
</table>
Woodson Book Award

young readers that depict ethnicity in the United States. The purpose of this award is to encourage the writing, publishing, and dissemination of outstanding social science books for young readers that treat topics related to ethnic minorities and relations sensitively and accurately.

Note: The Purpose sections of this table were taken directly from each award’s website.

The measure for this study was created by including the three most recent books which have received any of these awards. As previously stated, some of these awards are given on an annual basis and some on a biannual basis. Therefore, some books in the study are from the past three years and some are from the past six years, depending on the regulations of the particular award. Because the purpose of the study is to look at elementary school libraries, I have filtered young adults’ books from the measure. The measure is composed of 76 children’s books, although five of the books have received two of the awards, making a total of 71 book titles. The measure consists of a total of 71 elementary-age children’s books.

The school districts analyzed in this study all have an online library catalog system in place. The online catalogs were utilized to conduct this study and were accessed through each school website. All 71 of the books included in my measure were searched in the catalog by title, author, and/or illustrator at each of the school libraries.

The study also includes a demographic component. The demographic elements analyzed from each school district include ethnicity, special education, and Limited English Proficient (LEP). Although these elements do not encompass every feature of multicultural literature as defined in this study, they are some of the only elements measured by the district that are related to the definition. The statistical information regarding the demographics of the districts was accessed through the Idaho Department of Education District Profiles. The demographic data analyzed was from 2009-2010, the latest at the time of the study. The average percent of multicultural books from my measure available in each district was compared to the percentage of students who are from non-dominant ethnicities (Black, Hispanic, Native American, and/or Asian/Pacific Islander), in special education, or are LEP.

The size and demographic makeup vary greatly from district to district in the Treasure Valley. Therefore, in order to capture an informative representation of public schools in the area, schools from four different school districts were analyzed. Pseudonyms are used for these school districts: District A, District B, District C, and District D. District A and District B are significantly larger than the other two. Due to their large size, only one third of the schools were analyzed. In District A, 10 school libraries were analyzed out of the 33 public elementary schools total in the district. School District A has the following demographic characteristics: 17.5% of students from non-dominant ethnicities, 10.9% special education, and 7.2% of students are LEP. In District B, 10 schools were also analyzed out of the 33 elementary schools total in this district. In District B, 13.9% of students are from non-dominant ethnicities, 10.1% are special education, and 3.6% are LEP. All six elementary school libraries from District C were analyzed. The demographics for District C include 56.4% of students from non-dominant ethnicities, 10.4% special education, and 12% LEP. All three elementary schools from District D were analyzed. These schools, representative of rural Idaho, are composed of 11.6% students from non-dominant ethnicities, 8.6% special education, and 3.2% LEP. Each elementary school within the four districts was also given a pseudonym.

The number of schools in the two larger districts, District A and District B, was narrowed from more than 30 schools to only 10. To maintain an accurate representation of the districts despite only utilizing one third of the total elementary schools, student reading performance from each school was analyzed. The selection of the 10 schools was done by analyzing state reading assessments from 2009/2010, which was the latest data at the time of the study. The data was attained from the Idaho Department of Education School Report Cards. The percentages of “proficient” and “advanced” student reading scores were analyzed. The study includes the five schools that had the highest percentage of proficient and advanced reading scores and the five schools who had the lowest.

Findings

After the data was analyzed, the results indicated that quality multicultural literature is very limited in the majority of school libraries in all four of the school districts from the Treasure Valley. The following tables demonstrate the findings of the various school districts and the school libraries within them.

56
Table 2. School District A

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Books Available from Measure (of 71 Books)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>13</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
</tr>
<tr>
<td>F</td>
<td>5</td>
</tr>
<tr>
<td>G</td>
<td>11</td>
</tr>
<tr>
<td>H</td>
<td>11</td>
</tr>
<tr>
<td>I</td>
<td>7</td>
</tr>
<tr>
<td>J</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3. School District B

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Books Available from Measure (of 71 Books)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
</tr>
<tr>
<td>E</td>
<td>25</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>2</td>
</tr>
<tr>
<td>H</td>
<td>4</td>
</tr>
<tr>
<td>I</td>
<td>2</td>
</tr>
<tr>
<td>J</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 4. School District C

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Books Available from Measure (of 71 Books)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>7</td>
</tr>
<tr>
<td>C</td>
<td>13</td>
</tr>
<tr>
<td>D</td>
<td>17</td>
</tr>
<tr>
<td>E</td>
<td>6</td>
</tr>
<tr>
<td>F</td>
<td>18</td>
</tr>
</tbody>
</table>
Table 5. School District D

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Books Available from Measure (of 71 Books)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
</tr>
</tbody>
</table>

All schools in all four school districts had a very low number of books compared to the measure of 71 titles. The average number of books in District A is about seven with a high of 13 and a low of two. District B has an average of about five books with a high of 25 and a low of zero. The average number of books in District C is about 13 books with a high of 18 and a low of six. In the last school district, District D, the average number of books was about one with a high of one and a low of zero.

The following table depicts the results of the demographic comparison done in the study. It compares the average number of books available in a school district to the percentage of students of non-dominant ethnicities, percentage of special education students, and percentage of LEP students in each school district.

Table 6. Demographic Comparison

<table>
<thead>
<tr>
<th>School District</th>
<th>Average Number of Books (from Measure)</th>
<th>Percentage of Students from Non-Dominant Ethnicities</th>
<th>Percentage of Students in Special Education</th>
<th>Percentage of LEP Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.4 Books (10%)</td>
<td>17.5%</td>
<td>10.9%</td>
<td>7.2%</td>
</tr>
<tr>
<td>B</td>
<td>5.8 Books (8%)</td>
<td>13.9%</td>
<td>10.1%</td>
<td>3.6%</td>
</tr>
<tr>
<td>C</td>
<td>12.8 Books (18%)</td>
<td>56.4%</td>
<td>10.4%</td>
<td>12%</td>
</tr>
<tr>
<td>D</td>
<td>.666 Books (.009%)</td>
<td>11.6%</td>
<td>8.6%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

For all school districts, the average number of multicultural books from the composed measure is significantly low compared to the percentage of students from the backgrounds of non-dominant ethnicities, special education, and LEP. The three different demographic characteristics combined show still an even higher disproportionality of multicultural literature in Treasure Valley school districts. For instance, in District A, the total percentage of students of these demographic characteristics is 35.6%, in District B it is 27.6%, in District C it is 78.8%, and in District D it is 23.4%.

Recommendations

The poor representation of multicultural literature in Treasure Valley schools could be due to funding, lack of a standard for the content of elementary school libraries, or lack of knowledge and access to multicultural literature. A recommendation for further study would explore how the selection process is conducted for literature in general and furthermore multicultural literature. The information found in this study could be significantly strengthened through a qualitative exploration with school librarians. Future studies could also include comparing the total book content of the elementary school libraries, using a more complete set of demographics, which would include free and reduced lunch among other demographic characteristics, analyzing schools within the districts closely, looking at schools and school districts across Idaho, and also looking at other states.

The list of awards used for the purpose of this study can be utilized as a resource to gain access to multicultural literature. In particular, it proves useful for elementary school personnel and parents of elementary age children and youth. Though this list should not, by any means, be the sole informer of quality multicultural books, as there are many other awards that also recognize multicultural literature, and many of the authors and illustrators that have received these awards have additional collections of work with similar purposes.
Conclusion

There has been a multiplicity of children’s books written to either implicitly or explicitly deal with issues of racism, discrimination, prejudice, or eurocentrism (Willis-Rivera & Meeker, 2002). It is important for elementary schools to provide access to multicultural literature for students. Having a strong variety of quality multicultural literature increases the likelihood that all children will have access to literature that represents their various backgrounds, as well as enriches their understanding of other backgrounds. Quality multicultural literature is a great tool for schools in raising awareness of diverse backgrounds and cultures. For this reason, it is imperative for schools to provide quality multicultural literature versus literature that may appear to be multicultural but that ideologically reinforces oppression, stereotypes, and assimilation of underrepresented groups.

In this study, although some school districts have more multicultural literature than others, none of them have a significant amount. This lack of multicultural literature becomes overwhelmingly apparent when compared to the demographics of the schools. As stated earlier, one example is District C, which contains only 18% of the literature from the measure in this study, yet has the highest percentage of underrepresented students of the four districts analyzed. The disparity of multicultural books across schools in the different districts remains clear. As a general theme, the findings in Treasure Valley schools suggest significant differences in the availability of multicultural literature from district to district, and even from school to school, with no pronounced pattern in particular.

The lack of multicultural literature significantly increases the chance that students from underrepresented backgrounds are not represented in school literature. For some students this could mean receiving subtle messages that their culture is not as important as the dominant culture. For other students it could mean that cultures different than their own are not as important, and therefore, their culture continues to be the most important. It is possible that students may associate this feeling not only to the school library, but the school in general, the community, and eventually society as a whole.

Acknowledgements

The author wishes to express her appreciation to the McNair Scholars Program, her faculty mentor Dr. Arturo Rodriguez, Helen Barnes, Greg Martinez, and her family and loved ones.

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Positive Youth Development and Substance Use in Emerging Adults

Stevy Scarbrough: McNair Scholar

Dr. Mary Pritchard: Mentor

Psychology

Abstract

Problem: According to the Centers for Disease Control and Prevention’s (CDC) bi-annual National Youth Risk Behavior Survey (NYRBS), nearly 45% of all teens have smoked cigarettes at some point, nearly 71% have tried alcohol, and 40% have tried marijuana. Many potential factors have been identified as having a positive effect in treatment and cessation programs for at-risk adolescent populations, but research investigating the effects of these factors in prevention is still limited in scope. The present study examines relationships between risky health behaviors of freshman college students and the five Cs of positive youth development: competence, confidence, connection, character, and caring. Procedure: 204 emerging adult (18-19) college students who were involved in after school activities in high school completed the Positive Youth Development Inventory (PYDI) which measures the five Cs of positive youth development. We also included the substance use questions from the NYRBS. Results: Our data indicate that students who reported high levels of competence, confidence, and caring reported lower use of alcohol and marijuana. Conclusions: It appears that after school programs do foster the five Cs of positive youth development and may offer protective effects on underage drinking and marijuana use.

Positive Youth Development and Adolescent Substance Use

Past theories of development have viewed adolescence as a time of storm and stress in which adolescents are troublesome and need fixing (Tebes et al., 2007). Researchers now see the need to focus on enhancing youth development through examining positive aspects rather than focusing on youth deficits (Barton, Watkins, & Jarjoura, 1997). This movement is known as positive youth development and emphasizes a strengths-based approach to promote positive outcomes (Tebes et al., 2007). The positive youth development perspective views development as having relative plasticity, which can promote desired outcomes as well as prevent undesirable ones.

Lerner et al. (2005) report empirical evidence for five proposed characteristics (the five Cs: competence, confidence, connection, character, and caring) that comprise positive youth development in adolescents who participate in 4-H programming. Bowers et al. (2010) conducted a confirmatory factor analysis of the five Cs, in early, middle, and late adolescents. Table 1 provides the definitions of the five Cs as given in Bowers et al. (2010). The presence of the five Cs together, representing positive youth development, creates a sixth C, contribution. Lerner et al. established a relationship between participation in youth programs, positive youth development, and contribution.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>Positive view of one’s actions in domain specific areas including social, academic, cognitive, and vocational. Social competence pertains to interpersonal skills (e.g., conflict resolution). Cognitive competence pertains to cognitive abilities (e.g., decision making). School grades, attendance, and test scores are part of academic competence. Vocational competence involves work habits and career choice explorations, including entrepreneurship.</td>
</tr>
<tr>
<td>Confidence</td>
<td>An internal sense of overall positive self-worth and self-efficacy; one’s global self-regard, as opposed to domain specific beliefs.</td>
</tr>
<tr>
<td>Connection</td>
<td>Positive bonds with people and institutions that are reflected in bidirectional exchanges between the individual and peers, family, school, and community in which both parties contribute to the relationship.</td>
</tr>
</tbody>
</table>
Jelicic, Bobek, Phelps, Lerner, and Lerner (2007) found support for positive youth development as a method of fostering beneficial attitudes that can be described and measured. Jelicic et al. also reported that positive youth development predicts higher contribution and reduced levels of risk behaviors. Similarly, Schwartz et al. (2010) suggest that positive youth development acts as a protective factor for risk behaviors, specifically tobacco and marijuana initiation. But Schwartz et al. also found that the positive social relationships promoted by positive youth development may result in a higher risk of alcohol use among adolescent males by creating more social opportunities where alcohol is consumed. Thus, Schwartz et al. reported that although positive youth development has a preventive effect, it may also be a promotive process that can redirect negative trajectories.

Given the apparent success of programs emphasizing positive youth development, one would think that these programs abound. The need for community-based prevention programs is four-fold: substances are not restricted to any particular subgroup and can be found throughout the community; treatments that are widespread tend to be more effective than those that are less broad; substance use and abuse tends to be an embedded norm in the community; and underlying community causes related to substance use can be addressed through community efforts (Perry, 1986). Under these guidelines, after school organized activities seem to be appropriate prevention-aimed programs.

The five Cs have been studied extensively within the 4-H program, but have yet to be examined in other youth programs. In addition, very few studies have examined the potential protective effects of the five Cs in regard to adolescent health risk behaviors such as alcohol, tobacco, and illicit drug use. The present study seeks to determine whether emerging adults who participated in an organized after school activity in high school have a reduced likelihood of participating in common health risk behaviors, including the consumption of alcohol, tobacco, and illicit drugs. We hypothesize that emerging adults who possess the five Cs will report lower use of alcohol, tobacco, and marijuana.

**Method**

**Participants**

After acquiring informed consent, 204 emerging adult students who were enrolled in PSYC 101 at a state university in the Rocky Mountain region completed an online survey. All participants were first semester college students between the ages of 18–19 (53 males, 149 females, 1 transgender, 1 no response), had graduated from high school within the past year, and had participated in an organized after school activity while in high school. Participants were asked to report a specific activity that they participated in. A majority of participants were White (85%). The remaining participants were Hispanic/Latino/Spanish (3.9%), Multiethnic/Multiracial (3.4%), Black/African American (2.9%), Asian/Pacific Islander (2.4%), American Indian/Alaska Native (2%), and Other (.4%). The Institutional Review Board approved all study procedures before data collection commenced.

**Measures**

*Positive youth development inventory (PYDI).* Positive youth development was measured using Arnold, Nott, and Meinhold's (2012) Positive Youth Development Inventory (PYDI). The PYDI is a 58-item survey designed to measure the five Cs of positive youth development with six subscales: competence, confidence, connection, character, caring and contribution. Participants with $M \geq 3.00$ for each subscale indicate agreement with the items on the scale and are considered to possess that characteristic for this study.

*Competence.* The Competence subscale has 14 items and includes questions such as “I am a good student” and “I feel comfortable in social situations.” Participants responded to each item using a 4-point Likert scale with 1 = *Strongly Disagree* and 4 = *Strongly Agree*. Higher scores indicate a higher degree of competence ($\alpha = .82$ for the current study).
**Confidence.** The Confidence subscale has 9 items and includes questions such as “I feel accepted by my friends” and “I know how to behave well in different settings.” Participants responded to each item using a 4-point Likert scale with 1 = *Strongly Disagree* and 4 = *Strongly Agree*. Higher scores indicate a higher degree of competence (α = .85 for the current study).

**Connection.** The Connection subscale has 8 items and includes questions such as “I think it is important to be involved with other people” and “I have adults in my life who are interested in me.” Participants responded to each item using a 4-point Likert scale with 1 = *Strongly Disagree* and 4 = *Strongly Agree*. Higher scores indicate a higher degree of competence (α = .87 for the current study).

**Character.** The Character subscale has 9 items and includes questions such as “I am able to stand up to peer pressure when I feel something is not right to do” and “If I promise to do something, I can be counted on to do it.” Participants responded to each item using a 4-point Likert scale with 1 = *Strongly Disagree* and 4 = *Strongly Agree*. Higher scores indicate a higher degree of competence (α = .89 for the current study).

**Caring.** The Caring subscale has 8 items and includes questions such as “When there is a need, I offer assistance whenever I can” and “Other people’s feelings matter to me.” Participants responded to each item using a 4-point Likert scale with 1 = *Strongly Disagree* and 4 = *Strongly Agree*. Higher scores indicate a higher degree of competence (α = .91 for the current study).

**Contribution.** The Contribution subscale has 7 items and includes questions such as “It is important for me to try and make a difference in the world” and “I like to work with others to solve problems.” Participants responded to each item using a 4-point Likert scale with 1 = *Strongly Disagree* and 4 = *Strongly Agree*. Higher scores indicate a higher degree of competence (α = .89 for the current study).

**National youth risk behavior survey (NYRBS).** The National Youth Risk Behavior Survey is conducted biennially by the CDC. The NYRBS is an 87-item scale designed to monitor six priority health risk-behaviors, behaviors contributing to unintentional injuries and violence, use of tobacco, use of alcohol and other drugs, sexual risk behaviors, unhealthy dietary behaviors, and physical inactivity, among adolescents and young adults. For the purpose of this study, 20 items were included that asked participants about their experiences with alcohol, tobacco, and both illicit and prescription drug use. Sample questions include “Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days;” “How old were you when you had your first drink of alcohol other than a few sips;” and “During your life, how many times have you used marijuana?” Answers were presented in a multiple choice format. Questions had between two and seven possible answer choices including “Yes/No,” age ranges, and number of times a participant had engaged in using a substance.

**Results**

Mean scores for all participants were calculated on each C subscale. Participants whose scores were greater than 3.00 for all Cs were determined to possess all five Cs. Our results indicate that 87% of emerging adults who participated in an after school activity possessed all five Cs. Twenty-six participants did not indicate possessing all five Cs, but 6 possessed four Cs, 5 possessed three Cs, 9 possessed two Cs, 3 possessed one C, and only 3 participants did not indicate possessing any of the five characteristics at all. Our results also suggest that the sixth C, contribution, is also present among emerging adults who possess all five Cs with r = .68, p < .01.

