

The Connections Between Students Self-motivation, Their Classification (Typical Learners, Academic Intervention Services Learners, and Gifted), and Gender in a Standardized Social Studies Test

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This study examines differences, if any, between gender, level of motivation, and students' classification (typical learners, academic intervention services learners, and gifted) in scores upon DBQ (document-based questions) among the sixth grade students. 64 grade students were given a DBQ as part of their final examination. Students' scores were evaluated with a series of one way ANOVA (Analysis of Variance) to determine if differences existed. The ANOVA's showed that no difference existed in the means by gender, but that significant differences existed by student classification type and the level of motivation of the students.

Keywords: NCLB annual testing, DBQ (document-based questions), middle school, advanced placement testing, at risk student learning, student classification, student motivation, student gender

Objectives or Purposes

In New York State, students take tests in Grades 5, 8 and 11 to monitor their skills in social studies. The 11th grade test is a gatekeeper test towards a New York State diploma. A major portion of each student's performance score is the student's extended response section, commonly called as the DBQ (document-based questions). In this section, students are typically given four to eight documents to analyze and frame short answer responses to questions. Documents vary, some are primary source material, some may be maps and others may be political cartoons. Students have 90 minutes to analyze and process an essay of four to six paragraphs upon a theme laid out in the documents. In New York State, the DBQ counts for 30% of a student's score on the state assessment.

The purpose of this research was to determine if differences existed among the mean scores of students of DBQ of Grade 6 students based upon gender, student classification and motivation.

In this study, students were classified based upon the types of services they were entitled to or qualified for. The AIS (academic intervention services) learners students of this study were mandated to receive additional or differentiated instruction that typical and gifted students based upon low performance on state tests. Gifted students were entitled to receive additional and differentiated instruction in academic areas based

on high performance upon state tests and teacher recommendations. Typical learners were between these lower achieving and high achieving students.

In this study, motivation was defined as the likelihood of students to participate in learning activities outside the course of the classroom. The variables studied were completion of homework and taking advantage of opportunities to gain extra credit in their social studies scores. Using this information, students were assigned a motivation score based on their performance in completing assignments and their participation in extra credit opportunities.

Theoretical Framework

Stovel (2000) presented the DBQ as a tool to strengthen student writing, stating that, “Good writing comes from clear thinking”, and he praised the DBQ as a tool to helping students develop understanding by using analysis. This analysis included deconstructing the document by asking questions pertaining to point of view, historical and cultural perspectives, looking for instances of bias and investigating genre of the document and its impact upon the essay task question. All of these are steps that prelude to writing this paper itself.

Among the reasons given for having students take the DBQ, there is the one that it measures the ability of students to work with multiple perspectives on a social studies issue. The DBQ also offers an authentic assessment tool that has students read, analyze, comprehend, evaluate, and synthesize varied sources into a “complete package” (NYSED, 2007). The DBQ also places emphasis upon using ELA (English language arts) skills. This practice of using ELA skills across the curriculum is a common practice, and is viewed positively by many middle school principals (Dupree, 2009).

Vankateswaran (2004) investigated the fairness of DBQ in advanced placement tests based on bias of learning style, gender, and performance of minorities and females as compared to White males. This study found that White males outperform females on the DBQ section, males also performed better than other groups, but the difference in the means, while significant, was negligible.

Martin (2006) addressed how teachers can promote involved personal learning in an age of increased standardized tests. He reviewed the motivational factors involved in student performance in the social studies classroom and upon Virginia’s statewide test. He summarized that motivation played a vital role in student performance in social studies, but doubted if motivation itself is enough to solve the challenges for some students to pass Virginia’s 11th Social Studies State Test.

Since its inception in the 1970s, the DBQ has undergone substantial changes. The original purpose—a gatekeeper for high school students being eligible for an advanced placement program, has evolved to gatekeeper for high school graduation and often determines student placement for those as young as ten years.

Methods

This study investigated the differences in mean scores upon the DBQ portion in the final examination at the end of the year. Over the course of a school year, 64 middle school students were given similar instruction in the methods of answering a DBQ portion of a test. The 64 students were in three classes composed of typical, AIS and gifted learners. Each of the three class sections received similar instruction by the same teacher, similar assignments and opportunities to practice their skills upon the DBQ.

An example of the DBQ might be a political cartoon depicting pyramids, examples of hieroglyphs, maps

of the Egypt, and a quote of ancient Egypt. Students would respond to these documents, develop their thoughts and answer to an essay question. The essay question might be “What factors made Egypt a powerful civilization?”. Students throughout the state answer the same question, and the state provides a detailed scoring rubric to assess student performance.

Students were given five opportunities to perform upon the DBQ throughout the school year. The first opportunity was teacher guided, with students allowed to make corrections. The second was under modified test settings, with students allowed access to the teacher for advice and given 225 minutes of class time. The third was another guided practice. Students were given unlimited time and chances to address shortcomings in performance. The fourth emulated test conditions of the final examination allowing 90 minutes for completion of the DBQ with allowances made for students in accordance with their IEP (individual education plan). The fifth instance was the final exam. Throughout the year, students engaged the instructor for feedback.

