

Studies in Teaching 2009 Research Digest

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Studies in Teaching – 2009 Research Digest

Table of Contents

What Factors Influence Algebra 1 Students' Attitudes toward Math? <i>Elizabeth A. Allen</i>	1
Low-Income Student and Teacher Impressions of Kagan Cooperative Learning <i>Andrea Anderson</i>	7
Developing and Implementing an Articulated French Program <i>Rebekah Bray</i>	13
The Effects of Gaming on Middle and High School Biology Students' Content Knowledge and Attitudes toward Science <i>Peter Dunlap</i>	19
The Effects of the Class Length on the Instructional Practices of Social Studies Teachers <i>Clayton R. Honeycutt</i>	25
Teaching Writing Strategies in a Social Studies Classroom: The Study of Different Writing Strategies and Assignments Implemented by Social Studies Teachers <i>Michael Hoover</i>	31
The Effect of Technology Use on Student Interest and Understanding in Geometry <i>Scott Hopper</i>	37
The Use of Authentic Materials in the Secondary Spanish Classroom <i>Alena Huberman</i>	43
How High School History Teachers Utilize Primary Source Documents in Classroom Instruction <i>Chloé-Marie Keveryn</i>	49
Teaching Grammar for Communication in the Secondary French Classroom <i>Jessica Ashley Krantz</i>	55
Teaching Culture in the K-12 French Program <i>Jordan Lucas</i>	61
Wry or Dry: Teacher Humor in the English Classroom <i>Shannon MacAulay</i>	67
Implementing Authentic Materials in the Secondary Spanish Classroom <i>Caitlin McClelland</i>	73

Lecture (Abridged): The Kernel Lecture And Its Effect On Student Engagement <i>Robert McFeeley</i>	79
Always Working an Angle: Exploration of the Teacher-Student Relationship and Engagement <i>Caitlin E. Murphy</i>	85
Student Understanding of Proof in High School Geometry <i>Jonathan H. Newman</i>	91
The Use of Discussion in the Social Studies Classroom <i>Eric M. Oddo</i>	97
You Choose: Does Student Choice Matter? <i>Krista H. Pool</i>	103
Education Through the Eyes of the Student: Examining the Relationship Between Student Engagement and Teaching Method <i>Gregg Pungner</i>	109
Developing Cultural Awareness in the K-12 Spanish Classroom <i>Maggie May Pursley</i>	115
The Teacher’s Voice and Student Engagement <i>Peter Schild</i>	121
Words on World vs. Words on Words: The Effects of Making Material Relevant on Student Engagement <i>Paige A. Sellers</i>	127
Oral Language Development in the K-12 French Classroom <i>Lucy Shepley</i>	133
Taking a Stand: Investigating Teachers’ Roles in Fostering Student Opinion on Historical and Political Issues in the Secondary Social Studies Classroom <i>Michelle Showalter</i>	139
Reading Aloud Allowed: The Effects of Oral Reading on Student Engagement <i>Elizabeth Anne Taylor</i>	145
Teacher Strategies that Promote Study of the French Language in Grades K-12 <i>Shannon Teare</i>	151

How Social Studies Teachers Teach: State Standards and Their Impact on Teacher Pedagogical Strategies <i>Tyler S. Treadaway</i>	157
Student Attitudes toward Mathematics Homework <i>Morgan Tysinger</i>	163
Writing in the High School Classroom: Student Answers to Essential Questions <i>Jeffrey D. Williams</i>	169

What Factors Influence Algebra 1 Students' Attitudes toward Math?

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By the time students are in high school, math is among the subjects liked least (Stodolsky, 1985). It seems all too common for teachers to hear their math students verbally admit they *do not like math*, or are *just not good at math*. Yet other students explain they *enjoy math* and believe *it is easy and straightforward*. Students whose negative attitudes toward math are voiced without concern and even accepted in some social and academic settings, minimize the importance of mathematics, insisting they have no need *to know math*. However, EdSource, a nonprofit organization, published a student/parent guide in 2009 in which they stated “to get high-paying jobs a strong background in math and science is a must” (EdSource, 2009, p.1).

In order to diminish the persistent negativity toward math seen in many high school students, educators need to understand the reasons students avoid and are anxious about math. Being cognizant of the causes leading to negative attitudes toward math, teachers can better alter their teaching styles, forms of assessment, and classroom environment to help students feel comfortable learning mathematics.

This need to understand students leads to the research question for this study: what factors influence Algebra 1 students' attitudes toward math?

Literature

Researchers have defined students' attitudes toward math as 1) the emotions they experience during math, 2) the emotions automatically associated with the concept of math, 3) the value attributed to mathematics, and 4) motivation to do well in math (Zan & Di Martino, 2007). Multiple research studies indicate that there are many factors that contribute to the development of students' particular attitudes toward math.

Varsho and Harrison (2009) studied three hundred and thirty college freshmen through an online survey which included both multiple choice and open ended questions. They determined that students attributed their attitudes toward math to previous teachers, math ability, teaching

styles, previous courses, and family experience. After using chi-squared tests, a significant relationship was found to exist between performance in math and attitudes toward math.

Membership and psychological ties to certain gender groups have also shaped students' preferences and performance in math (Nosek, Banaji, & Greenwald, 2002). After 79 Yale University freshmen (40 females, 39 males) paired concepts with attributes that have come to be associated through experience, the study concluded that women had stronger negative evaluations of math. Likewise, men displayed stronger identification with math concepts than did women.

Stereotypes suggest that (1) boys score higher on math standardized tests than girls, (2) boys are more likely than females to engage in activities related to math, and (3) boys are more positive about math than girls (Benbow & Stanley, 1980). These researchers argued through their interpretation of seventh and eighth grade gifted students' test scores that "superior male mathematical ability" is the best explanation for higher male scores. However, many researchers including, Eccles and Jacobs (1986) have questioned Benbow and Stanley's underlying assumptions and presented data counter to their conclusions.

Through multiple regression, path analysis, and t-tests Eccles and Jacobs found that the attitudes toward math of 250 students were strongly related to the mothers' beliefs regarding the difficulty level of math for their children. Furthermore, boys' attitudes toward math were related to their past performance and their teachers' and parents' estimates of their mathematical ability. Eccles and Jacobs (1986) also found that girls' values of math and plans to continue studying math were affected largely by their parents.

Certain factors like aptitude, achievement, and gender are stereotypically correlated with attitudes toward math. However, some of the more prominent and virtually unstudied variables, including classroom environment and teacher quality, have more telling effects. Halaydna, Shaughnessy, J., and Shaughnessy, J.M. (1983) administered surveys to 2000 students so that relationships could be examined between attitudes and students' motivation, teacher quality, the social-psychological class climates, and management-organization class climate. In summary this study concluded that teacher quality was consistently related to math attitudes at all grade levels. Furthermore, their results showed that positive attitudes toward math existed when students enjoyed the presence of their classmates.

Students who have negative attitudes toward math are likely to develop anxiety in math and avoid math classrooms (Taylor & Brooks, 1986). Similar to students who have negative attitudes toward math, Karimi and Venkatesan (2009) found that students who suffer from high levels of math anxiety performed at low levels on mathematics exams. Karimi and Venkatesan's (2009) findings indicated that a student's motivation and hardiness in mathematics directly related to their mathematics performance, and that students who were highly motivated to learn class material and were strongly committed to their classes developed positive attitudes toward mathematics.

One action research project, conducted by Mitchell (1999), focused on implementing changes in the teaching of mathematics to help students overcome negative attitudes, math anxieties, and math phobias. The first five questions were based on a five point Likert scale and used to compare data within the twenty students. The last five questions were open-ended and used by the researcher to investigate appropriate strategies to instigate changes in math attitudes. From analyzing the survey responses Mitchell found many of the students had negative attitudes, anxieties, and phobias toward math because they were not receiving adequate feedback from teachers. Likewise, he summarized one of the contributing factors of students' negative math attitudes was lack of motivation.

It is important to examine related research studies in understanding operational definitions, methodology, results, and implications previous researchers used while exploring a similar topic. As has been seen in the literature, a large percentage of students do not see the relevance of math activities and find no enjoyment in math (Mitchell, 1999). Therefore, teachers need to choose content and materials that are "personally relevant for students or based on real world situations, and seek to make learning enjoyable." (Sullivan & Mousley, 1994, p. 2).

Methodology

This study took place at a public high school located in central North Carolina. With the permission from the Algebra 1 teacher and the principal, sixteen randomly-selected students were asked to participate in a one- on- one interview with the researcher. In a five minute interview between the participant and the primary investigator, students were asked a series of semi-structured questions pertaining to the students' attitudes, feelings and emotions, values, peer influences, parental expectations, and teacher influences as they related to mathematics.

Building on the student's responses to the initial questions the researcher asked specific follow-up questions about their attitudes toward mathematics.

By recommendation of the teacher, each interview took place during the student's scheduled Algebra 1 class when the students were given time to work independently. In order to maintain the privacy of each student and not disturb others in the media center, the researcher and the subject sat at a table sectioned off by library book racks. The secluded area gave the students an opportunity to speak freely without the possibility of anyone else hearing their responses. The researcher completed all interviews over the course of three days.

The student interviews were audio recorded. At the conclusion of each day's interviews, the researcher transcribed the audio recorded interviews, and then coded and looked for common themes in all the data.

Results and Conclusions

Even though gender, ethnicity, and academic class may affect attitude, they cannot be altered. Therefore, factors that contribute to students' attitudes toward math that could be manipulated are more interesting. To find commonalities, the one-on-one student interviews were transcribed and then examined for reoccurring themes in the data. The results of the coding and categorizing are displayed in Chart 1.

Every student, 16 total, made it very clear that the teachers of their math classes largely impacted their attitudes and liking of math. Many of the students reported that they enjoyed math when their teachers used anecdotal stories, acronyms, and songs to teach the material. 7 out of the 16 students attributed their positive attitude in math to their current Algebra 1 teacher. Student F said, "Coming to math class is always entertaining, I feel like Ms. *Teacher* puts on a different show each day. You never know what will happen from day to day."

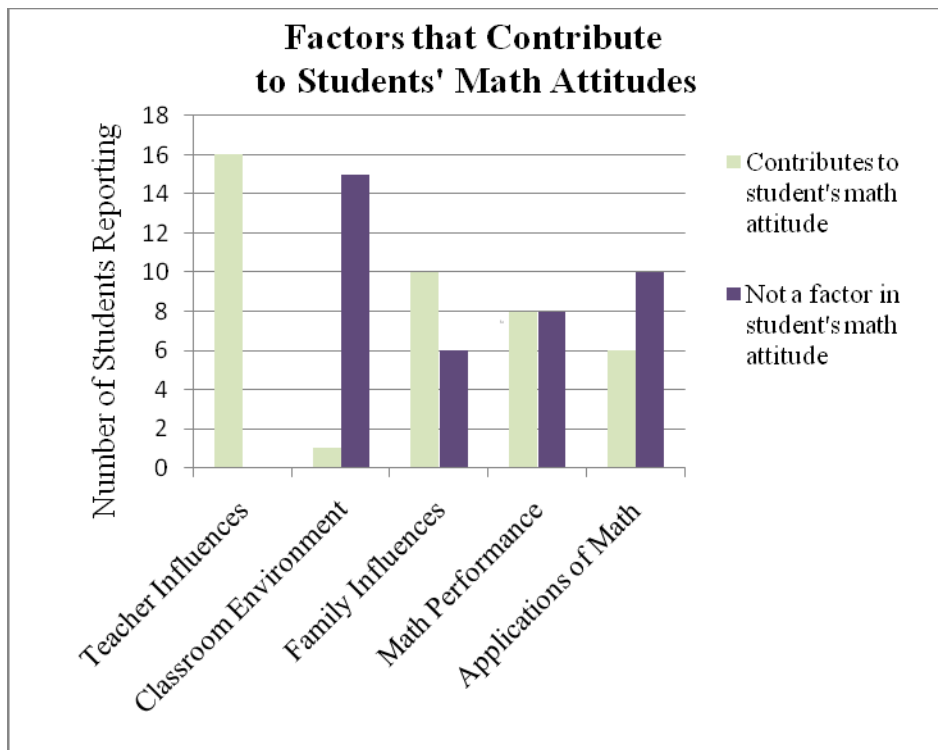
The math attitudes of the 16 students were reflections of the teachers' energy, excitement, and teaching styles. In one case, Student G hated math and had a negative attitude toward math previously because "the teacher taught directly from the book, and he "had to learn the material independently." 4 students did not enjoy math when they had to learn the material through lecturing or book reading. These particular students enjoyed math more when their teachers allowed the students to use hands- on manipulatives. While students deemed that their teachers

impacted attitudes in math, they reported that other variables such as their classmates, seating arrangement and overall classroom environment had little contribution to the students' attitudes.

Another large factor that contributed to Algebra 1 students' attitudes toward math was influence from their families. 10 students related that family influences contributed to their positive or negative attitude toward math. 6 students believed that whether their parents did or did not like math determined that they felt the same way. Students' performance in math did not directly relate to their feelings toward math. 5 students felt strongly that because they were good at math, they liked math. Likewise, 3 students who did not make good grades in math did not enjoy math and had negative math attitudes. However, 8 students, regardless of whether they performed well on tests and quizzes or not, did not mention performance as a reason to why they liked or disliked math.

Finally, 6 out of the 16 students attributed their attitudes toward math to the applicability of the material. These students liked math and had a positive attitude toward the material when they could apply their learning to another subject or life in general. 1 student had a negative attitude toward math because he did not understand where he would ever apply anything he learned in class.

Chart 1.



Based on the data collected from the student interviews, it appears that the largest factor in students' attitudes toward math was their teacher. Teachers who were excited about the subject, cared for the students, altered their teaching styles, and used funny sayings appeared to instill a love of math in most of their students. By manipulating teaching styles and their own attitudes' in the classroom, teachers may effectively improve the attitudes of students with negative math feelings. Likewise, many students develop attitudes as a result of their family's influence. Educators need to work with families and encourage positive attitudes toward math at home and in the classroom so that all students can acquire positive math attitudes.

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Low-Income Student and Teacher Impressions of Kagan Cooperative Learning

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Minorities are underrepresented in the field of science. One possible source for the absence of minority scientists may be the lag in educational achievement of low-income, minority students. The education gap within the United States is perhaps our greatest failure to ensure that all students have equal opportunities to succeed and pursue their dreams. There are many theories as to why this gap persists in the United States. Tharp's (1989) theory indicates that minority and low income students have unique cultures which are underrepresented in the design of classroom instruction. If classroom instruction were redesigned to align with the family cultures of the students, then academic success of underserved students might increase. One proposed way of achieving the goal of equal education is to deemphasize the importance of competition in the classroom and promote more collaborative learning experiences (Kagan, 1992). The initiative to include collaborative experiences in the classroom has led to the inclusion of cooperative learning in some low income schools.

Although, there are many different approaches to cooperative learning, this study will focus on the use of one type, Kagan cooperative learning (KCL). This study was a qualitative interpretation of the use of KCL in classrooms with predominately low income and minority students. During this study, I attempted to investigate the personal impressions of teachers and students on the implementation of KCL in the classroom. The questions that guided this research were (1) Do teachers and students prefer and enjoy Kagan cooperative learning? (2) Are students engaged during Kagan cooperative learning? (3) Do students feel positively about their experience with KCL and feel that it benefits their social ability to work in groups?

Literature Review

Minority and low income students are not receiving an equal education in the United States. The achievement scores of minority and low socio economic status students consistently lag behind that of their peers. There are many possible sources for the continuing education gap in the United States. This study will focus on theories that point to ineffective and culturally

unresponsive teaching strategies as the source of a less adequate education. The structural bias theory "states that traditional classroom structures, because they rely heavily on competitive task and reward structures, provide a bias in favor of the achievement and values of majority students who are generally more competitive in their social orientation than are minority students" (Kagan 1992, p 2:7). Another similar idea, the hypothesis of cultural compatibility, continues on in the same direction. This hypothesis further states that when the culture of the classroom is compatible with the familial culture of the student, then increases in learning and basic skills will result (Tharp, 1989). Both ideas suggest that it is the competition of traditional teacher centered instruction that creates an instructional environment that is less effective for minority, low income students. This is the basis of the movement for multicultural education. Multicultural education emphasizes the importance of teaching with and respect for the values of the different cultures present within our schools and our society. Sternberg and Williams (2010) argued that the importance of multicultural education is "to ensure that any cultural predispositions do not provide an unequal education for any cultural group" (p. 222).

While it seems that though we are a nation interested in pursuing multicultural education, there are many different cultures that must be considered. Therefore, when designing instruction, it may be useful to look for values which may be common among cultures and could be used to design instruction. Specifically, the verbal inclination of African American students may blend well in lesson design with the cooperative nature of Latin Americans and the peer work comfort of Hawaiian Americans (Shade, Kelly, & Oberg, 1997; Tharp, 1989) Therefore, instruction that capitalizes on the cooperative aspects inclusive of these cultures may better serve low income, minority students. This has led to an argument for cooperative learning in the classroom. Cooperative learning is a teaching method that calls for students to work together in small groups to individually master concepts. The focus is on positive interdependence, or the idea that each group member relies on each other to achieve their task (Vermette, 1998).

During the 1980's, Kagan began developing what he calls cooperative structures for learning in the classroom. Kagan created a framework which he calls "PIES", standing for Positive Interdependence, Individual Accountability, Equal Participation, and Simultaneous Interaction. After observing the social interactions of students in low performing schools, Kagan felt motivated to create cooperative learning that would not only increase achievement but also increase tolerance and self worth. (Kagan, 1992). Each structure he created not only has an

academic function, but a social one as well. To date, Kagan has created over 160 structures for the classroom (Kagan, 2001). These vary from very short two minutes activities to longer half hour cooperative investigations.

There are multiple research articles which indicate the effective use of Kagan cooperative strategies on student achievement in the classroom. Miguel Kagan (2007), Spencer Kagan's son, conducted research in Florida comparing the state exam scores of schools which utilized KCL and schools which did not. The students in schools with KCL outperformed their peers in non KCL schools. Additionally, the African American students raised their scores enough to close the achievement gap in their school by approximately fifty percent. While research supports the claim that KCL helps student learn, little research exists that qualitatively examines student and teacher impressions of Kagan cooperative learning in the classroom. Particularly, there is a gap in the literature that qualitatively examines the student/teacher impressions of cooperative learning in schools which contain a large percentage of minority low income students. This research will attempt to answer the question of student and teacher impressions of using KCL.

Methodology

This study took place in a Southeastern U.S. public high school. The subject of biology was chosen so that the relative age and subject matter taught during the KCL lesson would be consistent for all teachers and students participating in the research. This consistency helped to maintain the internal validity of the investigation. Two high school biology teachers volunteered to participate in this study.

During the first phase of research, teachers were introduced to the study team and the methodology used to teach a KCL lesson. The study team and the teacher worked together to select one Kagan structure from an informative chart. The lesson plan was then altered to include the Kagan structures that each teacher chose.

Phase 2: For the second phase of research, the teachers, Emily and Lydia, taught the KCL lesson that they designed. During this time, the researcher served as a passive observer of the classroom and took field notes on the implementation of the KCL lesson and relative student engagement. Engagement was judged by watching student behavior throughout the different parts of the class. Students that were coded as highly engaged were making eye contact with the speaker, engaging in student-student discourse, interacting positively in the classroom, asking questions, giving responses, and were on topic.

Phase 3: Directly after the lesson was finished, focus groups of 2-4 students per class were conducted to investigate student impressions of the KCL lesson. Students were asked questions regarding their experience in the KCL lesson. The questions were designed to obtain data explaining 1) the engagement of the students in the lesson 2) the students affects of a KCL lesson and 3) the impression of success or failure of KCL structures in effectively teaching content.

After the student focus groups, the researcher interviewed the teacher regarding the KCL lesson they had taught. The interview was structured with questions designed to explore the 1) affective side of teaching with KCL strategies 2) the teacher's perception of KCL use in the classroom and 3) the teacher's perception of student achievement and academic success during a KCL lesson.

Results

Students and teachers identified five major themes which described their perception of the KCL experience. Themes that emerged from the data were the perceived ease of working in groups, increased motivation and engagement when working collaboratively, relevance to the real world, increased confidence in the classroom, and feeling of teacher connection to the needs and desires of students.

Positive Affect on Student Learning: Students and teachers both provided evidence that showed KCL had a positive affect on student learning. When asked to describe their experience with the KCL activity, six of the nine students interviewed described learning with KCL as "easier". Jill said that working with KCL "was a whole lot easier for me... because I am not so good sometimes in science." Emily stated that some of the students she expected not to know the correct answers to her review questions knew them while using KCL because they had learned them from their groups.

"I do think they learned something... Sometimes somebody who I might have thought didn't get it, when they talked in the group and were called upon to answer, they knew it. They had picked up on it and they had learned it from somebody else. I think it was a great way to review."

Increased Student Engagement: Teachers noted that part of increased student learning may be attributed to a noticeable rise in student engagement during the KCL experience. Lydia commented that she saw all of her students standing up and interviewing others for answers.

Students echoed this observation during their focus group discussions. During KCL, students felt “excited to do it. Everybody was up working. Normally some don’t do it, but... everyone was participating in the groups” (Carry).

Increased Confidence in the Classroom: Student engagement and willingness to answer questions connected to student and teacher observations that KCL led to high confidence and participation. Students noted that during normal class activities, they are unlikely to volunteer to answer or ask questions. The fear of being teased or mocked prevents them from having the confidence to take a risk and participate when they are not sure of their answer. Carry articulates this point of view when she remarks that, “a lot of people don’t understand but they don’t want to raise their hand because they will get teased”. However, during KCL, students had the opportunity to verify their answers with their classmates before they were expected to respond to teacher questions. Emily noticed that students appeared “more likely to give an answer because they have been allowed to talk it over and feel more confident that it is right.”

Real World Relevance and Teacher/Student Relationships: Although this research was designed to gain an understanding of impressions, engagement, and learning during KCL, two additional themes emerged from student interviews that are important to note. Students connected the process of cooperative learning to real world preparedness as well as a sense of teacher “caring”. Five of the nine students who participated spoke about how important their futures were to them. They viewed KCL activities as an important practice in working with other people as they will be expected to do in future employment. Jason noted that KCL “helps you get out there and get along with people and one another even people you don’t like... because in the real world you are gonna need it.”

Conclusions

Students and teachers expressed a preference for learning using KCL strategy. Students felt learning was easier when they could discuss answers with their peers, and teachers observed evidence to show that students were learning material they previously did not know. Engagement was shown to be high during the KCL activities. Teachers, students, and classroom observations reflected an increase in student-student discourse and on topic, positive interactions during the KCL part of the lesson. Finally, students felt positively about working with their peers and felt it benefited their confidence, future career readiness, and relationship with the teacher. Low income, minority students are struggling to keep up in the academic realm. In an attempt to close

the education gap, multicultural education works to raise achievement through aligning cultural needs with instruction. Cooperative learning methods such as KCL may provide one method of connecting cultural predispositions to the learning environment. In order to fully understand the potential of KCL in the classroom, it is also important to understand how teachers and students feel about the use of Kagan structures. This study showed that both teachers and students felt that KCL positively affects learning, engagement, and confidence. However, this study was limited by the time frame in which it took place. A more thorough investigation on the lasting effects of KCL in low income classrooms could be done throughout a year or semester.

With the prolonged exposure to KCL, a quantitative investigation of student test scores could be performed. These measures might create a more concrete set of data that could help build support of cooperative learning in multicultural education. If results continue to show a positive effect on student confidence, engagement, and learning, cooperative learning may become one partial solution to closing the education gap and increasing low income, minority students in the field of science.

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Developing and Implementing an Articulated French Program

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In today's global society, leaders in business, education, and government across the United States agree that there is an immediate and critical need for proficient speakers of languages other than English (Edwards, Lenker, & Kahn, 2008). In response, the American Council on the Teaching of Foreign Languages released the *Standards for Foreign Language Learning in 1996*, which are the goals for content knowledge students should possess in a foreign language when they complete a program of study in grades K-12. The *Performance Guidelines for K-12 Learners* were developed in 1998 as a measurement of students' progress as they gain proficiency in a foreign language. While the *Standards* and *Guidelines* promote proficiency as a national expectation through a long sequence of study, currently there is no national mandate for foreign language study. Even though research shows that beginning foreign language study early and continuing in a long, uninterrupted sequence of study is more likely to produce a high level of proficiency, local school districts face challenges in establishing sequential programs in grades K-12 (Curtain & Dahlberg, 2004; Rhodes & Pufahl, 2008). Therefore, it is critical that foreign language educators work toward implementing an articulated program that graduates proficient speakers of other languages.

REVIEW OF THE LITERATURE

There are multiple factors involved in the development of an articulated foreign language program, but the main goal is proficiency which occurs through program continuity (Durward, 1984; Gahala, 1993; Lange, 1982). According to Lange's (1997) definition, "Articulation is the interrelation and continuity of content, curriculum, instruction, and evaluation, with the focus of all aspects on the progress of the learner toward comprehending and communicating in a second language" (p. 32). Thus, Lange (1982) identifies three interrelated facets to curriculum planning – horizontal, vertical, and interdisciplinary – in order to create liaisons between and among

levels. Thus, an articulated program in grades K-12 refers to an uninterrupted sequence of study beginning in the elementary grades and continuing through high school.

An articulated program design based on standards- and performance-based instruction requires careful planning. Two studies indicate that there are several factors to consider in designing an articulated program: clear goals, interdisciplinary curriculum, gradual program expansion, consistent program evaluation, and appropriately trained staff (Gilzow & Rhodes, 2000; Tucker & Donato, 2001). In 2000, Gilzow and Branaman identified seven model elementary foreign language programs based on the following criteria: a standards-based curriculum, a continuous sequence of study, outcomes aligning with goals, consistent program evaluation, professional development for teachers, alignment across subject areas, accessibility to students, a diverse population, and strong community support (p. 2). Gilzow and Branaman (2000) attribute success of these programs to four key characteristics: flexibility, teamwork, strong leadership, and staff commitment (pp. 4-5). In conclusion to the study, Gilzow and Branaman reported the importance of the aforementioned factors as well as student assessment, teaching methods, funding, use of technology, and advocacy. Although this study was based on foreign language programs in the elementary grades, the characteristics are applicable to programs in grades K-12.

Both on the national and state level, current funding initiatives encourage such program design. Two significant federal government programs, the Foreign Language Assistance Program (FLAP) and the National Flagship Language Initiative (NFLI), have been well received. FLAP grants are awarded for three-year projects to “establish, improve, or expand innovative foreign language programs for elementary and secondary school students” (Richey, 2007), and many of these grants have been used to improve program articulation. NFLI provides on-campus immersion programs at selected colleges and has begun K-12 pilot programs to better prepare students for university level language courses in Portland (OR), Dearborn (MI), and throughout several districts in Ohio (Richey, 2007).

As more and more programs are envisioned across America to graduate proficient speakers of other languages, the interest for researching articulated program design has increased, but the actual completion of the task is far from realization. With continued research on the success of programs, schools nation-wide could model their design on effective articulated programs in grades K-12. Because North Carolina is a state that has been at the forefront of

developing articulated programs that are proficiency-oriented and has worked to establish pipelines of foreign language study across the state, there is much to be gained by examining this state's work accomplished to date. Therefore, in order to learn about a foreign language program that is working toward sequential language study, and specifically characteristics of the French program in grades 3-12, the researcher selected a public school district in central North Carolina for this study.

METHODOLOGY

This study was conducted between September and December, 2009, actively beginning in October when the researcher contacted French teachers and local administrators to request their voluntary participation in the study. There were twelve participants from the district where the study was conducted: nine French teachers representing elementary, middle, and high school, and three local district level administrators. The researcher used a self-designed interview instrument to ask participants questions related to the program design and articulation of the district's French program in grades 3-12 and took notes on their responses. Data from the interviews were analyzed to examine the characteristics related to design and implementation of the French program in grades 3-12.

RESULTS AND ANALYSIS

There is evidence to support the existence of several of the common characteristics of successful programs in the district. With regard to a curriculum based on the standards, all administrators and teachers expressed familiarity with the standards and most mentioned that the *Standards* form the basis of the district's pacing guides and therefore instruction. In addition to basing the program on the *Standards*, some teachers are familiar with the *Guidelines* as a measurement to gauge students' progress.

Two questions targeted the continuity of the program. When asked if there is a curriculum in place for grades 3-12, all teachers responded that they are familiar with the curriculum of the level they teach, but not all teachers are familiar with the curricular expectations beyond their own. Although the question asked about teachers' familiarity with the entire curriculum to reveal whether or not teachers collaborate to ensure a continuous sequence from level to level, one teacher pointed out that it is the district's pacing guides that advise teachers on what is to be accomplished over the course of the year. Several teachers said that they have collaborated on designing the benchmarks for the pacing guides, which indicates that

there is planning regarding the sequence of language study. When asked what steps the district has taken to ensure that students follow a continuous sequence of study, several teachers and administrators mentioned the two course sequences available in middle school, one designed for those who are continuing their language study and the other for those who are beginning a language in sixth grade. Most teachers and administrators agree that program continuity is currently not perfect, but the effort towards vertical and horizontal alignment of the curriculum has improved the situation.

There is also evidence from the responses that the district has strong leadership. When asked to indicate which administrator is responsible for certain components of the program, most teachers named the District Coordinator of Foreign Languages for components such as program planning, curriculum design, program articulation, program evaluation, and meetings. Also, several teachers and administrators noted that the District Coordinator has a job that is crucial to the success of the program. The researcher learned that many teachers feel well-supported because of the District Coordinator's work in improving the program.