As displayed in Table 2, our data suggest that the presence of all five Cs as well as the individual characteristics: competence, character, caring, connection, and contribution are significantly correlated with the age at which marijuana was first tried and the total lifetime use of marijuana. The presence of all five Cs, as well as the individual characteristics: competence, character, caring, and contribution, are significantly negatively correlated with lifetime alcohol use, past 30 days of alcohol use, and binge drinking, as displayed in Table 3.
Table 2. Five Cs of Positive Youth Development and Marijuana Use

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Age first tried marijuana</th>
<th>Number of days marijuana use, lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>-.15*</td>
<td>-.21**</td>
</tr>
<tr>
<td>Confidence</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Character</td>
<td>-.15*</td>
<td>-.25**</td>
</tr>
<tr>
<td>Caring</td>
<td>-.16*</td>
<td>-.20**</td>
</tr>
<tr>
<td>Connection</td>
<td>-.16*</td>
<td>-.18*</td>
</tr>
<tr>
<td>Five Cs</td>
<td>-.16*</td>
<td>-.22**</td>
</tr>
<tr>
<td>Contribution</td>
<td>-.17*</td>
<td>-.18*</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level.
*Correlation is significant at the 0.05 level.

Table 3. Five Cs of Positive Youth Development and Alcohol Use

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number of days alcohol consumption, lifetime</th>
<th>Number of days alcohol consumption, past 30 days</th>
<th>Binge Drinking, past 30 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>-.24**</td>
<td>-.20**</td>
<td>-.17*</td>
</tr>
<tr>
<td>Confidence</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Character</td>
<td>-.23**</td>
<td>-.25**</td>
<td>-.23**</td>
</tr>
<tr>
<td>Caring</td>
<td>-.21**</td>
<td>-.18*</td>
<td>-.18*</td>
</tr>
<tr>
<td>Connection</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Five Cs</td>
<td>-.20**</td>
<td>-.17*</td>
<td>-.14*</td>
</tr>
<tr>
<td>Contribution</td>
<td>-.23**</td>
<td>-.20**</td>
<td>-.22*</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level.
*Correlation is significant at the 0.05 level.

Discussion

The present study sought to determine whether emerging adults who participated in an organized after school activity in high school had a reduced likelihood of participating in common health risk behaviors, including the consumption of alcohol, tobacco, and illicit drugs. Our hypothesis was partially supported. Similar to Schwartz et al. (2010) we found that the five Cs did significantly correlate with lower rates of alcohol and marijuana use. However, in contrast to Schwartz et al. (2010) our study did not find significant correlations between the five Cs and tobacco use. Further investigation should examine possible differences in smoking culture among participants who possess the five Cs. These differences may exist because of a difference in severity of penalty for smoking violations of minors. Cities that discourage public smoking may also have an effect on smoking rates among adolescents and emerging adults.

The results of this study also indicated that the five Cs were related to a sixth C, contribution, similar to studies by Lerner et al. (2005), Lewin-Bizan, Bowers, and Lerner (2010), and Phelps et al. (2009). The findings of this study add to the current literature on the five Cs model because they demonstrate the ability of adolescents to develop these characteristics in programs other than 4-H. The 4-H program is not accessible to all youth and thus having other programs available that can promote the five Cs can be of great benefit.

Though this study finds support for a relationship between the five Cs and substance use levels, it does have limitations. First, the sample of participants was mostly white (85%), but reflected the make-up of the population of university students where the study was conducted. Due to limited diversity of race and ethnicity, it is difficult to generalize these results across ethnicities. Future studies should investigate the five Cs and substance use among minority populations. Second, this study did not examine participants who were not involved in an organized after school activity. Future studies should compare participants in organized after school activities and those not in organized after school activities to assess levels of the five Cs and levels of substance use. Future studies should also
compare different organized after school activities to examine what types of activities have a greater impact on the development of the five Cs and substance use.

**Conclusion**

The National Youth Risk Behavior Survey in 2011 indicated that nearly 45% of teens have smoked cigarettes, 71% have tried alcohol, and 40% have tried marijuana at some point during their adolescence. Although there are many after school programs, research regarding these programs’ ability to promote youth strengths is limited. One particular model of positive youth development, the five Cs model, has been extensively studied among 4-H programs, but not in other programs. The present study examined the presence of the five Cs in emerging adults who participated in organized after school activities other than 4-H, and levels of substance use among participants. We found that the presence of the five Cs was related to levels of contribution and alcohol and marijuana use.

The findings of this study illustrate the importance of organized after school activities for adolescents and emerging adults. Organized after school activities can lead to the development of positive attributes, including the five Cs: competence, confidence, character, caring, and connection. The possession of these positive attributes in adolescents and emerging adults impacts substance use levels, possibly acting as a buffer against their use. High school and college counselors are advised to encourage their students to participate in organized after school activities.

**Acknowledgement**

This research was supported by a grant from the Ronald E. McNair Scholars program. The author wishes to express her appreciation to the McNair Scholars program, her mentor, Dr. Mary Pritchard, and her father, Dwight Scarbrough.

**References**


Career-Decision Self-Efficacy among College Students with Symptoms of Attention Deficit Disorder

Charlotte Tomevi: McNair Scholar

Dr. R. Eric Landrum: Mentor

Psychology

Abstract

Compared to the general college population, students with attention deficit disorder are less academically prepared with the skills to maintain college course requirements. This inadequacy is due to the change in academic structure, time management, and the skills required for higher education. The goal of this study is to expand on previous research regarding college students with ADD and to understand how the symptoms of ADD influence college students' future plans for careers. Providing academic institutions with knowledge of how symptoms of attention deficit disorder affects college students and their future career planning may assist advisors in providing students with services and treatment options to increase retention and career commitment.

College is a time when students make crucial life and career decisions. For some students, this is the first time they are without parental guidance. An estimated 2% to 4% of young adults pursuing a post-secondary education struggle with symptoms of attention deficit disorder (ADD), a disorder which poses difficulties for these college students that encounter transitional challenges and have difficulty maintaining academic demands (Bolaski & Gobbo, 1999; Lee, Oakland, Jackson, & Glutting, 2008; Weyandt & DuPaul, 2006). College students diagnosed with ADD are comprised of a significant and growing population when compared to their undiagnosed counterparts (Dipeolu, 2011, DuPaul et al., 2001; DuPaul, Weyandt, O’ Dell, & Varejao, 2009). As the number of diagnosed college students continues to rise, the question of their abilities to make career decisions becomes more important (Dipeolu, 2011).

Career-Decision Self-Efficacy

Researchers in the areas of career decidedness, career maturity, and career exploration address career decision-making (Creed, Patton, & Prideaux, 2006; Dipeolu, 2011; Hackett & Betz, 1981; Luzzo, 1993; Luzzo, 1996; Luzzo, Hitchings, Retish, & Shoemaker, 1999; Taylor & Betz, 1983); however, there is limited research available on career decision and factors associated with persons with disabilities, specifically ADD (Luzzo et al., 1999). Hackett and Betz (1981) were the first to apply self-efficacy to career psychology and counseling. Shortly after, Taylor and Betz (1983) constructed the measure, Career-Decision Self-Efficacy Scale, to assess an individual’s self-efficacy expectations and how those expectations apply to career-decision tasks and behaviors (Luzzo, 1993). Career-decision self-efficacy is an individual’s belief in their ability to make career decisions (Betz & Luzzo, 1996), which is related to Bandura’s concept of self-efficacy, meaning that an individual’s belief in one’s capabilities to successfully perform influences behavioral choices and performance (Betz, Klein, & Taylor, 1996). If Bandura’s self-efficacy theory is applied to career decision-making, establishing low levels of career-decision self-efficacy may lead to inhibition of career-decision, whereas high levels of career-decision self-efficacy will lead to increased involvement in career-decision behaviors (Luzzo, 1996). College students with ADD may possess lower levels of confidence when compared to their non-diagnosed peers, thus leading to lower levels of career-decision self-efficacy (Luzzo et al., 1999; Shaw-Zirt, Popali-Lehane, Chaplin, & Bergman, 2005). Low levels of career-decision self-efficacy may identify the degree to which students with ADD have confidence in their abilities to engage in educational planning and decision-making. According to previous researchers, the lack of career decision-making is positively correlated with problems in career exploration and career indecisiveness. In a study conducted by Creed et al. (2006), 50% of college freshmen experience career indecision and would like assistance in making career decisions. In addition, Betz and Klein (1996) suggested that career-decision self-efficacy is strongly related to
both statements of and actual difficulties in making and implementing career decisions. Taylor and Betz (1983) reported undergraduates that declared undecided as their major reported less confidence in their abilities to make career decisions. According to a 15-year longitudinal study of children with ADD, less than 5% completed college and more than 40% of their non-ADD peers completed college (Turnock, Rosen, & Kaminski, 1998). Furthermore, an individual’s career-decision self-efficacy should predict their implementation of career decision-making (Luzzo, 1993). As a result, a college student’s ability to thrive in post-secondary education influences their success and self-efficacy. Moreover, deficits in self-esteem associated with ADD can influence academic adjustment (Shaw-Zirt et al., 2005).

Academic Adjustment

The adjustment that college students endure relates to their attachment to college, personal-emotional adjustment, and goal commitment. How college students meet the demands of adjustment is referred to as academic adjustment, which is the independent functioning in which an individual is prepared to accommodate academic demands (Feldt, Graham, & Dew, 2011). College provides an environment that is less structured than secondary education, which may increase potential for added distractions in college than students with ADD are adapted to (Norwalk, Norvilitis, & MacLean, 2009). Lack of structure in a college environment may influence individuals with ADD to struggle with developing an academic schedule, developing internal motivation, and psychological functioning (Feldt et al., 2011). Shaw-Zirt et al. (2005) reported that college students with ADD scored significantly lower than non-ADD on the overall score of the student adaptation to college scale. According to Shaw-Zirt et al. (2005), college students with ADD are more likely to struggle with overall academic adjustment. In contrast, Rabiner et al. (2008) found college students with ADD are more likely to adjust and attain academic success than the general ADD population. The transition into a post-secondary education is critical for student academic success, especially students with ADD (Feldt et al., 2011). The decision to attend and remain at an academic institution also plays a role in student’s adjustment to college. This decision may be affected by the student remaining aware of the importance of getting a degree and clearly defining academic goals. The academic goals of the student may influence their decision to remain at an institution and determine if their current institution is a good fit. In addition, this may be due to the fact that the student is unaware of institutional resources and utilizing the guidance from an academic advisor (Feldt et al., 2011). The percentage of students who utilize institutional resources remains unknown because students are not required to disclose their disabilities to the institution (Norvilitis, Sun, & Zhang, 2010). The institutional fit for the student plays a crucial role in how students adapt and may impact their career decision. With the increase of young adults with ADD enrolling into universities and the varied results of previous studies examining academic adjustment in students with ADD further examination of institutional fit is necessary (Rabiner et al., 2008).

Attention Deficit Disorder

ADD is a common childhood developmental disorder characterized by impulsive behaviors, distractibility, and the inability to remain focused on tasks or activities (Booksh, Pella, Singh, & Gouvier, 2010; DuPaul, et al., 2009; Thackery & Harris, 2003; Weyandt, Linterman, & Rice, 1995). ADD symptoms include impulsivity that causes an individual to act on urges of environmental demands (Spinella & Miley, 2003) and inattention, which is characterized by limitations on high order cognitive functioning including organization, planning, memory, and self-monitoring (Conners et al., 1999a). ADD symptoms affect approximately 3% to 7% of children (Knouse & Safren, 2010; Levine & Anshel, 2011; Ramsay & Rostain, 2007; Spencer et al., 1996). In addition, up to 70% of children diagnosed continue to display symptoms of ADD into adolescence and adulthood (Heiligenstein, Conyers, Berns, & Smith, 1998a; Lee et al., 2008; Weyandt & DuPaul, 2006). ADD, when untreated in childhood, leads to negative effects on a child’s social and educational performance, which can seriously damage one’s sense of self-esteem (Thackery & Harris, 2003).

Attention Deficit Disorder and College Students

ADD is the second most common learning disability subsequent to dyslexia, the most common learning disability affecting college students (Faigel, 1995). Some ADD symptoms, such as hyperactivity, decline in young adulthood, but impulsivity and inattention remain apparent in 50% of individuals with ADD through adulthood (Thackery & Harris, 2003). Heiligenstein et al. (1998a) studied 1,080 college freshmen; 47 of the students were
previously diagnosed with ADD, and these researchers reported that total symptom hyperactivity decreased with increasing age and there were no gender differences in inattention levels. Research regarding college students and ADD is limited in comparison to the availability of research among school age children and adults with ADD; thus, research outcomes addressing ADD and college students would be valuable additions to the existing literature.

According to Weyandt and DuPaul (2006), approximately 2% to 4% of college students exhibit symptoms of ADD. A contributing factor identified in previous research is that school age children with ADD remain unidentified until they reach post-secondary education. Compared to the general college population, students with ADD are less academically prepared and lack the skills to maintain college course requirements, which places them at risk for school dropout, underachievement, and emotional impairment (Heiligenstein et al., 1998a; Lee et al., 2008; Wolf, 2001). DuPaul et al. (2009) indicated this inadequacy is due to the change in academic structure, time management, and the skills required for a higher education, which highlight the symptoms of ADD that college students struggle to cope with. In addition, students with symptoms of ADD struggle to earn a post-secondary education. Students with ADD in comparison to their non-ADD counterparts are more likely to discontinue their post-secondary education earlier than those without ADD (Lee et al., 2008). According to Lee et al., (2008) approximately 5% of students with ADD graduate college, whereas 41% without ADD graduate from college (Barkley, Fischer, Edelbrock, & Smallish, 1990). With ADD continuing into young adulthood and remaining apparent in post-secondary education research is clearly warranted in the examination of how symptoms of ADD affect college student’s career decision.

**Present Study**

The goal of this study is to expand on previous research regarding college students with ADD and to understand how the symptoms of ADD influence college students’ future plans for careers. For this study, I will conduct a stepwise multiple regression to assess predictor variables and analyze their contribution to college students’ career-decision self-efficacy. I hypothesize that the possible six predictors of career-decision self-efficacy (self-appraisal, occupational information, goal selection, planning, problem solving, and total career-decision self-efficacy) will increase college students’ academic adjustment. In addition, I hypothesize that all other predictors will influence career-decision self-efficacy.

**Method**

**Participants**

Participants were undergraduate students enrolled in a general psychology course at a Western university. Participants volunteered and self-selected into the study through web-based Sona software for course credit. There were 257 participants: 131 males and 126 females. The students ranged in age from 18 to 88 years old ($M = 20.93$, $SD = 6.36$). I received approval from university’s Institutional Review Board; all participants provided informed consent.

**Materials**

*Career-decision self-efficacy.* Participants were assessed using the career-decision self-efficacy scale (Betz & Luzzo, 1996). The career-decision self-efficacy measures an individual’s beliefs and attitudes that he or she can complete necessary tasks to make career decisions (Betz & Luzzo 1996). The career-decision self-efficacy is a significant predictor of persistence in college when matched with a student’s needs, preferences, and interests within the university he or she is attending (Norwalk et al., 2009). Example items include “Plan course work outside of your major that will help you in your future career.” Participants rated items on a 5-point Likert-type scale ranging from 1 = *no confidence at all* to 5 = *complete confidence*. Validity tests conducted by Luzzo (1996) revealed a significant positive relationship between career decision-making attitudes and career-decision self-efficacy scores ($r = .41$). Students who retain mature attitudes toward the career-decision process will have higher scores on the career-decision self-efficacy. The reliability coefficient of the career-decision self-efficacy scale ranges from .83 to .97 (Betz et al., 1996; Luzzo, 1996; Nilsson, Schmidt, & Meek, 2002). Luzzo (1996) investigated the career-decision self-efficacy in a 6-week test-retest of the career-decision self-efficacy total score and revealed a coefficient of .83.
Academic adjustment. The Student Adaptation to College Questionnaire (SACQ) is a 67-item questionnaire that measures four components of college adjustment: academic, social, personal-emotional, and institutional attachment (Feldt et al., 2011). Participants are assessed on a 9-point scale ranging from 1 = applies very closely to me to 9 = does not apply to me at all. An example item includes “Is definite about reasons for being in college.” Dahmus (1992) and Feldt et al. (2011) reported a strong reliability of the subscale academic adjustment with a coefficient range .85 to .91. According to Dahmus (1992), a significant positive correlation exists between academic adjustment and GPA (.17 to .53, p < .01), indicating that the SACQ has predictive validity between relationships of SACQ scales and independent real-life behaviors and outcomes.

Attention deficit disorder. Participants were assessed using 66-item Conners’ Adult ADHD Rating Scale (CAARS) that measures four facets, including: 1) Inattention/Executive Functioning—self-regulation, organization, prioritization, time-awareness, and planning; 2) Hyperactivity/Restlessness; 3) Impulsivity/Emotional Lability; and 4) Problems with Self-Concept (Conners, 1999b; Conners et al, 1999a). Example items include “I’m always moving even when I should be still.” Participants rated items ranging from 0 = not at all, never to 3 = very much, very frequently. High scores within this scale indicate the individual has difficulties that may include poor social relationships and low self-esteem and self-confidence. Conners et al. (1999a) examined validity criterion using a sample of adults with ADHD matched with normal control participants results in preliminary data demonstrating 87% overall correct classification rate. In addition, examining relationships between childhood and current symptoms the four scales of the CAARS has significant test-retest reliability and construct validity that ranges from .37 to .67 (Conners et al., 1999a). A study conducted by Conners et al. (1999a) consisted of 799 adults ages ranging from 18 to 81 (M = 39.18, SD = 6.36) resulted in a strong test-retest reliability for the subscales Inattention Problems, .90 (p < .05) and Impulsivity/Emotional Lability, .91 (p < .05).