Since Martin (2006) showed that motivation and completion of homework are factors in student performance upon state testing, students were given a score in motivation by the researcher based upon data provided by the classroom teacher which measured their performance. Completing homework formed a baseline score, which was modified by the students’ successful completion of extra credit. Students who completed extra credit were awarded a 5% increase to their daily performance score. Students who scored < 65% were given the rating of unmotivated, > 65% to < 75% were rated as low, > 75% to < 85% were rated as average, > 85% to < 100% were rated as high, and > 100% were rated as motivated (see Table 1).

Table 1

Student Motivation

< 65%	Unmotivated
> 65% to < 75%	Low motivation
> 75% to < 85%	Average motivation
> 85% to < 100%	High motivation
> 100%	Motivated

The DBQ was scored on a rubric which had been developed by the teaching staff of the school. The rubric had a range of one (low scores) to five (exemplary). The test itself consisted of five documents concerning itself with various issues of course content. There were 15 questions in this section with a value assigned of one point per question. The second section was the essay itself. The DBQ portion was counted as 30 points of the final exam, with a maximum of 15 points being possible for answering the questions on the documents and 15 points being the maximum score for the essay itself. The essay was marked based on the rubric with scores of one awarded seven of 15 points, scores of two awarded between 8-10 points, scores of three awarded 11 or 12 points, scores of four awarded 13 or 14 points and scores of five being awarded 15 points. Students’ scores were formed by adding the score on the documents with the score obtained for the essay. The results were then divided by 30 to form a percentage score.

All students in the study took the test on the same day in their own classrooms, except of two students who were absent on the day of testing and took the same test the next morning at commencing the school day.

Results

To determine the differences in the means of the three groups of students, a one way ANOVA (Analysis of Variance) was conducted with DBQ score as the dependent variable and gender, student classification type and student motivation level as the dependent variables. The results of the ANOVA were not significant with gender, $F(1,62) = 1.032$ and $p = 0.31$ were significant along the factors of student classification type— $F(2,61) = 8.04$ and $p = 0.001$, and student motivation— $F(4,49) = 5.89$ and $p = 0.000$.

Because the overall F -test for student classification type was significant, follow-up tests were conducted to evaluate pair-wise differences among the means. Typical learners showed a tendency towards higher means than AIS students $M = 0.08$, $p = 0.06$, and significantly lower means than gifted students, $M = 0.10$, $p = 0.02$. AIS students scored significantly lower than gifted students, $M = 0.18$, $p = 0.001$.

As the overall F -test for student motivation level was significant, follow-up tests were conducted to evaluate pair-wise differences among the means. Students with a low level of motivation scored lower than average motivated students, $M = 0.15$, $p = 0.02$, highly motivated students— $M = 0.17$ and $p = 0.001$, and fully motivated students— $M = 0.21$ and $p = 0.001$. These were the only students who showed significant differences in their means scores of the DBQ.

Importance of the Study

The first factor which makes this study important is the relative lack of studies which had analyzed raw data from the DBQ portion of social studies tests. Few studies have conducted in-depth analysis of the DBQ, although it is commonly used in many states as a major facet of annual testing. These studies have limited their findings to those students taking the Advanced Placement United States History Examination. Since the DBQ is now taken by all students, research is needed to analyze the impacts of testing these younger learners in a manner similar to one historically reserved as a gatekeeper for high school students entering advanced placement settings.

Findings concerning gender did not match the findings of the previous research, in this study, gender did not play a significant factor in DBQ score means. This study also investigated the factors of student classification and students motivation levels, and both of these factors were seen to be significant regarding performance on the DBQ.

Two factors showing significant differences in student performance upon the DBQ were student type and motivation. The scores of students who received AIS services for ELA were lower than typical learners and significantly lower than gifted students. The findings of this study point to an area of concern. Students not performing well in ELA and receiving AIS services struggle greatly with an approach that emphasizes literacy based skills, which determines 30% of their social studies assessment and is a gatekeeper to placement and graduation.

Recommendations

The studies' findings bring about several recommendations regarding DBQ examinations:

(1) Similar research should be continued into high school students. Since this study did not find gender to be a significant factor in determining DBQ scores, further research should be conducted to see if the differences observed in high school AP (advanced placement) entry test scores still demonstrate differences based upon gender;

(2) Similar research should be conducted among various settings to determine if the results regarding student classification and motivation are replicated with a different group of students, and what other factors may play a role in DBQ scores;

(3) Schools need to monitor how the reliance of literacy based skills is affecting AIS and other subgroups in their performance in social studies as well as other content areas. Since these students demonstrated significant differences both at their level of motivation and upon their DBQ scores, recent trends of literacy based instruction in all content areas put these at risk students even greater risk.

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