Although all teachers said that they collaborate regularly in district meetings for professional development, the researcher learned that the expectations held for students and the understanding of the program varied considerably. In terms of district-wide expectations, some teachers and administrators expect that students complete the high school foreign language requirement after two years of language study and, therefore, expect students to be familiar with the language. Other teachers and administrators expect students to complete sequence of study through Advanced Placement and, therefore, expect that that students should be able to engage in a conversation with a native speakers used to speaking with learners, and should be able to understand authentic language with cultural context.

When asked to summarize the language expectations of students per grade level (grades 3-5, grades 6-8, grades 9-12), there was a similarly wide variety of responses. Some teachers believe that the elementary grades foster only an appreciation of language whereas others, especially the elementary grades foreign language teachers, expect a certain level of interpersonal and interpretive communication. All teachers mentioned that the middle school French curriculum should build from the elementary grades, but only middle school teachers specifically indicated the skills and content expected. Regarding high school, all teachers pointed to a more formal language basis including focus on the three modes of communication, specific

grammar points, and vocabulary themes. Most teachers also mentioned that there is a district-wide assessment in fifth and eighth grade to measure the students' level of proficiency that indicates the district's expectations. For the most part, the researcher found that there is evidence that teachers are striving towards proficiency development in their classrooms but are not as familiar with the expectations beyond their own levels. Thus, while making strides towards accomplishing goals, the district faces barriers regarding realistic proficiency expectations expressed between and among teachers and administrators.

With regard to program evaluation, the researcher learned that there is currently no regular external evaluation, though there are some elements of internal evaluations. Teachers and administrators mentioned that students' progress is evaluated district-wide in the assessment in fifth and eighth grades. They also indicated that the principals perform classroom observations. However, as one administrator pointed out, principals provide instructional feedback rather than feedback relating to proficiency in a performance-based classroom. In terms of program feedback, teachers also indicated that during professional development offerings, they are encouraged to discuss possible improvements and curricular readjustments. However, some do not feel as though they have opportunities to discuss the effectiveness of the program in a suggestive and positive, possibly anonymous, venue in order to initiate improvements.

CONCLUSION

From the responses of the nine teachers and three administrators, there is evidence that many of the characteristics cited in current research about successful articulated foreign language programs exist in the district where this study was conducted. These include a standards-based curriculum, efforts towards program continuity, and strong leadership. Teachers and administrators indicated that the program continues to face various challenges but that under the leadership of the District Coordinator, much work has been accomplished in their commitment to designing an articulated program. With the critical need for proficient speakers of other languages, it is important that districts establish carefully designed articulated foreign language programs based on the characteristics found in model programs. During this study, the research learned that all teachers are motivated to be a part of a program working towards complete program articulation.

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The Effects of Gaming on Middle and High School Biology Students' Content Knowledge and Attitudes toward Science

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Technology and science have advanced significantly in the past several decades, allowing for applications of computer videogaming in science education. CellCraft, a science education videogame, is an attempt to present accurate scientific knowledge in the area of cell biology in a videogame platform. As society's technological capabilities grow, there has been a low amount of high-order thinking going on in American schools (Norris, 1985). Videogames provide a student-centered learning environment (Papert, 1998), which provides a promising approach for increasing student higher-order thinking. In the next decade, science videogames have the potential to build a niche within education and begin pushing our students toward learn for understanding. CellCraft developers hope to demonstrate the capability of a particular educational videogame, CellCraft, to teach students about the cell. Another component of the study measured student affect as it relates to science, confidence, and computer use in science education. The question that guided this research study was what effect does CellCraft have on student content knowledge and affect?

Literature Review

Despite being a "short attention span" generation, by age 21 the average secondary student will have logged over 10,000 hours of gaming (Prensky, 2003). This attention grabbing trait of videogames could be harnessed in education. As videogames have become increasingly prevalent in the world of teens, 97% of teens from ages 12-17 play videogames (Lenhart, Kahne, Middaugh, Macgill, Evans, & Vitak, 2008), more and more scholars are pointing out the educative power wielded by these games (Gee, 2003; Squire, Barnett, Grant, & Higginbotham, 2004). They see videogames as capable of integrating higher order thinking (HOT), socialization, and technology as a vital part of a pupil's education (Lenhart et al., 2008). Game use as an educative instrument has only recently become a topic of study. Studies are beginning to focus on how these games may be introduced to the class environment (Squire et al., 2004).

As more educative videogames have started to emerge, educators have a need for some way to evaluate their educative powers. Bloom first proposed his taxonomy in 1956 with Krathwohl. According to their taxonomy, all educational outcomes can be classified into six distinct categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. The hierarchical feel of the taxonomy is not meant to undermine the importance of the lower level skills. On the contrary, the taxonomy also serves to reinforce the reliance that higher level skills have on lower level skills (Anderson & Sosniak, 1994). In an effort to depend less on accurate classification of questions into all six categories, content questions may be classified as high-order thinking (HOT) or low-order thinking (LOT).

Many scholars agree that high-order thinking is in not being taught effectively (Cotton, 1991; Norris, 1985; Robinson, 1987). Critical thinking indicators show that the majority of high school students struggle with high-level tasks (Norris, 1985). Cotton (1991) concurs that young Americans lack impressive critical and creative thinking skills. Another scholar, Robinson (1987), furthers the argument by saying that despite the recent emphasis placed on cognitive development, there is a dire need for students to build up their thinking skills, based upon results of performance on measurement devices for HOT. Cotton (1991) also points to Computer-Assisted Instruction as an effective strategy for teaching thinking skills.

The emphasis on “using video games to support student exploration of microworlds or as a construction tool is more consistent with the emerging paradigm of instruction” (Squire, 2003, p. 5). The developers of CellCraft are hoping to begin filling the need for quality, scientifically accurate videogames. The game is formatted as a downloadable Flash game. Game play is all within the context of the super cell constructed and organized by the player.

Methodology

This study uses a quantitative research approach (Gay, Mills, & Airasian, 2008). One hundred thirty one students from four middle school science classes and two high school biology classes in the southeastern United States were selected by convenience sampling. Data was collected from three different groups. The first group was comprised of two high school honors level biology classes (HSH). The second group was made up of two middle school highly academically gifted science classes (MSHAG). The third group consisted of two additional classes of middle school regular science students (MSR). Participating students completed a pre-play packet, which included three sections. Section 1 contained demographic information such

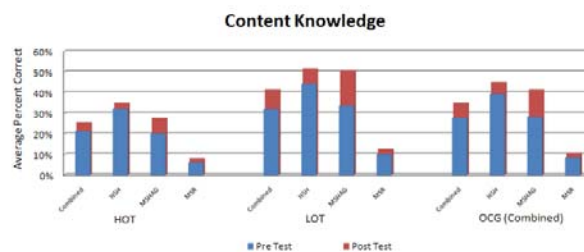
as age and gender and computer use questions. Section 2 consisted of content knowledge questions. There were six LOT questions and four HOT questions. The results of LOT and HOT were then combined to create an Overall Content Grade (OCG). Section 3 used a Likert-scale to assess student attitudes. The 18 affective statements were divided into three six-statement groups created to measure attitude toward science, confidence in science, and attitude toward computer use in science education. Once the pre-play packet was complete, students began playing CellCraft. Afterward, students were asked to complete Sections 2 and 3 again in a post-play packet. Repeated measures analysis of variance (ANOVA) procedures were used to examine the impact of the game on science achievement and attitude toward science.

Results

The data presented in this section was organized by content knowledge and affect. For statistical analysis of student affect, incomplete data was excluded leaving 88 of 131 students used in statistical analysis of affect. All 131 participants were included in the statistical analysis of content knowledge because students were asked to answer all the questions they knew the answer to and leave the remaining questions blank.

The content knowledge data is presented in three distinct categories identified as HOT, LOT, or OCG (shown in Figure 1). In each category, scores were averaged across the three groups (HSH, MSHAG, MSR) and given the term combined group. For HOT questions, the combined pre-play score was 21 percent correct. The post-play scores averaged 25 percent reflecting an increase of 4 percent. For the combined group, HOT results showed no significant gains ($F_{(1,85)}=2.379, p>.05$). For HSH, pre-play scores were 32 percent and post-play scores were 35 percent, resulting in an increase of 3 percent. In MSHAG, pre-play scores averaged 20 percent. Post-play scores were 27 percent, a rise of seven percent. MSR scored six percent on pre-play measures and eight percent on post-play measures, reflecting an increase of two percent.

Figure 1

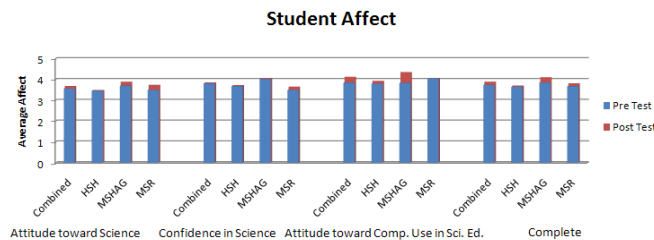


The percentage of LOT questions answered correctly was 31 for combined pre-play. Post-play, the percentage rose by nine percent to 41 percent correct. LOT results for combined groups showed significant gains ($F_{(1,85)}=19.956$, $p<.05$). HSH scored 44 percent in pre-play and 51 percent in post-play, resulting in an increase of seven percent. MSHAG scored 34 percent on pre-play measures, which rose 16 percent to a 50 percent correct post-play score. In MSR, pre-play scores averaged 10 percent and increased two percent to 12 percent in post-play.

For the combined group OCG, the pre-play score increased by seven percent from 28 percent to 35 percent in post-play scores. Combined OCG results showed significant gains ($F_{(1,85)}=18.250$, $p<.05$). Pre-play scores for HSH were 39 percent and post-play scores were 45 percent, resulting in an increase of six percent. For MSHAG, the percent correct rose by 13 percent, from a pre-play score of 28 percent to a post-play score of 41 percent. In MSR, pre-play scores were eight percent, which rose two percent to a 10 percent post-play score.

The content knowledge data is presented in three distinct categories identified as attitude toward science, confidence in science, or attitude toward computer use in science education (shown in Figure 2). In each category, scores were averaged across the three groups (attitude toward science, confidence in science, and attitude toward computer use in science education) and given the term combined group. For attitude toward science, the combined group pre-play measure was 3.57 points, which rose by eight hundredths of a point to a post-play measure of 3.65 points. Combined group attitude toward science results were significant ($F_{(1,85)}=8.665$, $p<.05$). HSH scored 3.46 points on both pre-play and post-play measures reflecting no change. For MSHAG, a pre-play score of 3.70 points rose by .15 to 3.85 points, the post-play score. In MSR, pre-play scores averaged 3.50 points, which increased by .20 points to a post-play score of 3.70 points.

Figure 2



In combined confidence in science, scores for pre-play measure were 3.81 points and for post-play measure were 3.82 points, reflecting a difference of one hundredth of a point.

Combined group confidence toward science results were not significant ($F_{(1,85)}=1.143, p>.05$). In HSH, pre-play scores were 3.68 points, which increased by one hundredth of a point to a post-play score of 3.69. For MSHAG, pre-play average of 4.03 points rose one hundredth of a point to a post-play measure of 4.04 points. MSR increased by 12 hundredths from a pre-play score of 3.50 points to a post-play score of 3.62 points.

In attitude toward computer use in science education, the combined pre-play scores were 3.85 points and the post-play scores were 4.09 points, reflecting an increase of .24 points. Combined attitude toward computer use in science education results were significant ($F_{(1,85)}=8.773, p<.05$). For HSH, pre-play scores averaged 3.80 points, which rose by a tenth of a point to a post-play score of 3.90 points. MSHAG for pre-play and post-play scores were 3.84 and 4.31 points, respectively, resulting in an increase was .47 points. MSR decreased by three hundredths from a pre-play score of 4.05 points to a post-play score of 4.02 points.

Combined complete results for pre-play and post-play scores were 3.74 and 3.85 points, respectively, reflecting a rise of .11 points. Combined complete results were significant ($F_{(1,85)}=13.524, p<.05$). HSH pre-play scores were 3.65 points and post play scores were 3.67 points, resulting in an increase of two hundredths. For MSHAG, pre-play scores averaged 3.86 points and post-play scores averaged 4.07 points, reflecting an increase of .21 points. MSR scores increased from a pre-play score of 3.68 points to a post-play score of 3.78 points, resulting in a rise of a tenth of a point.

Discussion

The results of this study confirmed that videogames can raise content knowledge for LOT, but not for HOT. CellCraft play did significantly raise students' performance on LOT questions. CellCraft play did not significantly raise students' performance on HOT questions. The results showed that LOT skills progressed during play, while HOT skills minimally progressed. Support for Cotton's (1991) argument that CAI can teach thinking skills remains inconclusive. One possible explanation could be that, until a base of LOT skills was established, students were not able to use their HOT skills. CellCraft play was each participant's first exposure to the CellCraft gaming environment, therefore, participants may have spent the majority of their time familiarizing themselves with the more basic structures and functions of the cell.

While CellCraft did significantly increase student attitude toward science and student attitude toward computer use in science education, CellCraft did not significantly increase student confidence in science. In all three affective measures results were positive initially and increased slightly, resulting in no appreciable findings.

Another important investigation for further research would be to compare the content and affective gains achieved through gaming to content and affective gains achieved through the use of various other teaching strategies. The present study compares only before and after results from computer gaming. Therefore, while the content knowledge and affect gains can be discussed, there is no argument for or against gaming as a replacement for other teaching strategies. Until a side by side comparison of gaming to conventional teaching strategies is made, gaming should function as a complement rather than a replacement to other types of teaching strategies.

As teachers contemplate technological integration in their science classroom, understanding a particular educational games influence on content knowledge and student affect is essential. The information provided in this study may also be useful to researchers pursuing similar studies with science educational videogames. The results of this particular study showed promise for the CellCraft's development in that the game was effective in significantly increasing LOT and changing students' science attitudes.

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The Effects of the Class Length on the Instructional Practices of Social Studies Teachers

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There are many variables that effect how teachers teach, including the length of the class period (Davis-Wiley, 1995; Dibiase & Queen, 1999; Queen, Algozzine, & Eaddy, 1996; Veal & Flinders, 2001; Zepeda, 1999). Many schools are beginning to transition from a traditional seven period per day schedule to some form of a block schedule. As a result, studies have shown that students tend to perform better in traditional fifty minute periods than in block classes. Rice, Croninger, and Roellke, (2002) found that despite more desirable teaching methods, block classes did not elicit higher performance from students. The research points to the fact that there may be something different occurring between traditional classes and block classes. As a result, this research study aims to examine how block schedules vs. traditional schedules affect the teaching methods of teachers in the classroom.

Literature Review

There are two predominant scheduling systems in high schools today. They are referred to as the traditional schedule and a block schedule (Davis-Wiley, 1995; Dibiase & Queen, 1999; Zepeda, 1999). Both systems have implications for teachers. First, it can be extremely difficult for teachers to make the transition from traditional classes to block classes. Many teachers believe that their first year teaching block made them feel like first year teachers again (Dibiase & Queen, 1999; Veal & Flinders, 2001). The teachers felt that they were more stressed and unprepared than normal. In addition, it can be equally as difficult for beginning teachers to adapt to the block schedule (Zepeda & Mayers, 2001). However, these problems can be easily overcome if districts considering block schedules help their teachers adapt to the change by offering continued learning opportunities. (Zepeda & Mayers, 2001).

Dibiase and Queen (1999) define the traditional schedule as consisting of six to eight equal length periods that meet between forty to fifty-five minutes every day. A benefit of this system is that throughout the course of the year, traditional classes meet for a greater combined time than do block classes (Queen, Algozzine, & Eaddy, 1996; Veal & Flinders, 2001).

Traditional classes meet for approximately 150 hours whereas block classes meet for about 135 hours (Queen, Algozzine, & Eaddy, 1996). Having more instructional time allows for material to be covered over a longer period in shorter increments. Some negative aspects are associated with the fact that in the traditional schedule teachers perceive that there is not enough time to accomplish a lot of tasks during a given class period (Northwest Regional Education Laboratory (NREL) 1990). One of the most prominent of these examples is the overuse of lecture (Dibiase & Queen, 1999; Veal & Flinders, 2001; Zepeda & Mayers, 2001). The allotted fifty minutes of instructional time in a traditional period has a tendency to disappear so teachers tend to use lecture to give students information quickly (Dibiase & Queen, 1999). This implies that lecture is a crutch that many teachers use when they feel that time in each class period is too limited.

Block Schedules

There are several different forms of block scheduling (Dibiase & Queen, 1999). The 4x4 block usually meets for about ninety minutes and for only one semester. Classes in the A/B block also meet for ninety minutes. However, two sets of four classes meet every other day so they last a full year. In both of these systems the teachers only teach three classes per day and have the fourth period for planning (Dibiase & Queen, 1999; Queen, Algozzine, & Eaddy, 1996). The final type of block is the fan block (Dibiase & Queen, 1999). This contains elements of the traditional and the 4x4 block because some of the classes are taught in shorter increments over the course of a year and others are taught for longer periods over the course of a semester.

First amongst the benefits of block scheduling is teachers have fewer students which makes it possible for them to build a better student-teacher relationship (Veal & Flinders, 2001; Zepeda, 1999). This increased relationship leads to greater chances of creating a support system that fosters success in the classroom (Zepeda, 1999). Changes like this are directly responsible for the next and possibly best benefit, the increased diversification of teaching methods (Davis-Wiley, 1995; Dibiase & Queen, 1999; Queen, Algozzine, & Eaddy, 1996; Rice, Croninger & Roellke, 2002; Veal & Flinders, 2001; Zepeda, 1999; Zepeda & Mayers, 2001). Queen, Algozzine, and Eaddy (1996) state that because of less time spent in a given course throughout the year, many teachers feel rushed to cram as much material into individual classes as possible. To compensate for this, many teachers tend to over rely on lecture (Davis-Wiley, 1995; Dibiase & Queen, 1999; Zepeda & Mayers, 2001). Students were able to pick up on this as one pointed

out that her teacher “was trying to cover the content of two days into one” (Veal & Flinders, 2001, p. 27).

The fan block system is unique because it combines both traditional and block classes into a single scheduling system. This system is very similar to the system observed in this study. This means that because teachers are teaching both block and traditional classes, they are more likely to adapt to the benefits and negatives that each style of class possesses. Therefore, based on this prior research this study will examine the effects of class length on the instructional methods of teachers in social studies classrooms.

Methodology

This study included three teachers from a school district in North Carolina which had recently converted from a traditional schedule to a block schedule similar to the fan system described by Dibiase and Queen (1999). The participating teachers were teaching both a forty-eight minute traditional class and a ninety-six minute block class in the same subject. They were selected by identifying candidates that fit the necessary requirements of having the same class in the block and the traditional schedule. Next, prospective candidates were contacted via e-mail and asked to participate in the study. The selected participants were Mr. Skeen, Mrs. Dry, and Mr. Nicholas who taught either US History or Civics and Economics.

The first step in data collection was to observe the cooperating teachers. Teachers were observed on four different occasions to examine how they taught their classes. Specific attention was taken to notice trends and differences in their teaching styles between the two types of classes. Also, the researcher was looking at how these changes in instructional strategy effect what the teacher was doing in the classroom. After these observations, the cooperating teachers were asked to participate in a short interview. The interviews were based on a standardized open-ended system in which the interviewer had a set of predetermined questions that were asked with the possibility of expanding on those questions based on what was seen in the observations.

Results

Several noticeable trends emerged as a result of the process of collecting data. First, when the teachers were asked if they felt that they taught their traditional classes differently than their block classes the common response was that they did not. They tended to the same style for all their classes because that is what they felt most confident doing. Mr. Skeen stated that he liked to use dramatic lectures and said if “you know you are a storyteller/drama guy, you do what you are

good at and stick to it.” The other two participants both claimed that they altered their instruction to fit the time that they had available. Mr. Nicholas is predominantly a lecturer but since a ninety-six minute lecture can be long so he tries to make them interactive. He also inserts quizzes and games into his classes to complement the lectures that he is giving. In one observation he was beginning his unit on North Carolina History so he passed out a quiz that had basic knowledge questions. The goal was to see how much the students already knew. The quiz was a tool that he used to support his lecture and later it served as a note taking strategy for students. In almost all cases the observations support the teachers’ statements that they tend to stick to how they teach best in both their block and traditional classes.

Planning Classes

Two of the participating teachers said that the experience of teaching in the block has altered the instructional practices they use to teach their classes. Mr. Skeen has increased the amount of activities that he is performing in all of his classes. He feels that the block class is too long to simply lecture for the whole time. As a result, he has begun to use more activities in his classroom. He has stored the good ones so that he can use them later on in the year with his traditional classes. Similarly, Mrs. Dry also claimed that block scheduling has affected the way that she teaches. She has noticed that the block schedule has also affected her use of primary documents. She mentioned that they have not been as effective in the block schedule. She attributed this change to a lack of “gel time.” This means that it is more difficult for the block schedule students to read and analyze a document in class that the traditional class students got to do for homework because they do not have time to comprehend the meaning of the document.

Relationships with Students

Teachers noticed little or no change in the relationships that with their students. Most teachers felt that they knew each of their classes relatively equally. In some cases teachers said they felt they knew the block students better at the beginning of the year because of the increased time with them. They also cited that the block students would be gone at the end of the semester and that their relationships with the traditional classes would “catch up” before the end of the year. Perhaps Mr. Skeen said it best when he said that it is a matter of “getting to know students quicker” in the block schedule. Mr. Nicholas, offered an entirely different opinion, though. He felt that he knew his traditional classes better than his block class simply because of the nature of each class.

Block Class Approaches

Another general trend that was noticed was that teachers approach teaching the block schedule in different ways. Mr. Nicholas has had seven years of prior experience teaching in a block schedule. He tried a new approach to teaching by dividing his Civics and Economics course into two separate courses. His hope was to make the students treat his class as two separate traditional classes and to give an ample amount of time to let the material settle in before moving on. He mentions that “they don’t see it as two separate classes.” Nevertheless, he is interested to see how this technique will relate to students perform on the North Carolina End of Course Test. Alternatively, Mrs. Dry maintained an approach of business as normal for her block class. Like Mr. Skeen, she had never taught in a block system before. However, her teaching style of lecturing one day and doing activities the next lent itself to teaching in the block schedule. By simply combining the two days into one she can effectively maintain her traditional practices. Pacing is the issue that is bothering her. As a result, she spends some days doing nothing but lecturing so that she can get on pace to teach all the required material before the end of the semester. She has said “you have to lecture to get through stuff.” Due to the pacing at the end of the year she only had two days available to teach World War Two in her block class which meant that students were going to get a lot of lecture to get through the material.

Implications

This study confirms some of the contemporary scholarship on this subject while it contradicts other aspects. This study found a somewhat greater variety of teaching methods utilized as a result of the block, relationships with the students were perceived to be mostly unchanged, and teachers continued to use the same teaching methods.

First, teachers did find that their teaching practices changed slightly when the block schedule was adopted. They found themselves trying to incorporate more student centered approaches including a variety of activities. This supports the idea that one of the associated benefits of the block schedule is that teachers’ instructional methods become increasingly diversified (Davis-Wiley, 1995; Dibiase & Queen, 1999; Queen, Algozzine, & Eaddy, 1996; Zepeda, 1999; Rice, Croninger & Roellke, 2002; Veal & Flinders, 2001; Zepeda & Mayers, 2001). However, participants began to use their newly acquired strategies in their traditional classes as well. This indicates that methods that are conducive to learning in the block schedule can also be used in the traditional schedule. This is important because many teachers feel that

traditional classes are not long enough to incorporate a variety of instructional methods (Zepeda & Mayers, 2001). Teachers should not be afraid to use multiple of methods in shorter classes.

A second finding of this study differs from what the conventional research has shown. Typically teachers have stated that tend to feel like they establish better student-teacher relationships with the student when they are using the block schedule (Veal & Flinders, 2001; Zepeda, 1999;). However, the teachers that were observed in this study stated that this was not the case. Either they felt that these relationships were roughly equal, they would get there by the end of the school year, or the traditional class had a better student-teacher relationship. The longer class period and the smaller amount of students are the two reasons that both Zepeda (1999) and Veal and Flinders (2001) cite as the reason for improved relationships.

The implications of this study demonstrate that above all, it is important to be oneself when teaching in the classroom. It is possible to implement all of the instructional methods available but they will not work if they do not fit one's philosophy of teaching. Therefore, it is necessary for teachers to find what works best for them and stick to it. All of the teachers in this study continued to use the methods that they felt comfortable using and that defined them. Any changes that were made were used to supplement what was already at work in their classrooms.

Finally, the limitations of this study cannot be overlooked. Because the study only included three teachers, all opinions and practices within the new schedule may not be addressed. Another limitation is that this is the first year that this system has been implemented. Limitations could easily be reduced by a replication of the study, including a larger group of teachers to participate, or allowing more time for the study to continue.

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Teaching Writing Strategies in a Social Studies Classroom: The Study of Different Writing Strategies and Assignments Implemented by Social Studies Teachers

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Secondary social studies classrooms are often associated with the memorization and regurgitation of facts that are subsequently frequently forgotten by students. However, the art of learning social studies by writing and conceptualizing facts into deeper concepts may be a method of changing this practice. An example of this might be student creation of a diary entry from a historical perspective, which will force a student to think deeper into a concept, to internalize the main concepts of a specific area, and think from a unique perspective (Boyer, 2006). Writing can also help teachers design interdisciplinary projects and assignments (Holbrook, 1987). Instead of students thinking in terms of social studies as facts they need to memorize, they can think from a deeper standpoint, integrating content areas that will help students become better thinkers (Holbrook, 1987). Recent research has shown that for a variety of reasons, social studies teachers do not include interactive writing experiences within their instruction (Berridge, 2009). The goals of this study are to ascertain why social studies teachers integrate writing within their instruction in varying degrees, as well as to determine different writing strategies that are practical and valuable for future classrooms.

Literature Review

Practicality of writing strategies

As the literature suggests, implementing writing strategies in social studies develops key skills such as critical and analytical thinking skills (Johanneseen, 1995). If most research shows that writing strategies are useful, why are they not incorporated into more classrooms? Perhaps it is the apparent reluctance of students to write. Cumberworth and Hunt (1998) argue that when students are approached with a writing assignment, they do not necessarily display a positive attitude toward the assignment; however, upon intervention most negative attitudes can be turned positive. Unfortunately, intervening with students to create positive attitudes towards writing is not a luxury most social studies teachers enjoy. Brown (1992) interviews a principal from New

York who reiterates this point, “I think if the tests were removed, you’d find that teachers would have a greater willingness to do integrated projects. I think they are afraid that they don’t have time to cover all the material that a test might measure.” (Brown, 1992, p.24).

As far as the lack of implementation of writing is concerned, Zigmond (2006) studies how often writing is implemented in social studies classrooms in New York and Pennsylvania. Zigmond (2006) finds that out of 406 five minute segments observed in the classroom, only 25.5% were spent on writing. According to Zigmond, (2006),

“What should one make of the data? The most likely explanation is that teachers who were observed had adjusted their instructional demands downward because of the literacy limitations they recognized in their students.” (Zigmond, 2006, p.265)

This explanation provided by Zigmond (2006) argues another major limitation to implementing writing strategies. Teachers feel more comfortable utilizing other activities to prepare students for their end of course test, due to the variety of academic abilities in their classroom (Zigmond, 2006). These statistics also imply that most social studies classrooms are teacher centered, rather than student centered. The literature has clearly established that there is a lack of implementation of writing in social studies classrooms. When writing strategies are finally implemented, what types of strategies are utilized?

Implementation of Writing Strategies

Arguably, persuasive writing can be one of the more difficult tasks when writing in social studies (Newmann, 1990). Since persuasive writing requires a higher order of thinking, it is a difficult task for a high school student (Newmann, 1990). Newmann (1990) sampled fifty-one classrooms from grades 9-12. These classrooms consisted of different disciplines of social studies. Newmann (1990) utilized a constitutional reasoning exercise that tested each student’s ability to form an argument, and provide evidence to support his or her argument. Using Newmann’s (1990) scale, of 1,128 students sampled, over 2/3 received a less than adequate mark on their argumentative writing. These results indicate wide ranges of students are not prepared to construct an argument in social studies.

One of the most highly researched writing strategies in terms of implementation is peer review. Berridge (2009) points out that peer review can be useful for secondary social studies writers. Berridge (2009) found through an interview with a secondary English teacher, that peer review should be modeled for students. Berridge (2009) argues that teacher modeling,

embedding writing in the course, and holding students accountable during the peer review process is vital for peer review to be successful. Johannessen (1995) warns students have a habit of being either too critical or too easy on their peers. This argument seems to reiterate Berridge's (2009) point that peer review needs to be modeled in order for the strategy to be useful. Furthermore, peer review facilitates human interaction, which cannot be duplicated simply by teaching towards the test (Berridge, 2009).

Methodology

Participants included five secondary social studies teachers from a school district in the southeast. Upon receiving approval from the IRB from Wake Forest University, I sent an e-mail to all high school social studies teachers in a school district in a city in the southeast. Due to the response, teachers were recruited on willingness to participate. Eventually, five participants were selected who teach a wide range of grade level and ability. Two participants taught 11th grade US History, one taught AP Psychology, one taught AP US history, and one taught African American History. The first task of this study was to interview each teacher. An interview gave insight into what other writing strategies teachers may implement that the literature may have or may not have suggested. The second task of this study was to examine four writing samples from each class to determine if each teacher's objectives for their students were met, if continuity between the writing strategy and the actual writing sample exists, and if the strategy was effective with students.