Depression. The Center for Epidemiological Studies Depression Scale (CES-D) was designed to identify the epidemiology of depressive symptoms and measure the current level of depressive symptoms in the general population (Radloff, 1977). The scale is comprised of 20 items based on symptoms of depression. Example items include, “I was bothered by things that usually don’t bother me” (Radloff, 1977). The CES-D Scale is used to control for comorbidity of depressive symptoms with ADD. Research indicates increased rates of comorbidity between depression symptoms and ADD symptoms (Murphy & Barkley, 1996; Norwalk et al., 2009; Torgersen, Gjervan, & Rasmussen, 2006). Studies validate high internal consistency, adequate test-retest stability, and strong reliability (Cole, Rabin, & Smith, 2004; Radloff, 1977).

Procedure

Participants electronically agreed to provide informed consent by checking a designated box. The participants participated in an online survey through Experimetrix. Participants answered a 206-item survey that took participants approximately one hour to complete. Upon completion, participants were debriefed and thanked for their participation.

Results

A significant negative relationship was found between inattention and career-decision self-efficacy measures, \( r(234) = -.35, p < .001 \), indicating that the more inattention reported, the less career-decision self-efficacy reported, or vice versa. Also, a significant negative relationship emerged between impulsivity and career decision, \( r(236) = -.20, p = .002 \), signifying an increase in impulsivity is associated with decreased career-decision self-efficacy, or vice versa.

A statistically significant relationship did not emerge between academic adjustment and inattention, \( r(252) = .08, p = .193 \), therefore suggesting college students with inattention problems will not have difficulty with academic adjustment. In addition, no significant relationship emerged between impulsivity and academic adjustment, \( r(254) = .07, p = .264 \). No significant relationship was found between academic adjustment and career-decision self-efficacy, \( r(236) = .08, p = .176 \).

To assimilate the differences in relationship between measures a multiple regression analyses was conducted in this study using a single model explaining career-decision self-efficacy. The independent variables CAARS ADHD Index, Attachment, and CESD Total were predictors of CDSE Total. The model produced an \( R^2 = .147 \), which was statistically significant \( F(3,218) = 12.57, p < .001 \). With regard to regression results, there is a
significant negative relationship between CAARS ADHD Index and CDSE Total (B = -1.0, t = -2.92, p < .001). Therefore, fewer symptoms of ADHD indicated more career-decision self-efficacy, or vice versa. Attachment Total score was positively related to CDSE Total (B = 1.3, t = 3.22, p < .001), or increased institutional and general attachment indicated more career-decision self-efficacy. CESD Total was negatively related to the CDSE Total (B = -0.5, t = -2.54, p < .001), therefore the more depressed an individual is the less career-decision self-efficacy they have.

**Discussion**

College students’ ability to thrive in post-secondary education influences their success and self-efficacy. My goal was to expand on previous research regarding college students with ADD and to understand how the symptoms of ADD influence college students’ future plans for careers. I examined six predictors of career-decision self-efficacy (self-appraisal, occupational information, goal selection, planning, problem solving, and total career-decision self-efficacy), and of the six predictors, I found a relationship between symptoms of ADD, institutional attachment, and depression.

Based on the data collected, a relationship emerged between students that self-reported increased symptoms of ADD and decreased career-decision self-efficacy, which signifies that an individual’s career-decision self-efficacy should predict his or her implementation of career decision-making (Luzzo, 1993); thus, identifying the degree to which students with ADD have confidence in their ability to engage in educational planning and decision-making. Students that self-reported increased symptoms of ADD had decreased career-decision self-efficacy. I believe that the results of the current study also emphasize the outcomes by Norwalk et al. (2009): the relationship between college students’ self-reported inattention and impulsivity and career-decision self-efficacy signifies that with increased symptoms of ADD, college students’ career-decision self-efficacy decreased. This means students with ADD report lower levels of confidence, therefore decreasing their career-decision self-efficacy and inhibiting their ability to make career decisions. Moreover, students with ADD appear to struggle with planning for their future.

According to the current study outcomes, I suggest that students with symptoms of ADD do not struggle as much with academic adjustment. These findings are in contrast to the findings reported by Shaw-Zirt et al. (2005), which examined students’ adaptation to college and suggested that students with ADD struggle with overall academic adjustment. The institutional fit for the student plays a crucial role in how the student adapts and may have an impact on the student’s career decision. In addition, the college environment contains a much less structured learning environment with added distractions that some students with ADD are not accustomed to (Norwalk et al., 2009). In contrast to previous findings, students with ADD do not have difficulty adapting to the college environment. Therefore, students with ADD are able to adapt to the environment. In this study, further investigation of academic adjustment was examined, and results indicated a positive relationship between career-decision self-efficacy and institutional attachment. Institutional attachment includes a student’s decisions and judgments to attend an institution and a student’s thoughts of transferring to another institution (Feldt et al., 2011). According to my results, students with ADD have the ability to adapt to their environments, which may influence their decisions to remain at the institutions of their choice. Therefore, based on the findings in the current study, I suggest it is not the institution that hinders the student but the student’s increased symptoms of ADD. Further investigation of institutional attachment needs to be examined to gain a better understanding of the factors that may influence institutional attachment.

In addition to academic adjustment, it is important to consider depression because there is a strong relationship between depression and symptoms of ADD. Torgersen et al. (2006) indicated high rates of comorbidity between depression and ADHD in adults. In addition, there is a strong relationship between depression and academic adjustment; therefore, it was important to control for depression in this study (Nelson & Gregg, 2012; Norwalk et al., 2009). The results in the current study suggest that students with increased symptoms of depression will have decreased career-decision self-efficacy. This is in accordance with previous research, which suggests there is an association between depression and academic difficulties and indicates that college students with learning difficulties may be at risk for developing depression (Nelson & Gregg, 2012). A study conducted by Rabiner et al. (2008) found that college students that self-reported a previous diagnosis of ADHD indicated increased symptoms of depression, which is in contrast to a study conducted by Heiligstein et al. (1999b), which failed to find differences of symptoms of depression in college students with or without ADHD. With diverse findings and limited research on depression and ADD, further examination of ADD and symptoms of depression is necessary to expand the understanding of this topic.
College students that struggle with ADD may have difficulty making career decisions and planning for their future. On the contrary, students’ academic adjustment and intuitional attachment does not negatively influence their career decision-making. I speculate that the academic environment does not hinder students with ADD in making career decisions; however, the increase in symptoms of ADD interferes with students’ abilities to make career decisions. One limitation in this study was the lack of ethnic diversity to differentiate how symptoms of ADD effect general college populations. Future research may want to conduct data collection where a more diverse subject pool can be obtained. I obtained self-reported symptoms of ADD, and without an informant report from a close relative or guardian to complement the data collected, there is a possibility of response error and a decrease in accurate information.

Apart from the limitations of this study, it is among few studies that examine career decision-making and symptoms of ADD. Based on the results of this study, students with ADD do not struggle with academic adjustment and intuitional attachment, but they do struggle with making and implementing career decisions and symptoms of depression. Future researchers should examine intuitional attachment. This will supply researchers and academic institutions with additional knowledge to aid in understanding students’ reasoning for attending an institution and remaining at that institution. Furthermore, my results may have implications for academic institutions that aim to improve retention. It may provide compensation for institutions to assist students with ADD to improve poor academic skills, low career-decision self-efficacy, and decrease college dropout rates (Norvilitis et al., 2010). Providing academic institutions with the knowledge of how symptoms of ADD affect college students and their future career planning will in turn assist academic institutions in providing students with services and treatment options to increase retention and career commitment. A longitudinal study would provide academic institutions further direction on this issue.

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The Racialized Experiences of Video Games

Mario Venegas: McNair Scholar

Dr. Arthur Scarritt: Mentor

Sociology

Abstract

This research explores the ways different people experience the racial content of video games. Building on DeVane and Squire, this research speaks to content analyses literature that shows games as modern minstrelies. Using Bonilla-Silva's definition of Racial Ideology in conjunction with Winddance-Twine's concept of Racial Literacy, I examined racial ideology and its role as an interpretative framework. I also used Bourdieu's notion of cultural capital to account for video game cultural knowledge. Data were collected through personal interviews where participants played the video game Grand Theft Auto: The Ballad of Gay Tony for 30-50 minutes. A sample of 31 participants covering variation in gender, gaming experience, and race answered questions assessing their racial ideology, then played the game introduction, and finally, answered questions assessing interpretations of game content. Racially aware people with little gaming experience echoed the content analysis minstrelsy findings while colorblind racist non-gamers believed the content accurately represented the world. However, deeper familiarity with gaming and other mass media opened up a new interstitial space for challenging the racial status quo. Racially aware gamers saw the franchises as lampooning the shallow stereotypes in mainstream society. More importantly, with a more sophisticated media context, many colorblind racist gamers also saw racial representations as intentionally offensive. Gamers herein create inventive, non-threatening, but meaningful ways to address racialization across a spectrum of racial literacies. As a result, content analyses need a richer understanding of the experiences of video games for consumers.

The Story Thus Far

The video game industry is one of the fastest growing businesses with sales of at least $6 billion in the year 2000 (Leonard, 2003, 2006) and $25 billion in the year 2010, outselling the music and the film industry in the United States (digitalbattle, 2010; vgchartz, 2011). Likewise, video games have also made their way into the classroom with the use of educational video games, software, and interactive curricula that use alternative methods of teaching (ESA, 2011; Everett & Waitkins, 2008). However, the rise of this industry has also created controversies in game content. Some famous titles include Resident Evil 5, which was accused of racist depictions of black men as zombies in a supposed rape scene against a white woman, and Grand Theft Auto IV, regarding the sexualized and racial content in the game’s spoof on New York City (IGN, 2009; Leonard, 2003; Rockstar 2007).

Grand Theft Auto: San Andreas, along with many other games in the video game franchise, spurred research and debate in academia on the impact of video game content on audiences, primarily children. Most notably, members of the American Psychological Association conducted research that sought to establish a causal relationship between violent video games and violent behavior (Anderson & Dill, 2000; DeVane & Squire, 2008; Leonard, 2003; Barrett, 2008; Mou & Peng, 2009). The racial and gender content in video games has also been extensively studied across video game titles spanning generations from the Nintendo Entertainment System to more contemporary titles such as the Grand Theft Auto series and Bully, both from the same developing company, Rockstar North (DeVane & Squire, 2008; Dietz, 1998; Everett & Waitkins, 2008; Leonard, 2003, 2006; Mou & Peng, 2008).

The racial content in video games speaks to Omi and Winant’s concept of “racialization” in the application of racial constructions to video games (Omi & Winant, 1994). Building from racialization, Everett and Waitkins contend that racialization in video games is a reflection of the current racial order in modern society and a form of modern minstrelsy, similar to the blackface archetype used in past media (Everett and Waitkins, 2008). In addition, most social scientists agree that race is a socially constructed term that plays a significant role in society (Bonilla-Silva, 2003; Gallagher, 2003; Winant, 2000; Wise, 2010) and that US society is now in a “colorblind, post-racial order,” an ideology that frames discourse on racial inequality and is a major dominant ideological framework today.
(Bonilla-Silva, 2003). Furthermore, Gallagher posits that race has become commodified and that it can be something to be consumed such as ethnic products (Gallagher, 2003). Building from that thesis and incorporating Omi and Winant’s concept of racialization, David Leonard primarily posits that race is commodified in video games through interaction with the game (Leonard, 2006). I will be further expanding on race and video game content analysis in my literature review.

An aspect in the existing literature that needs to be explored is how video game knowledge impacts interpretation of racialized content. In other words, does having technical and cultural knowledge of the video game world mediate the racialized content of video games in combination with players’ racial ideology? While video games reproduce race as a lived experience (Leonard, 2003; Everett & Waitkins, 2008), I posit that racial lens and video game cultural capital create innovative ways to engage racial content. In other words, players’ particular positions in racial lens and video game cultural capital create different experiences as they immerse themselves in the game’s racial semiotics. Bordieu (1986) describes cultural capital in three forms; they are embodied, objectified, and institutionalized. As such, cultural capital in video games is embodied by knowledge of the industry, developed video game skills through particular genres of games, and assimilated knowledge of the aspects of games such as plot, graphics, game controls, and aesthetics vis-à-vis mass media (Bourdieu, 1986).

Similarly, the racial lens of players plays an important role since it provides racial discursive frameworks from which to experience the game content. These racial frameworks are informed by socialization, dominant ideologies (Bonilla-Silva, 2003), lived experiences, and the micro-cultural processes that develop racial literacy such as supplementary education (Winddance-Twine 2004). As such, players can repress the racial content as offensive and not engage with it or see the stereotypes as reflecting reality for people of color. Likewise, players can engage with the content by seeing it as lampooning the stereotypes and demonstrating that content is not necessarily accepted at face value (DeVane & Squire, 2008). I will explore these dynamics in this research project and trace these engagements in relation to racial lens and video game cultural capital and lack thereof. This project engages content analyses and potentially opens up new grounds to explore the way games and similar media provide spaces with which to engage racism. If developed further, these inhabited spaces can begin conversations on race and other notions that tend to engender discomfort and negative feelings (Bonilla-Silva, 2001; Tadem, 1998; Winant, 1990).

I perform this research by interviewing participants before and after they experience video games with racial content. In particular, I will use the game Grand Theft Auto: The Ballad of Gay Tony because it best operationalizes the racial and sexual content addressed in content analyses. By analyzing how players experience the racial content in the game, content analyses can get a better understanding on the sophisticated process of consumption and how racial lens and video game cultural capital influence this consumption in novel ways.

Situating the Theoretical Stage

Multidisciplinary approaches to video games

The controversy of video games like Grand Theft Auto (GTA henceforth) that are situated in racialized (Leonard, 2003) and gendered (Dietz, 1998; Mou & Peng, 2009) content has become part of larger debate regarding the impact of these games on audiences. Academically, some literature coming from psychology seeks to establish a causal link between violent video games and violent behavior. Among such bodies of work, Anderson and Dill are known for their study that concluded that violent content in video games “increase[s] violent and aggression-related thoughts and feelings” and decreases “pro-social behavior” (Anderson, Berkowitz, et al 2003; Anderson & Dill, 2000; Bensley & van Eenwyk, 2001). By measuring noise frequencies during competition, Anderson correlated the measurements as promoting pro-violent behavior. However, a major limitation in Anderson’s study is that video games are not the only forms of competition that increase pro-violent behavior since video games are a product of the social norms by which we live (Everett & Waitkins, 2008; Leonard, 2007). Anderson asserts that such games cause more violent thoughts and behavior than movies due to their interaction and the reward for violence (APA, 2004). In contrast, studies have become skeptical as to whether such causal link exists. One study by Dunkin and Barber concluded that there was “no evidence obtained of negative outcomes among game players” and that gamers received higher scores than non-gamer participants in the areas of school involvement, mental health, family relationships, and friendship networks (Dunking & Barber, 2002).

On the other hand, literature from the field of game studies has analyzed the content of video games and provided different theories of interaction between players and the game as a text. Among these studies, scholars have studied military games such as Call of Duty and Rainbow Six and connected them to a form of military propaganda (Andersen, 2009; Gagon, 2010; Hunteamm, 2010; Shaw, 2010). Similar studies on the racial content of games like the GTA series and other games are also growing in this field (Dietz, 1998; Leonard, 2003, 2007; Everett
& Waitkins, 2008; Šisler, 2008). While gender role socialization has been studied in content analysis literature (Mou & Peng, 2009), race is a growing area of study in that field, which provides great background for sociological analyses of the video game subculture and the ways members experience a social concept as pervasive and volatile as race (Bonilla-Silva, 2003; Winant, 1990).

A more in-depth example of racial content in GTA is the study by Everett and Waitkins who analyzed the content of GTA: San Andreas, the most controversial game of the franchise (McLaughlin, 2008) and compared it to Bully, another game developed by Rockstar. This was done through content analysis by observing elements in the game such as character depictions and interactions between characters. Results demonstrated that in San Andreas, the main character is a black man who delves into gang criminal life, while Bully’s main character is a troubled white youth who seeks moral redemption in a boarding school. Everett and Waitkins also asserted that games like GTA reproduce the current racial order and are a form of modern minstrelsy, similar to the blackface archetype used in past media (Everett & Waitkins, 2008). David Leonard is another scholar who analyzes racial content in video games, from sports games to military shooters to GTA (Leonard, 2003, 2006). Leonard’s conclusions are similar to those of Everett and Waitkins as he asserts that:

Video games, despite, or perhaps because of, their function as a source of entertainment and a profitable commodity, exist as a powerful medium to disseminate ideologies, talk through racial/gender issues, and elicit approval for the status quo. Contributing to our “racial common sense” while also justifying social policies, contemporary video games are ideological constructs that demand careful analysis (Leonard, 2003).

Similarly, Barrett demonstrates the black body commodification through GTA: San Andreas in which players can alter the body of the main character CJ by altering his body type, which Barrett asserts is a form of racial minstrelsy and objectification of the black body (Barrett, 2006). Underlying the studies of Leonard, Everett, Waitkins, and Barrett are the concepts of racialization (Omi & Winant, 1994) and a lack of understanding of player reception of racial semiotics in the games. As such, these studies need a deeper understanding of how players experience racial content in video games. While games take a racial meaning through the use of racial stereotypes, semiotics, and language (Leonard, 2003, 2006; Everett & Waitkins, 2008), players experience these based on their own experiences with race, racial knowledges, and video game cultural expertise thereby creating new meanings and engaging with racism in non-contentious ways (DeVane & Squire, 2008).

Providing literature to the question of how players experience racial and violent content in video games is a study by Ben DeVane and Kurt Squire. Their study utilized focus groups of youth of different gaming, age, and racial backgrounds who were interviewed on what they made of the violent and racial content in GTA: San Andreas. Results demonstrated that players utilized their own knowledge, expertise as gamers, identities, and socially situated discourses to make different meanings from the game, which suggests that players do not necessarily take racial content at face value and often contest such content (DeVane & Squire, 2008).

This study also reviewed different modes of meaning making from texts and asserted that video games be seen as a dynamic text and that “this open reading of a text as a social practice takes place through the interplay of the text and the players’ discourse models, or cultural models” (DeVane & Squire, 2008) as in the culture of gamers and their own personal identities and backgrounds. A limitation in this study is that it racially focused only on white and black male respondents when it came to racial semiotics without understanding how other racially identified groups and women experienced the content. With new video game consoles, upgraded technology, and more agency in the new GTA games such as GTA: IV and Episodes of Liberty City, it is important to consider how racial content differs for the newer GTA games. DeVane's study serves as a major foundation for this project in understanding racial content and whether it is a reproduction of society’s racial stratification or whether players make different meanings out of them “vìz-à-vìz their experiences and their views of race and racial inequality in society.

