The Impact of Computer-Assisted Writing on Improving Writing Scores for Urban
Eighth-Grade Students

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Chapter 1: Introduction

Topic

Georgia law requires that writing assessments be administered to students in grades three, five, eight, and eleven (Georgia Writing Assessment, 2010). Grade 8 is considered the bridge to high school, and each year in January all eighth-grade students participate in the Georgia Eighth-Grade Writing Assessment (EGWA). Student achievement is determined by the holistic score received measured in the four domains: Ideas, Organization, Style, and Conventions on the EGWA.

Middle school is the transitional stage in education when foundation skills from elementary school are transferred and reinforced in middle grades then built on to aid students in completing secondary education as they prepare to enter the real-world. Located in the central part of Georgia, the school district collectively serves 5400 students in grades sixth through eighth. The urban middle school in this study is 1 of 7 middles schools in the district and has a student population of 480 students. Eighth-grade students make up 34% of the total school enrollment.

The writing assessment results for the 2011-2012 academic year show a significant number of middle school students are not meeting the grade level standard in the area of writing. Language Arts teachers at the school being studied have discussed the weaknesses in student performance and agree that limited background knowledge and limited exposure to the universal themes included in the writing situations present a barrier for student writing. Other factors that contribute to student weaknesses include limited vocabulary to write intelligibly, and reluctance to properly demonstrate the writing process to display correct composition organizational structure.

Statement of the Problem

The problem to be investigated in this study is the low achievement of the eighth-grade writing test scores of students attending an urban middle school. This proposed study will investigate the use of computer-assisted writing and the impact is has on remedying factors that impede student writing and enhance student achievement.

The problem at the urban middle school is that is the low achievement of the eighth-grade writing test scores of students attending an urban middle school. This proposed study will investigate contributing factors that impede student writing and the affect it has on students. The Georgia Department of Education indicated that about 43% of eighth-grade students fail to achieve success in the area of writing (Georgia Department of Education, 2012). In 2007, the National Assessment of Education Progress (NAEP) reported that 58% of Georgia students are scoring at the Basic level in writing, 29% are scoring in the Proficient level, and the remaining percentage are scoring below Basic level writing (NAEP, 2007).

Background and Justification

Over the past 4 years, it was noted that there were substantial changes in writing scores as different students participated in the Georgia writing assessment. Scores have severely changed for the worse from 67% academic year 2010-2011 to 52% academic year 2011-2012.

Each academic year the rising eighth-grade students are expected to outperform better than the previous year eighth-grade students percentage wise on the Georgia Eighth Grade Writing Assessment. Unfortunately, eighth-grade writing scores are low throughout the district as indicated by the 2011-2012 Georgia EGWA that showed 40.7%

of the 1697 students not meet the standard on the assessment (Georgia Writing Assessment, 2012).

All of the 7 middle schools in the school district are Title I schools, with large populations of at-risk and socio-economically disadvantaged students at each school. The student demographic of the urban middle school in this research, the academic year 2010-2011, the year prior to the decrease in writing scores was 97% Black, 14% Students with Disabilities, and 99% eligible for free or reduced lunch.

At the urban middle school, 80% of the student population passed the Reading portion of the Criterion Referenced Competency Test (Georgia Department of Education, 2011). Colburn (2009) suggests students are able to guess on selected-response assessments because this type of assessment gives students multiple options and they are able to make an educated guess, however this type of assessment does not always provide confirmation of student understanding. Although the data from selected-response assessments aid in establishing trends in learning and assess learning outcomes according to Colburn (2009), at the school being researched, the reading scores had no effect on student written composition. Consequently, when students are required to take the Georgia EGWA, a constructed-response assessment, the margin of success was diminished. Forty-eight percent of the grade 8 students did not meet the standard on the Georgia EGWA, and the results were evident that students' ability to write is hindered by limited exposure to the themes in writing situations, difficulty expressing their ideas because of limited vocabulary, and failure to use the writing process.

Deficiencies in the Evidence

Teachers have discontinued teaching technical writing and began instructing students on how to respond to a writing prompt. Hillocks (2002) suggest that writing assessments hinder creative instruction because the writing focus is based on constructed responses to prompt-driven essays. The assessments do not offer varied and interesting writing opportunities for students.

Another component to the state writing assessment is the time constraint placed on students. Simmons (2009) stated that teachers of the National Writing Project believe that students internalize the writing process and can write more freely when not being timed. Students are given 100 minutes to respond to an expository writing situation that requires the student to use key words such as explain, inform, or describe to organize their ideas into coherent form or a persuasive writing situation that has the writer convince the audience of their argument by firmly stating their opinion and providing support to their position.

