

Progress Report

Center for the Study of Diversity 2014 Faculty Grant Program

“Expanding the Impacts of English Teacher Candidates’ Urban SAT Course”

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Project Background

During the Spring 2014 semester, University of Delaware English Education majors enrolled in ENGL295 (“Introduction to English Education”) offered our 3rd Annual free, after-school SAT Verbal preparation course at Howard High School of Technology in Wilmington, Delaware. We again offered the course in ten sessions over the five weeks leading up to the SAT School Day that was held on April 16, 2014.

2013-2014 school year was the last year during which Delaware’s Race to the Top award monies provided funding for all public high school juniors to take the SAT for free during the school day. This program intended to make the SAT more accessible to Delaware youth and was part of Delaware’s mission to increase students’ college readiness. However, while the cost of administering the SAT is significant, no funding was earmarked for SAT preparation, and thus, the initiative was poised to not ultimately help the lower-income or potential- first-generation high school students who stood to gain the most from this program.

In Spring 2014, the SAT-V course was attended by 98 Howard sophomores and juniors (83.5% people of color; 75% low-income) and was taught by 35 freshman and sophomore UD English Education majors (11.4% people of color; 14% low-income).

Research Methods

Participants and procedure.

Howard High School of Technology.

226 students were targeted to participate in the study. 116 students completed at least part of the pre-course survey. 132 students completed at least part of the post-course survey. 98 students attended at least one prep class. 33 students completed both the pre- and post-course surveys. Of the students for whom we had demographic data, mean age was 16.8, $SD=.74$. Most students identified as Black of non-Hispanic origin (61%), followed by White (16%), Asian (1%), Black of Hispanic origin (10%), Hispanic (9%), American Indian (6%), Native Hawaiian (2%), and other (11%).

Measures.

Family history. To gain insight into students' family histories, students reported the highest level of mothers' education and highest level of fathers' education on a 1=some high school, 2=graduated high school, 3=some college, 4=graduated college, 5=post-graduate degree scale. Students also reported how many family members have attended college, and whether parents helped students learn about college, prepare for college, and would be proud if their child attended college on a 1(*strongly disagree*) to 7(*strongly agree*) response scale. Finally, we used students' zip codes to estimate household income.

College- ready dispositions. To determine whether the course influenced dispositions towards the SAT-V and academics more generally, participants completed pre- and post-course online questionnaires. We measured test anxiety, self-regulatory abilities, and self-efficacy with items from the Motivated Strategies for Learning Questionnaire (Pitrich & DeGroot, 1990) that were modified to be specific to the SAT-V. Specifically, test anxiety was measured with a 4-item scale (e.g., "I worry a great deal about the Verbal SAT"), $\alpha=.81$, self-regulation was measured with an 8-item scale (e.g., "Before I begin studying for the Verbal SAT, I think about the things I will need to do to learn"), $\alpha=.67$, and self-efficacy was measured with a 9-item scale (e.g., "I expect to do very well on the Verbal SAT"), $\alpha=.96$.

We measured the degree to which students based self-worth on their Verbal SAT and academics with the 3-item disengagement dimension of the Intellectual Engagement Inventory (e.g., "I really don't care what the Verbal SAT says about my intelligence"; Major & Schmader, 1998), $\alpha=.72$, and the academics dimension of the Contingencies of Self-Worth Scale (e.g., "My self-esteem is influenced by my academic performance"; Crocker, Luhtanen, Cooper, & Bouvrette, 2003), $\alpha=.85$. Finally, students reported their degree of college valuing on a 4-item scale (e.g., "Going to college is very important to me"), $\alpha=.91$, and their expected SAT-V scores. With the exception of the expected SAT-V scores, all responses were made on a 1(*strongly disagree*) to 7(*strongly agree*) Likert scale.

ENGL295 Students.

34 students (8 male, 26 female; 97% White, 6% Black of non-Hispanic origin; 3% Black of Hispanic origin, 3% Asian) participated in this study.

Measures.

To determine whether the course affected students' attitudes towards multicultural classrooms, students completed pre- and post-course measures of the Attitudes towards a Multicultural Classroom Questionnaire (Powell, Zuhem, & Garcia, 1996). This measure includes a 10-item dimension that captures attitudes towards fostering a multicultural classroom (e.g., "I can explain how culture enhances students' learning of academic content"), $\alpha=.82$, a 10-item dimension that captures attitudes towards constraining multiculturalism (e.g., "I prefer teaching students who share my cultural background"),

$\alpha=.78$, and 12-item dimension that captures the degree to which one has experienced multicultural education (e.g., “I have examined tests for cultural bias”), $\alpha=.88$. Responses were made on a 1(*strongly disagree*) to 5(*strongly agree*) Likert scale.