Racial frameworks and meaning making

In situating this research, it is important to understand how race operates in US society and how a structural racial system and dominant racial ideologies can be reinforced through the media and entertainment (Bonilla-Silva, 1997; Gallagher, 2003). Eduardo Bonilla-Silva (2003) describes racial ideology as “the racially based frameworks used by actors to explain and justify (dominant race) or challenge (subordinate race or races) the racial status quo” (Bonilla-Silva, 2003). Furthermore, these ideologies are learned socially and as such, the ways on how to speak on race are a result of socialization. As Stuart Hall (1984) points out, “we all constantly make use of a whole set of frameworks of interpretation and understanding, often in a very practical unconscious way, and those things alone
enable us to make sense of what is going on around us, what our position is, and what we are likely to do” (Hall, 1984). This means that these explanations on race frame discourse and representation of racial groups in society through various means such as the media and entertainment like video games (Gallagher, 2003). Furthermore, as Gallagher (2003) and Bonilla-Silva (1997) assert, the dominant racial ideology in the United States is that of colorblindness, which is central in framing discussions on race for actors both dominant and non-dominant alike. This ideology necessarily ignores racial inequality by assuming an ideal of racial harmony and by relegating racism to individual pathology, not systems that sustain inequality (Bonilla-Silva, 2003). As a result, racial inequality persists due to non-racial factors like lack of work ethic or cultural deficiencies.

Relatedly, France Winddance-Twine’s research into the concept of Racial Literacy provides a strong framework for seeing indications of an anti-racist ideology. Winddance-Twine’s conceptualization of Racial Literacy consists of the practices and resources that people use to learn about racism and to combat it (Winddance-Twine, 2004). These practices include supplementary education on the history of marginalized groups and resources that develop a cognization of racism and its continuing influence in social inequality (Winddance-Twine, 2004). In other words, Bonilla-Silva describes racial ideology as “like wearing a piece of clothing. When you wear it, you also wear a certain style, a certain fashion, a certain way of presenting yourself to the world” (Bonilla-Silva, 2003).

Reviewing this body of work on race and video game content gives a sense of how player discourses and video game experience inform the ways racial content is experienced. Given the frameworks described in content analyses, those of DeVane and Squire, Bonilla-Silva, and Winddance-Twine, I posit the central research question that informs this project and addresses the issue of consumption. Experience and consumption are two processes hardly addressed in content analyses and recently incorporated by DeVane and Squire. That is, how do players experience the racial semiotic content in video games? In other words:

- How does the racial ideology of respondents inform the way race is presented in the game?
- To what extent does video game experience and knowledge inform the ways participants make sense of the game’s content?
- What particular racial lenses and game cultural capital enable sophisticated engagement with racial content beyond passive consumption?

**Set Design and Operations**

Capturing racial ideology

In order to identify the racial ideology of participants, it is necessary to find out what constitutes racial lens. Racial lens is rooted by an ideology that is defined by Bonilla-Silva as “the racially based frameworks used by actors to explain and justify (dominant race) or challenge (subordinate race or races) the racial status quo” (Bonilla-Silva, 2003). This is supported by Katz and Hass (1988) in their study assessing racial attitudes and their connections to American values when the American values of meritocracy and individual agency are used to justify the persisting racial inequality in the US (Katz & Hass, 1988). As mentioned previously, these ideologies are socially learned, and they frame discourse on race and inequality (Bonilla Silva, 2003; Hall, 1984). As a result, indicators of a particular racial ideology constitute frameworks, “linguistic manners and rhetorical strategies, to the technical tools that allow users to articulate its frame and story lines” (Bonilla-Silva, 2003). In other words, to situate participants’ racial lens, I will be using two major ideological frameworks as reference points, and I will find indicators in participants’ discourse on race and racism. These two major ideologies are as follows:

**Racially colorblind.** This view of race and racism posits that racism is an ideology or set of ideas that affect individuals and behavior. This view relegates the study of racism to psychology and says that, as an idealist view, ideas influence behavior and attitudes towards different groups in society (Bonilla-Silva, 2001). Persisting racial inequality then owes to the lack of responsibility and cultural deficiencies of minority groups (Brown et al., 2003; Wise, 2010) and to the idea that we now live in a post-racial society (Bonilla-Silva, 2003, p. 28-30). Racism still exists, but when it is mentioned, skinheads and the Ku Klux Klan are the groups usually associated with the term. Building from these assertions, racism is individualized, and little attention is paid to the system of advantages provided by institutions in a society that maintains racial inequality (Bonilla-Silva, 2001; McIntosh, 1988; Yamato, 1988). Furthermore, the frameworks that comprise this ideology use Abstract Liberalism, as in equal opportunities and free agency; cultural racism, where culture is used to explain inequality; naturalization, where racial phenomena are natural occurrences; and minimization, where discrimination is no longer a factor and it is anything but race (Bonilla-Silva, 2003, p. 28-29). These non-racial explanations of racial inequality are a non-racial way of blaming...
the victim. As such, semantic references such as “I’m not racist but…” or references that speak to any of the central frames of colorblindness will be operationalized as racially colorblind.

**Racially aware.** This ideology is the underlying narrative behind Winndance-Twine’s Racial Literacy, in that, actors learn how to cope and combat racism through formal and informal micro-practices that socialize people to understand race (Winndance-Twine, 2004). As Winndance-Twine posited, one of the dimensions of Racial Literacy is supplemental education such as a black school where cultural knowledge and history of blacks is taught, unlike in most public schools; these also include courses and resources where race is discussed and literacy developed (Winndance-Twine, 2004). Underlying this view is the anti-racist ideology that claims racism and racial inequality are a system of advantages that favors one race over other racial groups (Bonilla-Silva, 2002; McIntosh, 1988; Yamato, 1988). In this framework, white privilege is also recognized where whites benefit from institutions such as government, housing, and income, and people of color lag behind whites regarding these institutional factors (Bonilla-Silva, 2001, 2003; Gallagher, 2003; McIntosh, 1988; Wise, 2010). While aware that racism is beyond skinheads and Archie Bunkers (Winant, 2000), this framework recognizes that discrimination takes place in systemic and interpersonal ways (Bonilla-Silva, 2003; Yamato, 1988). For analytical purposes, references that speak to the continuing significance of race, as well as personal experiences, and references to supplementary resources that teach about race are indicators of a racially aware ideology.

It is worth noting that these frameworks are not mutually exclusive and binary since they overlap in different areas of social life. As a result, it is possible to have streaks of colorblind ideology while being racially aware. This owes to the looseness of an ideology (Bonilla-Silva 2003, p. 10), which, as a result, “allows for contradictions, exceptions, and new information.” Furthermore, as asserted by Bonilla-Silva, subscribing to an ideology is similar to wearing clothing which comes with its own fashions (p. 53). This means that each of these two major ideologies come in different styles or flavors, so to speak. An example is the Internal Colonialism framework that sees race and racism as part of an enduring colonial enterprise, as reviewed by Bonilla-Silva (2001). While this framework acknowledges the significance of race, the way it tells the role of race differs from the way a Marxist ideology describes race. The same applies to Racially Colorblind, in that, actors use its frames in different fashions and in complex ways (Bonilla-Silva, 2003). Finally, while issues regarding identification of a racial ideology may arise, situating the ideology is based on responses and discursive patterns to race questions on white privilege, institutional racism (education, justice system, and housing), and the race and wealth gap (Dovidio et al., 2003; McIntosh, 1990; O’Connor, 1999; Tadem, 1998), the methodology of which is not without any challenges.

**The scene: game selection**

Among the diverse gamut of video game genres that contains racial content, I utilized GTA: The Ballad of Gay Tony (BoGT henceforth), the most recent game from the GTA franchise that has a history of controversy regarding the content on racial, gender, crime, and sexual grounds (Barrett, 2006; DeVane & Squire, 2008; Everett & Waitkins, 2008; IGN, 2008). More importantly, I chose this game because the game’s content best operationalized the racial and sexual dynamics so present in video game content analysis literature (Everett & Waitkins, 2008; DeVane & Squire, 2008). Prior to interviewing respondents, I familiarized myself with the GTA franchise by reading articles about GTA from popular gaming sites such as IGN and the official GTA website from Rockstar North. I also played GTA: BoGT and completed the story while taking note of pertinent content and themes in the game. Among those themes, the franchise’s trademark theme of the American Dream and a crime-filled notion of meritocracy were present in this installment (McLaughlin, 2008).

** Summoning the cast: participants**

In order to investigate the ways people experience racialized content in video games, I recruited 31 participants through snowball sampling and the use of social media. The sample covered different backgrounds such as video game experience, which included participants that considered themselves gamers and had played video games for at least six or more years, and participants that had no experience with video games and had no interest in the industry and culture whatsoever. I included former gamers in the non-gamer category because of the cultural disconnect and the lack of embodied cultural capital development (Bourdieu, 1984) needed in the gaming culture. Geographically, my participant sample resided in Idaho, mainly the Boise area with a small degree of respondents from Nampa and Meridian, Idaho. The Boise State University campus helped me obtain a geographically and
raced diverse sample in that there were international students and students from out of the state that attended summer classes. To recruit participants, I utilized snowball sampling from informants and made announcements to Boise State University student organizations about the project. I also extended my outreach to communities outside of Boise State University and to staff from student affairs departments on campus such as Promotions and Student Diversity and Inclusion. Through snowball sampling, I obtained potential participants that had different racial backgrounds such as black, Asian, Latino, and biracial respondents. The reason I used a non-random, snowball sampling method was because of Idaho's racial demographics. Idaho lacks much racial diversity with whites representing over 85% of the population, Latino/Hispanics representing at least 10%, and other racial groups between 1% and 3% (US Bureau of the Census, 2010). To draw a random sample would mean that I would most likely have an over-representation of white racially identified people. For the purpose of my research, I needed people from different racial backgrounds which prompted me to search for racially diverse participants through snowball sampling. My participant sample is broken down in terms of racial, gaming experience, and gender backgrounds.

Table 1: Sample Demographic by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>7</td>
</tr>
<tr>
<td>Black or African American</td>
<td>2</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>12</td>
</tr>
<tr>
<td>White</td>
<td>10</td>
</tr>
</tbody>
</table>

*Racial classifications obtained from the US Census Bureau.

Table 2: Gaming Hobby and Gender Frequency in Sample

<table>
<thead>
<tr>
<th>Gender and Gamer Type</th>
<th>Female</th>
<th>Male</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamer</td>
<td>5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Non-Gamer</td>
<td>11</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Totals</td>
<td>16</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

The missions: interview process

To collect data, I used personal in-depth interviews to assess racial lens of participants and to debrief participants after playing GTA: BoGT in order to obtain their experience of the game. Using face-to-face interaction with participants and open-ended questions allowed me to have a more personalized and dynamic conversation, which also allowed respondents to share stories and to express what they felt in response to the interview questions. As a result, it allowed me to better glean perspectives and the context that surveys would not have been able to capture (Babbie, 2010). Interviews were also necessary because the process involved having participants play GTA: BoGT and then being debriefed after the experience in order to see how they made sense of the content and of the game experience, especially for non-gamers who might have never played a video game before. I used a Play Station 3 gaming system, and I tutored non-gamer participants throughout the gaming session. Interviews took place in one of two areas: in the homes of participants or in the Student Diversity Center located on the Boise State University campus, where I was provided with a television and a comfortable space to conduct interviews. The
interviews were recorded, transcribed, and analyzed through memoing and the constant comparative method (Babbie, 2010; Glaser & Strauss, 1967) in order to find emergent themes and frameworks of interpretation.

The interview process consisted of three major parts. The first part consisted of obtaining participant demographic information pertinent for this project such as gender, age, racial/ethnic identification, and video game experience. This included questions about the video game industry, culture, demographics, and types of games that participants had played. If participants did not play games, I further inquired as to why they didn’t and if they would if given the opportunity. In this part of the interview process, I asked questions assessing participant racial lens. These questions addressed respondent attitudes on race and their racial views to see correspondence with the racial frameworks provided in the previous section. As such, many of these questions were derived from previous studies on contemporary attitudes on race on issues such as the distribution of resources, stereotypes, and white privilege (Bonilla-Silva, 2001; Dovidio et al., 2003; McIntosh, 1990; O’Connor, 1999; Tadem, 1998).

After the first set of questions, we proceeded to play GTA: BoGT from the beginning until the end of the first mission. The gameplay lasted approximately 40 minutes. During gameplay, participants play as Luis Lopez, a Dominican man released from prison who dedicates himself to building a better life in Liberty City working as a business partner for Tony Prince. A mishap with authorities gets Luis sent to prison for years where he learns to not be involved in the drug business despite his friends cajoling him back into it. In working as a business partner for Tony, Luis is torn between facing people from his past like his friends that continue delving into the drug dealing business or working for Tony legitimately and risk being called a sellout by his family and friends. As the story progresses, Luis engages in informal jobs for Tony and must also mediate Tony’s drug addiction problems during the game’s situated economic hardship. Luis also experiences racial and sexual issues as he deals with people calling him racial epithets and uses his promiscuity prominently in the game.

During gameplay, players enter one of Tony’s nightclubs. They are given the options to dance, drink, or partake in a drinking game. As part of the procedure, I had participants partake in the dancing game where, depending on their performance, one of two things would occur. If players do well, they participate in a group dance, otherwise Luis and the woman with whom he dances make out and go to a bathroom stall to have sex. Participants see the outside of the stall slightly shaking and hear the sex moans of the woman and Luis. I had participants experience this in the game so as to demonstrate an aspect of the portrayal of women and to help elicit reactions that they could then talk about in the third part of the interview; this was also the earliest sex scene they could witness. Participants then step outside the club to help the club bouncer deal with two people causing trouble. As part of the introduction, players experience Luis’ interactions with his childhood friends and how they delve into the drug dealing business. Players complete the introduction after dropping Luis’ friends off and arriving in Luis’ apartment. What players did next varied since some chose to explore while others ended the game session.

When the gaming session finished, I proceeded to have participants talk about their experience of the game and let them debrief about it. I asked questions about game content, what they made of it, what they felt the game was telling them about certain groups such as women, Latinos, and gays, and how they related such content. Other questions also involved discussing how much of reality does the game portray, and I gave them the opportunity to relate any other aspects that I did not cover that they felt compelled to discuss. While participants cannot obtain all of the content and story out of the introduction of the game, it was during this part of the interview process that I supplemented participants with the synopsis of the game from the instruction booklet and in-game information. The information I provided included descriptions of missions, plot twists, background stories for Luis, Tony, and the informal jobs they do. This helped contextualize the events that transpire in the game for participants.

Once I collected the interviews, I transcribed and analyzed them through memoing and coding in search of themes and frameworks. Through the use of qualitative analysis software, I analyzed by memoing respondent answers to questions and how their answers corresponded to the beliefs in each of the racial ideologies listed. As asserted by Bonilla-Silva, “ideology, racial or not, is produced and reproduced in communicative interaction” (Bonilla-Silva, 2003). This means that I compared responses on race to established discursive patterns and frames in the literature on colorblind racism and anti-racist ideology to help me situate participants’ racial ideology (Bonilla-Silva, 2003; Twine, 2004). In terms of interpretation of the game content and the post-gaming questions, I noted certain keywords used that suggested references to other discourses and cultural knowledges as well as words that showed opinions about the content. In other words, I worked inductively, building from the data to create frameworks and organize the worldview of the participants (Babbie, 2010; Basit, 2003; Burnard, 1991). I focused on interview questions in the post-gaming session addressing the game’s portrayal of certain groups like women, Latinos, and other racial groups. Some words noted as I coded were words like “disagree,” “false,” “objectify,” “stereotypes,” “similar,” “crime genre,” and “story of the game” among others. Personal experiences were noted as well and codified in the transcripts, as were words that dealt with references in the game, which were subsequently codified under “elements of the game;” likewise, words and phrases not dealing with video game knowledge from
interpretations of content were codified as “personal knowledge.” Through analyzing the data, I codified these keywords and references to create domains which then constituted two major frameworks, as I show next.

**Player Interpretative Styles**

Two major frameworks of interpretation emerged that demonstrated how video game cultural capital and racial lens influenced the different ways respondents experienced the racialized content in GTA.

**Literalists**

In this framework, participants expressed little to no embodied cultural capital in video games with a few exceptions. As such, they experienced the racial content in GTA based on their own racial knowledges, experiences, and beliefs. One of the ways players experienced content was through expressing concern regarding the racial depictions of characters, use of stereotypes, language, and the setting in which the game took place. This critical stance stemmed from a racially aware lens developed through critical education and racialized experiences (Winddance-Twine, 2004). In addition, this critical reading of the content mirrored content analysis literature that sees race representations as modern minstrelies (Everett & Waitkins, 2008) by questioning why racialized characters committed certain actions and were positioned in certain ways, such as Luis' Latino friends as drug dealers. Another way players experienced the content was by drawing parallels between the game's depictions and reality. This means that those with colorblind racist lens believed racial depictions to be true in reality. Players then see Latinos delving into underground work, crime, and in their power position as justified based on the colorblind racist discourse, which appeals to meritocracy and abstract free agency (Bonilla-Silva, 2003). The literalist style of interpretation is contingent on reality, experiences, and players' own racial discourses. As such, players experienced the content in a literal sense. Participants in this framework drew from their own personal experiences, identities, and racial knowledge to interpret the game's racial content and provide perspectives on the game's use of race, gender, and violence. Racial lens played a role in participants criticizing the content and repressing race, which still reproduces it. Relatively, racially aware lens played a role in interpreting the racial tropes and language used in the game. In other words, a racially aware lens played a role in re-situate race and engage with the issue in inventive, non-threatening ways. As such, video game cultural capital serves as a mediator that mitigates tension and volatile feelings associated with race in public discourse (Bonilla-Silva, 2001; Tadem, 1998; Winant, 1990). The variation of racial lens here was diverse in that it included colorblind as well as racially aware players. As such, racially aware players saw the game as lampooning stereotypes that mainstream society relies upon and situated race as a game element with references from other media. More importantly, with a deep embodied cultural capital, colorblind racist players saw the racial representations as inaccurate and only part of the game, a simulation so to speak. Like the Literalists, a theme that was prevalent was that of access to the wrong audiences. However, this theme asked whether it was appropriate to have the wrong audiences play the game in spite of the existing mechanisms that prevent children from obtaining games rated Mature like GTA. To understand how gaming cultural knowledge as well as racial ideology influenced the way players experienced the racial content in GTA, I provide cases that illustrate these diverse and racialized experiences.