The Language Arts teachers at the school being studied routinely discuss the major problems students face when reading a writing situation and agree that students do not understand their role as a writer and how to appropriately respond. Students further demonstrate limited understanding of the writing process, the key terminology of the given writing genre which impairs student response. In grade 6 and grade 7, students write to earn a grade for the academic class of English/Language Arts. It is not until grade 8 that the student writing is measured at the standardized level to determine the level of proficiency attained by the student. However, if students fail to demonstrate the

proper understanding of the writing process and how to organize a coherent essay there is no process in place to remedy this problem to prepare them for secondary education.

Audience

The targeted audience of this study is state administrators, school district superintendents, English/Language Arts teachers, and middle school students. The research findings can be applied to improve urban student writing scores and reveal beneficial interventions. The affected audience will be urban-eighth grade students attending middle school. This study will reveal innovative ideas needed to assist urban-middle school students in improving their writing scores.

Definition of Terms

The following terms are used by the Georgia Department of Education to explain the Georgia Eighth Grade Writing Assessment and how to interpret student results per writing domain.

Domain Score Scale. The score scale is a five-point scale. Each one of the domains of effective writing is evaluated separately and assigned a score of "1" (lowest), "2," "3," "4," or "5" (highest). The scale is a continuum representing a range of quality. Each score point on the continuum is defined by domain-specific scoring guidelines (Georgia Department of Education, 2012).

Ideas. The degree to which the writer establishes a controlling idea and elaborates the main points with examples, illustrations, facts, or details that is appropriate to the persuasive genre.

Organization. The degree to which the writer=s ideas are arranged in a clear order and the overall structure of the response is consistent with the persuasive genre.

Style. The degree to which the writer controls language to engage the reader

Conventions. The degree to which the writer demonstrates control of sentence formation, usage, and mechanics.

Expository writing prompt. A writing topic administered to students that requires students to explain, describe, or provide information about a particular topic.

Persuasive writing prompt. A writing topic administered to students where they must present their argument and convey their opinion to the reader to persuade the audience to agree.

Analytic and Holistic Scoring. The scoring system is analytic. Analytic scoring simply means that more than one feature (domain) of a paper is evaluated. Each domain itself is scored holistically.

Meet the Standard. Writing samples that **"Meet"** the standard are generally focused on the assigned topic and genre and contain a clear introduction, body and conclusion. The scale score range is 200-249.

Does Not Meet the Standard.   Writing samples that "**Do Not Meet**" the standard demonstrates limited focus on the assigned topic or genre and may lack an introduction or conclusion. The scale score range is 100-199.

Computer-Assisted Instruction. A program of instructional material presented by means of a computer or computer system (Encyclopedia Britannica, 2012).

My Access. This term refers to a web-based, cross-curricular program that transforms writing instruction and assessment by applying superior artificial intelligence and linguistic technologies to the writing process (Vantage Learning, 2012).

Purpose of the Study

The purpose of this study is to determine if the use of computer-assisted writing will improve students' scores on the Georgia Eighth-Grade Writing Assessment (EGWA). Also, this study will seek to remedy the problem of low writing achievement of eighth-grade students and determine if the use and implementation of computer-assisted writing will affect the aforementioned limitations of exposure to themes, vocabulary and understanding of the writing process at the researcher's work setting.

Chapter 2: Literature Review

Introduction

The selected literature for this chapter is based on the most recent research presented in this area of study. The integration of technology into the classroom will be discussed in the first section to display to shift in traditional teaching practices. The second section will provide an overview of writing instruction for middle school students that apply to improving writing scores on the Georgia Eight Grade Writing Assessment (EGWA). Although research is limited, the third section of this chapter will provide a review of literature based writing achievement among urban middle school students. The literature reviewed is organized around the three themes.

The Integration of Technology into the Classroom

In low achieving schools where the focus is to close the achievement gap, technology is a viable tool used to help students grow academically and increase the opportunity for student achievement. Technology is being brought to the forefront of education as federal laws mandate the integration of technology in school (U.S. Department of Education, 2001). Consequently, the shift to technology affects the traditional ways of teaching. The face-to-face and hands-on exchange between teachers and students is essential to relating to students and building relationships within the learning environment. However, Mo (2011) states that the use of instructional technology in the classroom shifts learning from teacher-centered instruction to student-centered instruction and the integration of technology engages students more as they use interactive computer programming.