Results

Despite the differences in grade level, discipline, and student track, each participant seemed to agree on the value of writing. As part of the interview, participants were asked whether and to what degree writing helps students internalize the content? In response, all teachers agreed that writing helps students internalize the content. An AP US history teacher stated,

“Definitely I think it shows mastery of content better than anything else...an awful lot of people who are very good at multiple choice...their essays do not reflect the kind of mastery of the information just the superficial knowledge of it.”

Several participants felt that multiple choice questions do not properly assess student knowledge of social studies. One US History teacher reiterated this point referring to his students, “anytime you can write it forces them to express themselves in their own words.” Although this seems to

be true when students are constructing their own opinions, it can be argued that during note taking, students are regurgitating the content. When students are constructing an argument, they must take ownership of the content.

Unlike AP (Advanced Placement) students, EOC (End of Course Exam, North Carolina state assessment) students do not prepare to construct an argument for their end of course assessment. The lack of an essay, document based question, and/or short answer question on the EOC examination, is a large contributor to the lack of writing in social studies classrooms. One US history teacher cited the rush to prepare students for the EOC, and the level of his students, as the two fundamental reasons for the lack of writing in his classroom. When asked about the rush to get through the curriculum, a US history teacher stated

“that is the number one reason.... there was one year I taught world history we were supposed to get up through like the Vietnam war and I got to the French revolution....the reason we only got that far was because we were actually doing stuff than racing through the curriculum.”

This participant is acknowledging the lack of critical thinking and skill building in his classroom. Are teachers that teach toward the test, at fault for the lack of writing in their classroom? This participant was quick to point out that the reason he does not assign more writing is directly related to the EOC examination. In regard to the EOC examination and track of students in US history, the same participant responded,

“In my standard class there is very little writing other than at the end of each lecture notes. I have and I am not proud of this by any means...I have essentially conceded on the issue of writing with my standard kids...but the truth is the administration of this school measures my performance by how well kids do on that EOC not how well they read or write.”

Participants are forced to modify the curriculum to fit student needs. In a higher track class or a class without the constant pressure to get through the curriculum, a teacher is more likely to assign writing to their students. Participants in this study simply do not have time to teach writing while teaching the curriculum.

Discussion/Implications

The literature romanticizes writing as a process, even in social studies. Risinger (1987) discusses the different stages of writing, which consists of pre-writing, drafting, revising, editing, and finally the publishing stage. Although there is no doubt that these skills would help develop writing skills, they are not practical for the study’s participants to engage. Every teacher,

whether they taught AP or EOC classes, stated they felt the rush to get through the curriculum. The writing process cannot be emphasized in a social studies classroom because teachers need to prepare students for background knowledge on the EOC. When interviewing an AP Psychology teacher, I asked if she would change anything about the EOC exam, specifically adding more writing, she responded, “Would it encourage more teachers to teach it? Well they would have to.” By adding a writing component to the state test, teachers would implicitly teach writing. Unfortunately, the nature of the state testing system will divert teachers’ attention to teaching their students a superficial knowledge of social studies. Having a teaching license from New York, I believe the New York State Regents tests students’ knowledge of social studies better than the End of Course test in North Carolina. This is because New York has their students write two essays on their Regents examinations. Although not part of this study per se, I have in practice witnessed teachers implement more writing in their course, because the state assessment has a writing component.

Essentially, teachers are conceding to their students’ ability to write. This reflects Zigmond’s (2006) findings; teachers are forced to concede to the literacy limitations of their students. Unfortunately, teachers feel more comfortable implementing other strategies to prepare their students for an end of course test (Zigmond, 2006). In this study, most standard teachers admitted they had to use other strategies for their students. Most teachers are asking their students to learn a superficial knowledge of social studies. The regurgitation of factual information that plagues the reputation of social studies seems to be practiced in classrooms.

Conclusion

This study sheds light on the present status of writing in social studies. Teachers need to ask themselves whether or not they think writing is a skill that should be developed in the social studies classroom. As a future social studies educator I believe writing is a skill I want my students to walk away with. Social studies educators should be training their students to form arguments. No matter what a student goes on to do after high school, they will need to learn how to write and express their thoughts. Writing helps students develop critical thinking and argumentative skills. If a student goes on to college, s/he will need to formulate lucid arguments supported by evidence. Unfortunately, the reality is social studies teachers need to teach toward the test because that is how they are evaluated. If high school students are assessed based on a

superficial knowledge of social studies, teachers will continue to teach watered down facts. Writing is one way to change this method of practice.

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The Effect of Technology Use on Student Interest and Understanding in Geometry

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The amount of technology available for education has increased exponentially over the past decade and thus it is important to discover what types of tools exist and in what ways they are most effective. Technology also becomes increasingly important for the development of 21st century skills; the 21st Century Framework (2004) promotes technological literacy because students must know how to use technology effectively and ethically in order to succeed in a global community. To educate students who can compete in a global job market, it is necessary to improve upon their technology skills as well as their skills in core content, according to the 21st Century Framework. Thus integrating technology into core content courses promotes technological literacy as well as a better understanding of core concepts.

The National Council for Teachers of Mathematics (NCTM) views technology as an integral part of the mathematical learning experience for all students. NCTM states that “*Technology is essential in teaching and learning mathematics; it influences the mathematics that is taught and enhances students' learning,*” (NCTM, 2000, p. 26). NCTM also emphasizes how technology can be used for students in mathematics classrooms. This is especially applicable in geometry where NCTM lays out the standards in which students are expected to draw, visualize and manipulate two and three dimensional figures.

The use of *Geometer's Sketchpad*, *Cabri*, and other dynamic geometry software are directly beneficial in the van Hiele model which states that student's geometric thinking progresses in levels. The first level is visual in which students are able to visualize geometric figures; the van Hiele system is hierarchical where the next level cannot be attained without the ones before it. Since dynamic software directly supports visual representation in geometry it allows students to attain the first van Hiele level and can also help them achieve higher geometric understanding (Fuys, Geddes & Tischler, 1984).

Thus it is the implementation of technology which is the focus of this study. Does technology implementation improve student understanding of geometry concepts and if it does in

what ways? This study also seeks to understand student attitudes towards the use of technology and how they feel its use is most effective.

Related Research

Numerous studies have examined the effects of use of dynamic geometry software on students' achievement, understanding and on teacher implementation. One such study done by McClintock, Jiang, and July (2002) sought to determine what effects *Geometer's Sketchpad* had on students' visualization of three dimensional figures. This study followed 24 high school students over a four year period in order to track their growth in geometry.

“The exploration activities/problems used in the study were devised in ways that the subjects were required to use hands-on explorations with *Geometer's Sketchpad* to learn new geometric ideas; they were required to make conjectures based on their explorations; they were required to make meaningful explanations for what conjectures they made; and they were asked to look back to check if they had reached a complete understanding.”
(p. 743).

Observation, interviews, and written tasks were all used to gain the information on the subjects. Using the constant comparative method of qualitative data analysis the results of the research suggest that *Geometer's Sketchpad* and the associated activities were effective in helping the students develop three-dimensional visualization and achieve conceptual understanding of geometry content (McClintock, et. al, 2002, p. 743). Thus research found that dynamic geometry software had a positive effect, especially on student visualization of geometric figures and understanding of geometric concepts and properties.

Dynamic geometry software not only allows students to better understand geometric concepts, it also allows them to accomplish this goal in different ways. Kordaki and Balomenou (2006) studied the different ways students aged 12-15 constructed triangles in terms of area and perimeter using *Cabri-Geometry II*. The researchers took 25 students and introduced them to *Cabri-Geometry II* and then assigned them the task of creating equivalent triangles using the software and then explaining how they did it and why it worked. The solutions of individuals and groups were compiled and grouped based on similar reasoning or approach and also based on the *Cabri* tools they used. In the end the researchers found that “This study supports our hypothesis by demonstrating that the selected set of *Cabri*-tools and its dynamic character, in combination with the openness of the given tasks, inspired the students to view the concept of area in triangles in a broad context” (Kordaki, et al, 2006, p. 132). Through this study there is a

greater understanding into how dynamic geometry software can be used to help students understand geometric concepts.

Another question that arises from considering the implementation of technology is how does the integration of technology affect the classroom environment for the student? Many students are more technologically advanced than their teachers and many enjoy the experience of working on the computer or using other technology to show what they know. Taking this into consideration it is important that students are introduced to dynamic geometry software and all the tools available to them, however it is also important to let them explore the abilities of the tools on their own. One skill that must be developed by the students is what Sanchez and Scaristan (2003) refers to as “decontextualization,” (p. 16). This is the process in which students are able to take what they do in *Cabri* or other dynamic geometry software and express it using geometric concepts and vocabulary and thus show their understanding of the process geometrically. This is important because if students are unable to decontextualize what they do using dynamic geometry software, then they will be unable to truly grasp how what they are doing relates to core geometry content.

Students must also learn that by using dynamic geometry software they are given the tools to explore and solve problems on their own. This requires students to change their thinking and approach problems differently. They will not necessarily be given a formula to solve an equation or graph a figure, instead they will be asked to manipulate a figure or a graph in order to understand the formula and then find the answer. Such activities were structured in research done by MacGregor and Thomas (2002) which found that an all girl group of students responded well to this type of questioning to improve their geometric understanding.

In conclusion the proposed study seeks to determine what the effects of technology use are on students understanding of geometry concepts and their attitudes towards the technology used.

Methodology

Subjects

The subjects of this study were selected from three geometry classes with the same teacher in a school in North Carolina. The teacher selected ten students and attempted to select students from varying ability levels though no student was systematically excluded on the basis of gender, race, ethnicity or any other characteristic.

Instruments

The instruments used in this study were a selection of interview questions that focus on the students attitudes towards the use of technology in the classroom. Another section of the interview had a math problem that the students were asked to solve and explain using the *Cabri Jr.* program on their calculators.

Procedures

Participants were asked to participate in a one-on-one interview with the researcher. During the interview the researcher presented a geometry problem on the concept the students had been studying in the technology integrated lessons to garner their depth of understanding. The students were asked to solve this problem using the technology elements they had learned in class such as *Cabri Jr.* on their calculators. Participants were asked to explain the math behind the problem as they solved it, and the session was audio-taped. The researcher also took notes on the students' solving process. There was a second section of the interview focusing on students' attitudes toward the use of technology and whether they felt it was effective. The researcher asked the questions and requested clarification when necessary.

Data analysis included analyzing student comments for errors and student's reasoning strategies. The students' responses to questions of their attitudes toward technology use were analyzed and categorized based on similar responses.

Results

Before providing the results of the interviews with students, it is pertinent to explain the classroom that the students come from so that it is clear what elements of technology these students are exposed to. All students interviewed were in honors geometry classes with the same teacher. The teacher used technology daily in the classroom in varying ways, including an *Interwirte Mobi, Airliner, Cabri, TI-83 plus* calculators with *Cabri Jr.*, a document camera, a microphone, and a large LCD television to display all information on. The teacher used these systems to move throughout the classroom while still writing on the LCD screen and constructing geometric figures for students to analyze and make conjectures about.

Based on the data collected from the student interviews, they viewed technology in mathematics as beneficial. First, some specific answers from students will be presented before compiling their answers into basic generalizations about their views of technology use. On the issue of actually being able to use the technology to represent their knowledge of the content,

students were asked to perform a task on the *Cabri Jr.* system which they had done in class in previous weeks. In this case all of the students did fairly well at showing that they could construct and represent a key element of geometric proofs using the *Cabri Jr.* system on their calculators, however only a few were really adept at explaining exactly how it related to the content they were covering. When asked if the *Cabri Jr.* had helped them understand the concept of overlapping triangles, all students said that the system helped greatly in allowing them to visualize how the structures could be pulled apart and analyzed to determine if they were congruent.

The first question asked them whether the use of technology in the classroom made class more interesting, and the students gave two varying responses. One student provided a very good explanation of why technology use made the class more interesting, saying “Yes it definitely makes class more interesting, mainly because it gives us a variety of things to look at, like when she switches from showing us information on the *Mobi* to displaying student answers on the document camera and having us discuss them.” While this points to the overwhelming benefits of the teacher’s technology use in this case, another student provided a different perspective. After coming from a class in which technology was not used this student said “I think it’s interesting that she(the teacher) uses all the technology, however when I first started in her class I was overwhelmed, everything with the technology was fast paced and I had a hard time keeping up with everything that was going on. However, in the past few weeks I’ve really gotten the hang of the way the classroom runs and the use of the technology is really interesting to me now.” This student showed some problems that can arise from the use of technology in the classroom, such as students getting caught up in the fast paced explanation using technology and not truly understanding the content.

Implications

From the results a number of implications for teaching using technology could be drawn. These implications are meant to provide information on how better to use technology in the classroom based on student attitudes towards technology in their classroom. These implications vary from what technologies may be best to institute into the classroom to how the technologies should be employed.

According to students, technology use in their classroom was overwhelmingly beneficial. All of the students interviewed noted that technology not only made their class more interesting,

which meant they generally paid more attention, but they also noted that the technology was effective in helping them understand the material being presented. Most of the students also pointed out that by differentiating the representations of the information on the different technology systems all students were able to learn in various ways and their attention on the content was constant throughout the class. The idea of differentiation is key when presenting material with or without technology, thus it is important to remember that while technology is exciting, the material still needs to be presented in various ways if all students are to understand the material.

The key benefit that students reported from the technology use was that it helped them visualize the information in a more clear and organized manner. This is directly related to the findings of McClintock, Jiang, and July (2002) who determined that *Geometer's Sketchpad* and other dynamic geometry software were effective in helping the students develop three-dimensional visualization and achieve conceptual understanding of geometry content. If these systems are used to clearly explain concepts and theorems and then paired with effective activities, they can be very helpful in furthering students' geometric understanding.

Through all of the information gathered it would seem that in general there exist more benefits to the use of technology in a geometry classroom than there are negative effects. The use of technology seems to scaffold students' understanding of geometry concepts especially in relation to their understanding of theorems and postulates in a visual sense. It also allows students various ways to represent what they know and to have information presented to them in a variety of ways.

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The Use of Authentic Materials in the Secondary Spanish Classroom

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As a result of changes in demographics across the United States, as well as the increasing need for multilingual employees, teachers and scholars alike have taken a new look at foreign language education in grades K-12. The question of how to best prepare students for the 21st century often returns to the overall need for teaching a more global perspective, and with this perspective comes an emphasis on improving K-12 foreign language instruction for the purpose of promoting advanced proficiency in students (Sloan, 2009; Stewart, 2007). Leaders in education, healthcare, the military, and government acknowledge that in order to succeed economically at the level of other nations, young people in the United States must attain a higher level of proficiency in languages other than English. The ability to communicate with speakers of other languages will help the United States to be more competitive in the global economy. It will also help individuals to succeed in their careers within the United States as the country's linguistic landscape continues to expand.

REVIEW OF LITERATURE

Major developments in foreign language education took place in 1996, as the American Council on the Teaching of Foreign Languages (ACTFL) published the first national foreign language standards entitled *Standards for Foreign Language Learning: Preparing for the 21st Century*. The publication of the *Standards* represented a fundamental shift in the field of foreign language education, as it was the first time that leaders representing many different languages came together to decide on a set of national expectations for foreign language students in grades K-12. For teachers, administrators, and others involved in planning and implementing foreign language curricula, the *Standards* have provided much guidance in framing expectations for programs and students (ACTFL, 1996). The national standards are known as the "Five C's," the goals that encompass the content knowledge students in grades K-12 should possess when they complete a foreign language program of study (ACTFL, 1996, p.27). They are Communication, Cultures, Connections, Comparisons, and Communities (ACTFL, 1996, p. 27).

ACTFL also developed the *Performance Guidelines for K-12 Learners* in 1998 which provide a measurement gauge of students' development of the content knowledge of the national standards. This framework, along with the national standards, places new emphasis on the importance of proficiency-oriented instruction and a long sequence of foreign language study in grades K-12. The *Performance Guidelines* emphasize what students should be able to do according to the levels of Novice, Intermediate, and Pre-Advanced as they gain proficiency in a foreign language, while taking into account that students may begin their foreign language study at different points in time in grades K-12. The Guidelines classify the different types of communicative tasks that students should be able to perform using the three modes of communication--Interpersonal, Interpretive, and Presentational—as they gain ability throughout their course of language study (ACTFL, 1996, p.33).

Foreign language teachers have many different types of strategies that they use to help students reach goals according to the national standards and the *Performance Guidelines*. Some of these strategies incorporate the use of authentic materials, which are any resources that the teacher introduces in a classroom setting that come directly from the target culture (Peterson & Coltrane, 2003). Such materials cover a wide range of possibilities, including actual physical objects, authentic texts, and multimedia technology such as CDs, TV, film, and Internet resources (Galloway, 1992; Peterson & Coltrane, 2003). A major benefit of authentic materials is that when teachers integrate them in instruction, they are helping students use authentic contexts to connect language and culture.

Research in the field of psycholinguistics demonstrates the importance of the use of meaningful context to the learning process (Genesee, 2000; Wolfe, 2006). In addition, current research in the field of neuroscience shows that it is important for people beginning to learn a new language to have “context-rich and meaningful environments” (p.3) The use of authentic texts in the foreign language classroom is one way to consider research in psycholinguistics and neuroscience in facilitating learning for students. Authentic texts can include a wide range of resources, such as traditional excerpts from authentic literature, réalia, radio broadcasts and video (Shrum & Glisan, 2005, p.74). Réalia is another type of authentic resource which composes all types of products from the target culture, including many with written expression. Some types of réalia that include written expression and could be considered to be authentic texts are menus, brochures, newspapers, magazines, currency, calendars, and postcards (Curtain &

Dahlberg, 2004, Peterson & Coltrane, 2003). Other types of réalia may not include written text, but can still serve as valuable tools for teaching culture. These types of réalia are products of the target culture, such as food, paintings, authentic music and instruments, clothing, pictures, and folk art (Curtain & Dahlberg, 2004; Pino, 1990).

Another way that teachers can incorporate authentic materials into instruction is through the use of technology, an effective way to connect students directly to the culture they are studying. For example, the use of resources such as music, television, video, and films can be beneficial in developing listening comprehension and showing interaction of native speakers. Video is an effective means of teaching culture and has been shown to help students increase their knowledge of “little c” culture, or daily life culture. (Herron, Cole, Corrie, & Dubreil, 1999; Herron, Dubreil, Corrie, & Cole, 2002). In addition to video, a related resource is Spanish-language television, or STV. Liontas (1992) states many advantages of using (STV) in the Spanish classroom, including the opportunity for students to compare American and Latino cultural practices.

Foreign language teachers are now recognizing the impact of computer-based technology in today’s world. By integrating technology into instruction, teachers help students reach the “Connections” goal of the national standards, which is “to connect with other disciplines and acquire information” (ACTFL, 1996, p. 49). Through the use of e-mail, students can communicate with students from other cultures for many meaningful tasks including collaborative projects and interpersonal communication with an ePal, which is an online pen pal. Through e-mail communication with native Spanish speakers, students can experience authenticity of language, develop their writing ability, and use interpersonal and interpretive modes of communication in the target language for a variety of tasks. Apart from e-mail, there are many other types of Internet-based technology that can also link students from different countries (or classrooms) such as Skype, blogging, forums, wikis, podcasts, and videoconferencing (Cutshall, 2009). Foreign language teachers can incorporate technology such as audio and video tools and digital cameras while using the above resources (Cutshall, 2009).

Authenticity of language and culture can be found in physical objects, materials with written text, and technology resources. Spanish teachers can incorporate these resources into their classes to help students gain proficiency in the target language and to develop students’

cultural awareness. The purpose of this study was to investigate instructional practices Spanish teachers use at the secondary level to incorporate authentic materials.

METHODOLOGY

This study was conducted from September to December, 2009. The participants were four middle school Spanish teachers and seven high school Spanish teachers from a central North Carolina public school district. These teachers were selected for participation based on their status as master teachers of Spanish or through recommendation by the researcher's advisor. The researcher interviewed teachers using a self-designed instrument. The interview questions centered on the teachers' use of authentic materials in the secondary Spanish classroom. The researcher used a combination of written notes and audio recording (with participant consent) to gather data. Following the interviews, four participants were chosen for classroom observations. If consent was given for observation, the researcher observed one class period during which the teacher used authentic materials in instruction. The researcher took field notes while observing. The researcher then compiled the data to draw conclusions about instructional practices Spanish teachers use at the secondary level that incorporate authentic materials.

RESULTS

Results were based on an analysis of data that was collected through the interviews and observations of teachers. All of the teachers responded by defining authentic materials as those coming from a country or culture where the target language is spoken. When asked to indicate from a given list which types of authentic materials they use, réalia without written text (11), authentic music (10), réalia with written text (9), authentic literary texts (9), and Internet-based resources (9) were the most common responses. Other resources (6), films (6) and Spanish-language television (5) were less common responses. These responses suggest that teachers prefer to use réalia without written text, authentic music, réalia with written text, authentic literary texts, and Internet-based resources over other resources, films, and Spanish-language television.

Based on other responses that the researcher received in the interviews, as well as through observations, it is evident to the researcher that the teachers involved in this study believe that using authentic materials is a very good way to engage students with the content, and that authentic materials provide content-rich ways to link students with Spanish-speaking cultures and countries. However, several teachers also expressed that it is often difficult to use

authentic materials in their instruction due to the time and effort that it takes to locate materials that are level appropriate.

Another limitation to the use of some authentic materials which fall under the category of technology resources is related to school policy. For example, it is difficult for teachers to show television and films. However, teachers have found good alternatives to serve as solution to this particular limitation. One such alternative is the use of the textbook ancillaries. Many of the textbooks come with audio and video clips that are rich in cultural content and give students the opportunity to hear and/or see native Spanish speakers interacting in authentic contexts. For example, in one of the observations of a middle school teacher, the researcher saw students engaged with a video activity that was in the form of a short episode of a telenovela, or Spanish soap opera (on the students' level). The researcher believes that the effectiveness of this type of activity is enhanced due to the pre-, while- and post-viewing activities that the textbook provides for students. Therefore, even though there are some restrictions to certain authentic materials, textbook ancillaries may make up for these restrictions. The researcher also found that the teachers believe the Spanish textbooks and ancillaries used in the district represent Spanish-speaking cultures well, though they could include a wider variety of cultures.

All of the teachers demonstrated a high level of familiarity with the *National Standards* and the majority of teachers demonstrated a high level of familiarity with the *Performance Guidelines*. They also articulated clearly that they use their knowledge of these resources often both when they plan instruction in general and when they plan instruction that specifically includes authentic materials. This shows that the Spanish teachers within the district have a good understanding of what students need to know both in terms of content knowledge (since the *North Carolina Standard Course of Study* is based on the *National Standards*) and in terms of development of communicative ability and oral proficiency in Spanish.

CONCLUSION

Authentic materials are valuable resources for Spanish teachers to incorporate in instruction. These resources provide opportunities for students to experience authentic language and cultural experiences in real, hands-on ways. This is beneficial to students' development of proficiency in the target language and to the development of cultural awareness. Also, the teachers in this study expressed that authentic materials can effectively engage students with the content. The researcher believes that the use of authentic materials will continue to have a

positive effect on students within their program of study as long as teachers continue to incorporate them in thoughtful, well-designed ways in instruction.

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How High School History Teachers Utilize Primary Source Documents in Classroom Instruction

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Studies have shown that incorporating a disciplinary approach to history through teaching heuristics and utilizing multiple sources in the history classroom increases student achievement in historical reasoning and content knowledge (Monte-Sano, 2008; Nokes, Dole, & Hacker, 2007; VanSledright, 2008). In general, the educational community strives to foster higher order cognitive skills, such as historical reasoning, through curriculum and instruction by designing goals and objectives based on the upper levels of Bloom's revised hierarchical taxonomy. In North Carolina, however, performance on End of Course (EOC) tests, which are primarily based on students' mastery of lower-order Bloom's taxonomy skills such as remembering and understanding, measure student achievement and teacher success. Therefore, teachers face the dilemma of how to engage their students and enhance their cognitive skills while also ensuring that they gain the content knowledge needed to pass the state-mandated tests. Thoughtful utilization of primary source documents in the classroom may help teachers to achieve all of these goals. Therefore, this research study seeks to understand how secondary social studies teachers in one North Carolina school district incorporate primary source documents into their classroom instruction.

Literature Review

Mastery of social studies requires an analytical approach to evidence and historical empathy in addition to memorization of facts. This encourages, and even requires, students to construct their own interpretations of history through asking "how" and "why" questions. When students engage in this type of constructivist behavior in social studies classes they tend to be more successful as a result, especially when given the opportunity to engage in collaboration and peer teaching (Kobrin, 1996). McKeown and Beck (1994) also found that students learn best

when given an opportunity to engage in discussion, as well as opportunities to reflect and construct meaning.

Many social studies classrooms, however, revolve around information obtained through the textbook or teacher lectures. In fact, many students view the textbook as the "most trustworthy" source of information (Wineburg, 1991). Goodlad (1984) revealed that secondary students spent over twenty-five percent of class time listening to teacher lectures and explanations, while approximately five percent of the time was devoted to discussion. Thus, it appears that the traditional classroom is a place where teachers convey knowledge to students versus a place where teachers stimulate student learning through experience and engagement. Moreover, at least one survey shows that the primary aim of a majority of teachers is simply to teach students common historical facts straight from the textbook, despite the fact that research indicates that this method is not effective (VanSledright, 2008; Warren, 2001). While teachers may recognize the potential value of incorporating new methods and materials, such as historical investigation using primary source documents, it may be that there are other factors that interfere with teachers' good intentions, such as a lack of training in how to effectively teach with primary documents (Dutt-Doner, Cook-Cottone, & Allen, 2007; Friedman, 2006; VanFossen & Shiveley, 2000).

Educational researchers encourage teachers to utilize primary sources because they serve as the "foundation for historical knowledge" (Barton, 2005, p. 753). Furthermore, other researchers recommend that: "teachers demonstrate the necessity of multiple points of view to determine the complete picture of the historical event" (Dutt-Doner, Cook-Cottone, and Allen, 2007, p. 15).

Yet despite the findings that support greater use of primary source documents, classroom teachers often still rely on the textbook as the only source of information for their students (VanSledright, 2008). So, while research shows that effectively using primary source documents to engage student interest and promote student inquiry works to shape students' goal orientation in a positive manner and improves their grades, we must now investigate whether high school social studies teachers take advantage of the primary source documents that are available and incorporate these documents into their classroom instruction, or if they still solely use the textbook.

Methodology

Participants

Participants for this study are social studies teachers in an urban North Carolina school district recruited via email. Eleven participated in the survey and six volunteered to participate in the observation and interview portion.

Instrument/Procedure

The survey, based on guidelines from Hicks, Doolittle, and Lee (2004), measured the average responses to a set of questions designed to gauge teacher perceptions about the purpose of using primary source documents, the purpose of teaching history, their preferred methodology and materials, and to obtain general demographic information. Therefore, the researcher divided the following analysis of the survey into five sections: (a) the purpose of teaching and learning social studies (b) the purpose of utilizing primary source documents in the classroom (c) frequency of use of primary source documents (d) instructional methods and (e) a discussion of the relationship between the purpose of teaching and learning social studies and the purpose of using primary source documents *and* the relationship between frequency of use of primary sources and instructional methods.

The goal of the observations was to perform a structured observation of each teacher's classroom instruction based on the Spradley (1980) matrix, specifically focusing on the interactions between object, act, activity, event, actor, and goal. The researcher observed each teacher for a minimum of one fifty-minute period, noting the length of time the teacher devoted to using primary sources documents, the number and type of primary source documents the teacher utilized, the type of scaffolding provided by the teacher, as well as the method of integration into classroom instruction.

Following the observations, the researcher conducted a standardized open-ended interview to reduce variation yet still allow respondents to express their unique perspectives, per Patton's (1990) guide to qualitative interviewing. The questions concerned the participants' reasoning for using a primary source with a particular lesson, asked them to reflect upon its effectiveness, student outcomes, and where they obtained the primary source they used in class.

Results

From this study, three assertions emerged that illuminate the research question:

1. Although all teachers reported a strong desire to use primary source documents in the classroom, the teachers varied in their reasons for using them.
2. Teachers who use primary source documents use primary sources in a variety of forms—in “jackdaw” packets, in print or digital format for use as evidence to support historical writing and classroom debate, and in excerpt form found on a highly structured guided activity worksheet taken from the textbook’s ancillary materials or another source.
3. Most teachers reported that if they planned to utilize a primary source in the classroom on a particular day, they altered it in some way or provided some form of scaffolding to make it more accessible to their students.

The survey results showed that similarities existed between the teacher’s beliefs concerning the purpose of social studies instruction and their reasons for using primary sources to support the teaching and learning of social studies as well as between the materials and methodology that they used.

When interviewed about why they chose to integrate primary sources in the classroom, participants in this study provided a vast spectrum of rationales. Teachers specifically discussed developing historical empathy, provoking student interest and engagement, making connections, developing argumentation, preparing students for EOC tests and more rigorous coursework, and establishing credibility and validity. On the other hand, while participants saw the relevance and benefits to utilizing primary source documents in their instruction, they were unsure whether their students appreciate the value of investigating primary sources or reap the academic benefits. While students seemed to react positively to the documents, on the hand Mr. Gray observed “they don’t enjoy the extra reading.” Mr. Matthews reported hearing similar complaints from his students. Observations conducted during this study, however, indicate that students do "get it" thanks to careful material selection and scaffolding provided by their teachers.