**Gamer technicians**

This framework consisted primarily of gamer respondents, those who have played video games for years and continue to do so as their hobby. A major factor here is that unlike in the Literalists, where most respondents were not gamers and did not have solid embodied cultural capital, having video game cultural knowledge mediated how respondents experienced racial content. As a result, players here were able to interpret racial content in sophisticated ways through a mediated context of game development, narrative, realism, and media reference archetypes from other forms of entertainment. In other words, this framework opened an interstitial space where players re-situate race and engage with the issue in inventive, non-threatening ways. As such, video game cultural capital serves as a mediator that mitigates tension and volatile feelings associated with race in public discourse (Bonilla-Silva, 2001; Tadem, 1998; Winant, 1990). The variation of racial lens here was diverse in that it included colorblind as well as racially aware players. As such, racially aware players saw the game as lampooning stereotypes that mainstream society relies upon and situated race as a game element with references from other media. More importantly, with a deep embodied cultural capital, colorblind racist players saw the racial representations as inaccurate and only part of the game, a simulation so to speak. Like the Literalists, a theme that was prevalent was that of access to the wrong audiences. However, this theme asked whether it was appropriate to have the wrong audiences play the game in spite of the existing mechanisms that prevent children from obtaining games rated Mature like GTA. To understand how gaming cultural knowledge as well as racial ideology influenced the way players experienced the racial content in GTA, I provide cases that illustrate these diverse and racialized experiences.
The literalists

This framework relied extensively on real life based knowledge such as academic knowledge, life experience, identity, and critical inquiry into the game’s content. As mentioned previously, players showed little to no video game embodied cultural capital, and even those with such knowledge had limited connection or interest due to other life experiences and similar factors. Racial lens varied in this aspect with racially aware players echoing content analysis, and racially colorblind players situating racial representations as real per their own racial frameworks.

Racially aware players. To illustrate racial awareness in the way players experience content, I present the case of Eli. As a Chicana non-gamer, her racial views have been informed through her experiences with racial discrimination in Idaho, through her involvement in supplemental educational opportunities like MEChA (Movimiento Estudiantil Chicana/o de Aztlán), and critical coursework on race. During the pre-game interview, she expressed staunch criticism against the gaming industry and the content displayed regarding race and gender. At the same time she stressed the importance of education and used it as a discursive resource to interpret the racial baiting in GTA. During the post-game interview, when asked about the way Latinos were portrayed in the game, she responded based on her awareness of media representations.

Interviewer: In regards to Luis, Henrique, and Armando, who are all Latinos; what does the game tell you about them?

Eli: That they’re criminals and that they’re always below the white culture, and mainly that women don’t have any sort of role in society cuz as you saw there was practically no women in there except the ones dancing in the club who were seen as the ones more sexual and stuff like that.

Interviewer: Now how do you interpret that? Do you see that as true, false?

Eli: I personally say that's false. I just think that's what society wants you to think and that's what the stereotypes have gotten people to think...I would see all the misinformation that was incorrect, but if you have like a kid or someone who is not aware of all the issues in society, they're obviously gonna believe and they're gonna think that's how it is so that's what I'm saying, they need to—I personally don't play that.

This case demonstrates how her awareness of race and stereotypes informs her interpretation of the way Latinos are portrayed in media. During the interview she expressed her experiences as a Chicana in Idaho and the discrimination she underwent growing up in a white habitus like Idaho (Bonilla-Silva, 2003, p. 124), which in turn provided her with a frame of reference to compare the criminal portrayal of Latinos in the game to her own lived racialized experience. While demonstrating concern for children accessing the game, the last phrase speaks explicitly to how her racial literacy provides her with a discursive lens from which to make sense of the game’s representation, further speaking to DeVane and Squire, where players created their meanings contingently on their own situated experiences and knowledges (DeVane & Squire, 2008). Eli’s case is similar to participants with a racially aware lens in that they illustrate how their experiences with the game mirrors content analysis literature. During the post-game interview, Eli asked why Latinos are placed in a criminal position while whites are in suits, which further illustrates the assertions of content analysis that discuss race as a commodity and modern minstrelsy (Everett & Waitkins, 2008; Gallagher, 2003).

While players demonstrated little to no embodied cultural video game capital, there was at least one exception to this. The case that illustrates a racially aware lens and use of identity in spite of embodied cultural capital is the experience of Ned. Ned is a white male gamer who has played video games since the age of five. Despite coming from a predominantly white residence, his experiences in the public university in Boise and his involvement with some of the supplementary educational resources like the Jane Elliott blue eyed/brown eyed training and Tunnel of Oppression developed his racial ideology to that of an anti-racist. As such, he is actively involved in community and campus organizations seeking to address issues of inequality, and video games have become less important in his life. When asked in what ways the game reflects reality, his responses demonstrated the active role of racial literacy in his meaning making.
**Interviewer:** In what ways does this game reflect reality?

**Ned:** There is oppression within different communities and oppressed communities against other oppressed communities so that definitely happens...the black people sell drugs, the Latinos sell drugs, and the, the Latinos have his friends who are trying to come back into drugs. I mean there is like very stereotypical to me...same with the gay Tony, it's like there's a big stereotype out there that gay individuals do a lot of drugs, but I mean that doesn't—that's not necessarily true. For one thing, everyone does drugs, you know what I mean, and then the bar, bodyguard Luis was that his name?

**Interviewer:** Dessie

**Ned:** Yeah, Dessie. He was just, stereotypical person of color as a body guard outside the club, it just played on a ton and tons of stereotypes, so it didn't represent reality; it represented reality in the way the media portrays it, but as far as reality really goes, I would say not a whole lot maybe to what people think, maybe like a privileged white individual face, yeah, but not reality.

Ned’s responses mirror those of content analysis, just like Eli; however, he demonstrates an intertwined use of his racial literacy, identity as a gay man, and his experience with community work to contest the racial representations. One way he shows this is by recognizing the racial stereotypes in the game but also making note of a stereotype of gay individuals since the portrayal of Tony involved dealing with drug addiction issues. In addition to mentioning the intersections of oppression across different communities, Ned shows awareness that what the game portrays is not reflective of reality but a product of the media-industrial complex. These discursive frames speak to some of the ways racial literacy and knowledge situates race and media as part of a much larger system of racial domination (Leonard, 2007; Winddance-Twine, 2004). In spite of having gamer cultural capital, it is striking to see Ned draw from more realistic facets of his experience to make a different meaning in the game’s semiotic domain, the likes of which begin to open new avenues of research as to the extent of racial literacy and its role in constructing meaning (DeVane & Squire, 2008; Twine, 2004). The lack or low priority of video game embodied cultural capital, along with various racial literacies, inform the way these participants contest and also reproduce the racial representations in GTA.

**Racially colorblind players.** While racially aware players took a critical stance on GTA's racial semiotics, mirroring content analysis literature, racially colorblind non-gamers experienced the content differently, albeit in the same literal sense as racially aware players. A case in point is Mib. He is a white former gamer who expressed colorblind racial views primarily in the area of meritocracy and free agency in that Latinos and blacks are poor due to their own culture and that it would take generations for them to catch up to whites economically, which speaks to naturalization of racial inequality (Bonilla-Silva, 2003). He responded by drawing from his own knowledge and experiences to the question of Latino depictions in the game. When asked about the portrayal of Luis, his friends, Luis’ mother, who borrowed money from a loan shark, and the social and physical actions taking place in the game, he responds:

**Interviewer:** How much of it do you find true of Latinos in society?

**Mib:** Um, if I took those four and try and extrapolate their personalities, their traits and lives, and put it on to all the Latinos that I've met, um, it does seem to be a good representation when you add all four of these up because there's a lot of Latinos that I've met that are like the mother; there's a few that I've met that are like Luis who kind of recognizing their situation, they're not stuck by, “I guess we don't have the best life right now; we're immigrants so we have to like”— “It takes, like, a couple generations to make money and get jobs and kind of learn how to live in America so Luis is trying to take some further steps.

Mib’s response found personalities and characteristics of the characters, including physical attributes, to be true to his experience with Latinos. Socioeconomically, it is worth mentioning that Mib used a similar reasoning to the question of Latinos regarding their immigration and socioeconomic status. Rather than being systemic stratification and discrimination that worked against Latino immigrants (Durand & Massey, 2001), he rationalized that since Latinos are recent immigrants, it would take generations to move up the economic ladder, much like whites did in the past. While this response is an appeal to meritocracy that racial realists often use to blame people
of color for persisting racial inequality (Brown et al., 2003), the game content reinforced his experiences with Latinos and illustrated a case of race as a lived experience that was reproduced in the game. In other words, race was reproduced based on his experiences growing up in a white habitus, which guided his interpretation of Latinos in the game.

A striking feature of the literalists is their commonly shared belief that children should not access the game due to children tacitly accepting the racial content and not relating it to real life. As such, a solution proposed by players, particularly racially aware players, was to not allow children to play GTA. In so doing, how does the repression of this content reproduce racism and racial representations if race is found in more than just video games? (Everett & Waitkins, 2008; Gallagher, 2003; Leonard, 2003, 2007). This contradiction in repressing racial content as a solution to the issue still reproduces race and leaves it unaddressed, similar to colorblind ideology that necessarily ignores race to maintain inequalities (Bonilla-Silva, 2003; Gallagher, 2003). The complex ways players experience the racial semiotics add to DeVane and Squire's insight that participants use their identities, socially situated discourses, and experiences to experience the content and not necessarily consume such content at face value (DeVane & Squire, 2008).

The gamer technicians

**Racially aware.** The approach of these participants relied extensively on media and video game knowledge. This sub-cultural discursive frame created an interstitial space where players can engage with racial content in non-threatening, inventive ways. While the experience of the racial content was mediated by media and video game cultural capital, there was variation in racial lenses. Among these respondents, there were those who were gamers and expressed racially aware lenses. This group, despite demonstrating a sharp awareness of the role of race in society and how race is embedded in social institutions (Bonilla-Silva, 2003; Brown et al., 2003; Yamato, 1988), interpreted the game’s racial content within a gamer cultural mode intertwined with media references and technical aspects of a game. A case in point is Cin. He is a biracial Asian/White male who identifies primarily with his Asian background and who has been playing video games for at least 15 years and centers his career on video game business and development. Although he is aware of the pervasiveness of race in social institutions and how they sustain material inequality, he holds some streaks of racial colorblindness primarily in making appeals to the free agency clause of Abstract Liberalism (Bonilla-Silva, 2003; Katz & Hass, 1988) in matters of wealth disparities and economic mobility. Cin’s knowledge of the video game industry and culture is extensive. He follows gaming news and statistics and is aware of the extent of market stratification in the video game subculture by companies like Sony, Nintendo, and Microsoft. When asked if he saw any media references influencing the game, he responds as follows:

Cin: This is goes back to GTA III when it started as a sandbox game, it kind of wants to be in itself a movie and it wants to do all the great things that you see in crime movies, and you definitely play as an anti-hero...but you definitely have the morality left to you. You can either mow down innocent people or you can drive around them...it's really, it really is a mobster kind of crime and drug related.

Cin: Stereotyping for me is a tool to use, to use that as a conversation starter, and it really does, and it really does work when you don't point fingers and judge and discriminate using stereotype...relating that back to the game, gay as bar owners or Latinos as drug dealers, that's just something that they put together because it makes a good story, and it makes characters come alive, and I just see Rockstar using it like that. I don't see them like generalizations.

Interviewer: You mentioned that you use it as a way to start a conversation about stereotypes. Do you think that this game can start conversations about race?

Cin: Absolutely...don't fool the way I perceive stereotypes as someone else would because in all likelihood most people would use stereotyping as a way as negativity, and it's sad but true, and it's sad because in the end you're gonna think Latinos are gonna be in drugs, and I would never think that, but it's happening.

Cin's assertion of moral agency in the game, crime film influences, and use of stereotypes for narrative purposes, illustrate the depth of his cultural capital in video games. Furthermore, Cin’s knowledge of past GTA
games gives him an in-depth frame from which to compare the current game and asserts that Rockstar is not afraid to use any type of social group in their games, as he later mentions the use of Latinos, blacks, and Asians in other Rockstar games. Like Cin, other gamer respondents in this category drew from their technical knowledge of video games and kept the depictions of racial groups inside the game. In other words, racial depictions and interactions in the game served more as an element of game virtual realness than anything being realistic. However, Cin’s approach to the game also raises questions about the influence of his racial ideology in situating the racial content, especially in the matter of agency as a way to de-racialize the racial tropes used in the game. Nevertheless, Cin’s case demonstrates the way his extensive knowledge in video games situates racial representations as lampooning stereotypes in society and of his ability to use these representations as conversation starters. This case illustrates a dimension in the consumption of racial content that is not tacitly accepted at face value.

Another case where a racially aware lens and a particular aspect of video game cultural capital intertwined is a Latino male gamer pseudonymed Cor. Cor has been playing video games for at least 10 years and is interested in the artistic and creative aspect of video games. He expressed how much art and music goes into games and that story is a necessary aspect to make a good game. Regarding his racial ideology, he is very aware of systems of racial inequality, like white privilege and institutional racism, and has a keen awareness of race in society, though he takes it in a parody manner by often making comical and witty remarks on race. Cor played through the introduction of the game and then proceeded to simply drive around a stolen fire truck, hosing people down and causing traffic accidents until his death by the in-game police. Cor made connections to other forms of media and focused on the story aspect of the game, what he considered to be the game’s main intent, as shown:

Interviewer: In what ways does the game reflect the dynamics in sense interactions for minority groups?

Cor: I don’t think that’s the game's intent. The game’s intent is to tell a story that's, I mean, something important to think about when you're making a game because that way is more realistic.

Interviewer: Anything on Luis?

Cor: He didn't really have that much personality. It's probably a reason for it so you can inject your personality into the character since you're playing as him.

Interviewer: How do you see power reflected in the game? Power can be anything from owning guns, running clubs, property, anything?

Cor: It's usually saying it's supposed to be an edgy game, but it's still got white people in power and their little ethnic servants (laughter), which is a very traditional type of archetypal sort of thing. Race and power.

Cor’s responses speak to how he is able to integrate his own racial views and his expertise as a gamer to create a sophisticated approach to the game’s semiotic domain and identify them with other forms of media, as in the case of Luis’ lack of personality and the elements of storytelling. In other words, he saw the game as lampooning stereotypes and saw their purpose as only adding realness to the experience. Through this media-mediated context, Cor engaged with racial content by seeing it as an exaggeration of stereotypes whose purpose is to give realism to the game, similarly to what Cin asserted previously. While Cor is deeply aware of how race plays a role in society structurally (Bonilla-Silva, 2001; McIntosh, 1988; Yamato, 1988), he is also aware of racialization in the game (Omi & Winant, 1994), which he interprets as just another traditional use in game story. Cor is also able to distinguish the racial dynamics in the game but sees it as secondary to his standards as a gamer, standards like story, gameplay, music, and art. These particular game standards reflect a separation between what is fantasy and what is real since he only saw the depictions of Latinos in the game as mere visual elements and kept those depictions within the game context only. These media-mediated discussions on race allowed for racially aware players to engage with content in inventive, non-contentious ways. Similar dynamics take place with racially colorblind players, as I demonstrate next.

Racially colorblind. Similarly, racially colorblind players experienced the racial content on GTA in a media-mediated discussion that illuminated the use of stereotypes and saw them as not true to real life. Yet these players expressed racially colorblind views during the interviews, especially in questions relating to real life situations like housing and the justice system, discussions that are often volatile in public racial discourse (Winant, 1990; Bonilla-
Silva, 2003). A case in point is Wes. He is a black male gamer adopted by a white family who grew up in a white habitus like Idaho for most of his life. He has extensive video game knowledge and has played the GTA series and kept up-to-date with current video game news, strategies, and updates. These video game experiences illustrate the extent of his embodied cultural capital. In the interview, Wes appealed to the naturalization and minimization frames of colorblindness in explaining the income gap between whites and people of color by asserting whites dream of being in power, whereas people of color dream of working in restaurants. In spite of this, when asked in the post-game session about the use of Latinos in the game and how true he thinks this is to his experience, he responds as follows:

_Interviewer:_ I asked what game tried to tell you about Latinos. Now what I ask is how to you interpret that? Do you see it as true, or not true?

_Wes:_ I don't see it as true. If there's a drug dealer, it's probably white, black, any. There's probably thousands of them, you know, black, Asians; they're basically every ethnicity...in a video game, even though it points towards them, you can't just think “Oh, that's how life is, so all Asians are huge crime lords.. and they're good at math.”

_Interviewer:_ So like, there's a lot of stereotypes in there.

_Wes:_ Yeah, basically the whole game is a stereotype. And itself, everything in it.

Wes' experience with video games and his embodied cultural capital created an interstitial space for him to engage with content in a non-contentious way. This is more so considering that he got heated up when talking about immigration during the pre-game interview. When put in a gaming context and relating racial representations to media references, Wes engaged with the racial content by situating the game as a stereotype of stereotypes. Furthermore, Wes was surprised to see racial epithets used in the game and did express concern about children accessing the game in spite of game store mechanisms that filter underage access to GTA. By situating racial representations in a media context, Wes contested the racial representations in a non-threatening way.