Additionally, students used a 1(*strongly disagree*) to 7(*strongly agree*) Likert scale to respond to a pre- and post-course measures of perceptions of racial disparities in college aspirations. Items included “Compared to non-White high school students, White high school students think about college more often”, “Compared to non-White high school students, White high school students are more motivated to go to college”, and “Compared to non-White high school students, White high school students spend more time preparing for college”, $\alpha=.95$.

Results

Howard High School of Technology

Pretest measures and attendance.

To determine whether family education influenced participation in the class, we examined the relationships between class attendance and the highest education of mothers and fathers, the number of family members that attended college, whether parents helped students learn about college, whether parents helped students prepare for college, and whether parents would be proud if their child attended college. We also examined relationships between class attendance and family income. No relationships were significant, $r_s < .10$, $p_s > .40$. Thus, class participation did not vary as a function of family education or income.

To determine whether participation in the class varied as a function of students' initial college-ready dispositions, we examined the relationships between class attendance and pretest levels of self-efficacy, self-regulation, test anxiety, contingencies of self-worth in the academic domain, college valuing, and expected score on the SAT-V. Students with greater levels of pretest college valuing attended more classes, $r=.20$, $p=.02$. No other relationships were significant. These null relationships suggest that students who attended the class were heterogeneous on factors related to family history, college-ready dispositions, and SAT expectations.

Effects of attendance on college-ready dispositions.

To determine whether class attendance influenced student attitudes towards school and the SAT, we performed a series of regression analyses, wherein post-test measures were regressed on class attendance, while controlling for pretest measures.

When we regressed post-test self-efficacy on the model described above, a main effect emerged, such that greater class attendance predicted greater increases in self-efficacy, $b=.06$, $SE=.03$, $\beta=.20$, $p=.05$. Similarly, when we regressed post-test self-regulation on class attendance while controlling for pre-test self-regulation, a main effect emerged, such that greater class attendance predicted greater increases in self-regulation, $b=.24$, $SE=.09$, $\beta=.29$, $p=.01$. Finally, regressing post-test test anxiety on class attendance while controlling for pre-test class anxiety revealed that class attendance was unrelated to changes in test anxiety, $p=.18$. Thus, students who attended more classes

showed increased self-efficacy and self-regulation, but class attendance did not influence test anxiety.

Effects of attendance on practice test scores.

When we regressed Practice Essay Score 2 on class attendance, while controlling for Practice Essay Score 1, the effect of class attendance was not significant, $p > .15$. Similarly, when we regressed Practice Reading Score 2 on class attendance, while controlling for Practice Reading Score 1, the effect of class attendance was not significant, $p > .16$.

The aforementioned analyses modeled total class attendance (i.e., the sum of attendance in reading, writing, and practice classes) as the main predictor variable. Notably, when we modeled attendance in each content area as a separate predictor variable, effects remained non-significant, $ps > .11$. Thus, class attendance did not appear to influence practice test scores.

Effects of college-ready dispositions on practice test scores.

Next, we examined relationships between college-ready dispositions on Practice Test 2. Greater test anxiety predicted lower scores on both the reading section, $r = -.53$, $p = .02$, and writing section, $r = -.47$, $p = .04$. In contrast, greater self-regulation skills predicted higher scores on the reading section, $r = .48$, $p = .04$, and marginally significantly higher scores on the writing section, $r = .42$, $p = .07$. Self-efficacy was related to neither writing test scores nor reading test scores, $ps > .30$. Thus, test anxiety was detrimental for test scores whereas self-regulation was beneficial for test scores.

To determine which attitude had the strongest effect on test scores, we regressed Reading Test 2 scores on post-course self-regulation, self-efficacy, and test anxiety. Only the effect of test anxiety was significant, $b = -44.85$, $SE = 20.21$, $\beta = -.48$, $p = .04$, indicating that more anxious students performed worse on the Reading Test 2. No other effects were significant, $ps > .08$. When we regressed scores on Writing Test 2 on the model described above, no effects were significant, $ps > .14$. Taken together, these results suggest that the strongest relationship between college-ready dispositions and test scores is that greater test anxiety decreased performance on the reading test.

ENGL295

Attitudes towards multiculturalism.

To determine whether teaching the SAT preparation course influenced ENGL295 students' attitudes towards multiculturalism, we performed a series of paired-samples t-tests. Results revealed that students showed significant increases in the degree to which they worked with populations who are different, $t(33) = 2.56$, $p = .02$, feel experienced dealing with diversity in the classroom, $t(33) = 2.65$, $p = .01$, and foster diversity in the classroom, $t(33) = 3.91$, $p < .001$. Similarly, students showed significant decreases in the degree to which they constrain diversity in the classroom, $t(33) = -2.55$, $p = .02$. No other effects were significant, $ps > .08$.