Cassidy (1996) described a field teaching experience with students who were learning English as a second language (ESL). The assignments in the field experience partnered peer interaction and electronic communication through electronic mail (email). This approach provided the ESL students an opportunity to practice writing as well as learn about American culture. Even though this experience took place at an American university, the need for this type of interaction is based on the changing demographic of the classroom. At the completion of the field experience it was determined that computer-assisted instruction improved the writing for the ESL students. The use of technology in this study demonstrated an effective way that closely resembles real communication.

Creating email accounts for classroom exchange would not be an appropriate strategy for middle school students, but the paired assignments and composed writing would reinforce writing skills and keep students actively practicing their writing. This approach is most helpful when teachers create an atmosphere that facilitates students learning from their peers and not solely from teacher-centered instruction.

Technology is accessible in the research site and needs to be used more to keep students engaged in learning. Interactive communication is effective and using technology in the classroom will motivate students. Trespalacios, Chamberlin, and Gallagher (2001) suggest inviting gaming systems into instructional practices that encourages students to communicate and think collaboratively.

Computer access is available throughout the research site and can be integrated into any subject area. However, according to Palenzuela (2001), computer-assisted writing did not significantly affect student writing.

According to Costello (2012) educators are desperate to keep with the growth of media and technology because the students in the classrooms of today are fully immersed in technology and have been since the start of their education. In a field teaching experience, Costello (2012) describes how an eighth grade, English classroom can be transformed and further engage students through the use of digital technology in an urban setting.

In this study, Costello (2012) mentions noticing the power of transformation in literacies for English language arts teaching and was prompted to experiment with multiple learning modalities as well as informal classroom drama and digital video. Students in this study experimented with dramatizing vocabulary words, and producing newscasts (Costello, 2012). The study observed students translating literature into drama form and provided students the opportunity to write, speak, and listen to information that is expressive, organized, and in some cases improvised

Digital technology as used by Costello, brought classroom literature before the camera, and engaged students beyond traditional written book reports. The integration of technology promotes differentiation of instruction to the classroom, and reaches all learning styles that can be scaffold into written composition. Costello (2012), did not eliminate the writing component which is still a major focus of the English classroom. Students were required to employ the writing process as well as the elements of literature such as plot to create a storyboard and sequence of events from the literature and produce a character-confessional (Costello, 2012).

The integration of digital video at the research site could prove to be beneficial for the middle school students because it offers students a chance to be creative in their

writing. Reading a variety of literature and reenacting the vocabulary as well as producing newscast would be highly effective in curtailing the problems with limited vocabulary and limited exposure to universal themes. Replicating Costello's study at the research site could truly help improve students' ability to write in increase writing scores.

Writing in Middle School: Preparing for Assessment

In the state of Georgia, all eighth-grade students are required to participate in the Georgia EGWA but it is not a high-stakes assessment. In 2007 the National Assessment of Educational Progress (NAEP) reported that 88% of Georgia eighth-grade students performed at or above the NAEP *Basic* level. However, since 2007, the writing assessment has changed to scoring students on two types of genres, expository and persuasive text. The elimination of narrative writing no longer provides students an opportunity to tell a creative story that follows the elements of plot organization. Regardless of the writing genre students are struggling to formulate ideas when engaged in timed writing sessions.

Gregg, Coleman, Davis, and Chalk (2007) suggest that educators need to better understand barriers of struggling writers so that there can be reform of the writing curriculum. Constructed-response in the middle school setting is practiced in the subject area of English/Language Arts and is taught one writing genre at a time. The writing process is the foundation for construct-response but is not practiced by students.

The declining test scores at the research site indicate disconnection with the writing genre, expository and persuasive. Radcliffe (2012) suggests that students disconnect with writing because they are preoccupied with what qualifies as good writing and have loss the excitement of individual expression. Radcliffe also cites James

Moffett's work that suggests student writing should spiral around student experiences to build confidence. In this research, Radcliffe (2012) also eludes to middle-grades writing being the transition from "childish ways" to more academic writing for test preparation. (2012).

Writing for Urban Students

According the NAEP in 2007, Black students had an average score that was lower than that of White students by 19 points. The achievement of black students is minimal as found by Boykin (2011) who conducted a study to improve the professional development of teachers and their practices of literacy and the integration of technology at diverse schools. In the study, Boykin identified the causes of the continued struggle to achieve in areas of writing and reading for disadvantaged students.

Research Questions

1. What is the impact of computer-assisted instruction and use of technology in improving eighth-grade students' writing in an urban middle school?

2. What are eighth-grade students' perception and experience with computer assisted writing? What is the pedagogical significance of computer assisted learning from students' perspective?

3. What are eight-grade teachers' perception and experience with computer-assisted writing? What are the challenges and benefits?

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