A final case that illustrates the use of media references and how video games are not the only type of media that reproduce race is Ric. He is a white male gamer who has been playing video games for at least 30 years. As a programmer in marketing and promotions, he expresses some racial awareness in discrimination and inequality, but there are colorblind streaks in his discursive lens, especially in seeing race and racism as something individual and isolated and not part of a systemic structure that perpetuates racial inequality. When asked about the use of racial epithets and the type of reality portrayed in the game, Ric drew parallels to other media as follows:

_Interviewer:_ What do you think about the use of racial epithets in the game? Especially with one of the characters, Rocco, at the opening scene?

_Ric:_ That type of language and those types of epithets are pretty common in, you know, especially with characters throwing insults at each other, and that's pretty common dialogue in movies from the genre so I didn't think it was out of place...as much as I dislike that type of dialogue in people who use that kind of language and throw those kinds of insults, I understood where they were drawing that from.

_Interviewer:_ Whose reality is being portrayed in this game?

_Ric:_ I think it's fantasy. I think it's, it's a world that's been, it's kinda a genre defined by crime genre of movies, you know, and the stereotypes have been defined in those movies.

Ric's reading of the game is influenced by other media and uses such media references to situate the game content so as to give the game an element of realism. His comment on crime films defining stereotypes implies that the game borrowed from these genres and created a movie where there is agency from the players. Furthermore, his understanding of film references situates his reading of racial epithets as part of the game derived from movies, and he sees such content as intentionally offensive.

The Gamer Technicians' experience of the game content demonstrated creative, media-mediated ways of engaging racialization across a spectrum of racial literacies. From the game lampooning stereotypes to seeing such
use as intentionally offensive, the gamers did not tacitly agree with content displayed. This aspect speaks to DeVane and Squire's insight that:

The Gamers’ discourse about race is shaped by mass media discourses about racial stereotypes and representations; however, far from exemplifying the uncultured White media consumer who tacitly accepts biased portrayals of minorities, the Gamers actively identified stereotypes with regard to race. Again, a larger conversation about race that is remediated through the mass media provides the discursive lens for the Gamers’ discussion, one which here centers on representations and stereotypes (DeVane & Squire, 2008).

As a result, content analysis literature needs a richer understanding of the sophisticated issue of consumption and how media cultural capital and racial literacies influence this process.

Tying Strings and Challenges

In analyzing the results of this study, both interpretative frameworks illustrated sophisticated engagement between respondents’ racial ideology and media cultural capital to the racial semiotics that GTA: BoGT exhibited. Speaking to content analysis literature, these results add a level of complexity regarding consumption and interpretation of GTA’s racial semiotics and which modes of discursive practices play a role, as in the case of video game knowledge. The Gamer Technicians saw the game as a form of satire laden with references to other forms of media that intentionally utilized stereotypes within the context of the game. Knowledge of the nuances of video games and racial lens mediated players’ consumption of racialized content. In other words, respondents within this framework integrated their technical expertise on video games with their racial views to view racial content as lampooning stereotypes, as in the case of Cor and Wes.

On the other hand, the Literalists experienced the game content by drawing from their personal experiences and knowledge of the groups portrayed. In support of this framework, DeVane & Squire found a similar result when interviewing black youth who played GTA: San Andreas, which showed that “participants from socially and economically marginalized groups—African American, working-class, or working poor—used the game as a framework to discuss institutional racism in society” (DeVane & Squire, 2008). By drawing from their experience and knowledge, these respondents contested the racial content and saw it as another reproduction of the racialized system in society. However, the Literalists suggested avoidance of GTA to impressionable audiences lest they tacitly accept such racial representations. The repression as a solution to racialized content, on the other hand, reproduces race since racial baiting is present in other media (Everett & Waitkins, 2008; Gallagher, 2003; Leonard, 2003). In addition, the case of Cin revealed a particular instance where racial baiting is used as conversation starters on race. However, Cin does warn about his unique approach to stereotypes as conversation starters, in that, players may not make use of stereotypes in the particular manner he uses them. This observation speaks to DeVane and Squire, in that, players use these representations as a means to discuss race and situate it in a media-mediated context (DeVane & Squire, 2008). Interestingly enough, such discourse mitigates tension and volatile reactions associated with race in public discourse (Winant, 1990; Bonilla-Silva, 2003), as in the case of Wes.

The complex ways players consume racialized content across a range of racial lenses and video game cultural capital suggest that players see the racial content in video games like GTA, but how they interpret such content is mediated by racial lenses and other socially situated discourses and identities. Video games contain symbolic content that reproduces racial dynamics in society (Everett & Waitkins, 2008; Leonard, 2003, 2006; Mou & Peng, 2009), but respondents do not accept them at face value since players situate such content through a different context, which allows them to engage with race in inventive non-threatening ways. How players draw from their experiences, socially situated discursive frameworks, and various cultural capital influences the experience of racial semiotics. These experiences in consumption range from accepting the content based on personal experiences, as in Mib’s case, to contesting the racial content by situating the content in relation to experiences, knowledges, and contexts, as in with Eli or Wes. Rather than passively accepting the depictions as true, both modes demonstrate that respondents “create their meanings by using their situated experiences” (DeVane & Squire, 2008), which involves participant gaming experience (or lack thereof) and racial ideology, among other factors not addressed in this study. While the racial depictions in the game are asserted to be a modern form of minstrelsy, reinforcing racial imagery of non-dominant groups (Barrett, 2006; Everett & Waitkins, 2008), video games both reproduce and contest race, showing the complexity of how race operates in society. However, in exploring these dynamics in consumption, this study was not without its challenges.
Due to lack of equal representation in my sample regarding racial demographics, I run the risk of “tokenizing” my participants, and as such, the paucity of other non-Latino racial groups is a challenge in this project. Regarding Latino respondents, my sample contained an over representation of the Latino population; this challenge, while preventing me from generalizing to larger populations, has some valid reasons as to why my sample contained more Latino respondents. Latinos constituted approximately 48% of my sample of respondents in comparison to the other racial groups (Asians: 22%, Blacks: 8%, Whites: 22%). A reason that this is the case is that the game GTA: BoGT is centered on the life of Luis Lopez, a Latino man whose life revolves around other Latinos, and cultural semiotics pertinent to Latinos such as the use of the Spanish language and the choice of music on radio stations is apparent throughout the game. Obtaining responses and interpretations from Latino respondents was a way to see how respondents from the target racial group the game depicts would interpret the content in relation to their own racial ideologies and experiences as Latinos in the United States, more precisely in the state of Idaho. Similarly, DeVane and Squire utilized black and white respondents to obtain interpretations and meanings from GTA: San Andreas that utilized cultural elements in black life such as hip hop, cultural attire, Ebonics, and black bodies and representations (DeVane & Squire, 2008). Their study did not include other racial groups and what those groups made of the content, which was something this research project sought to do but ran into challenges in sampling and by extension generalizability.

Ending and Possible Sequels

In this preliminary study, I explored the relationship between participant video game knowledge and racial lens and how this relationship influences the way players experience the racial content in GTA: BoGT. The results of the interview process, which involved playing the game introduction, demonstrated two major interpretative frameworks of the game’s content. Racial ideology played a role in interpreting content along with video game experience, which together impacted the overall experience, albeit with limits. One of the ways players interpreted the racial content was by seeing the representations as “window dressings only to facilitate game play” (DeVane & Squire, 2009) that lampoon stereotypes society relies upon. This was done both by drawing from technical aspects of a game, such as story, aesthetics, and how “real” the game can be, and from their own understandings of race through experiences and knowledge. In addition, the Gamer Technicians held a range of racial lenses, from the racially aware types like Cor to the racially colorblind like Wes or Ric. These literacies integrated with players’ gaming experience to creatively engage racialization across a range of racial lenses, which opened up a greater avenue of work. As such, to what extent can individual gamers engage racial content in a profit-minded video game industry? In other words, what particular aspects of the market nature of the media industrial complex limit these novel ways of engaging racialization? Furthermore, what particular media cultural capital allows these novel forms of engagement to metastasize? Video game cultural capital is embodied differently by every player due to their own particular genres, standards, and knowledge on particular game genres. This is exemplified in the case of Cor and Ric, whose game interests are different than sandbox games like GTA. As such, future studies can expand on these particular dynamics and trace the emergence, use, and limits of these novel ways of engagement. On the other hand, to what extent can this framework serve as a means to minimize racial content as non-racial, making a reference to the minimization frame of colorblind racism (Bonilla-Silva, 2003; Gallagher, 2004)?

The Literalists were by and large non-gamers whose experience with the game mirrored content analysis literature and also reproduced race as it spoke to their particular experiences. A trend of concern was apparent among this group regarding children and access to this sort of content. Respondents in this group expressed racially aware views and were keenly aware of how race and racial inequality operates in society as was reflected in questions about white privilege, institutional racism, and their meanings of race and racism. There were Literalist respondents with racially colorblind lenses that interpreted content through their own experiences and knowledge and saw such representations as mirroring reality. Interestingly enough, the racially aware Literalists offered repression of such content to anyone playing the game, and while they noted the racialization in the game’s virtual space, their solution to the issue continued to reproduce race not just in video games but in other media (Gallagher, 2003). As such, the lack of an in-depth media cultural context situated racial representations on critical discourses and maintained many of the tensions associated with racial public discourse (Bonilla-Silva, 2003; Winant, 1990). This contradiction coming from a critical racial standpoint begs questions that generate new research on the issue of consumption and the parameters of racial discourses. One of those questions is what is the role of racial identity development as a factor in interpreting racialized content? Drawing from Janet Helms’ work on racial identity development, the stages in which racialized actors are situated inform the way they interpret the world and by extension content (Helms, 1990).
As a result of the complex framework of gamers, this research project begs the question of how race is interpreted in a subculture stratified by market forces and by different game genres. The approach to the content informed by video game cultural capital differed significantly from those who did not possess such capital. As such, a more improved version of this project would be to focus specifically on video game players and find more variation regarding racial ideology and the ways such ideology interplays with gaming cultural capital to interpret racial content, or perhaps, as in the case of Cin and Ned, open conversations about race. The gaming culture can allow for creative ways of engaging with social and political notions, as in the case of the game BioShock, which critiques the Objectivist philosophy of Ayn Rand and critiques notions of capitalism and individualism (Packer, 2010). This case illustrates one of the ways in which video games have the potential of infusing political and social concepts along with entertainment; however, this still does not change the fact that video games, much like the media, reproduce many of the social concepts and racial views representative of those who own such modes of production (Everett & Waitkins, 2008; Leonard, 2007). This study then, begins to set opening grounds for further exploration into the video game culture and the ways both race and meaning are reproduced and contested. In addition, the video game subculture and inhabited virtual spaces speak to Baudrillard’s notion of social simulacra and the ways society is reproduced and meaning is transformed through a medium that is contingent on social forces for its virtual creation of these interactive spaces (Baudrillard, 1994; DeVane & Squire, 2008; Everett & Waitkins, 2008; Leonard, 2007).

In addition to these results in the research question, this project raised other questions that provide further points of departure and directions for future research. Another way to conduct this research in a much more systematic fashion is to utilize focus groups for the interview process. Instead of gathering participants individually and conducting personal interviews, it may work to have a group of similar folks that share common variables such as race, gaming experience, or gender. Doing focus groups is more likely to keep samples consistent and help address issues of representation in racial diversity. Another departure point is to what extent does my own identity as a Latino with a linguistic accent affect respondent answers to questions pertaining to race and racial stratification? Would responses differ if the interviewer was white? Would quality of responses be affected if I asked the same question to different racial groups, and how would those groups have responded to me? This preliminary study may serve as a launching point to a much larger project on qualitative methodology and the role of social identities in data collection, particularly in the area of critical race theory and methodology.

In speaking to the larger body of literature on this particular intersection of race and video games, I sought to address how players experience the video game racial content that reproduces the current racial order (Barret, 2006; Everett & Waitkins, 2008; Leonard, 2003) through their own experiences, lenses, and knowledge. Video games like GTA reproduce race and create spaces of interaction where factors like video game experience mediate the semiotic content and both reproduce and contest racial meanings that come about from the experience. This brings complexity, in that, actors can accept and contest the meanings by situating them as satirical, window dressings, and creating novel ways of engaging with racialized content (Barrett, 2006; Everett & Waitkins, 2008; Leonard, 2003, 2006). As DeVane and Squire contend, “Not only can players contest the dominant meanings in the space, they can also continually reconstruct the game as text through their choices in play” (DeVane & Squire, 2008). This insight opens up new avenues for research that will illuminate the ways in which race is metastasized in different subcultures and highlights one of the many ways actors engage with larger social systems in such symbiotic ways, albeit with limits in a market dominated franchise. As such, content analyses literature needs a deeper understanding of the parameters, limits, and means of these sophisticated ways of engaging racialization.

**Acknowledgements**

This project would not have been undertaken had it not been for the support of the following people who saw me develop through the process of research and have seen the growth of my work and life. I would like to recognize my mentor, Dr. Arthur Scarritt, for his tremendous insights, sense of direction, and very helpful feedback during the stages of development of this project. Without his sharp criticisms, his perspectives, and his expertise in this work, I would not be where I am at this point. I would also like to recognize the support my McNair cohort has given me during this major process; we vented, listened to each other, and built insights from our experiences as researchers. We have been through so much. Another person I would like to thank is Helen Barnes for her support and her way of making an otherwise hopeless situation into something much brighter and full of hope so I could continue in this arduous work. Next, I would like to thank the McNair program and the staff, such as Greg Martinez and Diana Garza, for their support behind the curtains and for watching us grow as a cohort as we presented our work at conferences and worked through the tumultuous times of research and experimentation. Finally, I would like to acknowledge the support of my family and friends who understood the situation in which I found myself and
supported me in many indirect and direct ways, the same people who didn’t stop believing in me and whose strength lent to mine and carried me through these ordeals.

Credits: References


Female Prisoner Attitudes Toward Sex Offenders (F-PATSO): A Preliminary Comparison Using the Community Attitudes Toward Sex Offenders (CATSO-R) Scale

N. A. Weihe: McNair Scholar
Dr. Andrew Giacomazzi: Mentor
Criminal Justice and Sociology

Abstract

This preliminary report explores female prisoner attitudes toward sex offenders (F-PATSO) held by incarcerated women at a medium security, state correctional facility. Utilizing the 18-question Community Attitudes Toward Sex Offender (CATSO-R) scale (Church, 2008) and eight demographic variables, researchers distributed self-administered surveys to 102 female inmates over the course of two days. For the purpose of this paper, and in order to determine if there is any variation in attitudes between groups, the author examines the prevalence of lifetime sexual abuse as reported by the inmates in relation to their attitudes toward sex offenders based on one of four factored areas from the CATSO-R instrument: Capacity to Change. Researchers of the F-PATSO study hypothesized that prisoner attitudes would likely mirror the measured attitudes of professionals and others who work with, and have personal experience with, sex offenders. In particular, the attitudes of the F-PATSO participants were compared to the attitudes of probation and community corrections workers in Montana, who were recently surveyed using the CATSO-R scale.

Introduction

In 1999, the Bureau of Justice Statistics (BJS) reported that 39% of female inmates in state prisons had been sexually abused before incarceration and over 25% had been sexually abused before the age of 18. Although this data is over a decade old, it is the most recent government data available on the incidence of lifetime sexual victimization of female prisoners and points to an ongoing need by government to study this disturbing and obdurate social issue. This particular BJS report showed a strong association between violent crime and a life history of both physical and sexual abuse. Given that many prisoners have been sexually abused or sexually assaulted in their lifetime, and given that they are required to live in close proximity to sex offenders while incarcerated, it is important to study prisoners’ attitudes toward them. The preliminary results of the F-PATSO study indicate that 78% of female participants incarcerated at the Idaho State Pocatello Women’s Correctional Center experienced sexual abuse or sexual assault in their lifetime. These numbers far exceed the government’s 1999 report, and they might illustrate the progress made by public educators and policy makers to educate the citizenry about what constitutes sexual assault and sexual abuse. The fact that sex crimes go largely unreported is a well-known fact in law enforcement (USDOJ/OVW, 2010).

Prior to the F-PATSO research reported here, only community members living outside prison walls have been studied concerning attitudes toward sex offenders using the CATSO-R scale. The social significance of studying prisoner attitudes is important not only for the educational purposes of prison officials and researchers, but also for uncovering and understanding the way inmates feel about the social phenomenon which impacts their lives, and including their voices in the ongoing conversation about sex offenders—particularly because so many of them have been victimized by sex offenders—has far reaching implications for the whole of society. If, as the BJS suggests, there is a connection between violent crime and either childhood or lifetime sexual and/or physical abuse, and if the desire to affect positive change in the realm of corrections is legitimate, then researchers and criminal justice policy makers must listen to the people who have been subjected to lives that set them up for incarceration.

Studies suggest that people who have close working relationships with sex offenders such as counselors and probation officers possess more positive attitudes toward them than police officers and correctional officers, who have more limited interactions with them (Hogue, 1993; Lea et al., 1999). In addition, work done in 2006 by Ferguson and Ireland using the Attitudes Toward Sex Offender scale found victims of sexual abuse and/or people
who know someone who has been sexually abused also hold more positive attitudes toward sex offenders. This combined research suggests that people who have direct experiences with sex offenders or their victims may hold less stereotypical ideas and misconceptions about them. The questions for this report ask: Do female prisoners who have been sexually abused or sexually assaulted have attitudes toward sex offenders that differ from those who do not report prior sexual abuse or assault? Are female prisoners similar to probation and community correction workers, in regard to attitudes that show sex offenders are amenable to changing their behavior? The hypothesis suggests both that prisoner attitudes, regardless of lifetime abuse, will be similar due to the fact that each population has either direct experience with sex offenders or tangential experience with those who have been victims of sexual abuse and/or assault, and that prisoner attitudes will be similar to the attitudes of professionals who work with sex offenders, attitudes that have been shown to be less stereotypical and more favorable.