Discussion

These results point towards the conclusion that teachers utilize primary source documents for five primary reasons:

- To develop students’ historical empathy
- To establish connections
- To provide credibility and validity

- To support standards
- To build historical reasoning skills, such as argumentation

All of these reasons relate to researchers' predicted outcomes and this seems to indicate that teachers are cognizant of the current research related to the potential benefits of using primary source documents in the classroom. Only one of the teachers reported using primary source documents less than once a month (yearly) on the survey, indicating that classroom use in this study is greater than found in Hicks, Doolittle, and Lee (2004).

Furthermore, participants in the survey portion of this study concurred with current scholarship that suggests the foremost reason for utilizing primary sources in the classroom is to provide students with multiple viewpoints, as opposed to students receiving the bulk of their information from the textbook and accepting it as the truth (Dutt-Doner et. al, 2007; Wineburg, 1991)

Implications

The findings indicate that despite the perceived constraints stemming from rigorous standards-based instruction and looming End of Course tests, North Carolina teachers can still find a way to incorporate primary source documents in classroom instruction, whether by specifically choosing the suggested texts from the support document for their subject or through careful selection of material relevant to their objectives. Therefore, I believe that this study reinforces my own commitment to utilize primary sources, with appropriate scaffolding and opportunities for students to construct their own meaning, in my own classroom.

Limitations

Of course, one of the limitations that must be considered is the fact that this study used a small convenience sample. More accurate results as well as insight into student achievement could be obtained in a longitudinal study of a larger, more diverse group of social studies teachers and their students.

Conclusion

The purpose of this study was to determine how North Carolina teachers in one urban school district integrated primary source documents in classroom instruction. Prior research concluded that despite evidence that primary sources benefited students in many ways, teachers did not always incorporate these types of sources in the classroom. However, this study showed that teachers have a positive attitude towards utilizing primary source documents, and despite the

lack of data on their own students, they strive to utilize primary source documents as much as possible. When they do use primary sources with their students, the documents are always purposefully selected to help students meet a specific objective. Additionally, when teachers use primary sources, they provide soft and hard scaffolding to help their students draw meaning from the document. Further studies may provide insight into student achievement in this particular school district; however, the results from this study should encourage novice in-service teachers to use carefully selected and primary source materials in their own classrooms with appropriate scaffolding.

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Teaching Grammar for Communication in the Secondary French Classroom

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For several decades, the United States has witnessed the importance of knowing languages other than English. In an increasingly globalized society, it is necessary for citizens to be able to communicate in other languages in order to be successful in jobs requiring a high level of proficiency such as in business, research, and policy making. It is not until recently, however, that the United States has acknowledged the need for long sequences of language study in grades K-12. The proficiency movement, which took hold in the early 1980s, has significantly influenced the teaching of foreign languages (Shrum & Glisan, 2005). In an effort to promote proficiency in grades K-12, in 1996, the American Council on the Teaching of Foreign Languages (ACTFL) developed the goal areas and content standards of foreign language education, entitled the *Standards for Foreign Language Learning: Preparing for the 21st Century*. ACTFL then developed the *Performance Guidelines for K-12 Learners (1998) as a measurement gauge of students' development at different levels of language ability: novice, intermediate, and pre-advanced (ACTFL, 1998)*.

REVIEW OF LITERATURE

Foreign language teaching has gone through several transformations since the nineteenth century, when the Grammar-Translation Method was the accepted method for teaching Latin and Greek (Shrum & Glisan, 2005). In the early 1970s, when Campbell and Wales (1970) and Hymes (1972) proposed that “communicative competence” includes grammatical competence as well as sociolinguistic and contextual competence, many scholars and teachers realized that the goal of language learning should not be knowledge of grammar rules alone. Instead, the goal should be communication (Celce-Murcia, 1991; Omaggio-Hadley, 2001). The communicative approach, therefore, emphasized meaning over form and contextualized language use in the form of communicative tasks (Celce-Murcia, 1991; Omaggio-Hadley, 2001). The proficiency movement, which emerged in the 1980s, took the communicative approach one step further. Like the communicative approach, the proficiency-based approach views communication as the

goal of language learning and emphasizes teaching language through meaningful linguistic tasks situated in a communicative context (Glisan, 1988; Shrum & Glisan, 2005). However, it is also concerned with assessing learners' performance as well as setting goals for language teaching. In a proficiency-oriented classroom, language is taught through performance-based tasks situated in meaningful communicative contexts (Celce-Murcia, 1991; Ellis, 2003; Glisan, 1988). Foreign language teachers use the three modes of communication—interpersonal (communication in which there is negotiation of meaning), interpretive (communication in which the language learner interprets text or speech without negotiation of meaning), and presentational (communication in which the learner produces language without negotiation of meaning from a listener or reader)— as a framework for these tasks (ACTFL, 1996).

The presentation of grammar is integral to the process of developing students' proficiency in a foreign language and requires thoughtful and purposefully designed instruction. The deductive and inductive approaches to present new grammar structures are important considerations in planning instruction (Shaffer, 1989; Shrum & Glisan, 2004). In the deductive approach, the teacher presents grammatical rules followed by having students complete communicative tasks that support the outlined rules. In the inductive approach, the teacher designs instruction using patterns to illustrate the new grammatical concept and guides students to construct the rules (Shaffer, 1989). After the students have had time to determine the patterns of the new grammatical structure, the teacher provides meaningful communicative tasks in which the students use the new form. Both the inductive and deductive approach support the proficiency approach because they encourage students to communicate about the different grammatical patterns they notice, thus participating in communicative tasks while learning the new grammatical forms.

Terrell (1991) recommends that foreign language teachers design tasks which focus on connecting form with meaning rather than isolating grammatical concepts. Terrell (1991), who proposed “the binding/access framework,” says that “establishing a connection between concept and form” is necessary for acquiring a grammatical structure (p.56). Each task, then, should have multiple instances of the form in the input so the learner has many chances to make the meaning-form connection (Terrell, 1991). Foreign language teachers can also help students make the meaning-form connection by presenting new grammatical structures in communicative tasks situated in real-life contexts (Batstone & Ellis, 2009). Batstone and Ellis (2009) and

Omaggio-Hadley (2001) suggest that context helps activate students' background knowledge, which students can use to infer meaning of the new grammatical structure.

After introducing the grammatical structure, foreign language teachers should design performance-based tasks around the three modes of communication in which students can practice the structure for several different purposes. Ellis (2003), Glisan (1988), and Tschirner (1992) suggest performance-based tasks that involve pair or group work as a way to provide each student opportunities to use new grammatical structures through negotiation of meaning. For performance-based tasks centered on the interpretive mode of communication, Ellis (2003) proposes listening tasks in which students listen to verbal input containing many examples of the targeted grammatical structure and in which completion of the tasks depends on the students' comprehension of that structure. Omaggio-Hadley (2001) suggests tasks in which students write a personal narrative or postcards and in which certain grammatical structures are required in order for students as two performance-based tasks centered on the presentational mode of communication.

Foreign language teachers should also use performance-based tasks that align with instructional strategies to assess students' use of grammar for communication purposes (Ellis, 2003; Shohamy & Inbar, 2006). Omaggio-Hadley (2001) states that foreign language teachers can supplement their performance-based approach to teaching grammar with proficiency-oriented textbooks and suggests several features that make a textbook more proficiency-oriented. For example, she says that in addition to presenting language in a communicative context, proficiency-oriented textbooks present grammar "clearly and concisely" (Omaggio-Hadley, 2001, p.460).

As the research shows, there are several factors that influence foreign language teachers' grammar instruction. The purpose of the study was to examine instructional strategies secondary level French teachers use to teach grammar for developing students' communication ability.

METHODOLOGY

The study took place from October to December, 2009. The participants were eleven teachers of French in a public school district of North Carolina, of whom five were middle school teachers and six were high school teachers. The teachers chosen for the study were selected based on the recommendation of the researcher's advisor as well as the teachers' willingness to participate. The study consisted of two components. First, the researcher

conducted an interview with each participant during which the researcher used a self-designed interview instrument to investigate the instructional strategies middle and high school French teachers use to teach grammar. Then, the researcher observed six of the participants teach one class each and took notes on instructional practices each participant used to teach grammatical concepts. After the researcher conducted all the interviews and observations, the data were analyzed to determine commonalities in strategies used at the secondary level to teach grammar for communication.

RESULTS AND CONCLUSIONS

The information collected from the interviews and observations was analyzed to determine the teachers' perspective on the purpose of teaching grammar as well as the different strategies teachers use to teach grammar. The following results come from this analysis.

It is clear from the interview responses as well as the observations that communication is the goal of the teachers' grammar instruction. The majority of teachers stated that the purpose of teaching the grammar of a foreign language is to develop students' ability to communicate in the language. Several teachers stressed the importance of providing a purpose for introducing grammar structures, namely to complete communicative tasks. All teachers reported using a variety of communicative tasks that develop their students' interpersonal, interpretive, and presentational communication ability in the language. Most teachers explicitly stated that grammar practice is only one component of these tasks; it is not the only reason why students are doing the tasks. Thus, their grammar instruction is part of the larger goal of developing students' proficiency in the language.

Many teachers agreed that the role of performance-based instruction when presenting grammar is to present grammar as a tool for communication. Several teachers gave the example of talking about objects in the classroom when introducing the topic of possessive adjectives. These teachers were able to present this grammatical concept in a context that students recognize as well as in a communicative task also familiar to students. Teachers also stated that performance-based instruction encourages students to practice grammar through communicative tasks. Several teachers expressed that performance-based instruction forces them to think about what they want students to be able to do with the grammar structure they present. As one teacher explained, this helps them know how to design their instruction.

Many teachers reported that the way in which they present a grammar concept depends on several factors, such as the students' language ability in French, the background of the students, the amount of time they have to teach the grammar concept, and the grammar concept itself. However, the researcher found several elements that some teachers always try to incorporate into their grammar instruction. For example, several teachers prefer to situate new grammar structures in context as a way to make the grammar meaningful. Some teachers also reported that they try to provide multiple examples and representations of the grammar structure so students will understand it more easily. Many teachers said it is important to make learning grammar engaging for students because most students do not enjoy grammar. This is why several teachers reported using games, songs and raps to introduce new grammar structures. Several teachers also said they try to present grammar in such a way that it is clear to students and so they will not have difficulties that students have encountered in the past. While some teachers felt that students benefit from being told the grammatical rules and then practicing what they have learned, other teachers prefer the inductive approach, explaining that when students analyze patterns in the target language, they understand and retain the structure better.

The researcher found that all teachers compare French grammar to that of English, and sometimes to that of Spanish, when introducing new grammar structures. Many teachers expressed that most of their native English-speaking students do not know English grammar well, so they must teach English grammar in order for students to understand new French grammar structures. Some teachers even stressed the importance of knowing how much English grammar their students know before trying to present French grammar so they can plan what English grammar they will need to teach. Teachers believe that making the comparison between French and English is beneficial for students because it not only teaches them more about their native language, it also helps them better understand the French language system.

All teachers reported assessing students' progress on new grammar structures through many of the same types of tasks they use to teach the new grammar structures. This consistency between the tasks used in the presentation, practice and assessment of grammar concepts supports the teachers' goal of teaching grammar for the purpose of communication because it is evident that communication is the objective throughout instruction.

In conclusion, in the past, foreign language teachers used to view grammar as the goal of language teaching; however, with the onset of the proficiency-based approach, grammar has

become one component of the larger goal of communication. Recent research has emphasized that in order to teach grammar with the purpose of developing proficiency in the language, teachers should present new grammatical concepts in communicative tasks situated in authentic contexts. The teachers should also provide multiple opportunities for students to practice the concepts in these authentic contexts to allow students to develop their interpersonal, interpretive, and presentational communication ability in the language. This study has found that although teachers vary in the strategies they use to teach grammar, their approach remains the same. They all view grammar as the structure that allows students to communicate in the language. Not only do the teachers use performance-based tasks throughout their instructional design, these tasks are situated in communicative contexts that help students understand and appreciate the language structures better. The researcher has concluded that these teachers have established proficiency-oriented classrooms in which they try to move their students through the different levels of proficiency.

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Teaching Culture in the K-12 French Program

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In a foreign language classroom at any level in grades K-12, the teacher has many goals to accomplish because of the interdependent linguistic and cultural components of the foreign language curriculum. Teaching linguistic competence, with the goal of developing students' proficiency, includes integration of knowledge of the target culture so that the teacher is linking language with content and culture (ACTFL, 1998). In an increasingly globalized society, the development of cultural awareness and multiple perspectives is essential for those entering a competitive work force. Possessing a deep understanding of culture is imperative in foreign language study because it is essential to one's ability to use the language and function ably in the culture, a task that goes beyond mere language study (Durocher Jr., 2007; Shrum & Glisan, 2005).

REVIEW OF LITERATURE

In recent years, greater emphasis has been placed on the integration of culture in foreign language instruction and defining culture in such a way that facilitates teaching, using cultural contexts for authentic language experiences in developing students' communicative ability. In 1996, the American Council on the Teaching of Foreign Languages (ACTFL) developed national student standards for grades K-12. The five goals for the K-12 foreign language program are: Communication, Cultures, Connections, Comparisons, and Communities. The Five C's represent the content knowledge that students in grades K-12 should possess when they complete a program of foreign language study. The standards for the Cultures goal state that students should understand the "relationship between the practices and perspectives of the culture studied" as well as between the "products and perspectives" (ACTFL, 1996, p.1). An important goal of teaching culture is to ensure that students have a good understanding of practices, perspectives, and products in relation to the culture and language being studied. Understanding cultural practices not only enriches language learning but also fosters appreciation for differences in

ways of life and perspectives. Along with definitions of culture and its acknowledged importance in developing students' ability to communicate, foreign language teachers are also faced with the challenge of how best to teach culture in their classrooms.

The ACTFL Performance Guidelines for K-12 Learners (ACTFL, 1998) are based on the three modes of communication-interpersonal, interpretive, and presentational- in which students of all levels in a foreign language should develop proficiency. Cultural awareness, one of the language descriptors in the Performance Guidelines, is developed at every level of learning and instruction. Students are being evaluated at each level on how "their cultural understanding" is "reflected in their communication" (ACTFL, 1998, p.1). The three modes cover different aspects of cultural understanding and awareness. Interpersonal ability involves the use of "culturally appropriate vocabulary" as well as "gestures and body language of the target culture" (ACTFL, 1998, p.1). Interpretive ability varies depending on the level of the learner, but generally this involves being able to understand cultural practices and comprehend meaning in oral and written expression. The presentational mode is the ability to "imitate the use of culturally appropriate vocabulary" and behaviors and use these in such a way that imitates how one would act and speak in a particular cultural context (ACTFL, 1998, p.1).

Prior to the introduction of the national foreign language standards, research involving the teaching of culture in foreign language classrooms treated culture as more of a separate entity that was taught alongside the other aspects of a foreign language (Pino, 1990, 2). Another problem lay in culture not being used to organize the curriculum, thus underlining the lack of a rich contextual framework for language learning (Pino, 1990, p.2). According to Langer de Ramirez (1999), culture should not be treated as an "adjunct to the foreign language curriculum" but rather a "natural vehicle through which language is taught (p. 364). Pesola (1991) also cites the importance of culture integration in stating that "culture should be emphasized, not isolated, incorporated and not compartmentalized" (p. 338).

Effectively integrating culture as part of the language curriculum involves contextualizing language learning within communicative tasks linked to culture. Curtin and Dahlberg (2004) state that culture "is the most important context for language learning" (p.225). An example of using culture as an important context includes using famous artwork from the target culture or stories that represent culture to integrate many of the standards such as Connections, Communication, and Comparisons, as well as vocabulary related to a thematic unit

(p.223-224). Creating a cultural context in the classroom is also important in terms of facilitating the creation of language by the student. One important task for foreign language teachers in implementing cultural awareness, and a cultural context, is the use of performance-based instruction focused on tasks that involve authentic language experiences. This may include the use of performance-based tasks, such as role-plays or dialogues, which are essential in language instruction because they involve using the three modes of communication as well as different language skills to carry them out. Performance-based tasks also support the proficiency movement in that they are replications of what the student can do with the language (Curtain & Dahlberg, 2004; Swender & Duncan, 1998).

In the foreign language classroom, the use of media such as videos, film, television, and radio can be an effective way to teach culture. They represent authentic information and language of the culture. Similarly, other forms of technology such as the Internet have proven beneficial in interweaving culture throughout the foreign language curriculum. Beyer and Van Ells (2002) stress the importance of the Internet as a resource because it allows “instructors to create activities and projects that go beyond the scope of an assignment involving traditional print material (p. 544). The internet also provide access to “authentic language materials” as well as suggests the potential for “intercultural communication between individuals from different language and cultural backgrounds” (Hauck & Youngs, 2008, p.2).

Since the recognition in the 1960s and 70s of culture as integral to the teaching of foreign languages, culture has become an ever more important component in the K-12 foreign language curriculum (Kitao, 1991). The national foreign language standards and the *Performance Guidelines for K-12 learners* which were published in the 1990s further solidified the importance of cultural instruction and cultural awareness in the foreign language classroom. Not only are students now expected to be able to identify perspectives, products, and practices of the target culture, but they should also be able to understand sociolinguistic components of the language as well. Whereas in the past, culture was recognized as important but not well integrated into the curriculum, today, it is meant to be the backdrop for language learning and a springboard for communicative tasks. The purpose of this study was to investigate instructional strategies used by French teachers in a school district in western central North Carolina to develop cultural awareness in the French program in grades K-12.

METHODOLOGY

The researcher contacted fourteen French teachers in a North Carolina school district who are teaching a variety of levels, requesting their participation in this study. Two teachers participated at the elementary level, four at the middle school level, and five at the high school level. The teachers chosen for this study were selected based on availability and through recommendation of the researcher's advisor. Upon receiving permission and informed consent, the researcher conducted the study in two parts using a researcher-designed interview instrument and classroom observations. The first part of the study included an interview with each of the eleven participants. The second part of the study consisted of classroom observations made by the researcher of six randomly selected subjects in their classroom, with permission of the subjects. Information collected through field notes and audio recordings was analyzed in order to determine how the subjects approached the topic of culture in their classrooms and the pedagogical practices used to teach it.

RESULTS AND CONCLUSIONS

The information gathered during interviews and observations was analyzed in relation to how teachers teach and integrate culture in their foreign language classrooms, how they define culture, and how they encourage multicultural awareness in their teaching.

During the interviews and observations, many trends were observed among teachers' responses and practices. Though experience varied as well as level taught, these factors did not seem to make a difference in terms of familiarity with question topics, national guidelines, and opinions about cultural instruction. All of the teachers interviewed reported that they were familiar with both the *Standards for Foreign Language Learning* and the *Performance Guidelines* (1998). Though all of the teachers reported familiarity with these documents, not all of them used them on a regular basis. When asked a question about products, perspectives, and practices which are explicitly mentioned in the *Standards for Foreign Language Learning*, under the Cultures goal, most of the teachers had difficulty articulating and defining these three aspects of French culture. This difficulty could have originated in the ambiguity of the question, because the terms were given out of context, or because the teachers were not used to discussing culture using these three terms. Without using the explicit terms, products, perspectives, and practices, all of the teachers were able to come up with similar items that were elements of the term "culture", in a later question. Answers included everything from lifestyle to the language itself

being an element of culture. Many of the elements that they talked about could be defined in relation to products, practices, and perspectives.

Though all of the teachers were familiar with the *Standards for Foreign Language Learning*, when asked what elements of foreign language should be most emphasized in instruction, teachers overwhelmingly answered communication, and some also added culture. This question did not mention the standards, and teachers were able to freely brainstorm what they believed should be emphasized in instruction. In subsequent questions, teachers also talked about other parts of the standards that were used in instruction such as Comparisons, Connections, and Communities. It was evident from responses given that most teachers cover all Five C's, Communication, Cultures, Comparisons, Connections, and Communities, though Communication seemed to be the most important element of their instruction. Though they might set the ability to communicate as their ultimate goal in a foreign language, it was evident from observations and other answers to questions that teachers try to weave all of the Five C's into instruction.

Also, during many of the interviews, the idea of teaching culture, and encouraging multicultural awareness did not seem to be easily distinguishable. It was evident that many of the teachers considered teaching French/Francophone culture in itself to be the act of encouraging multicultural awareness. While this is true, the researcher tried to make a distinction between how teachers teach and portray French/Francophone culture and how they actively encourage multicultural awareness, through the nature and progression of the interview questions. Though many teachers did not see these as different, their answers to questions about the teaching of culture and multicultural awareness showed that there was a subtle distinction. Though teachers were clear about which elements of cultural instruction should be emphasized as well as which countries, they were also, for the most part, adamant about teaching acceptance of other cultures and awareness of different lifestyles and types of people. An overwhelming common theme was the idea that teachers must continually stress difference as a positive occurrence, and that people from different and diverse backgrounds were not "weird", as students might say, but just different.

To conclude, it is evident from the study that teachers understand the significance of integrating culture into instruction and that they see it as a route to connect with students. Not only were teachers excited about the teaching of culture, but about the benefits that cultural

instruction could afford to students. Though not all hold culture at the forefront of their teaching, they do see value and benefits to students in learning about other cultures. Despite the fact that not all francophone countries are taught and recognized in each classroom observed, the majority of the teachers still believed that this information was valuable, making it evident that their goal was not to suppress knowledge but to use what was most available to them. As research shows, culture is an integral part of foreign language learning and should provide a meaningful context for any foreign language classroom. Culture should be interweaved in instruction through strategies employed by the foreign language teacher, along with the five goal areas outlined in the national standards, Communication, Comparisons, Connections, and Communities (ACTFL, 1996).

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Wry or Dry: Teacher Humor in the English Classroom

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The most memorable classroom settings and instructors, from my high school classes to present-day graduate seminars, have been those in which playful humor peppered classroom dialogue. I always felt more enthusiastic for those classes in which the instructor engaged in performances to maintain interest or displayed genuine appreciation of humor and undoubtedly felt more of a connection to those instructors. Humor in the classroom can establish a less strained environment and encourage very important teacher-student relationships. Further, it has the potential to help alleviate stress, placate antagonism, and create a more relaxed and open learning environment. Humor can help set the classroom mood that will encourage learning, yet the right mood must be set in the classroom before humor is used. Joking and teasing always have the potential to become offensive and create an intimidating, potentially unsafe environment. On a different note, if the humor is excessive, the classroom can become chaotic and lacking content and the instructor may lose control and respect. There is certainly a balance to be made and a line to be drawn between dry draconian rule-following and a three-ring circus. This balance is one the teacher must consciously create and maintain if using humor will be an aspect of their teaching personality.

There exists a sizeable collection of research relating to this topic, yet this study attempts to add to what is deficient in the previously conducted studies. While much of the research already published focuses on surveys and quantitative results, this study presents that which is found through firsthand qualitative observation. Further, much of the studies on humor refer to elementary school and middle school level or college level settings. Research related directly to the high school classroom setting is not as prominent, thus this study will attempt to alleviate that disparity.

A topic that recurs throughout the studies is teachers' perceptions of the effects of humor in their classrooms. Neuliep's (1991) quantitative study uses questionnaires regarding frequency of humor and reasons for using humor. Neuliep concludes that "teachers employing humor in the

classroom receive higher teacher evaluations, are seen as more approachable by students, and develop a positive rapport with students;” however, utilizing humor does not necessarily improve students’ subject comprehension (p. 343). Frymier’s and Bekelja’s (1998) communication study focuses upon humor in the college classroom and suggests that students have greater affection for and reported “more learning behaviors” with teachers students perceived as having “a high humor orientation” (p. 13). Wallinger’s (1997) study suggests teachers can “use humor as a tool to create understanding between different levels of the group and create a culture that fits the class” (p. 1). Wallinger concludes, “humor aligns the students and teacher and links them through enjoyment” (p. 3).

A major purpose of Rainsberger’s (1994) study was to examine the extent to which students and teachers both use humor “as a coping mechanism to deal with stressful school situations” (p. 1). The study also includes data that supports laughter and humor having positive physiological effects. James’s (2001) research classifies classroom humor in three ways relating to sociological, psychological, and intellectual functions. The researcher suggests that humor allows people to deal with off-limit, frightening, and taboo subjects, supporting the humor as tension reliever hypothesis. Steele’s (1998) study yields results stating “over 55% of the students reported that the use of humor in the classroom was effective in reducing stress and tension and creating a more positive classroom environment” (p. 1). Further, 65% students reported that teachers who used humor were more approachable, enhancing the student-teacher relationship (p. 1). Rareside’s (1993) study results agree that humor used in a classroom can reduce tension, increase motivation, aid instruction, and strengthen teacher/student relationships. The results of this empirical study suggest that teachers cite behavior management, sparking interest, implementing instruction, and building or strengthening teacher/student relationships as the most common reasons for using humor in a middle school classroom.

The results all seem to point to the idea that humor in the classroom is an integral ingredient in creating a less stressful learning environment. Thus, to follow these teacher-generated response studies, this study’s question is multifaceted: does teacher humor in the secondary English classroom encourage student engagement and positively affect the classroom climate? Further, what type of humor is most frequently used in this setting? Do students respond to it in a positive manner?

Methodology

This qualitative study took place between September and December 2009. The subjects were four English teachers and their students at one secondary school in North Carolina. The students ranged in grades nine through twelve and in ability levels from remedial to Advanced Placement. Teachers were identified as Teachers A, B, C, and D while none of the students were identified.

As humor can be construed differently among various observers, the researcher has delineated the types of humor to be included in the study. The categories are: performance, rapport-building, personal anecdote, and special noises/exclamations. Performance examples include: humorously acting out episodes found in the literature, assuming mannerisms of characters or authors, or singing with intent to entertain. Rapport-building includes humor especially directed at individual students or groups of students – poking fun and playful sarcasm, referring to personal attributes or interests of that student – or individual or class inside jokes. Personal anecdotes occur as stories told by the teacher about his/her experiences with intent to entertain. Noises/exclamations include: gasps, screams, groans, snorts, or verbal exclamations from the teacher intended to evoke laughter. Additional subcategories exist within each and will be addressed as needed as supporting examples throughout the data reporting processes. In forty hours of observation in these four very different classrooms, the researcher has taken pages of detailed field notes that record discourse between teacher and class and individual students during the class period. The researcher has transcribed the discourse while observing and recording immediate, subsequent student reactions. The researcher then determined the type of humor based on the content recorded. The researcher may note the differences in classroom climate for those teachers that use humor and those that use minimal or no humor in an attempt to engage the class. At this point the researcher is able to determine if the teachers' use of humor may play a part in the climate of the classroom and the engagement of the students and what type of humor was most engaging.

Results, Conclusions and Implications

Table 1: Types of Humor/Total Occurrences

Types of humor	Performance	Rapport-Building	Personal Anecdote	Noises/Exclamations	Total
Teacher A	0	10	1	0	11
Teacher B	5	10	1	5	21
Teacher C	16	22	5	6	49
Teacher D	0	0	0	0	0

Table 2: Mean Average Teacher Humor per Class

Teacher	# of humor occurrences per class
Teacher A	1.1
Teacher B	2.1
Teacher C	4.9
Teacher D	0

Based on the findings in these tables and the classroom observations, Teacher A employed a comparatively low number of humor occurrences, though the data for this teacher comes from rapport-building-related humor. Teacher A often utilized humor in the way of playful sarcasm directed at particular, individual students in specific situational moments. Further, Teacher A employed the largest amount of English classroom content-related humor (six occurrences which the researcher included in the rapport-building category). These instances occurred in both the teacher's lowest and highest grade and ability levels and were met by student smiles, brief, positive responses, and sometimes playful comebacks. The climate established in this classroom was one of high order – Teacher A employed obvious schedules and pacing throughout the class period and defined high expectations for her students – yet the climate in each of her class periods was generally cheerful and maintained a good balance between moments of ease and driving tasks.

Teacher B employed the second largest number of humor occurrences per class, also utilizing rapport-building more than any other category. This teacher often appealed to individual students, apparently attempting to encourage discussion and engagement. Yet, the majority of students in each of Teacher B's class periods engaged in one or more of the following: side-conversations, doodling in notebooks, playing with cell phones, writing/passing notes, attempting to lay heads on desks, and lacking eye contact with Teacher B. It seemed apparent

that Teacher B used his/her sense of humor to try to attract the attention of students and engage them in the content at hand, but this was not accomplished. The humor was often met with smiles, laughs, and verbal responses, but often it led discussion astray and allowed students to remain or become off-task. However, Teacher B did cultivate fantastic relationships with his/her students. The classroom climate was very warm, comfortable, and insulated, but was not one in which large amounts of apparent student engagement in content took place.

Teacher C employed the greatest amount of classroom humor by far, more than doubling the instances of Teacher B and tripling those of Teacher A. Again, rapport-building humor was used most. The teacher playfully poked fun at individual students and maintained inside jokes with entire classes to which the students eagerly and enthusiastically responded. However, performance-based humor instances falls close behind and is noteworthy in this study. Teacher C often acted out scenes from the works the students were reading in front of the class, assumed character personae, or performed very funny, random acts that made students look at him/her and pay attention. The instances in which Teacher C changed his/her voice to imitate a character – from novels/short stories to his/her parents to generic students – the vast majority of students in that class were engrossed. The student engagement in each of Teacher C’s classes was remarkable. Unlike the other classrooms in which teacher humor garnered reactions from half the class or less in the way of laughter and smiles, most to all students were completely attuned. The fact that the students paid such close attention to the teacher encouraged them to respond in class discussion and offer their own remarks. The students played off of the teacher’s humor, but knew when it was time to move back to the content realm. Teacher C, similarly to Teacher B, established fantastic relationships with his/her students. The entertainment aspect of this teacher obviously aided with in-class student engagement and establishing student-teacher relationships.