Methodology

The data collection for this study took place at Pocatello Women’s Correctional Center (PWCC) located in eastern Idaho. This prison houses approximately 289 women from a variety of custody levels: minimum; medium; close; community; “timers;” administrative segregation (“ad seg”); and riders. A flyer was posted one week prior to researchers’ arrival to inform the inmates of the pending study. The random sample was performed by prison IT. They put together a list of 150 prisoners for the survey. It was assumed that all prisoners would be called out and assembled in a room, the informed consent along with a description of the research would be read, and then inmates would decide whether they would take the survey or not. This was not the case; instead, prisoners were given the choice by prison officials to opt out of the process before hearing about the specifics of the study. Based on this unknown turn of events, and in order to boost survey return results, researchers added voluntary participation as an option. Several inmates not included on the list wanted to take the survey, so it was determined by prison officials and researchers that they could participate, which raised participation to 69%. It is the feeling of the researchers that prisoners who volunteered to take the survey did so out of boredom, and because the CATSO-R instrument quantitatively measures stereotypical ideas using a Likert scale, it is doubtful the information gleaned skewed the results of the CATSO-R portion of the study in any way. On the other hand, given the high rate of lifetime sexual assault or abuse reported by the prisoners, which was much higher than 1999 reports by the government, the voluntary participants may have been more inclined to take the survey as a way to testify about their abuse.

For this preliminary report, we are looking at the dependent variable defined as inmate attitudes toward sex offender’s capacity to change, delineated as Factor 2 on the CATSO-R scale, which includes five of the 18 items in the questionnaire (questions 1, 2, 11, 12, and 18). The following charts show the frequency results for all 102 surveyed female prisoners.

Dependent Variables

Tables 1-5. Frequency Results for CATSO-R Questions 1, 11, 12, and 18

1. With support and therapy, someone who committed a sexual offense can learn to change their behavior.

<table>
<thead>
<tr>
<th>Table 1. CATSO 1</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>17</td>
<td>16.7</td>
<td>16.7</td>
<td>17.6</td>
</tr>
<tr>
<td>Disagree</td>
<td>16</td>
<td>15.7</td>
<td>15.7</td>
<td>33.3</td>
</tr>
</tbody>
</table>
2. People who commit sex offenses should lose their civil rights (e.g. voting and privacy).

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td>7</td>
<td>6.9</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td>11</td>
<td>10.8</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Probably Disagree</strong></td>
<td>11</td>
<td>10.8</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Valid</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Probably Agree</strong></td>
<td>12</td>
<td>11.8</td>
<td>11.8</td>
</tr>
<tr>
<td><strong>Agree</strong></td>
<td>23</td>
<td>22.5</td>
<td>22.5</td>
</tr>
<tr>
<td><strong>Strongly Agree</strong></td>
<td>37</td>
<td>36.3</td>
<td>36.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>102</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
11. Trying to rehabilitate a sex offender is a waste of time.

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>11</td>
<td>10.8</td>
<td>10.8</td>
<td>11.8</td>
</tr>
<tr>
<td>Disagree</td>
<td>20</td>
<td>19.6</td>
<td>19.6</td>
<td>31.4</td>
</tr>
<tr>
<td>Probably Disagree</td>
<td>21</td>
<td>20.6</td>
<td>20.6</td>
<td>52.0</td>
</tr>
<tr>
<td>Probably Agree</td>
<td>19</td>
<td>18.6</td>
<td>18.6</td>
<td>70.6</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
<td>13.7</td>
<td>13.7</td>
<td>84.3</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>16</td>
<td>15.7</td>
<td>15.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

12. Sex offenders should wear tracking devices so their location can be pinpointed at any time.

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>2</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>4</td>
<td>3.9</td>
<td>3.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>5.9</td>
<td>5.9</td>
<td>11.8</td>
</tr>
<tr>
<td>Probably Disagree</td>
<td>13</td>
<td>12.7</td>
<td>12.7</td>
<td>24.5</td>
</tr>
<tr>
<td>Probably Agree</td>
<td>21</td>
<td>20.6</td>
<td>20.6</td>
<td>45.1</td>
</tr>
</tbody>
</table>
18. Convicted sex offenders should never be released from prison.

Table 5. CATSO 18

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>11</td>
<td>10.8</td>
<td>10.9</td>
<td>11.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>19</td>
<td>18.6</td>
<td>18.8</td>
<td>30.7</td>
</tr>
<tr>
<td>Probably Disagree</td>
<td>23</td>
<td>22.5</td>
<td>22.8</td>
<td>53.5</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probably Agree</td>
<td>16</td>
<td>15.7</td>
<td>15.8</td>
<td>69.3</td>
</tr>
<tr>
<td>Agree</td>
<td>11</td>
<td>10.8</td>
<td>10.9</td>
<td>80.2</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>20</td>
<td>19.6</td>
<td>19.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>99.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>1</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These five questions are factored on the CATSO-R scale as items that indicate a person’s attitude toward a sex offender’s capacity to change. A comparison with probation and community correction workers attitudes is included, and it will be offered in the next section of this report. When scoring the factors, Question 1 is reversed scored; however, for the purpose of this report, no factor scores are reported. Instead, we are examining the percentage results of answers to the Likert survey.
Independent Variable

The “lifetime victim” variable was chosen for this report, and is one of eight independent variables from
the demographic portion of the survey. In this case, as previously noted, 78% of female prisoners reported being
sexually abused or sexually assaulted in their lifetime.

Demographic survey question

LIFETIME VICTIM: Have you ever been sexually abused or sexually assaulted* in your lifetime?
Yes _______ No________ Not Sure_______

*Sexual assault is defined as nonconsensual contact between the penis and vulva, penis and anus, the mouth and
penis, mouth and vulva, or mouth and anus.

Table 6. Life time victim

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>20</td>
<td>19.6</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>yes</td>
<td>78</td>
<td>76.5</td>
<td>78.0</td>
<td>98.0</td>
</tr>
<tr>
<td>Not sure</td>
<td>2</td>
<td>2.0</td>
<td>2.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>98.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>2</td>
<td>2.0</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An analysis of variance test (ANOVA) was performed on the IV in relation to Factor 2/Capacity to Change,
which indicated no significant variance in answers between the attitudes of those who did and those who did not
report lifetime victimage. [Note: All questions in Factor 2 indicate p = > .05]

Table 7. ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>catso 1 rev</td>
<td>Between Groups</td>
<td>2.782</td>
<td>3</td>
<td>.927</td>
<td>.407</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>223.296</td>
<td>98</td>
<td>2.279</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>226.078</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>catso 2</td>
<td>Between Groups</td>
<td>6.005</td>
<td>3</td>
<td>2.002</td>
<td>.691</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284.083</td>
<td>98</td>
<td>2.899</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>290.088</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>catso 11</td>
<td>Between Groups</td>
<td>7.579</td>
<td>3</td>
<td>2.526</td>
<td>.953</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>259.912</td>
<td>98</td>
<td>2.652</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>267.490</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>catso 12</td>
<td>Between</td>
<td>.550</td>
<td>3</td>
<td>.183</td>
<td>.070</td>
</tr>
</tbody>
</table>
These results indicate that lifetime sexual abuse or sexual assault had no bearing on female prisoner attitudes regarding sex offender capacity to change; therefore, with no variance in this regard, we will look at the overall results of the general population to identify prisoner attitudes toward sex offenders. Although the results of the ANOVA support the null hypothesis and suggest no difference exists in attitudes toward sex offenders’ capacity to change between those who have and those who have not experienced lifetime sexual victimage, this analysis does not impinge upon the theory, which may indicate that those who have a working relationship with, or personal knowledge of, sex offenders and/or their victims will have more favorable attitudes toward sex offenders. Instead, it supports this hypothesis and may show that, at least in the case of female prisoners, their attitudes toward sex offenders will be more favorable than other community members, who have less or no experience with sex offenders or their victims.

Results

In Question 1, only 46% of female prisoners agreed with the statement that support and therapy could positively affect the behavior of sex offenders, which was less than a recent CATSO-R study of probation and community correction workers’ attitudes on this question. In this study, 55.4% of professionals agreed with the statement. The results of this question are interesting. Given that a majority of participants have experienced at least one lifetime sexual assault or incidence of abuse, they may have doubts about a sex offender’s ability to change; however, over half of prisoner participants (51%) indicated that rehabilitation of sex offenders was worth the effort. This seeming disconnect between two similar and related ideas may suggest that although prisoner victims of sexual assault may have doubts about ability to change, they still hold hope that rehabilitation might work for sex offenders.

There is a clear difference between prisoner attitudes and professional attitudes when asked about abrogating civil rights for sex offenders. In the Montana study, 60% of workers disagreed that sex offenders should lose civil rights; however, 70.6% of F-PATSO participants felt otherwise. This disparity might be due in part to lower educational achievement for prisoner participants whose average highest grade completed was a high school diploma or GED. This attitude might arise from a simple lack of understanding the definition of civil rights and the social ramifications of being denied Constitutional protections. While a super majority (82%) of criminal justice workers sees rehabilitation as a worthwhile endeavor, both groups appear to support rehabilitation to some degree. Both groups overwhelmingly support the use of tracking devices for sex offenders. Prisoners support this idea with 76% of participants agreeing with the statement, and Montana corrections workers weighing in at 65%. Finally, on the question of never releasing sex offenders from prison, a small majority of female prisoners disagreed with the idea of keeping sex offenders locked up forever, which paralleled probation and correction worker attitudes, although the margin was much greater with correction employees (53% v. 82%, respectively).

These results indicate more similar than disparate attitudes toward sex offenders between these two groups. Further study, particularly with male prisoners, is necessary to test the reach of the hypothesis. Given that male prisoners are particularly punitive toward sex offenders, it will be necessary to expand on cultural and sociological explanations to define the reactions of both males and females toward sex offenders.

Conclusion

The topic of attitudes toward sex offenders is complex. The subject of sex offenders and sex crimes, in general, often evokes emotional responses from the general public, which has led researchers to attempt to develop
survey instruments that will capture peoples’ attitudes on this subject. While it is agreed that attitudes may arise from stereotypical ideas, the social implications of sexual abuse cannot be underestimated, and neither should the consequences of sexual abuse and sexual assault be conflated with the outcomes of other crimes that diverge from the deliberate trespassing of an individual’s physical sovereignty via the sexual body by another’s body. It is a serious miscarriage of human rights justice when researchers compare recidivism rates of incongruent crimes, as if all crime is comparable merely because it is deemed a criminal act. Equating the loss of a vehicle with the loss of a child’s sexual autonomy is perverse and clearly lacking in rationale, that is, an inanimate object such as a vehicle can be replaced, but studies indicate what is intuitively known at the human level of compassionate understanding that a flesh and blood child who is sexually and/or physically abused will be negatively affected on several levels (emotional, psychological, and physical) for the rest of his or her life (BJS, 1999; Kendall-Tackett, 2002).

Furthermore, a plethora of studies on sexual assault show that a majority of victims know their perpetrator. The fact that friends and family are most likely the people who choose to use a child or a woman as a means to an end for sexual gratification can be seen as one of the greatest of all human rights violations perpetrated mostly by men. The problem of sexual assault is, indeed, a grave human problem. The victims, who are overwhelmingly women and children of both genders, have a vested interest in shining the light on a social issue that has been traditionally kept in the dark. The illumination of this insidious problem is only starting to be recognized as the instigator of a great deal of human calamity.

The overall purpose of the Prisoner Attitudes Toward Sex Offender (PATSO) study is several-fold. It can be used positivistically to enhance educational opportunities in prisons, particularly if stereotypical ideas emerge in the data. On the other hand, it may show that governmental administration must be educated about the prison population’s sex offender savvy. Future results may emerge from male inmates that show their violent reactions are not emerging from misunderstanding sex offenders, but are merely instinctive expressions made by rational individuals to the threat posed by a sex offender’s presence. The PATSO study is also a jumping-off point for future prison research in the area of further understanding prisoner attitudes. While conducting the survey at PWCC, researchers heard from several prisoners who expressed positive feelings about being included in the conversation about sex offenders. Instead of perpetuating the notion that individuals deemed by law makers as social deviants have nothing to offer society, researchers and policy makers must begin looking to the prisoner for answers to questions about crimes that continue to plague U.S. culture. Individuals who have little or no personal or peripheral knowledge of sexual offending or sexual victimage will not find the answers to these questions using the hierarchical model of top down/outside in. The answers to many criminal justice questions that ask “why,” exist in the broken hearts of U.S. prisoners who, at one time, were (like every other person on the planet) innocent and hopeful human children.

References


### Appendix

Independent variables

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Ethnicity: 1= Native American/Alaska Native; 2=Latino/Latina; 3=Asian; 4=African-American/Black; 5=Pacific Islander/Native Hawaiian; 6=White; 7=Other

Gender: 1=Female; 2=Male; 3=Transgender

Education: 0=Not a high school graduate; 1=High School Diploma/GED; 2=Some College; 3=Technical
Sexual Orientation: 1=Heterosexual; 2=Bisexual; 3=Homosexual Certification; 4=Associate’s Degree; 5=Bachelor’s Degree; 6=Graduate Degree

### Frequencies

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Educational Achievement among Asian Children: Ethnic Differences in First Grade Math and Reading Scores

Lesley Yang: McNair Scholar

Dr. Michelle Frisco and Dr. Suet-Ling Pong: Mentors

Sociology and Crime, Law, and Justice

Abstract

The burgeoning Asian population in the U.S. makes it imperative to understand the factors influencing their educational attainment. The pan-ethnic category of “Asian American” overgeneralizes about diverse populations and has led to a monolithic view of Asians as high achieving students with little need for educational services. The model minority myth may be masking the drastic variation in educational attainment among ethnic Asian groups. This study uses data from the Early Childhood Longitudinal Study—Kindergarten Class (ECLS-K) to: (1) examine whether there are significant achievement gaps between different Asian ethnic groups in first grade and (2) analyze factors that account for the differences in achievement. To determine if ethnicity is a major factor in student achievement, a linear regression model controlling for school and familial factors is conducted. The findings of this study suggest that the model minority myth may not exist, and the results add to the growing body of literature underscoring both the diversity in academic achievement and the needs of Asian students.

Introduction

The Asian population is one of the fastest growing racial groups in the United States. The Asian population alone is increasing faster than the total U.S. population by more than four times, growing by 43% between 2000 and 2010 (U.S. Census, 2010). The burgeoning population of Asians makes it imperative to understand the factors influencing the educational attainment of ethnic Asian groups often concealed by the pan-ethnic social category of “Asian American.” The label overgeneralizes about extremely diverse populations, and academically, it has led to a monolithic view and perception of Asian students as “high achievers who have little need for educational services” (Pang et al., 2011, p. 378).

The model minority myth is the most prevalent stereotype for Asian Americans. The myth threatens strides towards greater educational equity by stressing that Asian Americans have succeeded despite their racial background and have excelled in the U.S. educational system because of their hard work and cultural values. The model minority myth “promotes the belief that the United States is a color-blind society wherein schools operate in an equitable system of merit” (Pang et al., 2011, p. 379). The image of Asian students as the model for other minorities has been further supported by academic research drawing conclusions from aggregated statistical data that mask the tremendous differences in the educational achievement within the racial group. Previous studies have also focused on identifying factors that positively impact higher academic outcomes that Asian American students possess more of than their peers as a way to “decode the secrets of their success” and “bottle it” (Kao, 1995, p. 122). Research of this kind has disregarded the struggles and challenges many ethnic Asian minorities face, and it implies that Asians are not minorities who need educational attention.

This article has two objectives: (1) examine whether there are significant achievement gaps between different Asian ethnic groups in first grade, and (2) analyze factors that account for the differences in achievement. The terms “Asian American” and “Asian” will be used interchangeably in this paper. As defined by the Early Childhood Longitudinal Study—Kindergarten Class (ECLS-K) dataset used in this analysis, the term “Asian” is referring specifically to U.S.-born citizens, immigrants, and refugees having origins from Far East Asia, Southeast Asia or the Indian subcontinent. For the purposes of this study, “Asian” does not include Pacific Islanders. Recognizing the diverse origin, language, and background of Asians and Pacific Islanders, the Census 2000 was the first time the two groups were split into separate categories.
Background

Differences among Asian subgroups

Asians make up 4.2%, or 11,900,000 people, of the total U.S. population (Census, 2010). Research done by Teranishi (2002, 2004) has discredited the monolithic perception by explicating how Asian Americans are the least homogeneous of all racial groups with no common language or religion. “Asian American and Pacific Islander” encompasses more than 50 distinct ethnic groups with more than 30 different languages spoken among them (Iwamasa, 2012). According to the U.S. Census, of the total Asian population, 69% are foreign born and 79% speak a language other than English at home (2010). Chinese Americans make up the largest Asian group followed by Filipinos, Asian Indians, Vietnamese, Koreans, and Japanese; and the differences among these groups are important to point out (Census, 2010). In comparison to the total U.S. population, a larger proportion of Asians have earned a bachelor’s degree (Census, 2010). However, disproportionally, Asian Indian, Pakistani, Chinese, Filipino, Korean, and Japanese have the highest percentage of people with a bachelor’s degree, and Hmong, Cambodian, and Laotian have the highest percentage of people with less than a high school degree (Census, 2010). The median age among Asian ethnicities varies greatly. Japanese have the oldest population with a median age of 42.6 and Hmong have the youngest population with a median age of 16.3 (Census, 2010). More than half (55.2%) of the Hmong population is under the age of 18 (Census, 2010). The reverse is true for average household size. Japanese have the smallest average household size of 2.25 and Hmong have the largest household size of 6.14 people (Census, 2010). Clearly the heterogeneity and diversity of the Asian subgroups is greatly masked by the model minority and the pan-ethnic label.

Education

Much of the literature on education has been concerned with the relationship between schooling and social inequality (Hallinan, 1988). Education has been revered as the “great equalizer” in allowing for great social mobility, but “researchers have been deeply concerned with factors that prevent students from attaining academic success and subsequent occupational status by merit alone” (Hallinan, 1988, p. 251). The academic achievement gap between racial groups has been of great concern for many researchers. Only recently has literature begun examining the intragroup differences among racial groups. Standardized test performance, grades, and dropout rates have all been used as measures to assess the U.S. achievement gap and to identify factors of inequality in an effort to reach a more equitable educational system (Pang et al., 2011). Gutiérrez (2002) makes a distinction between equality and equity, and argues that an equitable educational system is one where academic achievement is not predictable solely based on a student’s race, class, ethnicity, sex, proficiency in the dominant language, or other characteristics. Equity encompasses both the conditions in which learning occurs as well as the outcomes as a way to rectify economic and social inequalities (Gutstein et al., 2005).