Teacher D was an anomaly in this study. In the ten hours of observation in his/her classroom, the researcher was unable to record even one instance of humorous attempts. This is a surprising statistic, especially compared to the numbers attained in some of the other observations. Teacher D maintained a very structured, task-driven classroom. Students generally exhibited the teacher’s expectations of classroom management and daily schedule. It seems apparent that humor in the classroom setting was not a manner in which relationships were established. The students observed in the study respected the teacher’s engagement expectations, yet compared to the other classrooms, the climate in this one was very quiet, tame, and

completely without play. There was a feeling of heaviness and hindering strictness in this no-nonsense classroom. Perhaps also notable is the fact that no instances of personal conversation regarding student lives or interests were observed inside the classroom or elsewhere during the course of this study. This calls to question the extent of Teacher D's approachability and student-teacher relationships. The findings in these observations suggest that teachers' use of humor may help establish a more engaging and comfortable classroom climate and strengthen student-teacher relationships. Rapport-building humor is the type observed in this study that teachers employed most often, suggesting that the student-teacher relationships fostered from those interactions help further engage students in the classroom. Further research is needed to support and validate these observed findings. The present study unveils evident positive outcomes of teachers using humor in the classroom for engagement and relationship-building; it is a nod to the potentiality of humor's success in classrooms both new and established.

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Implementing Authentic Materials in the Secondary Spanish Classroom

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Due to the increasing globalization of today's society, there is a much greater need for multilingual and multicultural citizens to bridge communication gaps. In order to support the next generation of citizens of the world, it is important that students in grades K-16 are able to communicate competently in more than one language. The ability to communicate with a high level of proficiency in a foreign language extends far beyond one's knowledge of the linguistic system of the language (Shrum & Glisan, 2005). In developing proficiency in a foreign language, students must demonstrate knowledge of how and when to use the language as one would in the target culture (Shrum & Glisan, 2005). The use of authentic materials in foreign language instruction offers students opportunities to experience the language in real-life scenarios, which in turn, can assist them in developing language ability (Liontas, 1992; Shrum & Glisan, 2005).

While the definition of authentic materials varies, the most common view is that authentic materials are those that use unaltered language and are produced by and for native speakers (Adams, 1993; Chavez, 1998). Examples include native literature, media, and everyday items such as newspapers and advertisements (Adams, 1993; Liontas, 1992; Narváez, 1992; Young, 1999). The use of authentic materials for meaningful language purposes in foreign language instruction can aid students in gaining a higher level of proficiency and motivate them to communicate in the target language (Bernhardt & Berkemeyer, 1992; Long, 1991; Liontas, 1992). Authentic materials also provide foreign language teachers with many opportunities to integrate both culture and language into the classroom (Bacon & Finneman, 1991; Brandl, 2002).

Review of Literature

As a means of preparing students to live and work in a globalized society, the American Council on the Teaching of Foreign Languages (ACTFL) developed national standards for foreign language study in 1996 entitled, *Standards for Foreign Language Learning: Preparing for the 21st Century* (ACTFL, 1996). The standards represent the content knowledge students should possess when they complete a foreign language program of study in grades K-12. The five goal areas of the standards are referred to as the Five C's: Communication, Cultures, Connections, Comparisons, and Communities (ACTFL, 1996). Authentic materials can benefit teachers significantly in the areas of Communication, Cultures, and Comparisons. The use of up-to-date and relevant authentic materials can engage students in the learning process and encourage them to discuss the materials in the target language, therefore assisting them to develop communication ability (Bacon & Finneman, 1991; Chavez, 1998; Peacock, 1997). The Cultures goal states that students should have a basic understanding of the products, practices and perspectives of the target culture, and the use of authentic materials can enhance instruction by providing examples of all three (ACTFL, 1996; Erkaya, 2005; Spinelli & Siskin, 1992). Research shows that authentic materials can also offer opportunities for students to compare linguistic and cultural differences while developing proficiency in the language (Liontas, 1992; Narvaez, 1992; Young, 1999).

Authentic materials include written texts such as novels, stories, or poems, which are resources to develop students' literacy. While authentic texts may prove difficult to comprehend for some students, teachers are encouraged to edit the tasks students complete instead of the text, meaning that they should design tasks that are appropriate for students' linguistic ability (Liontas, 1992; Shrum & Glisan, 2005). Teachers can guide students' comprehension of authentic texts by teaching them to use global strategies (looking at the entire text instead of focusing on one part) and by using carefully designed pre-reading, while-reading, and post-reading activities that help them gain meaning through different tasks (Igbaria, 2009; Privorotsky, 2002; Young, 1991). Authentic media, such as TV or radio commercials, TV programs and CD ROMS, all from the target culture, offer opportunities for students to practice listening comprehension while listening to natural discourse (Bacon, 1992; Liontas, 1992; Long, 1991). In order to aid students' comprehension of authentic media, teachers are encouraged to teach global listening strategies and design pre-listening, while-listening, and post-listening

activities (Bacon, 1992; Long, 1991). Research shows that instructional strategies are an important part of implementing authentic materials in foreign language study and, therefore, the purpose of this study was to investigate strategies that secondary level Spanish teachers utilize to integrate authentic materials in the secondary Spanish classroom.

Methodology

This two-part study was conducted between October and December, 2009 and involved ten secondary teachers of Spanish (four middle school teachers and six high school teachers) in a public school district located in central North Carolina. The teachers chosen for the study were selected based on the recommendation of the researcher's advisor and the availability of the teachers. After permission and consent forms were obtained, the researcher interviewed the ten Spanish teachers using a self-designed instrument. Each interview lasted approximately 60 minutes and was audio-recorded, when teacher consent was provided. The teachers were interviewed for the purpose of learning about how they implement authentic materials in Spanish instruction.

In the second part of the study, five of the ten teachers (three middle school teachers and two high school) were observed for the duration of one class period for the purpose of noting specific strategies teachers use to aid student comprehension when integrating authentic materials. The researcher then compiled data to draw conclusions about instructional strategies Spanish teachers use to incorporate authentic materials at the secondary level.

Interview and Observation Results

After completing the ten interviews and five observations, the researcher became aware that teachers use a wide variety of authentic materials; however, most teachers reported using materials that are readily available and comprehensible for secondary level language learners. For example, most teachers said they use songs and technology-based materials such as Internet-based resources.

While teachers reported designing pre-, while- and post- reading and listening activities for the use of authentic texts and media, common trends were noted based on the teachers' interview responses. In terms of both pre-reading and pre-listening activities, teachers recognized the importance of preparing students for the use of authentic materials by reviewing basic concepts to aid them in understanding meaning involved in reading or viewing the texts. The most common activity reported by teachers included having the class discuss or recall cultural

information and focus on grammatical features and vocabulary featured in the authentic language. Recalling cultural information embedded in the authentic materials was observed as one teacher had students recall information about a famous Latino singer before listening to a song by this artist.

With regard to while-reading and while-listening activities reported in the teacher interviews, the researcher found that most teachers have their students pause at planned points to discuss the main ideas. Teachers indicated that students would answer a series of questions or paraphrase the main ideas of the media or text. The least commonly reported activity involved students pointing out grammatical structures in an authentic text; however, this activity was observed in one class as students filled in missing lyrics that featured the subjunctive mood while listening to a song.

The researcher also found that teachers use post-reading and post-listening activities as formal or informal assessments. Most teachers said that their students produce different types of language to demonstrate comprehension of meaning and that they can apply understanding in other ways for different language purposes. Examples of such language products include writing another verse to a song that has been read, creating a TV commercial, and writing an advertisement.

Teachers can use up-to-date and relevant information often featured in authentic materials to motivate students to communicate in the foreign language and improve oral proficiency. Teachers reported that they use a variety of strategies to help students communicate about the content of the topics present in authentic materials. Such strategies include using simplification strategies, applying grammatical concepts, and presenting information in oral and written form. In the implementation of these strategies, most teachers reported that their students would simplify language to discuss topics; for example, they would use shorter amounts of language, fixed expressions, or paraphrase meaning. Teachers also reported that their students would use idiomatic expressions to talk about topics using media.

The teachers who reported that their students used higher level thinking with authentic reading activities were often high school teachers rather than middle school teachers. For example, when asked what activities their students do to practice the interpretive mode of communication, more high school teachers reported that their students observe the intent of the writer and identify the organizing principles of the authentic text. Based on this information,

there is evidence that high school teachers design activities involving higher order thinking in order to challenge their students and raise language expectations. This demonstrates evidence of the way in which high school teachers work to promote advanced proficiency in Spanish.

When asked about the use of technology to implement authentic materials, teachers reported a wide range of resources, including digital projectors, Smartboard, DVDs, and CDs. However, teachers also discussed a variety of challenges that they face when using technology, including lack of time to integrate technology in instruction and limited financial resources. In addition to these difficulties, teachers reported insufficient technological resources or lack of reliable technological resources.

Conclusion

Research shows that the use of authentic materials can be effective in fostering opportunities for students to develop proficiency in a foreign language. While the level of language used in some materials may prove difficult for students, teachers can develop activities that are appropriate for the students' linguistic ability. Secondary foreign language teachers can use a variety of strategies to aid students' comprehension when engaging them in communicative language practice. By developing pre-, while- and post- activities using authentic literature from diverse cultures, foreign language teachers can provide students with rich experiences that will help them gain proficiency.

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Lecture (Abridged): The Kernel Lecture and Its Effect on Student Engagement

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Although some still advocate more traditional, Essentialist methods (Hirsch, 1999), student-centered, Progressive ideology currently dominates our national conversation about education. Yet teachers' beliefs about best practices may not necessarily be reflected in their actual pedagogy (Bolinger and Warren, 2007). A number of studies have shown that despite the popularity of Progressive ideals, twentieth-century classrooms were dominated by teacher-centered activities such as lecture (Blanton, Wood, and Taylor, 2007). Regardless of teachers' professed perspectives, it is clear that lecture remains a popular teaching style at the high school level.

Many studies have found that traditional lecture is not an effective instructional technique. Howard Gardner asserts that whole-class, "total" lectures favor students with strong linguistic intelligence (as quoted in *Bridging English*, 2008, 23). Johnson (2008) found that lecture does not engage students as effectively as more relational, non-traditional learning activities. Shernoff, Csikszentmihalyi, Schneider, and Shernoff (2003) found that students considered lecture lessons (a) not challenging enough and (b) not as important as other, more student-centered work. Unfortunately, students' notes do not adequately capture lecture material due to the inherent difficulty of listening and writing at the same time (Barbetta & Skaruppa, as cited in Konrad, Joseph, & Eveleigh, 2009). Finally, and perhaps most importantly, students often have trouble differentiating between essential and unimportant details in a lecture (Stringellow and Miller, as cited in Konrad, et al.).

On the other hand, a number of studies report that lecture can be an effective pedagogical technique. These studies typically focus on a slight variation in the lecture format designed to counteract some of the problematic issues addressed above. Griffin, Mitchell, and Thompson (2009), for example, studied the impact of "audio-visual synchrony" in podcasting, and the students studied responded well to these modified digital lectures. Audience Response Systems

(ARS) provide another such modification to the traditional “total” lecture. Barnes (2008) found that these “clickers” are a useful tool for increasing student engagement.

Some researchers have suggested that when it comes to lecture, the shorter, the better. The Kernel lecture, a short, pithy teacher presentation that can either be planned or arise organically from classroom discussion, incorporates lecture’s best elements while avoiding its pitfalls (Milner & Milner, 2008). There is little research on the kernel lecture’s role in the classroom, let alone its effectiveness. This study aims to fill that gap by examining the popularity of kernels and their effect on a crucial aspect of students’ school experience: Engagement.

ENGAGEMENT

Csikszentmihalyi and Whalen (1991) suggest that the struggle to effectively engage students has been a central educational concern for thousands of years. Plato, for example, asserted that the purpose of education is to interest students “in the right things.” While the definition of these “right things” has certainly evolved over the years, engagement remains a pertinent and elusive concern.

Eccles & Midgely highlight the importance of research on engagement, particularly with adolescent students, whose growing need for social interaction may be quashed by rigid school environments (as cited in Johnson, 2008). Yet engagement is not merely a question of student interest—it has serious effects on important student outcomes, such as retention rate (Laffey, as cited in Finn, 1993). Johnson (2008) notes that “engagement is said to contribute to students’ interest in learning, their social and cognitive development, and their academic achievement” (p. 69).

Students’ opinions of a given lesson’s relevance and their perceived level of control are both important factors in determining engagement levels (Shernoff, et al., 2003). Marks (as cited in Shernoff, et al.) notes that students typically perceive whole-class instruction as teacher-controlled (as opposed to small-group or individual work.) Others have found that the lack of emphasis on learning for its own sake, of activities which are perceived as inherently valuable, contributes to student disengagement (Csikszentmihalyi and Whalen, 1991.)

While most researchers agree that engagement is important, it is a difficult variable to define, let alone measure. Some have suggested that observable behaviors like participation and persistence are key markers of engagement (Finn, 1993). Others, however, criticize such

perspectives for ignoring students' affective experience (Fredericks et al.; Hektner & Csikszentmihalyi, as cited in Johnson, 2008).

This study seeks to combine the strengths of these different perspectives. Although they may not be entirely reliable, observable behaviors, such as posture and perceived level of attention, can help gauge the overall engagement of a given class. Yet a consideration of the psychological factors contributing to engagement is equally important.

METHOD

I observed the classrooms of four master teachers (Teachers A, B, C, and D) at a large public high school in Forsyth County, North Carolina. Each teacher was observed eight times, for a total of thirty-two, full-period observations (one period = fifty minutes).

During these observations, I closely monitored the teachers' actions, taking notes on the nature of each lesson and the students' response to the activity at hand. Whenever a teacher hinted at a potential kernel lecture, I began monitoring three students' engagement using an observation checklist. If the teacher did in fact begin a kernel lecture, the nature and duration of the lecture was recorded, as well as its perceived goal.

For the purpose of this study, teacher speech was defined as a kernel lecture if it lasted *no more than five minutes* and was designed to: (1) provide brief background information on a topic; (2) clear up questions that arose during class; or (3) generate student discussion.

The observation checklist included items designed to help differentiate between genuine and superficial engagement, such as "building questions and sharing comments," "talking to another student about the topic at hand," and "positive body language."

At the end of each kernel lecture, I used my professional judgment and the criteria listed above to assign each of the three students an overall engagement score on a scale of 1-10. A score of 1 represented *total disengagement*, while 10 represented *enthusiastic attention*.

After completing the observations, I gathered the data and analyzed it to see whether any significant patterns emerged. The teachers' individual use of kernel lectures was also evaluated, along with its relationship to their overall teaching style.

RESULTS

I observed far fewer kernel lectures than I expected at the outset of this study. During the course of the thirty-two observations, I noted six kernels. Three of the six seemed planned in advance. The topics of the kernels were: the plot of the first *Star Wars* film; *Star Wars*' Yoda

and his Eastern influences; the main features of expository non-fiction; Harper Lee's *To Kill a Mockingbird*; the importance of artistic expression; and the use of proportion in Ancient Greek art. The majority of kernels observed resulted in high engagement: The average student engagement score was 6.3. This average is pulled down by Teacher D's scores, which may be a product of the teacher's apparent distaste for lecture-type instruction.

Most kernels observed allowed the teacher to demonstrate his or her strong content knowledge while ensuring that students, with their rapidly shrinking attention spans, did not get too distracted. They also served to clear up student confusion. Finally, as opposed to traditional, long-form lectures, the kernels observed often served to generate discussion. For example, Teacher C's kernels on interesting, tangential topics prompted a number of enthusiastic side conversations.

Certain teachers favored the kernel lecture more than others. Teacher A, for example, did not use a kernel one time in the eight classes observed. Teacher B's sole kernel was more of an impassioned plea to a disruptive class than a deliberate instructional event. Teacher C, on the other hand, frequently employed kernels. In fact, the three kernels that I recorded do not adequately represent Teacher C's kernel usage, as the teacher frequently employed short lectures that would run just slightly longer than the allotted five minutes.

On the whole, the prevalence of kernel lectures in each teacher's class seems related to their larger teaching philosophy. Those teachers who exhibited a more student-centered philosophy tended to avoid lecture in general, let alone the kernel variety. A description of each teacher's style follows, along with a consideration of the role that kernel lectures play in their respective classrooms.

Teacher A's class is carefully structured. Most lessons are framed by daily routines: Each class typically starts off with a brief student presentation on a relevant term or course concept (i.e. rhetorical devices). Although there are frequent student presentations and debates, the class is essentially teacher-centered. Question and answer sessions are common. Teacher A avoids lecture, however, and most teacher speech observed consisted of directions or elaborations on student assignments. Also, the careful structure and pacing of the class seems to limit digression and spontaneity, two features common to unplanned kernels.

Teacher B's class is the most student-centered. Lessons in this class are driven by students' emotions and their reactions to the text at hand. At one point, the teacher announced to

the class that Reader Response theory is central to the class' design and focus. Students in Teacher B's classes were frequently disruptive, and perhaps this stems from the teacher's strong focus on discipline. Order is important to Teacher B: the teacher would frequently interrupt the lesson in order to reprimand talkative students or those who refused to put their "technology" away. A few potential kernels emerged in this class, but most were quickly abandoned. The one kernel noted in this class emerged during a particularly difficult period. Students repeatedly refused to engage the material, and the teacher became visibly frustrated, pleading with students for their attention. Yet when the teacher began to speak passionately about a serious topic—the power of artistic expression—the students' chatter ceased. The atmosphere of the class was instantly heightened, filled with positive tension. Unfortunately, this change was short-lived, and students quickly returned to their disruptive ways.

Teacher C's style is essentially the opposite of Teacher A's, as it depends upon digression. The class is organized around the study of Jungian archetypes, and Teacher C frequently employs kernels and longer, more traditional lectures in order to illustrate the application of this critical perspective to a given text. The class is definitely teacher-centered, with Teacher C leading most lessons from behind a podium at the front of the room. This teacher often uses sarcasm with the students, prodding them to do better, to think deeper. Students' comments play a definite role in shaping the direction of the class. For example, when the teacher referred to another class as "an educational pink noise generator," students were perplexed. Teacher C then launched on a short, humorous story about acoustics that demonstrated both sharp wit and intelligence. Kernels allow Teacher C to inject his/her unique perspective and life experience into lessons, and students responded positively to these short, pithy bits of teacher speech.

Like Teacher B, Teacher D seemed most concerned with drawing things out of students. A typical lesson involved the teacher walking the students through a given text. Teacher D seems to actively avoid lecture. I marked the emergence of a few potential kernels in my field notes, but most of these quickly degenerated into question-and-answer sessions. Although most of the questions called for lower-level thinking, these teacher-centered lessons allowed for the modeling of effective reading strategies, as the teacher focuses the class' attention on the essential features of the text at hand, such as plot and characterization.

IMPLICATIONS

The kernel lecture has a positive effect on student engagement, especially when employed by teachers who are comfortable in the spotlight of student attention. Teachers who typically avoid lecture-type instruction should experiment with the kernel lecture in their classrooms, as it allows them to incorporate lecture's best elements without compromising their student-centered philosophy.

Further research on the kernel lecture's effect on student engagement is needed. A larger sample size would be beneficial, as it could help maximize the validity of the results. Future researchers might consider interviewing the teachers under observation in order to learn more about their individual philosophies and their perspective on the kernel lecture. Also, perhaps researchers could observe a larger group of teachers at a number of different schools in order to increase the total number of kernels observed.

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**Always Working an Angle:
Exploration of the Teacher-Student Relationship and Engagement**

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The relationship between student and teacher provides a foundation on which deeply satisfying learning can be built (Bernstein-Yamashiro, 2004). Building rapport with students is often an effective way to keep them engaged in the subject material. I am frequently intrigued by students who stop to talk and visit between classes or after school, not just to speak about the day's lesson. In this time they may share pieces of information that may provide insights into themselves which may enrich their relationship or later assist the teacher. As Bernstein-Yamashiro (2004) suggests, these discussions during non-instructional time are not just a bonus for the teachers who do work to build relationships outside of instructional time, but they provide opportunities for teachable moments and learning opportunities. This study will examine what specific teacher qualities and deliberate rapport building acts engage students, improve the teacher-student relationship, and permit the teacher to learn more about his/her students. Mottet, Martin, and Myers (2004) have observed instructors at the college level using what they call, "verbal approach relational strategies." They have found that when people wish to build a relationship they send out certain messages through their actions. Actions typically fall into one of 12 categories: personal recognition, humor, ritualistic, closeness/inclusiveness, self-disclosure, character, willingness to communicate, language appropriateness, honesty, complimentary, responsiveness, and caring/appreciation.

It is often when students communicate with their teachers, be it during or outside of instructional time, and share their academic or personal lives (Bernstein-Yamashiro, 2004) that students feel they are able to connect best to their teachers. Klem and Connell (2004) support this position in their research stating, "Studies show students with caring and supportive interpersonal relationships in school report more positive academic attitudes and values, and more satisfaction with school." Churukian (1982) concluded early on that, "The teacher who is in control of self, student, classroom environment, has the ability to predict how a student will act

and feel in a variety of classroom situations, and be able to respond to a student's actions in a supportive, non-threatening manner will promote greater learning as perceived by the student."

Especially notable is Bernstein-Yamashiro's research that examines close interpersonal relationships between teacher and student. Participants in the study struggled with the right term to describe the relationship with their teacher. One student describes their teacher as a "close uncle" another "like an older friend" another powerfully states, "He's my stand-in dad." Many continued to use the term "teacher-friend." The student's inability to qualify the relationship with their teacher suggests it is a relationship unlike any other they presently have in their life. The relationship is, "similar to but not completely like any other connections they have with peers or family members." Teachers are immersed in the teenage world daily but are adults with insight and experience that teens do not yet have and teens recognize this. They understand that the teacher is a resource with a strong moral compass, and one who can advise them in way that is focused on them and the situation rather than personal gains as a peer might do. Depending on the relationship, the student may also perceive the teacher as less judgmental, a fear they may face in talking to a parent. The teacher has a different but equally important responsibility to help and guide the student, but is unburdened by the parental authority.

Research done by Petegem, Aelterman, VanKeer, and Rosseel(2006) suggests that teachers should be aware with how students perceive them and the teacher's affect on the student, meaning that a teacher who is tolerant, yet also a disciplinarian, can be viewed favorably by students. Students need to know what adults expect of them and what the consequences will be if those expectations are not met, but most literature seems to suggest that there needs to be a level of approachability that the teacher possesses thus cultivating respect and a desire within the student to meet these expectations. Petegem et al also explain that student perceptions of teacher behavior do impact their wellbeing at school. It has been suggested that teachers' perceptions of their own behavior be examined in further research.. The goal of this study is to further observe what specific actions of teachers positively influence students' wellbeing, and elicit enduring engagement. The study also aims to help guide in the reflection process for teachers.

Methodology

Subjects for this study included high school English students in grades 9-12 and their English teachers in a high school in North Carolina. The average class size was 28 students. In total the researcher observed approximately 300 students and 4 teachers. This study presented

little to no risk to students or teachers, as the researcher only observed the class and made no contact with students or teachers regarding the study. In order to secure confidentiality and anonymity, each teacher was assigned a letter (A-D) for identification purposes.

Data collection came from field notes gathered from classroom observation and observations during non-instructional time (between classes, lunch time, study hall, after school). Mottet, Martin, and Myers (2004) discuss “verbal approach relational strategies.” The researcher also gauged student engagement through observation and analysis of the specific actions of the students. Markers for engagement fell upon a spectrum ranging from sleeping to excitement about the subject. The researcher observed three students every three minutes and marked the frequency of behavior throughout the class periods. In total, there were 481 observations.

After the data was collected, the researcher charted the data to identify possible relationships. Just as there were positive moves teachers made, The two sets of observations were examined and the observed student actions were tallied and recorded with the observed teacher actions.

Results and Conclusions

Each teacher involved in this study used a different combination of actions to build rapport with his or her students. All four teachers displayed positive rapport building actions regularly and results from the observations suggest that these had the most impact (See Table 1).

Teachers that exhibited humor, self-disclosure, and ritualistic behavior were observed to have the highest levels of sleeping, daydreaming, or students being off task. Disruptive comments which were also defined to include “back talk” were observed to occur most in classrooms where the instructor displayed willingness to communicate and humor. Teachers who used self disclosure, displayed responsiveness and a willingness to communicate were observed to have the highest levels of students paying attention (eyes on teacher, taking notes if necessary, responding to teacher) approximately of the observation time. Answering or asking questions was observed to be elicited most when teachers displayed a willingness to communicate and honesty. The researcher observed self disclosure and willingness to communicate to elicit building comments or questions from students. Finally at the high end of the spectrum, teachers who were observed to have demonstrated honesty and closeness/inclusiveness appeared to have elicited excitement from students.

Table 1.

Verbal Approach Strategies	Sleeping/ Daydreaming / Off Task	Disruptive Comments	Paying Attention	Answering/ Asking Questions	Building Comments/ Questions	Excitement
Personal Recognition	3.9%	1.2%	20.6%	4.6%	3.5%	0.8%
Humor	7.7%	2.1%	28.7%	5.4%	3.5%	0.8%
Ritualistic	5.8%	0.8%	31%	6.7%	2.1%	1%
Closeness/ Inclusiveness	2.7%	1.2%	22.7%	6.7%	5%	2.5%
Self- disclosure	6.2%	1.7%	33.5%	6.7%	5.2%	1.9%
Character	5%	1.5%	19.1%	4.1%	0.4%	1.2%
Willingness to Communicate	4.8%	2.3%	33.1%	9.4%	5.2%	3.1%
Language Appropriateness	2.5%	1%	20.8%	5.4%	0.4%	1.2%
Honesty	4.2%	0.6%	27.7%	7.3%	2.5%	2.3%
Complimentary	3.7%	0.8%	8.1%	0.8%	-----	-----
Responsiveness	6.4%	1.5%	33.7%	7.1%	0.8%	1.2%
Caring/ Appreciation	1.7%	1.2%	12.3%	3.1%	3.1%	0.8%

N= 481 observations

Research findings suggest that the highest level of engagement--excitement is reached when teachers are willing to communicate with students and present openness towards the students and also when they are willing to share pieces of themselves with students. Examples of these traits included when Teacher A (T-A) demonstrated self-disclosure by admitting her own strengths and weaknesses in writing. Teacher B (T-B) and Teacher D (T-D) both encouraged and welcomed questions in the classroom, they also made time to speak to students after school about concerns. Teacher C (T-C) demonstrated self disclosure through storytelling and sharing of experiences. It was observed that students listened closely to these stories and were eager to then share their own.

A willingness to communicate from the teacher appears to elicit the most positive student engagement. Specific teacher actions included when T-A was observed to be constantly circulating the classroom during independent work time. Students would raise their hand or catch T-A's attention as she walked by. The researcher observed many students who appeared

comfortable with T-A to ask multiple questions. T-B utilizes reader response in the classroom and solicits student response on the assigned text. Additionally T-B makes herself available to students via her teacher Blog which appears to keep the lines of communication open between teacher and student.

Self disclosure also yielded high levels of positive student engagement. This teacher action was defined by the teacher sharing things about him or her and being open to sharing some personal aspects of their life. It was observed that this teacher behavior acted as an insurance of sorts. Teachers who shared personal feelings, successes, or shortcomings elicited deeper responses from the students. Observation suggests that if the instructor was willing to share than the student was also willing to share. Examples of observed teacher self disclosure included when T-C shares stories of his experience as a high school student. The research observed students to be paying attention and interested in what T-C was sharing. Humor was also linked with these stories and students again responded positively with smiling and interest.

Responsiveness produced similarly high results. Responsiveness was defined throughout data collection as sensitivity to student questions and comments and displaying a genuine interest in students. T-A demonstrated a simply but meaningful act of responsiveness when a student asked, “T-A, want to hear something?” T-A responded happily, “Yes, Student A, I’d love to hear something.” The observer noted smiles on a majority of the student’s faces during this interaction and not just the student asking the question. T-C asks students to read out loud and encourages them to ask questions about the text as the read. T-C has a thoughtful, prompt response when questions are asked in class. It would appear that these specific examples of responsiveness forge connections with student and teacher. The research observed classmates noticing the sensitivity and interest demonstrated by both T-A and T-C student’s smiles and concerned facial expressions suggested their interest and appreciation of both teachers going the extra mile.

Data collection took place during the first months of school. For further research it is suggested that data be collected throughout the year to observe weather the comfort level and therefore positive student engagement increases as the school year progresses.

Implications

The idea of “give and take” was observed throughout data collection. This idea is at the base of the teacher actions. Data would suggest that to forge connections and build a

constructive, positive relationship with students teachers must be willing to sacrifice some control and a part of themselves if they wish to elicit deep student responses. The research observed students to be more open to sharing in the classes where teachers had modeled it themselves. Students appeared to feel privileged to know that information (strength, weakness, personal anecdote) about a teacher and in turn felt they could and should also share something.

It was not mentioned as a teacher action but would perhaps be produced by the teacher actions—a safe classroom environment. All four teachers worked to craft a safe and comfortable learning environment. This appeared to factor in to student engagement in class. Teachers encouraged students to be supportive of one another and did not tolerate negative remarks directed from student to student. This would seem to also increase student confidence as well as the frequency of student comments and questions.

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Student Understanding of Proof in High School Geometry

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Geometry proofs can be one of the most difficult topics for students to learn throughout high school and historically students have seen them as the least important, most disliked, and most difficult topic in mathematics at school (Carpenter, Corbitt, Kepner, Lindquist, & Reys, 1980; Knuth, 2002; Sowder & Harel, 1998). The national and state standards include proofs as a part of the geometry course of study (NCTM, 2000; NCSCOC, 2003). Therefore, many teachers and authorities find teaching proofs to be an essential part of the foundation of a good understanding in geometry.

The National Council of Teachers of Mathematics states in the Geometry Standards for grades 9-12 that students should “establish the validity of geometric conjectures using deduction, prove theorems, and critique arguments made by others” (NCTM, 2000, para. 4). NCTM also states that students should be able to “recognize reasoning and proof as fundamental aspects of mathematics”, “make and investigate mathematical conjectures, develop and evaluate mathematical arguments and proofs, [and] select and use various types of reasoning and methods of proof (para. 2)”. The North Carolina Standard Course of Study (NCSCOS) claims that teachers should teach so that “The learner will use geometric and algebraic properties of figures to solve problems and write proofs” (NCSCOC, 2003).

The Purpose of Proofs

Hersh (1993) explained that two possible roles of proof are to convince and to explain. Hersh goes on to argue that, although good proofs can do both, in high school classrooms, the primary purpose of proof is to explain. Healy and Hoyles (2000) showed that students tended to have two separate ideas of the proofs simultaneously. The first idea is one that they thought would get them the highest grades, consisting of more technical arguments, while the second one is what they adopted for themselves to understand the proofs, and it consisted of arguments in their own words.

The van Hiele Levels

The five van Hiele levels of understanding geometry were conceived by Dutch educators P. M. van Hiele and his wife Dina van Hiele-Geldof in 1957. The five levels are (Fuys & Geddes, 1984):

- Level 0 (Visualization): The student identifies, names, compares, and operates on geometric figures (e.g. triangles, angles, parallel lines) according to their appearance.
- Level 1 (Analysis): The student analyzes figures in terms of their components and relationship among components and discovers properties/rules of a class of shapes empirically (e.g. by folding, measuring, using a grid or diagram).
- Level 2 (Informal Deduction): The student logically interrelates previously discovered properties and rules by giving or following informal arguments.
- Level 3 (Deduction): The student proves theorems deductively and establishes interrelationships among networks of theorems.
- Level 4 (Rigor): The student establishes theorems in different postulational systems and analyzes/compares these systems.

The goal of a high school geometry class is level 3, deduction. However, according to the van Hiele theory, students must be at level 2, informal deduction, before they can reach level 3. Burger and Shaughnessy (1986) showed that most introductory geometry students almost completely lack the use of formal deduction and Senk (1989) supported these findings.

Memorizing vs. Understanding

NCTM asks that students should have experiences that facilitate an understanding of reasoning and proof as fundamental aspects of mathematics. A pitfall for both teachers and students is to get into a rut of teaching and learning theorems for the sake of the theorems themselves, and not for the skills of reasoning and sense-making that proofs can confer to students (Herbst & Brach, 2006; Herbst et al. 2009).

This discussion relates to the van Hiele levels because a student who has not mastered level 2 when they are asked to perform and learn at level 3 must resort to memorization in order to keep up with the class and get by on homework and tests. The problem with this is that the van Hiele levels must be mastered in order, so that students who are not at level 2 cannot even hope to reach level 3 before progressing through level 2. This may cause students to resort to memorizing and they could miss the opportunity to develop reasoning and sense-making skills.

Essential Question

The purpose of this research is to answer the question “How well do students understand geometry proofs?” In many ways, this research is seeking to find the van Hiele level of several students in a geometry class. More than simply being concerned about rigor, the study is seeking to find if students can answer the “why?” question behind every step in a proof and get to the very core of what encapsulates understanding in geometry. The hypothesis is that some of the students may be in a mindset of rote memorization and be reciting steps of a proof rather than understanding why certain steps are being taken and why certain reasons line up with certain steps.

Methods

The subjects for this research were nine high school geometry students from an urban school in the southeastern United States. The instruments for this interview were an audio recording device and interview questions. Some samples of questions that were in the interview are as follows:

1. What is the difference between $m\angle 1$ and $\angle 1$?
2. What is the difference between a definition and a theorem?
3. Why do we do proofs in class? What jobs or professions use proofs outside of class?

The nine students were given a proof of a geometry concept that they had learned. Each student was asked to talk-aloud and explain each step of their proof. Upon giving a reason or answer, the researcher continued to question the student searching for understanding of the general propositions that the student was invoking. Each interview took approximately 10 to 15 minutes. The interviews were then transcribed and analyzed qualitatively. Each student’s understanding was compared with the van Hiele levels of understanding geometric proof.

Results and Conclusions

The question this research aimed to answer was “How well do students understand geometry proofs?” The students were analyzed in order to find out whether they were reaching an understanding of the material, or memorizing shortcuts in place of an understanding.

Certain questions which were asked are indicative of particular van Hiele levels. The lowest level question which can be used for determining the van Hiele level of a student that was asked in the interview involved asking students why skipping a step in a geometry proof is wrong. If a student answered that they do not see anything wrong with skipping a step, or points

towards grades or some other extrinsic motivator as a reason, then that student has not yet mastered level 2, or informal deduction, because they cannot even give an informal answer as to why proofs must proceed logically. If a student recognizes that it is wrong, but cannot explain why, then they have mastered level 2 because they recognize the relationships between steps as necessary, but cannot articulate them. Only a student who recognizes the problem and gives a solid answer demonstrates a mastery of level 3, or deduction.

Other questions in the interview can be used as guidelines, but not strict indicators, of what van Hiele levels a student has mastered. Three questions which fall into this category are (1) asking the student the difference between an explanation and a proof, (2) asking the student what the purpose of proofs are, and (3) asking the student to give a metaphor to describe how they perceive geometry proofs, definitions, and theorems.

One trend found is the relative consistency of students with respect to their own van Hiele level. There were no students who answered questions at a very high and a very low van Hiele level. This lends credence to the idea that the entirety of a van Hiele level must be mastered in an area before progressing on to the next van Hiele level.

Another interesting trend found is the inconsistency with which a particular question is answered by students of differing geometry abilities. There are times when one student answers a question well and another student does not, but then the reverse happens on a later question. This shows that students do not master a van Hiele level all at once. The fact that there are two students that straddle two van Hiele levels in opposite directions strengthens this claim because it minimizes the possibility of mislabeling the answers' van Hiele levels. Students' understanding of various parts of geometry may be at one van Hiele level or another, but as a whole, it is difficult to classify a student at a single van Hiele level across the entirety of their understanding of geometry.

The most obvious relationship between the guideline questions and the indicator questions was found when the students were interviewed as to the purpose of proofs. The only two students who cited a real-world application, both incorrectly imagining that specifically engineers used axiomatic geometry in their line of work, were also the only two students who stated that skipping a step was wrong because then they would not receive the full grade. The lack of understanding the importance of making a logical connection between steps resulted in

the only assigning of a van Hiele level specifically below 2—other observations were labeled as “at 2 or below” if the student failed to understand a key concept.

Another interesting relation between why students believe they do proofs and the indicator questions was that all the students that claimed they did not know why they did proofs, or imagined a real-world application for proofs, could not explain the difference between a definition and a theorem.

The four students who did not know the difference between a definition and a theorem are also the only four students who did not give a good answer as to why proofs are done. Meanwhile, all five students who did know the difference between a definition and a theorem came up with a good reason for why they do proofs in class. This observation indicates a relationship between students who understand a deep concept in geometry and students who know why they are doing geometry proofs in the first place. This would suggest that in order to obtain higher level thinking skills, students need to understand at least one purpose of abstract activities. This relationship could be due to the simple fact that better students are going to be more observant and learn the purpose of what they are doing. Regardless, this evidence suggests explaining the reason for proofs may help more students grasp deeper concepts if they have a motivation for doing so.

Three students—3, 5, and 6—stated that explanations were not in their own words, while proofs were in their own words. Of these three students, two of them were the only two in the whole study whose van Hiele level was between 1 and 2, rather than 2 and 3. This is significant because students may feel they are working with a foreign language and cannot “own” what they do or say. Presumably, the students who did not state that proofs are “not in their own words” are beginning to assimilate the vocabulary of geometry into their own language and feel more comfortable with using this language than their peers. This research reinforces the conclusion that Healy and Hoyles (2000) came to when they were talking about how students tend to hold two separate ideas of proof simultaneously: one that is more technical and one that is in their own words. Furthermore, one of the three students pointed to convincing as the reason for proofs, while none of these students cited explanation as a reason for proof (only student 1 cited explanation as a reason for proof). This reinforces Healy and Hoyle’s idea that when students consider proof to be “not in their own words”, then they believe that proof is used to convince rather than to explain.

Among the most important implications from this research are that (1) students do not learn at the same pace, (2) a student may be ready for the next van Hiele level once they have mastered most, if not all, of the previous van Hiele level, and (3) students cannot be easily grouped according to van Hiele levels because they may be at different van Hiele levels with respect to different ideas. Furthermore, each student learns ideas at their own pace, even in the same class with the same teacher. For teachers, this means that scaffolding and individualized instruction are important for geometry concepts, especially when dealing with proof. Also, there should be as much feedback (i.e. assessment) as possible and the assessments should occasionally ask meta-logical and meta-mathematical questions so that the teacher can monitor how well the students are grasping the more difficult overall concepts. Lastly, a teacher instructing proofs in geometry should teach students the purpose of why proofs are done, both in the classroom and out of the classroom, because this correlates with how well they pick up and understand harder abstract geometry concepts. Although these concepts will not be on the end of grade testing, building logic skills will benefit all students.

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The Use of Discussion in the Social Studies Classroom

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The use of discussion in teaching is one of many tools educators use to spark curiosity in students and enhance critical thinking skills. High school social studies teachers have several differing opinions on the best way to use discussion in the classroom. Discussion-based lesson plans are not utilized as frequently in these situations because many teachers believe they can cover more ground through lecture-based techniques. Nevertheless, significant research has been conducted on the impact of discussion-based lesson plans have academically on students. The need for a multitude of educational pedagogical perspectives is clear. Discussion falls under one of the many pedagogical frameworks.

An area that is gaining more inquiry is the intersection between technology and discussion. Scholars are finding ways in which teachers use online resources, the internet and discussion forms to spark conversations about social studies subjects in their own classrooms (Blankenship, 2009). Electronic discussions not only capture the students' attention by using innovative technological approaches, but also allow an ease of access for the students to join in on the conversation. Furthermore, teachers are able to monitor the progress of each student in a much clearer way. The field of social studies is an important forum for discussion because of its content. Discussions take place every day in American politics and lay at the foundation of the United States' democratic system. Thus, discussions in social studies classrooms illustrate key concepts that students learn in high school courses such as political science and civics and

economics. Due to the relevance and importance of discussion in the social studies classroom, research is needed to determine current opinions of high school social studies teachers regarding its use.

Literature Review

Significant research has been conducted regarding the use of discussion as a method to promote civic engagement. As mentioned previously, it is important to promote civic engagement in social studies because the concept is at the heart of major social studies subjects. Henning, Nielsen, Henning and Schulz (2008) explored ways to make high school students open up in their classrooms. Their study proved that increasing the amount and quality of student discussion in social studies classrooms is very difficult in practice (Henning, Nielsen, Henning & Schulz, 2008). The purpose of their study was to provide a method that teachers can use as a way to design their discussion to increase student involvement. The authors conclude that a well-designed discussion lesson plan is comprised of the three following elements: (1). A debatable topic, (2). That is located within the students' existing knowledge base and (3). Is educational in purpose. (Henning, Nielsen, Henning & Schulz, 2008). In order to meet these conditions, there are four discussion designs highlighted in the article. These discussion designs include responding to a problem, responding to an observation, responding to a narrative and reflecting on classroom activities (Henning, Nielsen, Henning & Schulz, 2008). Using these designs as a framework for discussion allows teachers to open a dialogue with their students. This study asserts that successful discussion-based lesson plans must have certain elements within them in order to accomplish goals such as promoting civic engagement. The researchers conclude that practical advice consisting of templates that each lesson must include goes a long way at encouraging student participation and the transfer of ideas and knowledge from one student to

another (Henning, Nielsen, Henning & Schulz, 2008).

Methodology

Participants for this study are high school social studies teachers from a public school system in North Carolina. Teachers from all social studies subjects are allowed to participate in the study. The survey is an online survey sent to all the high school social studies teachers in a public school system in North Carolina. The survey is administered by SurveyMonkey.com. Additionally, after the survey part of the study occurs, a limited number of the participants are interviewed with the researcher. At the end of the survey, participants have the option of letting the researcher know if they want to continue with the study or not. If they elect to continue with the study, they respond with their name, email address and school they work at. The interview questions will focus on their opinions of discussion and argumentation in the classroom and how they implement these tools in their own classrooms. Finally, some participants in the study will also be observed in their respective classrooms. This is determined during the interview stage of the research study. If the researcher's and teacher's schedule worked out, then the researcher observed the teacher in their classroom. The researcher will use classrooms that are traditionally lecture based and classrooms that tend to incorporate more discussion and argumentation into their lessons.

Results

Innovative ways to help make discussion more useful in the classroom: The data show that dividing students up for discussion is a useful way to get them to participate in the discussion. Additionally, the teachers interviewed offered other tools to help increase participation in lesson plans centered on discussion. During the last stage of the interview,

Teacher #1 offered some innovative ways to incorporate more discussion and debate into the lesson plans. First, he believes that it is useful to stop and ask a question in order to use the question as a portal into another topic that lends itself to discussion. Second, he believes that teachers are allowed to be innovative as much as they like in so far as lesson plans so long as their administration is happy. Teacher #1 states, “I find it more useful to ask a question as an introduction into a new part of the content.” Teacher #1 also said, “I do not think the administration really cares as long as your students are performing well.” Usually, administrators are happy when EOC scores are high. Therefore, the better a teacher’s students perform on the EOC than the higher the likelihood of their ability to implement innovative lesson plans.

Teacher #3 uses an innovative technique for his students to feel comfortable speaking their mind in his class. He gives them a koosh ball and anyone who is in possession of the koosh ball has the floor and all attention must be paid to the student. Therefore, if a student is offended he or she can ask for the ball and explain what offended them. By creating a safe environment in his classroom, Teacher #3, believes students are more likely to express their opinion than keep it to themselves. Another technique Teacher #3 employs to bring about more participation in discussion is to put the students in groups first before carrying out the discussion. This tactic is similar with a tactic used by Teacher #2. Finally, Teacher #3 gives his students nine review questions that they must answer. If the student does not want to answer the review questions then they must participate in the class discussion for each day he or she does not complete the question. According to Teacher #3 this incentivizes discussion for the students and increases the likelihood of productive participation. Teacher #3 concludes, “by giving students a choice between participation and answering the review questions, I am increasing their motivation to participate in my discussions.”

Implications

The surveys, teacher interviews and classroom observations offer intriguing insight into how discussion-based lesson plans are implemented in the social studies classroom. The three survey questions to focus on are the ones in which a majority of the respondents reached consensus. From the data indicated, it shows that social studies teachers who responded to the survey believe that lesson plans centered on discussion are helpful for social studies. This illustrates that social studies teachers are receptive to using discussion when learning about a variety of issues. Furthermore, the data shows that the teachers also believe discussion-based lesson plans are appropriate for history courses. In addition, administrators support the use of discussion in social studies classes. Finally, social studies teachers are supportive of each other when discussion and argumentation is used in their classrooms. As the literature suggests, social studies teachers believe that discussion helps promote civic engagement (Henning, Nielsen, Henning & Schulz, 2008). The overall broad support of implementing lesson plans centered on discussion proves that teachers believe this is the case. Despite the support from administrators, fellow teachers and their personal views of discussion, the data from the interviews points towards these types of lesson plans rarely being used.

One of the biggest reasons why teachers may not implement discussions is due to the fact that it is hard to have a successful discussion with high school students (Henning, 2005). Furthermore, the interviews of Teachers #1, #2, and #3 all point towards the difficulty encountered when attempting to use discussion in the classroom. This goes hand-in-hand with Henning's (2005) study, because teachers are not likely to implement discussion-based lesson plans if they believe it will trade off with their student's performance on the EOC exam or disrupt their pacing.

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You Choose: Does Student Choice Matter?

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This study examined student choice and its effect upon student engagement in the learning environment. Choice can range from seemingly insignificant preferences such as choosing to open the window during class to substantial choices such as choosing which book to read for an assignment. I began my study by observing four master teachers in Forsyth County for a three month period. To measure student choice, it was divided into nominal categories – individual, group, and class. I observed the effects of student choice and its relation to student engagement in the classroom environment. The study found that the average level of engagement decreases with an increase in the number of student choices. However, when the individual teacher’s level of engagement is calculated per choice, there is no correlation.

Review of Literature

The majority of research concerning student choice focuses on the middle school classroom. Glasser’s (1996) choice theory is the foundation for student choice in the classroom. Through personal choice, students’ behavior, engagement, and performance will increase substantially. Glasser (1996) argues that the five basic human needs must be met in the learning environment: (1) the need for survival; (2) the need for love and belonging; (3) the need to gain power; (4) the need for freedom; and (5) the need to play. Glasser’s research provides concrete evidence that students’ educational experience can be transformed through the choice theory. For example, Glasser (1996) asserts that 95% of all behavior problems stem from students wanting to be in control, to gain a sense of personal power in the learning environment.

Although the majority of studies show that student choice leads to increased student engagement and performance, Kohn argues that public schools are moving away from student choice and towards solely teacher directed classrooms. Kohn (1999) examined the state of schools and discussed his progressive vision for the future of education. Through observation, research, and examination of schools, Kohn argued that “students learn most avidly and have their best ideas when they get to choose which questions to explore” (Kohn, 1999, p. 150). Kohn

argued that students respond to choice just as the majority of society chooses to make individual decisions each day.

Kohn's support of student choice is in sync with the research of Birdsell, Ream, Seyller, and Zobott (2009). These researchers found that middle-school students are motivated by increasing student choice. They gathered their data from four seventh grade classes, totaling 101 students, and tracked the motivation of each student. The students were given opinion surveys before choices were presented in the learning environment and after choices were implemented. The researchers found that "when students were given more choices, 38% of the students felt they were able to utilize their strengths, which also created more success and enjoyment in the classroom" (Birdsell, Ream, Seyller, & Zobott, 2009). The researchers found that by increasing students' freedom through the offering of choice, this produced more positive behaviors and an increase of self-motivation (Birdsell et al., 2009). When students are given more choices, this leads to a feeling of ownership and personal responsibility by the student.

The most current research concerning student choice is practiced in a New York elementary school. Referred to as, *genre practice*, it is a "progressive approach to instruction that transforms familiar classroom routines into opportunities for students to develop agency and responsibility" (Award, Decker, Jacks, & Paige, 2009). This approach to learning allows students' freedom of choice in reading and writing texts. Genre practice centers upon student responsibility and accountability.

Methodology

I observed student choice and its effects upon student engagement. I began my study by observing four master teachers in Forsyth County. I took field notes of each class, observing both teacher and students. I referred to the teachers as Teacher A, B, C, and D for confidentially purposes.

To measure student choice, I categorized classroom choice on a nominal scale. I divided student choice into categories – individual, group, and class. An individual choice was decided solely by the particular student and affected only him or her. A group choice was determined by two or more students and decided by the entire group. A class choice was presented to the entire class and the class decided as a whole.

I observed the effects of student choice and its relation to student engagement in the classroom environment. Over time, I observed the level of engagement in the classroom and

created a checklist of observed actions. Positive engagement markers were defined by (1) hand raising; (2) commenting to the teacher or another student about the subject matter; (3) facial expressions such as smiling; or (4) positive body language such as attentiveness. Negative engagement markers were defined by (1) ignoring the teacher; (2) sleeping; (3) discussing a nonrelated topic; or (4) daydreaming. To understand the general level of student engagement and its relation to student choice, I observed the entire class' reactions and responses. After I observed each class for approximately 3 months, I used my observation notes and calculations of choice per teacher to form a general conclusion about student choice and its effects in the classroom.

Results

This study found twenty of the thirty-two observed classes presented choices in the learning environment. Approximately 62.5% of the observed classes experienced at least one choice made by the students. Only one out of twenty-five choices classified as class choice. Two out of twenty-five choices were presented as group choices, approximately 8%. Teacher B and C did not present any instances of group choice. Twenty-two out of twenty-five choices were presented as individual choices, approximately 88%. Please see Figure 1 for more details.

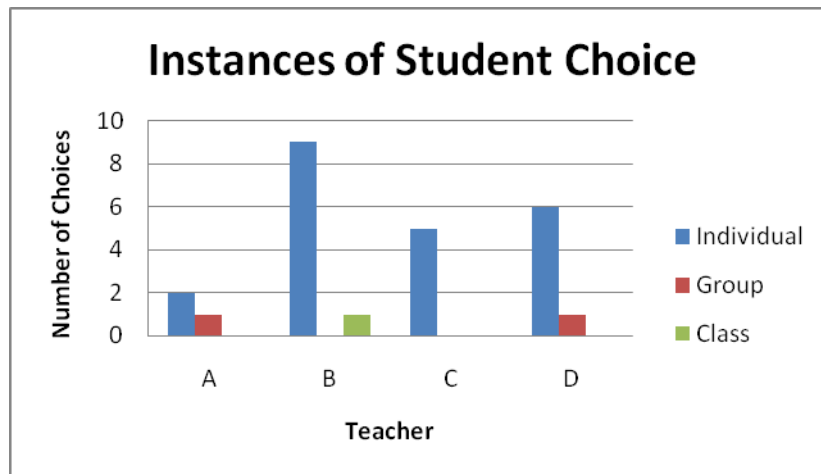


Figure 1

The average positive engagement level, categorized by instances of choice, decreases as the number of choices increases. However, the individual teacher's engagement level remained relatively constant, no matter the number of choices presented in the learning environment. Please see Figure 2 for more details.

Figure 2

	Observation							
Instances of Choice	1	2	3	4	5	6	7	8
0	95% 75%	<i>85%</i> <u>50%</u>	<i>85%</i> 96%	<i>90%</i>		<i>75%</i> 90% 80%		<i>80%</i> 85%
1	<i>85%</i> <u>40%</u>	95% 90%	85%	<u>45%</u> 90%	<i>75%</i> <u>60%</u> 90% 85%		<i>85%</i> <u>40%</u> 90%	<u>50%</u> 85%
2				90%		<u>50%</u>	75%	
3			<u>40%</u>					

*Teacher A – Italicized Red; Teacher B – Underlined Blue; Teacher C – Bold Green; Teacher D - Black

Findings

Teacher A originally gave the appearance of a choice-led classroom; however, the choice was relatively absent. On average, Teacher A presented a student choice only 37.5% of the time in the learning environment. Teacher A frequently presented a choice and then decided independently as the class progressed. Often, the choices had strings attached - if the students did not make a wise decision, the choice would be taken away.

Teacher A's engagement level was high, on average 83%. The engagement level correlates with the teacher's constant control and awareness of the learning environment. Teacher A's individual engagement level decreases over time, but the decrease is not consistent with the number of choices presented in the learning environment. When a choice is presented, the engagement level is high – either 90% or 95% of students positively engaged.

Unlike Teacher A, Teacher B's classroom consisted of multiple instances of student choice. Teacher B presented a choice in the learning environment approximately 87.5% of the time. In many instances, more than one student choice was presented per class period. Teacher B was the only teacher to present a choice to be decided on as a class. Class choices were the least controlled because discussion presented itself before a decision could be finalized. Teacher B's classroom is primarily student-centered, thus the learning environment encourages student choice and independence.

Teacher B's engagement level averaged 46.9%. Teacher B's classroom was defined by flexibility, independence, and individuality. The learning environment was chaotic because the lack of control and structure defined by Teacher B. The highest level of engagement achieved

was associated with zero choices and the lowest engagement level was associated with the maximum number of choices given.

Teacher C presents the third highest number of choices in the learning environment. Teacher C's choices coincide with student responsibility. For example, the teacher allows students to sit wherever they choose while taking notes; however, it is the student's responsibility to ensure that a friend does not distract their learning. Teacher C presented an instance of choice 50% of the observed periods. The choices consisted of choices that affected the student's individual cognitive growth.

Teacher C's engagement level was the highest of all teachers observed. Teacher C's average engagement level was 91.4%. Teacher C's engagement level and average instances of choice reflect the balance of freedom with personal responsibility in the learning environment. Teacher C's classroom was teacher-centered, thus authority and direction remained with the teacher at all times.

Teacher D's instances of student choice was the second highest, following Teacher B. Teacher D's choices primarily consisted of individual choices. Most choices consisted of volunteer opportunities such as choosing to serve as a team leader or scorekeeper. Teacher D presented an instance of choice 75% of the time.

Teacher D's average engagement level was 83.1%. Teacher D's classroom was primarily teacher-centered, students answering teacher prescribed directions. Teacher A and Teacher D had similar learning environments that focused upon teacher control.

Implications

The overall conclusion is that the average level of engagement decreases with an increase in the number of student choices. However, when the individual teacher's level of engagement is calculated per choice, there is no correlation. All four teachers' engagement level remained fairly constant over the three month period, regardless of the number of choices presented in the learning environment.

More research should be completed on the introductions to student choice, meaning how choices are presented to students. The researcher believes that student choice must be presented in a manner in which students understand the responsibility, independence and freedom that

come with choice. If students are not experienced with choice in the learning environment, their decisions may be ill-advised and the level of engagement may decrease. The choices that occurred in the learning environment were primarily unplanned, spontaneous choices which may have affected the outcome of the study.

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Education Through the Eyes of the Student: Examining the Relationship Between Student Engagement and Teaching Method

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Recent evidence has shown that the achievement gap between children is growing. Researchers have begun to take a closer look at classroom activities and how they affect student achievement. The question that has been raised is what is the best way to raise student achievement? Research has shown that the primary indicator of success in school is student's engagement with the learning process. However, the question that remains is what teaching method is the best way to engage students, small group discussion, class discussion, lecture, question and answer, reading aloud, or individual work.

Review of Literature

There is a crisis facing American schools. That crisis is boring classes that do not engage students. According to the 2006 High School Survey of Student Engagement, "two out of three students are bored in class in high school at least every day," and "17% of the respondents are bored in every class in high school"(p.5). According to Yazzie-Mintz(2006), 75% of high school students reported that they were bored because the "material wasn't interesting"(p.5). Yazzie-Mintz(2006) also notes that 39% of high school students said the material was not relevant to them, and 32% said the material was not challenging enough(p.5). When students were asked what teaching methods excited them the most, Yazzie-Mintz(2006) found that students were most excited, "by teaching methods in which they learn from their peers," like class discussion and debate, and "activities in which they are active participants," like presentations and dramas(p.7).

Larry Johannessen and Elizabeth Kahn also explored ways to engage students. Their research backed up what the students said in the 2006 High School Survey of Student Engagement .They found that small group discussion led to higher levels of interaction and understanding. According to Johannessen (1982), in reference to teaching poetry, one teacher said, "My telling them one poem won't help them one tidbit in reading another poem, and trying

to figure out the meaning of it”(p.17). The study by Johannessen (1982) found that the teachers in the study “believed the more the students responded to the materials or questions and the less the teacher had to explain the more the students would learn”(p.18). The teachers they studied used different methods to engage the students. The most commonly used teaching methods to engage students were class discussions and student presentation. In one school, the teachers on average spent 50 percent of each class period in class discussions. The other school used more student presentation, but still on average 20 percent of their class was class discussion.

Another study by Christine Theberge also found small group discussions to be useful in engaging students. Theberge found that in large class discussions talking time can be distributed unevenly. Specifically, she found that female students had a greater difficulty in speaking up in large group discussion. Small group discussion led to a more equal talk ratio amongst the students. One of the reasons that Theberge (1994) notes small group creates more dialogue is that the participant, “Felt safer, or less liable to negative assessments” (p. 21). Another benefit of small group discussion was that it is simply a different kind of activity. According to Theberge (1994), “Learning requires a wide range of activities”(p. 33). Theberge study shows the important fact that student’s attention spans are short, and one of the main reasons student needs to be engaged is to keep their attention focused on school.

Johannessen, Kahn, and Theberge have shown that full class and small group discussions are useful in engaging students. However, class and small group discussions can only go so far and depending on the size of a class they can become hard to control. In response to these problems, some teachers have looked at having students work in pairs. Dyadic peer talk is sets of two students, “who engage in face-to-face, in school academic task with each other after the reading” (Lawrence,2009,p.53). The dyads allow for two students two closely examine a novel as the class reads through it. They can either generate their own discussions points or be prompted by the teacher. Lawrence(2009) found that when students did not have a “physical academic authority in constant presence” they, “had open opportunities to display authentic responses to the text and to use their own social language in the process”(p.53). Student’s openness and willingness to talk led to improved interpersonal communication, created new relationships, allowed for discussions of complex social issues, like race, and allowed for discussion of issues within the text. Lawrence(2009) notes that, “classroom discussions are

important, but specifically facilitating opportunities for students to talk with their peers is favored”(p.54).