Theoretical Background

Cultural explanation

Cultural explanation theory has been the most prevalent theory used to explain the educational success of Asian Americans. Caudill and De Vos (1956) were among the first to argue that Asians were successful because they are taught to value education and learning. In their study, they concluded that Japanese Americans had gained relative success because they exhibit cultural characteristics valued by the dominant group. In regards to education, ethnic groups have cultural orientations that can either benefit or hurt their odds of educational success based on how closely their culture matches American culture (Kao, 2003; Lee, 2009). Specific cultural traits, such as docility, diligence, and the ability to assimilate into the dominant culture have been attributed to traditional Asian cultural philosophies like Confucianism (Chou, 2008). Tate’s (1995) research argues that the disproportionate number of African American students being tracked into remedial mathematics is due to the traditional approach of mathematics instruction. He supports a culturally relevant mathematics pedagogy that is built around the thinking and realities of African American children instead of a “foreign” pedagogy using a white middle class frame of reference (Tate, 1995). Tate’s research, although analyzed through an Afrocentric framework, is still relevant for understanding academic differences among other ethnic minorities. His findings speak to how the linguistic codes,
behavioral expectations, and assumptions about teaching and learning disregard the lived experiences of students of color and of lower economic class.

Bourdieu’s concept of cultural capital, originally used to explain the reproduction of social class inequalities, has been adopted as a way to describe the achievement and underachievement of racial and ethnic minorities (Ngo & Lee, 2007). Cultural capital is the set of norms, values, and knowledge transmitted to children through their parents, and Bourdieu & Passeron (1977) assert that schools favor the norms, values, and knowledge of white middle class so that children from a white middle class background are better equipped to be successful in school. Thus, the cultural explanation theory posits that the high academic achievements of Asian American students are attributed to their Asian cultures being more conducive to academic achievement and that they possess similar values to those of white middle class values. However, the theory fails to take into account the within-group differences in academic achievement among Asian students. Researchers have criticized that by focusing on cultural differences, racism has evolved to replace physical characteristics with cultural traits (Chou, 2008). Research done by Covello (1972) and Gibson (1989) has shown that groups who share similar values to Confucian cultural values do not always perform better in school relative to others.

Cultural-ecology

In Ogbu’s (1978) cultural-ecology theory, he examines the ways in which culture and structural explanations jointly influence student achievement. The theory “emphasizes the importance of community forces and a group’s historical experiences in the racially stratified system in the United States in shaping a group’s educational aspirations and achievement” as a way to better understand variation among ethnic groups (Ngo & Lee, 2007, p. 418). Ogbu (1983) introduces the concept of voluntary and involuntary minorities. He argues that because of the ways in which involuntary minorities are incorporated into the United States, their perception regarding opportunities and schooling are drastically different than the perception of voluntary minorities who often come to the United States in search of a better life (Lee, 2009). Although Ogbu argues that Asians do better in school than other minorities because of their voluntary status as immigrants, his theory can still be applied to better understand intragroup differences among Asian Americans. This approach links academic performance to the meanings attached to ethnic labels.

In Unraveling the ‘Model Minority’ Stereotype, Lee conducts ethnographic research on a group of Asian American students attending a public high school located in a major East Coast city. She states that “identity, historical experiences, perceptions regarding future opportunities and attitudes toward schooling are related” (Lee, 2009, p. 77). The way in which the students identified affected their academic achievement and attitude towards schooling because they do not all see themselves as being the same. In Lee’s study, the new wave-identified students were among the lowest achieving students and their identity as a new wave affected their attitude towards schooling (2009). The new wave students also consisted mainly of second and third wave refugees from working-class and poor families. Masked by the model minority stereotype is the drastically different migration experience of refugees and immigrants from Vietnam, Cambodia, and Laos to the U.S. Lee’s study shows that new wave-identified students “did not believe in the connection between schooling and future success,” and they saw it as a way to resist racism (Lee, 2009, p. 77).

Methods

Data and sample

The Early Childhood Longitudinal Study—Kindergarten Class of 1998-99 (ECLS-K), sponsored by the National Center for Education Statistics, is a nationally representative sample of children from 1,413 public kindergarten programs. The study followed them from the fall of kindergarten through the spring of eighth grade. The ECLS-K focuses on children’s early school experiences, and information is obtained directly from the children, their families, teachers, and schools in seven waves. The base year data was collected in the fall of 1998 and spring of 1999, and it was followed by data collected in the fall and spring of first grade, and the spring of third, fifth, and eighth grades. In the spring of first grade, the sample was freshened to obtain a more nationally representative sample of first graders by expanding the selection to include first graders who were not enrolled in kindergarten during the 1998-99 school year.

Unweighted data from the public use file of the ECLS-K is employed in this study drawing from participants in the spring of first grade and was restricted to Asian students. The final analytic sample consists of
981 elementary students who identified as “Asian” and any respondents with missing data on ethnicity, reading scores, or math scores are excluded from the sample.

Variables of interest

Achievement measures. The outcome variable used to analyze achievement among Asian ethnicities is obtained from the spring of first grade Item Response Theory (IRT) test scores in reading and mathematics. The IRT scores are utilized because they allow for a comparison regardless of which second-stage form a student was administered during their assessment. Questions in the spring of first grade mathematics assessment consisted of number sense, properties, and operations; measurement, geometry, and spatial sense; data analysis, statistics, and probability; and patterns, algebra, and functions. Questions in the reading assessment consisted of initial understanding; developing interpretation; personal reflection and response; and demonstrating a critical stance.

Ethnicity. The independent variable of ethnicity is obtained from the spring of first grade parent survey. The question asked parents to identify whether the child was a member of an Asian group, and if so, which of the following Asian groups best described the child’s origin. Parents were given eight ethnic groups to choose from, and they include: Asian Indian (1); Chinese (2); Filipino (3); Japanese (4); Korean (5); Vietnamese (6); Hmong (7); and Other Asian (8). The categories were recoded into: 1 = Asian Indian, 2 = Chinese, 3 = Filipino, 4 = Japanese, 5 = Southeast Asian, and 6 = Other Asian. The Hmong and Vietnamese categories were combined to create a larger sample because there were fewer than 70 students in the Hmong sample. Hmong are an ethnic minority inhabiting parts of southern China and the northern parts of Vietnam, Laos, Thailand, and Myanmar (Martin, 2008). Using the Association of Southeast Asian Nations’ (ASEAN) definition of “Southeast Asia,” which includes Vietnam and Laos, the Hmong and Vietnamese samples have been combined and recoded as “Southeast Asian.”

Control variables

School level characteristics:

School type. The variable for school type is obtained from the spring of first grade school administrator questionnaire. The variable consists of a dichotomous measure where 1 = public and 0 = private.

School size. School size is recoded using data collected from the spring of first grade school administrator questionnaire. The question asked school administrators to enter the total enrollment at their school. The original item consisted of five categories: 0-149 students (1); 150-299 students (2); 300-499 students (3); 500-749 students (4); and 750 and above (5). The variable was condensed into a simple dichotomous measure where 1 = small school size and 0 = large school size. This study employs the U.S. Department of Education’s definition for the classification of school size, which considers elementary and secondary schools with less than 300 students “small” (U.S. Department of Education, 2011).

Location type. The location type of the school is taken from the spring of first grade school administrator questionnaire. The original item consisted of three categories: central city (1); urban fringe and large town (2); and small town and rural (3) and was recoded into 1 = urban, 2 = suburban, and 3 = rural.

Family level characteristics:

Marital status. The variable for marital status is recoded utilizing the spring of first grade parent survey asking for the current marital status of the parent filling out the questionnaire and was recoded into a dichotomous measure where 1 = unmarried and 0 = married.

Poverty level. The dichotomous variable for poverty level is obtained from a composite of two variables: parent income and household total. Income and household total were compared to preliminary census poverty thresholds for 1999 in order to determine whether a household fell above or below the threshold. The variable is coded in a measure where 0 = below poverty threshold and 1 = at or above poverty threshold.

Language status. The dichotomous variable for language status is taken from the spring of first grade parent questionnaire. Parents were asked if the primary language spoken at home was English and given two response options: Non-English language at home (1) and English at home (0).
Analytic Strategy

In this study, preliminary analyses are conducted to determine whether ethnicity is related to test scores. ANOVA tests are used to determine if there were any significant differences between the test means of both mathematics and reading between the various Asian ethnic groups. Then, cross-tabulations using bivariate analyses are used to show the relationship between ethnicity and control variables of interest. Finally, regression analyses are used to determine whether the control variables (described above) can account for the differences between groups.

Results

Descriptive statistics

Table 1 presents the distribution of Asian ethnicities within the sample and the descriptive statistics for the variables used in the study. The ethnic categories utilized in this study were Asian Indian, Chinese, Filipino, Japanese, Korean, Southeast Asian and Other Asian (those who chose the “other” category or identified themselves as Asian by race but did not choose an ethnic category). The number of students in the seven groups range from Filipinos being the largest group with 239 (24.4%) participants and Koreans being the smallest group with 71 (7.2%) participants. In the study population, Asian Indian (27.1%), Filipino (25.5%), and Korean (23.9%) have the most students in small schools. Filipino (30.5%) and Asian Indian (28.0%) have the most students in private school, and Southeast Asian (11.2%) and Other Asian (13.7%) have the least amount of students in private school. Japanese (84.1%), Filipino (67.8%), and Asian Indian (51.7%) have the most students who speak English at home, whereas Southeast Asian (16.8%) by far has the fewest students who speak English at home. Southeast Asian (83.2%) has the most students who speak a non-English language at home. Also, disproportionately, Southeast Asian (40.6%) and Other Asian (29.0%) have the most students living below the poverty threshold compared to the other groups examined in the study.

The first grade IRT score means and standard deviations are shown in Table 2. The table reports the overall means of math and reading scores for each ethnic group and for Asians as an aggregate. The math mean between ethnic groups ranged from a low of 60.28 (for Filipinos) to a high of 69.41 (for Chinese). The aggregate math mean was 64.24 (SD = 17.80). In reading, the mean between groups ranged from a low of 76.02 (for Southeast Asian) and a high of 94.28 (for Asian Indian). The aggregate reading mean was 86.20 (SD = 25.82).

Table 1. Student Population Characteristics: School and Familial Factors by Ethnicity

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Language Status

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Poverty Level

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Notes: Total N = 981
Source: Early Childhood Longitudinal Study—Kindergarten

Table 2. Reading and Math Scores by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Math Mean</th>
<th>Math Std. Deviation</th>
<th>Reading Mean</th>
<th>Reading Std. Deviation</th>
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<tbody>
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<td>Asian Indian</td>
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<td>18.16</td>
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<td>Chinese</td>
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<td>18.76</td>
<td>92.70</td>
<td>27.30</td>
</tr>
<tr>
<td>Filipino</td>
<td>60.28</td>
<td>16.13</td>
<td>85.62</td>
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<tr>
<td>Japanese</td>
<td>67.39</td>
<td>16.65</td>
<td>85.41</td>
<td>22.77</td>
</tr>
<tr>
<td>Korean</td>
<td>67.42</td>
<td>18.69</td>
<td>93.78</td>
<td>24.86</td>
</tr>
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<td>22.02</td>
</tr>
<tr>
<td>Other Asian</td>
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<td>18.23</td>
<td>77.20</td>
<td>22.91</td>
</tr>
<tr>
<td>Total</td>
<td>64.24</td>
<td>17.80</td>
<td>86.20</td>
<td>25.82</td>
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</table>

Source: Early Childhood Longitudinal Study—Kindergarten

One-Way ANOVA

To test for academic achievement differences among the seven ethnic groups, a one-way ANOVA was conducted. The results in Table 3 show that the differences in score means were significant for reading F(6, 980) = 12.04, p < .001, and for math F(6, 980) = 8.44, p < .001. Multiple comparisons using the post hoc test were then applied to measure math and reading scores among the groups. For the remainder of this study, Asian Indian students were chosen as the reference group because they were one of the highest achieving groups and differed statistically from most of the other ethnic groups. In math, Asian Indian first graders (M = 67.44) scored significantly higher than Filipino (M = 60.28, SE = 1.97), Southeast Asian (M = 60.91, SE = 2.14), and Other Asian (M = 60.29, SE = 2.34) students. In reading, Asian Indian first graders (M = 92.70) scored significantly higher than Southeast Asian (M = 76.02, SE = 3.16) and Other Asian (M = 77.20, SE = 3.29) students. Asian Indian, Chinese, Japanese, and Korean first grade math and reading scores did not statistically differ from one another; however, they
performed significantly higher than the remaining groups. Southeast Asian and Other Asian differed significantly from each other and from all other groups in both their math and reading scores (data available upon request).

Table 3. Results of the Analysis of Variance for Reading and Math Scores

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<tr>
<th>Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
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<td>Within Groups</td>
<td>608381.084</td>
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<td>624.621</td>
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*p < .001
Source: Early Childhood Longitudinal Study—Kindergarten

Table 4. Comparisons of Means in Reading and Math Scores

<table>
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<th>Math</th>
<th>Reading</th>
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<td>Mean Diff</td>
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<td>Chinese</td>
<td>69.41</td>
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<td>Filipino</td>
<td>60.28</td>
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<td>Korean</td>
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<td>Other Asian</td>
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<td>7.15*</td>
</tr>
<tr>
<td>Total</td>
<td>64.24</td>
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*p<0.05
Source: Early Childhood Longitudinal Study—Kindergarten

**Linear Regression**

To determine if ethnicity is a major factor in student achievement, school and familial factors are taken into account to see if they can explain the differences in achievement. Table 5 shows estimated coefficients for three linear regression models using Asian Indian as the reference group. The first model includes only the bivariate effects of ethnicity on reading scores. The results show that the reading scores of Filipino, Japanese, Southeast Asian, and Other Asian students were statistically different from Asian Indian students. Taking into account the influence of school characteristics on academic achievement, school factors were added into Model 2. When school factors were added, the coefficients for all ethnic groups increased suggesting that school factors can explain some of the reading score disparities between the other Asian ethnic groups and the reference group, Asian Indian, but not all. After controlling for school level characteristics, Filipino, Japanese, Southeast Asian, and Other Asian were still significantly doing worse than Asian Indian when it came to reading.
In the third model, school factors along with family factors were added. Again, the coefficients for all ethnic groups increased, meaning that school and family level characteristics could jointly explain some of the reading score disparities between groups, but not all. With the inclusion of family level characteristics, reading scores for Filipino, Japanese, Southeast Asian, and Other Asian first grade students were still significantly different from Asian Indian first grade students. This suggests that school and family factors cannot fully explain the achievement disparities among Asian ethnic groups.

Table 5. Estimated Coefficients of Linear Regression Models for Reading Scores

<table>
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<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
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<td>87.903</td>
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<td>R²</td>
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<td>0.154</td>
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</table>

* p < .05, ** p < .01
Source: Early Childhood Longitudinal Study—Kindergarten

Table 6 shows the estimated coefficients for three linear regression models using Asian Indian as the reference group. The first model shows the bivariate effects of ethnicity on math scores. The results reveal that the math scores of Filipino, Southeast Asian, and Other Asian students were statistically different from Asian Indian students. Once school factors were added into Model 2, the coefficients for all ethnic groups increased, implying that school factors can explain some of the reading score disparities between the other Asian ethnic groups and the reference group, Asian Indian, but not all. The coefficients for Southeast Asian and Other Asian increased significantly more than the coefficient for Filipino, implying that school level characteristics can explain more of the math score disparity for Southeast Asian and Other Asian than for Filipino. Despite the increase, Filipino, Southeast Asian, and Other Asian were still doing significantly worse than Asian Indian when it came to math.

In the third model, school factors along with family factors were added. The coefficients for all ethnic groups increased, meaning that school and family level characteristics can jointly explain some of the reading score disparities, but not for all groups. With the inclusion of family level characteristics, reading scores for Southeast Asian and Other Asian first grade students were no longer statistically significant. However, reading scores for Filipino first grade students were still significantly different from Asian Indian first grade students. These results suggest that school and family factors can explain the achievement disparities for Southeast Asian and Other Asian students, but not for Filipino students.

Table 6. Estimated Coefficients of Linear Regression Models for Math Scores

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
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</table>
Japanese -0.051 0.901 1.301
Korean -0.022 -0.287 -0.026
Southeast Asian -6.529** -3.699* -0.828
Other Asian -7.149** -5.565* -2.914
Location type (ref=city) 6.023** 5.572**
School type (ref=public) 6.060** 4.522**
School size (ref=large) -4.550** -4.415**
Language status (ref=English at home) -19.47
Marital status (ref=married) -6.941**
Poverty level (ref=above poverty level) -5.325**
R^2 0.049 0.093 0.134

*p<.05, **p<.01
Source: Early Childhood Longitudinal Study—Kindergarten

Discussion

This study adds to the growing body of literature underscoring the diversity in academic achievement and potential needs of Asian students. Supporting the findings of other research (Pang et al., 2011; Newell & Fuller, 2010; Kao, 1995), this study found that the use of a pan-ethnic label “Asian” is an impediment to understanding the achievement differences among Asian American students.

A major challenge to this study is the small sample size. It would have been ideal to have more ethnic groups represented in the study and not have to combine groups. My future research will look more deeply into varying characteristics that are not as easily quantifiable among the Asian population and immigrant generation that may account for the educational disparities not explained by school and family level characteristics utilized in this study.

The findings of this study suggest that the model minority myth may not exist. The variation of educational disparities among Asian ethnic groups dispels the myth that all Asians perform at high levels. Study findings provide support for continuing research in deconstructing racial categories and further examining the academic achievement of Asian and other ethnic minorities whose educational needs are masked by aggregate data. The results suggest that researchers, educators, and policy makers should take more consideration into ethnic differences and look beyond a Black-White dichotomous achievement gap in order to achieve a more equitable educational system.

References