Lawrence(2009) showed that pairs are useful in teaching students about literature. Mary Alice Trent(1996) focused on the effects of pairs in developing student writing skills. Trent(1996) found that having students pair off with a student from a younger grade was extremely successfully. Trent(1996) notes that one student, “who has dyslexic tendencies and struggles with her reading and writing, was a wonderful teacher and really helped her first grade partner”(p.6). Working with a younger partner allows for the older student to take on the role of a teacher, and it “build self-esteem” in the young writers as they teach their younger partner. The students not only become more engaged with the physical act of writing, they also become engaged with the writing process and the skills that go into writing. Another way Trent(1996) used to engage writers was collaborative writing assignments. This process helps foster the creation of ideas, and it helps struggling writers with the difficult task of writing. According to Trent(1996), allowing students to come up with their own ideas and create their written pieces allows them to, “become active agents of knowledge, active learners, active readers, and active respondents through collaboration”(p.9).

Methodology

I observed four high school English classes in North Carolina. I observed each classroom, noting the type of teaching method and the number of disengaged students. I measured disengagement by noting the amount of students with their heads down, talking, doodling, texting, and staring off. I broke the teaching method into these categories: lecture, question and answer, class discussion, small group work, individual work, reading aloud, and student presentation. The hope was to see which methods produce the least disengaged students which will then show which method is the most effective in engaging students.

Question and answer is when a teacher asks for a question and is looking for a short, specific response from one student. Class discussion is a seminar type setting where the teacher becomes part of the class, not the leader of the class. Small group work consists of any activity when the students are into small groups smaller to do some type of activity. Individual work is when students are assigned a task to do alone with no help from another student. Student presentation is when one or more students stand before their class and give some form of

presentation. Each minute, I recorded the teaching method and the number of disengaged students.

Results

Fig.1

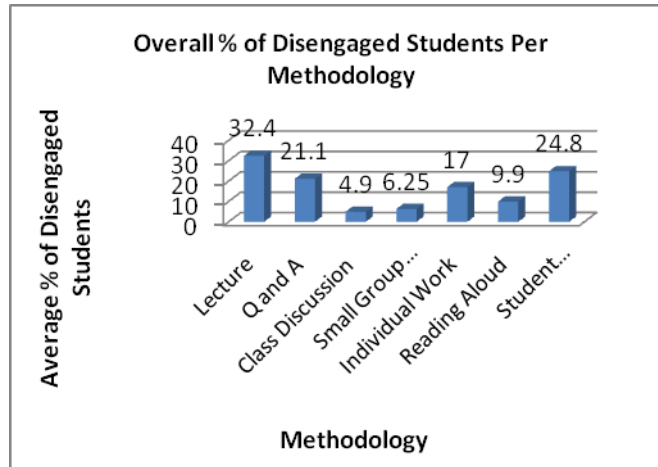
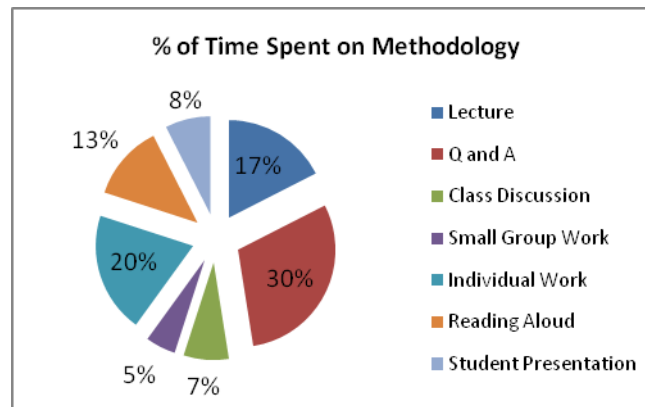


Fig.2



Analysis

From examining the data, I have found that class room discussion disengages the least amount of students, 4.9%. Small group work finished closely behind class discussion at 6.25%. Despite, class discussion and small group work being the most effective means of engaging students were used the least in the four classrooms, 7.5% and 5% respectively. Amongst the four teachers, class discussions was used 7% of the time and small group work was used five percent of the time. Teachers C and D did not use class discussion a single time, and teacher C also never used small group work. The only problem with group work was that it was often used as an extension of individual work and not its own unique entity. However, I feel that this method of group work does not fully utilize the power of group work. In teacher A's AP class, she put them into group and had them work together to write a paper on censorship. The group could choose

to be either for or against censorship. The students really enjoyed the activity. I only observed three students out of a class of 24 become disengaged throughout the entire activity.

Question and answer was the most used methodology with it being used 30% of the time by the four teachers. It had the third most disengaged students with 21.1% amongst all four teachers. In teacher B's, class question and answer created the most disengaged students with 41%. Its lowest level of disengagement was in teacher C's class, where it was 12.4%. The biggest issue with question and answer was that it allowed for kids to completely disengage. The only way students were asked to give answers was by volunteering. Students were never called on. In every class, there were always some kids who would routinely answer the questions. Some classes had more than others. I believe that this fact led teachers to have misconceptions of the effectiveness of question and answer which made it the most used method.

Individual work was used 20% by the teachers of the time making it the second most used method, and it had the fourth least disengaged students with 17% amongst all four teachers, and without teacher B's abnormally high 36% the number would have been much lower. Teachers A, C, and D had 9.8%, 14%, and 10% of disengaged students. When just their numbers are averaged together, it comes to 11.3% which would have kept individual work with the fourth least number of disengaged students, but with a number much closer to reading aloud's, the third lowest percentage, 9.9%. The problem individual work had was that many times the teachers gave students too much time to do the individual work. Students work at different speeds, and when the students who work quickly finish, they would begin to talk or doodle or goof off. These students who are talking or goofing off distract the students who were still working, and in many cases, incite their classmates to goof off as well.

Reading aloud was the fourth most used methodology taking up 12.5 percent of the teachers teaching time, and it created 9.9% disengagement across the four classrooms. Also, it had the lowest levels of disengagement in teacher C's and teacher D's classroom. Teacher C did not use class discussion or small group work which made room for reading aloud to be the lowest in that class. In teacher D's class, she also did not have class discussion, but it did beat out small group work in her class. The only issue with reading aloud was that occasionally one reader would read too long. An effective reading aloud activity involved multiple readers reading small sections and frequent interruptions from the teacher with questions.

Student presentation was used the same amount as class discussion at 7.5% amongst all four teachers, but it had a much higher level of student disengagement, 24.8%. It had the highest level of disengagement in teacher A's class and nearly the highest in teacher C's where it lost to lecture 38 to 37%. The lowest amount of student disengagement it received was 19. Teacher D never used student presentation and had the lowest levels of student disengagement throughout the different methods. I found that the issue with student presentation was that the students in the audience were not connected at all to what was being presented. The students are aware that they will not be tested on this material, and therefore, they do not pay attention.

Implications

The major conclusion that can be drawn from this study is that teachers need to do more small group work, have more class discussion, and read aloud more in their classrooms as they are supposed to be performed. Any method can be used poorly, but when executed properly these methods engage students better than teacher centered ones. These methods are not easy. They take a brave teacher and a lot of practice, but for our students to learn English, the data shows that these methods must be used.

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Developing Cultural Awareness in the K-12 Spanish Classroom

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It has been recognized for thousands of years that people differ more in habit than in essence. According to Confucius, “Human beings are all alike in nature, but their habits and customs keep them apart.” Culture is a broad concept that embraces all facets of human life. Of the different meanings that can be associated with the word, “culture”, two are specifically important to foreign language teachers: “Culture is the learned patterns of behavior and thought characteristics of a societal group” (Goddard, 1997, p. 2), and “Culture is an elusive construct that shifts constantly over time and according to who is perceiving and interpreting it” (Lange, 1998, p. 3). The significance of cultural proficiency, an interrelated component of one’s foreign language proficiency, is also on the rise. In fact, in an increasingly globalized society, the demand for citizens with a high level of proficiency in multiple languages and a deep understanding of cultures, in addition to their native language, is essential to living and working in the 21st century.

The process of developing proficiency in a foreign language includes the integration of cultural knowledge throughout the language learning process. Teaching cultural awareness also provides a foundation for communicative ability as it allows a basis for the language to exist. In order to attain advanced communication ability and a deep knowledge of the cultures associated with the language, it is necessary for students to begin study at an early age and for teachers to provide opportunities that will enable students to develop proficiency over time based on authentic language purposes (Curtain & Dahlberg, 2004; Seelye, 1993; Tsou, 2005). In fact, Seelye (1993) points out, “The key to understanding what people say is context” (p. 1). By teaching culture in contexts linked with communication purposes and by beginning instruction at an early age that continues through a long sequence of study, students can gain a deep appreciation of different customs and cultures and gain a profound understanding of the target language (Curtain & Dahlberg, 2004; Seelye, 1993). Furthermore, early language education is

useful in promoting a global attitude in children because “children have a reputation for being natural language learners” (Curtain & Dahlberg, 2004, p. 1) and are more open to global understanding (Lange, 1995; Tsou, 2005). With an ever-growing global economy, students who gain cultural awareness through a foreign language program can be well prepared for work and life in the 21st century.

Review of Literature

In 1996 the American Council on the Teaching of Foreign Languages (ACTFL) developed the *Standards for Foreign Language Learning* which provides national expectations for content knowledge students in grades K-12 should gain by the time they complete their program of study (ACTFL, 1996). These goals are the Five C's: Communication, Cultures, Connections, Comparisons, and Communities, all of which are interdependent in the development of proficiency. Specifically, the Cultures Goal includes the following standards: “Standard 2.1—students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied and Standard 2.2—students demonstrate an understanding of the relationship between the products and perspectives of the culture studied” (ACTFL, 1996, p. 50-51).

Additionally, in 1998, ACTFL developed the *Performance Guidelines for K-12 Learners* (ACTFL, 1998) as a way to measure students' proficiency as they attain mastery of the content knowledge represented in the national standards. The *Performance Guidelines* address cultural awareness through the use of the three modes of communication: interpersonal, which includes two-way interactive communication exchange; interpretive, which includes listening or reading comprehension; and presentational, which includes the transmission of messages from one person to many (ACTFL, 1998). The *Standards* focus on students' ability in the interdependent areas of reading, writing, listening, speaking, and cultural knowledge, taking into consideration varying entry points in a program in grades K-12. At each stage of proficiency development (novice, intermediate, and pre-advanced), the *Performance Guidelines* describe what learners should be able to do with respect to how well their cultural understanding is reflected in their communication. As a result, as students gain proficiency over time, their level of cultural awareness should also increase. Using both the *Standards* and the *Performance Guidelines*, foreign language teachers are equipped to promote proficiency in the K-12 program.

As students at each level learn about culture by taking on new perspectives and alternate viewpoints, they can be better prepared to process information on a more profound level and, in turn, gain a more global attitude while enhancing their proficiency in the language (Parisi, 1999). Given the importance of this, the purpose of this study was to examine instructional strategies that K-12 Spanish teachers use to develop students' cultural awareness as part of their students' language growth.

Methodology

This two-part study was conducted during the months of September through December, 2009. Participants were twelve K-12 Spanish teachers (four elementary, four middle, and four high schools) in a central North Carolina school district. The teachers chosen for the study were selected based on the recommendation of the researcher's advisor and the availability of said teachers. The researcher wanted to select Spanish teachers in grades K-12 who represented a broad range of experience and levels taught. After permission and consent forms were obtained, the researcher interviewed the twelve Spanish teachers using a self-designed interview instrument. Each interview lasted approximately 60 minutes and was audio-recorded, when teacher consent was provided. Questions focused on strategies used by Spanish teachers to develop cultural awareness in the K-12 Spanish program.

The second part of the study involved classroom observations in which the researcher randomly selected six of the twelve participants to observe (two each from elementary, middle, and high schools). The purpose of the observation portion of the study was to see how teachers developed cultural awareness in ways they discussed in the interview. Interview responses and observation notes were analyzed in order to determine instructional practices used to teach culture in the K-12 Spanish program.

Interview and Observation Results

Upon completion of the twelve interviews and six observations of the participating K-12 Spanish teachers, the researcher became aware of how the national standards influence classroom instruction. All teachers interviewed expressed familiarity with the *Standards for Foreign Language Learning* (1996) and *Performance Guidelines* (1998) even though they do not

all use them to plan instruction. Most teachers do, however, reference the district's pacing guides and the state curriculum when planning their instruction, which are based on the *Standards*. This contributed to the similarities in practices observed in the classroom. Because all teachers referenced the district's pacing guides which are based on the *Standards*, it was evident that instruction is planned to provide opportunities for students to develop proficiency.

It was evident that all teachers interviewed understand the importance of developing cultural awareness; however, the researcher only noted three of the six teachers incorporating culture during the class period observed. This showed that while teachers find it important to teach culture to students, they may consider it difficult to incorporate on a daily basis. It is important to note here, however, that the researcher only observed one class period per teacher.

Teachers use a variety of instructional strategies which suggests that they are committed to teaching culture and engaging learners in experiences that they enjoy. Instructional strategies used by all teachers include the use of authentic music, role playing cultural situations, and class discussion. Less commonly used strategies include e-pals or e-class exchanges and webquest activities which indicates that the integration of technology to support instruction is less frequent. Teachers gave reasons such as lack of access to technology and time constraints in preparing lessons that integrate technology. These responses were confirmed during the observations, as the researcher observed limited use of technology. Teachers also indicated that technologies such as podcasts, Skype, chatrooms, and e-mail are also difficult to access and use in the classroom. Interestingly, many of the teachers make use of 21st century technology such as social networking sites to maintain and enhance their own language and culture which shows that teachers are interested in this type of technology. Therefore, it is the belief of the researcher that given better access to technology, teachers would more readily make use of it in the classroom. It is also the researcher's belief that if teachers considered using authentic materials more often in instruction, their students would be exposed to more examples of authentic language and culture.

With regard to assessment of cultural awareness, the researcher found that teachers also use a variety of assessment practices to gauge students' development of cultural awareness. Most teachers reported using class discussion, cultural projects, and role-playing as ways to evaluate students' development of cultural knowledge. However, the least common types of assessment practices found were essays, portfolios, and journals. This revealed that assessments

involving written expression are not as frequently used as oral assessments. The researcher feels that in order to promote an advanced level of proficiency in the target language, teachers may consider using a variety of tasks requiring both written and oral expression to assist students in developing proficiency.

The researcher found that teachers wish to include cultural topics that are of high interest to students and that engage them in learning about the target culture. Most teachers stated that food, music, holiday celebrations, and festivals are important cultural topics to include. Other important aspects of culture mentioned were literature, current events, the use of the formal form, *Ustedes*, and the informal *Tú* form, daily life of children their age, art, and dance. Many of the teachers also mentioned that the use of cultural information helps keep students interested in language study which may lead to longer exposure and ultimately increased proficiency in the language.

Conclusion

Research shows that there is a need to contextualize language and cultural learning in order to provide purposeful communication tasks for students so that a high level of proficiency can be attained through the K-12 program. There are many possible strategies that foreign language teachers can use to present culture to their students. It is the responsibility of the teachers to be familiar with the *Standards* and *Performance Guidelines* so that students have the opportunity through well-designed instruction to attain a high level of proficiency. Through purposeful design and contextualization of language for authentic communication purposes, foreign language teachers can meet the demand for global citizens who are multilingual and multicultural.

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The Teacher's Voice and Student Engagement

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One cannot make it through an acting program without learning about voice and movement. Teachers, however, who use their voices with even greater frequency than professional actors rarely engage in vocal training. They arrive at the classroom knowing little about proper vocal practice. This lack of understanding is not only a hindrance on teachers, but a detractor to students. If you think it's difficult to speak with a hoarse voice all day long, just imagine how difficult it is to listen to one! Student engagement is at risk when it comes to the teacher's vocal practice. A pleasant and rich vocal quality can actually act as an attractor to students.

REVIEW OF LITERATURE

Lang (2007) plainly stated, "You may resist the notion of teaching as a performance, but your classroom voice can help or harm student attentiveness" (p. C2). He touches on three out of the four vocal markers for teachers that I have defined for my study: Breath Support, Clarity, and Vocal Variety. Lang (2007) listed reasons for teachers' poor vocal habits, gives suggestions on how to improve one's speaking voice, and cites reasons why all teachers should seriously consider paying attention to vocal practice as well as student learning. He makes the importance of good voice work clear: "Complaints about disruptive students . . . are loud and vociferous these days, but it cannot be denied that such behavior frequently arises because we are boring our students . . . A better understanding of the performative aspects of teaching can lead to a more attentive and less unruly classroom" (p. C2).

Voice and movement techniques are performative principles that receive little attention in the field of education; however, they are just as vital to good teaching as content expertise. Many teachers fall into the bad habit of breathing shallowly and trailing off at the ends of sentences. As a result, a student in the back row can easily miss vital information. If this same

student receives a lower grade than his peers on the next class test, is the student to blame for his falling marks?

As Lang (2007) put it, “Strong skills in voice and movement can help illuminate our questions and ideas for students, drawing attention to what matters, holding their attention through a long class, and making deep impressions on their minds” (p. C2). Voice work is not a luxury – it is necessary. Lang (2007) asked teachers to “start small” and “place the emphasis in your voice on the nouns, verbs, and key concepts of a sentence. Build the sentence to an emphatic conclusion, rather than letting it trail away” (p. C2). It’s a simple, straightforward method to help teachers clarify their speaking voices.

Bele (2008) called for more vocal training for teachers, proclaiming that “the voice is a vital tool in imparting knowledge and teaching, and appropriate voice use is important in maintaining pupils’ attention and interest” (p. 44). She insisted that vocal training is necessary for teachers because of the loud classroom noises teachers must overcome. Bele (2008) touched on the four basic principles of voice use that I have defined for my study, explaining that “at the perceptual level the voice consists of three basic components: (1) pitch, (2) loudness and (3) timbre” (p. 43). She also gave suggestions for vocal training practice, saying it “starts by relaxing the breathing process and muscles” (p. 43). She went on to present a practical set of guidelines that all teachers can use to improve their vocal strength.

Karr and Beatty (1979) sought the answer to the following question: “What is the effect of verbal messages which are inconsistent with vocal cues on teacher credibility?” (p. 76). They defined “vocal cues” as “nonverbal behaviors of the communicator’s voice” (p. 76). In other words, they wanted to find out if a difference in the semantic meaning of the teacher’s words and the tone of the teacher’s voice made a difference in a student’s perception of the teacher. Their findings left some questions open, but they stated with firm conviction that vocal cues do affect student perception in some way. The question remained, though, whether the change in teacher credibility was due to the discrepancy between verbal meaning and vocal cues, or if tone simply worked independently of semantics. One way or another, the study proved that the quality of a teacher’s speaking voice does affect student engagement in some fashion.

The acoustical quality of a classroom isn’t exactly what I intend to study, but it does apply directly to my principle of Clarity. McKeon and Berry (2006) declared that “creating an acoustically balanced classroom is a critical part of a well-designed and successful education

facility” (p. 306). As a consequence of bad acoustics, teaching productivity decline: “Some studies have reported an average loss of two days per teacher per year for voice-related health issues” (p. 305). What’s more, “when classrooms have a better balance of lower background sound and good distribution of a teacher’s voice, test scores rise significantly” (p. 305). Such studies prove the importance of our thinking about teaching as a spoken performance.

Roy, Merrill, Thibeault, Parsa, Gray, and Smith (2004) investigated “the age-specific prevalence of voice disorders . . . [and] other demographic variables that may be associated with increased risk of voice disorders” (p. 282). After utilizing a standardized interview questionnaire, the researchers determined that teachers were more likely to report voice problems than non-teachers, that teachers experienced respiratory sickness more often, and that the “prevalence of voice disorders increased with age, peaked in the age group of 50-59 years, and then decreased” (p. 284-286). Unfortunately, they also found that women suffered from voice disorders more than men, regardless of profession. Relative to their male colleagues, women have higher pitched voices, smaller vocal folds, and less hyaluronic acid (HA), which is a chemical that assists in repairing damaged tissue.

METHODOLOGY

Public speaking is both an art and a science. The speaker must captivate her audience and clearly convey a specific message to a diverse group of listeners. Though teachers must use their voices on a daily basis, which can be taxing on the voice, a better way to speak in a sustainable and effortless manner is not so far off as one might think. Not only can teachers benefit from learning about vocal technique, but better vocal practice could make the difference between a somewhat bored, lightly engaged group of teenage students and a classroom full of enthusiastic participants.

When I observed four Master Teachers in the Forsyth County Public School System, I encountered a range of vocal abilities. The best public speakers were those who knew how to perform in front of a crowd. These teachers, whether they knew it or not, were masters of four fundamental principles of voice work: Breath Support, Clarity, Vocal Variety, and Character. The first of these principles is the anchor. Breath Support has to do with one’s ability to breathe from the diaphragm and support the voice with smooth airflow. The second of these four main concepts has to do with articulation, pronunciation, and projection. Students in the back row of

the classroom should be able to hear and understand the teacher as well as those students sitting in the front of the class. Variety, the third principle, is a tool that teachers can use to clarify and unify their sentences. For example, if a long statement has many clauses, it can be very useful to vary intonation, pitch, or volume in order to emphasize certain words and phrases. Complex ideas are clearer when teachers take advantage of Vocal Variety. And finally, Character refers to the voice's personality. How appealing is the teacher's voice? Do students enjoy the sound of it? And that mysterious quality of sound that we call timbre, that deep vibration that comes up from the diaphragm, comes into play, here. After 36 hours of observation, I assigned to each teacher a score of 1-3 (poor, good, or excellent) in each of the four categories of speech.

To measure student engagement, I used a scale of 1-3 once more. This time, I paid special attention to students' physical behaviors as well as their vocal tendencies. The first level of the three levels of engagement was the base. This level applied to those students who were not paying attention to the teacher at all. These students sat crookedly in their chairs, looked out of windows, talked to each other or made noise right in the middle of class to interrupt the teacher. Students at the second level of engagement tended to listen to the teacher, but these students were only willing to satisfy the bare minimum of what the teacher required them to do. Students at the third and highest level were the type that wanted to learn – the type we all wish to see in our own classrooms. These students voluntarily added to class discussions, asked pointed questions, and even taught one another when tougher questions arose.

During my observations, I wrote descriptive field notes by hand in order to record my data. I will analyze the data and attempt to discover a correlation, if one exists, between the teacher's voice and student engagement.

RESULTS AND CONCLUSIONS

<u>Teacher</u>	Breath Support	Clarity	Vocal Variety	Character	<u>Total Score</u>	Avg. Score	<i>Avg. Student Engagement</i>
A	3	3	3	3	12	3	3
B	3	3	2	1	9	2.25	2
C	1	2	1	2	6	1.5	2
D	1	2	1	1	5	1.25	1

Ratios of average student engagement to average vocal score:

A = 1.00

B = 0.89

C = 1.33

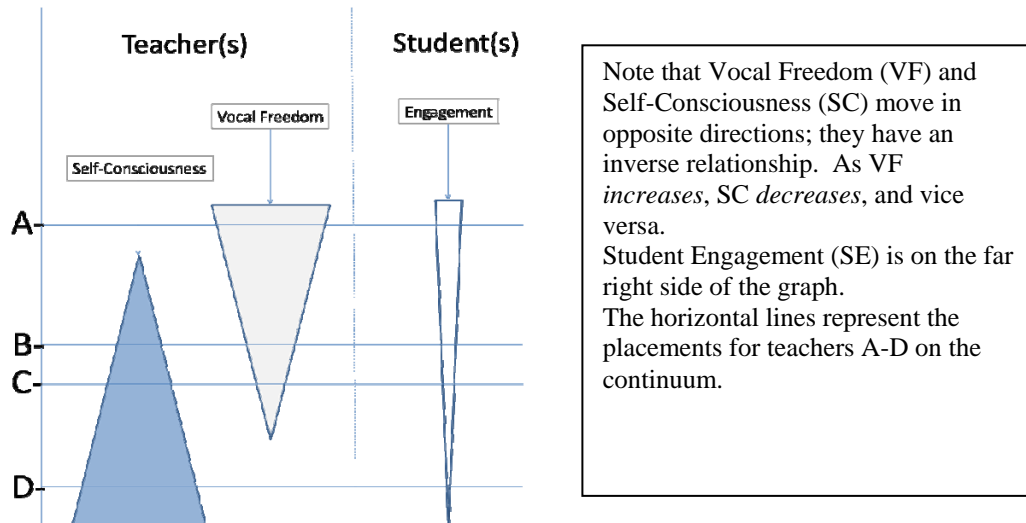
D = 0.80

➔ **Average of these = 1.01**

So, there appears to be a strong correlation between vocal practice and student engagement. Admittedly, the study was subjective. I was the only person reviewing and judging vocal practice, and I was the only one marking student engagement. However, given a nearly one to one average ration, it is not unreasonable to conclude that student engagement and a teacher's vocal practice are connected in some way.

The chief factor that separated good vocal practice from bad was self-consciousness. The teacher who displayed confidence held the room with little effort, but others who constantly worried that students would not listen to them defeated themselves. These self-doubting teachers breathed abnormally, lost track of their own sentences, and spoke with harsh, brassy voices. Engagement decreased as a result.

In the following graph, as a triangle becomes *wider*, the variable it represents become *larger*. The researcher placed teachers A through D on the continuum:



Note that in the graph above, Teacher A's horizontal line lies above the SC triangle, and that Teacher D's lies below the VF triangle. This pattern illustrates that it is possible to become so confident as to conquer performative self-consciousness, and that it is equally possible to lose

vocal freedom altogether. I feel compelled to emphasize the fact that even Teacher D could re-learn vocal freedom to some degree – though the teacher’s voice was permanently tarnished, improvement is still possible. The point is to discover one’s best possible speaking voice.

The most interesting phenomenon that emerged from the study was an occurrence that the researcher deemed “the emergence of the true voice.” When teacher C was in a situation that allowed for more vocal freedom (i.e. speaking to one student at a time at a very low volume), a completely different voice emerged. With this new vocal freedom, the teacher breathed more easily, spoke effortlessly, and displayed a deep timbre that had before been absent. Student engagement visibly increased at the sign of this improved vocal quality. This phenomenon shows that vocal practice must be connected to student engagement in some way; whether the two variables directly influence each other or there is a third variable that connects the two, vocal quality does affect student engagement.

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Words on World vs. Words on Words: The Effects of Making Material Relevant on Student Engagement

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“You need not fear you have no subject and try to manufacture one by making kids read about writing and write about reading. Words on words strengthens nothing but doubts, because they merely shadow what you're trying to teach, which is words on world” (Moffett, 1983, p.23).

“Buzz words” enter the educational realm frequently, and the more a word is used, the less true meaning it tends to carry. The concept of “relevancy” came into fashion in the early 20th century and then exploded in the 1970s. While this seems to be a tactic based in common sense, few studies have been done to demonstrate the effects of making lessons relevant, and very few sources explain how to achieve content relevancy successfully. This study will attempt to address if four master teachers try to relate the material they teach to the world outside their classroom, and if their efforts have any effect on student engagement.

In a five year comprehensive study involving nineteen struggling school districts across the country, researchers identified six different instructional characteristics which produce the most effective learning environments: one of the six variables is that “teachers make connections across instruction, curriculum, and life” (Langer, Close, Angelis, & Preller 2000). They found that linking real life examples (or using “words on world”) with the target content increased student involvement and interest in lessons. In Botts’ (1971) exploration of the need for relevancy in the classroom, he references the profound effects of teachers’ relating seemingly isolated classroom activities to skills used in the real world and the attitude changes those connections can produce. Martin (1970) states that helping students understand that the literature they study connects to themes in their lives today and the common struggles of humanity makes literature real to them. If students believe that the only thing one should do with great works of literature is pick them into pieces and analyze the syntax or figurative language, how can they connect that to their life when they leave school?

More than just relating isolated topics to students’ lives, other studies (Weedman 1988; Kirkland 1992) have shown that effective teachers use popular culture and popular literature in

the classroom to incorporate students' own experiences. Kirkland's (1992) study of high school seniors reported that teachers' relating the texts they studied to world events, music, and film made the unit "more meaningful" and "more memorable" than other topics and texts they had covered previously (Kirkland, 1992).

Moffett (1983) argues that English differs from other school subjects because it is a communication system and not a body of content such as biology or history. He poses that the language arts classroom should reflect on all subjects and should form more of an "intellectual homeroom" which incorporates the world students inhabit rather than focusing on vocabulary drills, literary criticism and grammar. James Brewbaker, a disciple of Moffett's work, expresses Moffett's sentiments in much of his work as well: "life first, everything else second. School comes divvied up into subjects. Life comes all mixed up in themes, topics, and worries" (2001, p.27). Brewbaker attempts to connect every topic he mentions to something outside the classroom and particularly focuses on the necessity of linking classroom skills to real-world knowledge to improve student retention of content. Both Moffett and Brewbaker avidly advocate for bringing the world into the classroom because if teachers do not make students see connections between their lives and the target curriculum, then students will not see the value in learning about language and literature.

All these studies reveal that teachers who engage their students with the world outside their classroom and attempt to make required material relevant to students' lives report that their students are more engaged. This student will attempt to discover if bringing relevant words into the classroom has any observable effect on student behavior. Specifically, this study will try to address whether four master teachers' use of "words on world" has any direct impact on student engagement in their respective classrooms.

Methodology

This was a fully observational, non-participatory, qualitative study. The subjects were four different master teachers' English classrooms in a Winston-Salem Forsyth County high school. The researcher observed each teacher's classroom for ten periods, forty hours total. The researcher observed every one of each teacher's classes at least once, seventeen total classes. The classes observed held over four hundred students and included all ages and ability levels.

The researcher operationally defined "words on world" as teachers using any words which relate the content studied to the world beyond the classroom. "Words on world" included

personal anecdotes, references to newspapers, magazines, movies, music, art, pop culture, or history, real-life stories, jokes, cultural information, or any other time a teacher brings in relevant words which are not specific to the particular text or lesson at hand. The researcher made a tally mark every time each teacher employed “words on world” in each class period he/she instructed. After observation the researcher entered in the total number of “words on world” each teacher used per class period into a spreadsheet and determined the average number of “words on world” mentions of each teacher. The researcher also created an evaluation form to record student engagement and recorded the engagement of five random students every five minutes. The researcher subsequently entered in the percentages of positively and negatively engaged students for each teacher into to determine the levels of engagement in each class.

Results and Conclusions

After observing each master teacher for over ten hours each and analyzing data, the researcher was not able to discern any direct correlation between “words on world” use and student engagement; however, several important trends became evident. Overall, “words on world” seemed to have an impact on student interest, if not definite engagement. Teacher A, who had the highest “words on world” rate, had the highest student engagement rate of all the teachers observed, as the researcher had predicted. However, Teacher B, who had the second highest rate of “words on world,” had the lowest student engagement rate, nullifying the researcher’s hypothesis. Teacher C, who had the second highest rate of student engagement, was ranked third in “words on world” uses and Teacher D, who had by far the least “words on world” per class, had the second lowest student engagement rate (See Figure I.).

Figure I. Words on World and Engagement

Instructor	Average “Words on World” per class period	Average percentage of students engaged
Teacher A	18.3	91.4%
Teacher B	15.6	65.1%
Teacher C	6.2	83.8%
Teacher D	1.8	67.2%
Average	10.5	76.9%

The researcher was most interested in the discrepancy between Teacher A’s and Teacher B’s rates of student engagement given their close proximity of “words on world” uses. Both Teacher A and Teacher B attempted to relate almost every concept they taught to the world outside the classroom, a behavior the researcher hypothesized would increase student interest

and thus student engagement. Both teachers had over fifteen “words on world” mentions per class period, and both had individual classes in which they utilized “words on world” over twenty times in one period. Thus, the researcher had to question what may have caused the 26.3% discrepancy between their student engagement levels when they differ in “words on world” mentions a mere 2.7 times per period.

Field notes revealed several distinguishing factors between Teacher A and Teacher B. First, Teacher A seemed to really understand her/his students and adjusted “words on world” to the interests of the students she/he was instructing at the time. Teacher B did not seem to understand her/his students well and thus Teacher B’s “words on world” often had no impact. Teacher A also had much better classroom management than Teacher B and spent far less time “housekeeping” and disciplining students. Teacher B frequently tried to relate lessons to students’ personal lives or school culture, whereas Teacher A stuck mainly to cultural examples in the media or U.S. culture. When Teacher B used “words on world” about the media or pop culture, often her/his examples were obscure or outdated and students had no way to relate to what she/he presented; thus, engagement dwindled.

Thus, the researcher came to several broad conclusions from observation. First, classroom management and understanding your students is tantamount to engagement regardless of attempts to make material relevant. Teacher C had one third of the “words on world” of Teacher A, yet her/his classroom management was superb and Teacher C additionally had a firm grasp on the class dynamics and the personalities of her/his students, resulting in a high student engagement rate. Second, encouraging students to make connections between literature and their lives is vital to improving student engagement. Teacher D squelched any attempts of her/his students to relate their text to the real world and her/his students tended to become increasingly offtask while Teacher D went through the minutiae of a text. Third, the types of references a teacher makes must be accessible to students in order for “words on world” to be effective. A teacher’s favorite song from the 1970s is relevant to that teacher, but it is difficult to make that song relevant or relatable to student lives in 2009 if they have never heard it and do not enjoy the style of music. Teachers must cater to the audiences of students they have. If a teacher knows and understands the students they teach, that teacher will be able to flawlessly relate lessons to students’ lives and improve student engagement in the process.

While the initial numbers seem to belie the effect of “words on world,” classroom context and close analysis present a broader picture. “Making content relevant,” that overused expression in the education field, is complex and full of contradictions when it comes to classroom practice. To know what kind of references students will respond positively toward, a teacher must know her/his students. If teachers make no effort to understand what is important to their students, making students understand how *The Epic of Gilgamesh* has any importance or relevance in their own lives will be extremely difficult. Teachers who make an effort to find out what is important to their students and who then utilize their students’ strengths and passions, like Teacher A and Teacher C, will be able to make strong, easily observable connections between their content and their students’ lives. Teachers who make no such effort, like Teacher D, or teachers who try to force what they think is important on their students, like Teacher B, will have greater difficulty achieving content relevancy, because they do not know what is important to their students.

More studies need to be conducted on the behaviors teachers use which enable content relevancy in the classroom. This researcher observed that having an in-depth knowledge of what is important to one’s class can impact one’s ability to utilize relevant examples and make literature important to student’s lives. However, extraneous factors such as classroom management, organization, and student’s learning level played a role in the success of “words on world” in any given class. The researcher also observed the excitement students exhibit whenever they can make a connection from classroom material to anything in real life, and the satisfaction those realizations provide instructors. Students’ ability to make those connections is vital to their own appraisal of the importance of education in their lives; thus, as teachers, we need to make those moments happen as often as possible. As educators, we hear the phrase “make it relevant” all the time, but each individual educator needs to reflect on what that means to their own pedagogy and philosophy.

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Oral Language Development in the K-12 French Classroom

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As the world becomes increasingly globalized, cultures are becoming ever more interconnected. Thus, the ability to use foreign languages in real-world communication has become progressively more crucial to success and productivity in the 21st century (The Partnership for 21st Century Skills, 2004). In 1996, the foreign language profession released the *Standards for Foreign Language Learning: Preparing for the 21st Century*—content standards that represent national expectations for students' foreign language study. The Standards promote quality foreign language instruction in the nation's schools, beginning early and continuing in long sequences, thus striving for a future where all students can be proficient in at least one language other than their native language (ACTFL, 1996).

REVIEW OF LITERATURE

The *Standards for Foreign Language Learning: Preparing for the 21st Century* aim to improve foreign language instruction in schools across the United States by specifying what students should know and be able to do in a foreign language (ACTFL, 1996). The Standards focus on five goals: Communication, Cultures, Connections, Comparisons and Communities. Also known as the Five C's, these principles specify that students in grades K-12 should be able to communicate in languages other than English, demonstrate understanding of other cultures, connect foreign language study with other disciplines, compare the language studied with their own language to develop insight into the nature of language and culture, and use the language studied both within and beyond the school setting (ACTFL, 1996). To complement the Standards, the American Council on the Teaching of Foreign Languages (ACTFL) published the *ACTFL Performance Guidelines for K-12 Learners* in 1998. The Guidelines have helped bring foreign language educators in grades K-12 into a proficiency-oriented and performance-based era of instruction where students gain ability to communicate in real-world contexts and teachers focus on what students are able to *do* in the foreign language. The Guidelines provide a

measurement gauge for students' proficiency development in a standards-based program according to three benchmark levels: novice learner, intermediate learner, and pre-advanced learner (ACTFL, 1998). Each proficiency level includes six categories of performance indicators: comprehensibility, comprehension, language control, vocabulary use, communication strategies, and cultural awareness. Within these categories, performance standards are organized according to three communication modes (interpersonal, interpretive, and presentational) which refer to language usage: students should be able to engage in conversation, understand written and spoken languages, and present information to an audience of listeners or readers (ACTFL, 1998). Together, the Guidelines and the Standards have helped shift the foreign language field from a focus on adult language learners to beginning language study early and continuing in an uninterrupted, articulated sequence of study in order to attain the proficiency level needed to be able to function well in another language.

Research in the field of psycholinguistics has revealed much about how one learns a second or foreign language. In the *Input Hypothesis*, Krashen (1982) states that in order to move from stage i (the current linguistic competency of the learner) to stage $i + 1$ (the next state of linguistic competency), the learner needs to *understand* input that contains $i + 1$. In other words, learners acquire the next level of proficiency by understanding language that is somewhat beyond their current comprehension. This theory provides powerful reasoning for the exclusive use of the target language in the classroom. However, teachers must make the language comprehensible for learners, employing strategies such as speaking at a somewhat slower rate, using less complex sentences, repeating and rephrasing language examples, and using gestures and visual reinforcement (Curtain & Dahlberg, 2004). Exposure to the target language during the beginning stages of language learning forms the linguistic foundation of students' proficiency development (Grove, 1999).

The proficiency movement underscores the significance of meaningful language contexts. Foreign language teachers should focus on contextualizing the subject matter—i.e., providing meaningful settings in which students are legitimately exchanging information (Curtain & Dahlberg, 2004; Glisan, 1988; Grove, 1999; Shrum & Glisan, 2005). Additionally, proficiency-oriented instruction should provide maximum opportunities for students to express themselves (Glisan, 1988).

A method for integrating the concept of contextualization in the classroom is the utilization of task-based instruction (Lee, 1995). In this type of language experience, students interact with one another, using the target language as a means to an end (Lee, 1995). Foreign language teachers can put task-based instruction into effect by designing cooperative learning activities for students. In these activities, students form small groups and work together using the target language to complete a given task (Shrum & Glisan, 2005). An Information-Gap Activity (IGA) is another example of performance-based learning and is based on the notion that the primary purpose of human communication is to obtain unknown information from others (Walz, 1996). In an IGA, pairs or groups of students use the target language in order to overcome gaps in their knowledge (Walz, 1996). Other strategies for contextualizing the target language in the foreign language classroom include the use of authentic materials (Shrum & Glisan, 2005; Glisan, 1988), dialogues, and role plays (Curtain & Dahlberg, 2004; Hadley, 2001).

Assessment is a critical component of the proficiency-oriented curriculum. Assessment practices should be performance-based and contextualized, supporting strategies used in instruction, in order to comprehensibly measure students' knowledge and examine what they are capable of doing in the real-world (Curtain & Dahlberg, 2004). Assessment should touch upon the three modes of communication and six domains of oral proficiency and provide students with multiple opportunities to produce language for many communicative tasks. Thus, teachers should use multiple measures in order to assess multiple perspectives of student language products and performances (Shrum & Glisan, 2005). Assessment practices should align with the manner in which the material was originally taught (Glisan & Foltz, 1998).

This review of literature has examined strategies foreign language teachers can use to develop and assess students' oral language development. Given the variety of options that foreign language teachers have available to them, the purpose of this study was to examine instructional and assessment strategies that are currently being employed by French teachers to promote oral language development in grades 3 through 12.

METHODOLOGY

The study involved 14 elementary, middle, and high school French teachers in a public school district located in central North Carolina. Data were collected between October and December, 2009. Participants were selected based on their master teacher status, on recommendation by the researcher's advisor, and/or on their willingness to participate. Once

informed consent and permission were received, the researcher conducted a two-tiered study. First, the researcher interviewed the subjects using a self-created interview instrument, focusing on instructional and assessment strategies relevant to oral proficiency development. Second, six teachers (two elementary school, two middle school, and two high school) were selected for classroom observation. Upon granted permission, the researcher observed one class session per teacher in order to see instructional methods and assessment strategies in action. Responses to interview questions and observation notes were analyzed in order to determine the major types of activities and assessment strategies used by the teachers in their classrooms.

RESULTS

The information collected during the interviews and observations was analyzed in terms of how teachers develop and assess students' oral proficiency. It is important to note the limited sample of this study and the fact that each teacher was only observed for one class period. Therefore, the researcher cannot claim to make broad generalizations about the status of oral proficiency development and assessment.

The term *proficiency* is defined as a student's ability to communicate in real-world contexts. While all teachers responded that oral proficiency means the ability to communicate, only two specified that this should be able to occur in real-world contexts. However, the data revealed that the majority of teachers incorporate real-world contexts into their instruction. For example, the majority of teachers reported incorporating a variety of authentic sources. Thus, while many did not explicitly refer to real-world contexts when defining proficiency, the majority of the teachers' instructional practices reveal that they recognize the importance of real-world contexts and use them in order to develop students' proficiency in the target language. However, none of the teachers stated that cultural awareness was important in terms of developing students' oral proficiency. This suggests that although teachers recognize the importance of culture and incorporate it into instruction, they may not do so with formal attention to connecting language and culture for the purpose of benefitting students' oral language development.

The teachers' responses indicated that the *ACTFL Performance Guidelines for K-12 Learners* have varying degrees of importance in their lesson planning. Self-reported use of the guidelines ranged from regular consultation to "keeping them in mind" to not using them at all. However, all teachers were familiar with the three modes of communication and the six

categories of performance indicators, and the data revealed that they all incorporate the three modes into their instructional practices. This suggests that while some teachers may not regularly refer to the *ACTFL Performance Guidelines for K-12 Learners*, the guidelines still play a prominent role in instructional practices.

In regards to assessment, the data indicates that teachers are using a variety of both formal and informal strategies in order to assess students' progress in speaking French. Additionally, these assessment practices are addressing all three modes of communication. For example, the use of personal question-answer assesses students' interpersonal ability, skits assess presentational ability, and narrative completions assess interpretive ability. Teachers' self-reported frequent use of personal question-answer, dialogue, role play, and oral interviews indicate that assessment practices simulate genuine conversational interaction, and, consistent with the literature, seek to measure students' overall ability to communicate rather than their grammatical accuracy alone. The majority of teachers expressed their beliefs in the importance of oral language development and the data show that they are using a variety of strategies that the research has found to be effective in order to assess students' oral proficiency.

CONCLUSION

As the world becomes increasingly globalized, the ability to use foreign language in real-world communication has become ever more crucial to success and productivity. For those seeking to learn a foreign language, oral language proficiency, or speaking ability, is a crucial component of the process. In order for learners to attain oral language proficiency, the literature stresses the need in foreign language classrooms for contextualization of the target language in meaningful language experiences, the provision of comprehensible input, the incorporation of the three modes of communication, the use of strategies to decrease anxiety, and assessment practices that align with instruction in a long sequence of study in grades K-12. This study shows that foreign language teachers are aware of these important components of instruction and work to incorporate them into their foreign language programs. While constraints such as time, limited resources, and the lack of a fully articulated program sometimes impede their endeavors, foreign language teachers are making great efforts to help students achieve proficiency.

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Taking a Stand: Investigating Teachers' Roles in Fostering Student Opinion on Historical and Political Issues in the Secondary Social Studies Classroom

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Social studies teachers must strive to create active and knowledgeable citizens in their students, one component of which is the ability to process and analyze information to form opinions. Student opinion holds a valuable place in the classroom: soliciting opinions can force students to think critically about the content they are studying; having students share opinions can spark classroom discussion; solidifying their opinions can help students strengthen their decision making skills. Acquiring those skills will be important in students' future as active citizens. Research suggests that it is important for students to strengthening their decision making skills through formation of opinions in the classroom, so teachers need to be aware of ways to implement those skills in their methodology. Information on teacher encouragement of student opinion is lacking. This study will investigate how teachers foster student opinion on historical and political issues in the classroom.

Literature Review

Civic education is a primary goal of social studies education (Hill, 1978; Remy, 1977). An effective citizen can be defined as "one who has the knowledge, skills, and attitudes required to assume the 'office of citizen' in our democratic republic" (National Council for the Social Studies, 2001, p.1). Development of decision making skills is crucial to students' comprehensive civic education. Dynneson (1992) defined decision making as "the ability to analyze the factors associated with choices in order to encourage the outcomes most appropriate for the individual and the community" (p. 56). Decision skills can benefit critical thinking skills. Allen (2000) summarized the importance of decision making in social studies education: "If social studies is to be more than the mere repetition of facts and the mastery of meager information-processing skills, it demands students and teachers capable of advocating positions [and] making choices" (p. 5). In making a decision, students are inherently expressing an opinion. Forming opinions on historical and political issues in the classroom is essential to social studies success. Sperry (2006)

believes that teachers have a responsibility to assist students in forming and supporting their own opinions. For students, maturing their opinions can benefit their recognition of others' opinions in the sources they study in class. As students learn history, it is imperative that they realize that "point of view has everything to do with how an individual views the world" (Selwyn & Maher, 2003, p. 2). Developing opinions is beneficial to students in part because it enhances their critical analysis of classroom sources.

One hindrance to encouraging student opinion in the classroom is the potential for conflict between students over controversial issues (Clarke & Zelinski, 1992; Wilson, Haas, Laughlin, & Sunal 1999). Teachers tend to avoid discussing controversial issues that students or their parents might hold strong views on in the classroom. However, research shows that students benefit from peers challenging their opinion (Kelly, 1989; Wilson et. al., 1999). If treated properly, controversial issues can contribute to formation of student opinion. When students form opinions on issues, they become emotionally invested in the content. However, Clarke and Zelinski (1992) caution teachers that "emotional discussions may do more to reinforce and confuse, rather than clarify or change, existing beliefs" (p. 11). If students are expressing their opinion based on emotions rather than facts, it will not be as beneficial to their academic success. Teachers have a responsibility within the classroom to limit the expression of overemotional student opinion, and keep their students' opinions grounded in rationale and facts.

Within the classroom, the teacher is the curator of content and activities. This study will focus on how teachers foster student opinion on historical and political issues in the classroom. The researcher will explore the methods and topics that teachers find most effective in soliciting student opinion. Special attention will be give to debate in the classroom, particularly how teachers structure debate and handle controversial topics. Finally, the study will examine the effect of the North Carolina Standard Course of Study on the amount of student opinion teachers allow or encourage. It is hoped that the study will benefit classroom teachers who are seeking to incorporate student opinion in their classrooms.

Methodology

The participants for this study were nine secondary social studies teachers. The teachers were recruited by the investigator through and email targeting social studies teachers at all high schools in a small city in the southeast. At the end of the recruitment period, nine teachers were selected for participation: Mr. Clinton; Mr. Carpenter; Ms. Furr; Ms. Kline; Mr. Marley; Mr.

McAdams; Mr. Oswald; Mr. Parks; Ms. Wilder. Please note that the titles given to teachers for the purposes of this study are pseudonyms. Data collection included a combination of interview and observation. An interview protocol was created prior to the interview process so that each participant would have the opportunity to answer the same questions. The second task of the study was classroom observations of the participants who were interviewed. The purpose of the observations was to examine the teachers' practices view the practices discussed in their interviews in action. Also, the researcher noted any other instances of student opinion that occurred during the lesson. In some cases, the researcher collected a copy of the assignment handed out to students during the observation if it pertained to student opinion in the classroom.

Results

The results of the interviews and observations offer insight into how teachers foster student opinion in the classroom. The teachers participating in the study overwhelmingly agreed on the importance of soliciting student opinion on issued discussed in the classroom. The most prevalent reason, cited by six teachers, for encouraging student opinion is to make the content relevant for the student, so they can engage and connect. Mr. Marley stated that the goal is not for student to be "idle spectators," but to "process what they see," which is demonstrated when they express opinions. Mr. Oswald highlighted the peer learning aspect of sharing opinions, and stated, "When the kids talk, a lot of learning is going on." The participants were asked if there were any topics in their curriculum that they found particularly well suited for students to form an opinion about. Those teaching Civics and Economics mentioned politics as the most debated topic, followed by current events. US History teachers reported a wide range of topics, but all agreed that the more modern events studied in the second half of the courses were easier to relate to students.

A variety of methods were mentioned when participants were asked how they solicited student opinion in the classroom. Three teachers described a structured class activity or assignment in which student opinion is utilized: through a weekly participation grade; a daily journal assignment; a project prompt. Essays were also a popular method for students to express their opinions. Mr. Oswald and Mr. Marley use position essays as an assessment. For example, Mr. Oswald asked students on a test, "Should Sherman have used the strategy of total warfare?" Mr. McAdams, an AP US History instructor, pointed out that all AP essay questions involve opinion and analysis, and are designed so that "students can answer in more than one way."

Teachers who did not report using structured activities to encourage student opinion mentioned other ways they incorporate it into their lessons. Three participations said they use current events as a way to foster student opinion. Some teachers rely on their own statements to elicit a reaction from the students. For example, Mr. Marley, who admits to falling on the left of the political ideological spectrum, said that sometimes in lecture he “says bizarre things” or states his opinion to the extreme to get a response. According to their responses, the participating teachers solicit student opinion at varying points in their lessons. The majority use it as an introductory activity at the beginning of class, as a way to grab their students’ attention, or as Ms. Kline put it “to get them emotionally involved in the lesson.” Ms. Wilder, Ms. Furr, and Mr. Marley encourage student opinion at any point in their lesson.

The participants were questioned about the role of student debate, structured or unstructured, in their classroom. Ms. Wilder and Mr. Carpenter distinguished here between their Honors and Standards classes. They use debate with their more advanced students, but not in Standard courses. Before a debate, teachers have the option to assign roles for a more structured debate or allow students to choose the side they want to argue. Three teachers reported they always assigned roles, two teachers stated they always allow students to pick their own, and two teachers mentioned using both methods. All of the teachers had encountered situations where a student’s opinion had offended someone else in the class. As Mr. Oswald stated, some students “shoot themselves in the foot by degrading the other side” in a debate setting. Responses to inappropriate reactions to student opinion varied among the participants, but a recurring theme was that most offensive situations could be avoided with carefully laid ground rules. All of the participants stressed the importance of immediately redirecting the conversation away from the controversial statement, and getting the students back on topic. The unpredictability of student opinion can lead to unwelcome situations in the classroom.

Debate between students is one way for them to express their opinions, but teachers can also challenge students to defend their positions, assuming the role of ‘devil’s advocate.’ In this study, four teachers reported using this tactic, two teachers said they do not play devil’s advocate at all in their classroom, and three used it in some capacity. Ms. Wilder likes to challenge students to “wake them up,” but cautions that her students will take it personally, so she prefaces with “there are two sides to every argument.” Mr. McAdams challenges correct answers, to encourage students to have confidence in their knowledge and opinions.

The participants were asked to what degree the North Carolina Standard Course of Study (NCSCOS), the End-of-Course (EOC) tests, and, where applicable, the AP Exams affected the amount of student opinion expressed in their classrooms. Six teachers thought that the rigid curriculum guidelines and standardized tests limited the amount of student opinion they solicited in the classroom. Mr. Clinton said that he is usually “scrambling to get stuff done,” all year long, so he has to limit the student centered discussion. However, Ms. Kline feels that discussion and current events that allow students to develop opinions can be integrated into all aspects of the state mandated curriculum. Ultimately, while standardized curriculums and tests may limit the amount of student opinion some teachers solicit, they did not diminish the importance the participants placed on student opinion.

Implications

Several findings from this study merit further discussion. The results showed that teachers had varying reasons for soliciting student opinion in the classroom, some aligning with previous research while others diverged. Mr. Marley used Allen’s (2000) justification of elevating social studies to something more than a collection of facts. The most frequently cited aim was to make the content relevant to students. Instead of heeding Clarke and Zelinski’s (1992) advice to avoid allowing students to become emotionally involved in the content, many of the teachers interviewed used an emotional connection to their benefit. No teacher mentioned citizenship education, nor creating the “effective citizens” that the National Council for the Social Studies (2001) aims to produce.

Most of the teachers interviewed incorporated student debate into their classroom as a way to allow students to share their opinions. This study showed that teachers are actively working in the classroom to present their students with multiple perspectives, as Sperry (2006) encourages. An interesting distinction was made by several teachers between their Honors and Standards students. For instance, Ms. Wilder and Mr. Carpenter admitted to not incorporating debate into their Standards classes, because they believed the students could not handle a debate setting. Patrick and Remy (1977) noted that decision making skills should be learned by “All kind of learners...gifted and slow” (p. 27). Limiting debate opportunities to Honors students could be detrimental to Standards classes. All participants had encountered controversial issues in classroom debates, and this research concludes that their responses support the current scholarship. There was little evidence that the participants avoided controversial issues in their

classrooms, as Wilson et. al. (1999) suggests. Teachers in this study presented their students with controversial topics ranging from gay marriage to juvenile sentencing. Incorporating current event was a popular method cited by the participants for soliciting student opinion, especially among the Civics and Economics teachers. Current scholarship details the role of No Child Left Behind and standardized testing in restricting the amount of student-centered activities in the classroom (Sperry, 2006). The participants in this study generally agreed that the amount of student opinion solicited was limited by curriculum and testing guidelines. Of the nine participants, only three reported that the Standard Course of Study and End of Course tests had no effect on their encouragement of student opinion.

While containing valuable results, this study does include limitations. The convenience sampling of teachers, while varied in subject, did not allow for much variance in location. Also, the lack of uniformity among the teaching situations of the participants poses a limitation to the results of this study.

This study emphasized the value of student opinion as a tool for learning and critical thinking within secondary social studies. It demonstrated multiple methods of soliciting student opinion and a variety of ways to implement student debate, to allow students to develop in their opinions through contact with their peers. Encouraging students to form opinions on topics studied in the social studies classroom can result in active and engaged learners.

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Reading Aloud Allowed: The Effects of Oral Reading on Student Engagement

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In the busy hustle and bustle of today's English classroom teachers are in a race to keep up with the changing standards, evolving curriculum, and constant improvements in technology. As I considered the evolution of the English classroom it occurred to me that reading aloud was at the beginning of instruction; even before the printed word people relied on oral traditions for both entertainment as well as education. This study was created as an attempt to uncover the place of reading aloud in the modern classroom, and by doing so to test its effects on the engagement of the technologically savvy modern student. The specific question that this study attempts to answer is, "Does reading aloud influence student engagement positively?"

Review of Related Literature

Reading aloud, for the purpose of entertainment is not a new concept, nor is reading aloud for the purpose of education. Countless studies have been devoted to uncovering the positive effects reading aloud has on vocabulary, articulation, comprehension and even entertainment, but as of recently very few studies exist that investigate the effects of reading aloud on student engagement in the secondary classroom.

In an effort to boost the literacy rates of United States' students the National Commission on Reading published *Becoming A Nation of Readers* in 1995 in which they stated, "The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children"(p. 23). In a study on education gap factors Betty Hart and Todd R. Risley (1995), child psychologists at the University of Kansas uncovered the truths behind

language acquisition and an environment in which children are spoken to frequently and read to at an early age. The experts agree that reading aloud to students increases vocabulary, boosts standardized test scores and fosters growth in language acquisition, but it researchers have made an even stronger argument for its place in the classroom.

Teachers have two major concerns when reading aloud in the classroom: comprehension and engagement, not solely entertainment. Researcher Marguerite Green (1998) explains, “Reading aloud becomes a worthwhile activity in the intermediate and upper grades when it provides an alternative method for assessing comprehension of silent reading at various levels” (p. 306). Joseph Sanacore (1992) explains that students benefit from different types of text as well as from different readers (e.g. teachers, peers, professionals) but that the most important aspect of reading aloud is to have students actively engaged in the process (p.1). Reading aloud goes hand-in-hand with engagement because of its direct positive effects on the student, “arouses the imagination, nurtures emotional development, stretches the attention span, and establishes the reading-writing connection” (p.3). These positive effects, explains Jim Trelease (1989), will also help to establish a foundation built on developing future literacy.

Many strategies on how to best engage students during read-aloud activities have been published with extensive instructions, recommendations, and successful hints. Engagement and motivation are inseparable in read-aloud outcomes. Teachers desire to motivate students to read; students are motivated when they are engaged; reading aloud engages students. Teacher and researcher Catherine Ann Ecroyd (1991) relates her experience of motivating students to enjoy reading by modeling her own enjoyment. By reading aloud she leads, motivates, stimulates and creates an atmosphere where students, struggling to honors, move from engaged to motivated (p.77). In a study conducted on the effects of reading non-fiction aloud researchers Carter and

Abrahamson (1991) also found that reading aloud is often most beneficial for students considered ELL and students who do not enjoy reading (p. 638).

In summary the research available on reading aloud in general is plentiful and positive, however the current state of reading aloud in the modern classroom is scarce. This research stands on the understanding that reading aloud in the classroom has been called “vital” because it is proven effective on increasing student engagement and motivation when modeled correctly. Prior research gives educators the go-ahead as well as many effective strategies, but most of this research is close to twenty years old. With the amount of changes in education caused by the introduction of technology like the computer and stricter expectations from policy changes, very little information is available on the state of reading aloud in the high-school classroom. This study attempts supply the need for information by uncovering what is happening with the timeless art of reading aloud in today’s typical high school, specifically looking into its effectiveness in promoting student engagement.

Methodology-Participants & Measures

The data collected in this study consists of detailed field notes collected during forty observational hours conducted in a secondary school in Winston-Salem, North Carolina in the Forsyth County School System. The consenting teachers selected for observation have past experience working with the Master Teacher Fellows Program at Wake Forest University. The four teachers were observed nine times for the duration of one class period lasting forty-eight minutes. Each teacher employed a distinctively unique teaching style and together they taught a variety of classes ranging from ninth grade English I inclusion classes to eleventh grade Advanced Placement classes. The number of students in each classroom averaged from ten to thirty-five, approximately 300 students total. The study was strictly observational, non-

participatory, and primarily qualitative; the teachers will be referred to as Teachers A, B, C, and D, and there will be no identification of individual students.

Throughout the observations I developed a note-taking system that track the verbal activity of the teachers and students as they read aloud or are read to and follow the level of engagement of the students, individually but primarily as a whole classroom, through four different engagement categories. The student engagement categories consist of student postures, distraction levels, enthusiasm to follow along, and willingness to volunteer pertinent information or contribute to the reading. This quantitative information in compilation with the descriptive notes generates the qualitative backbone of this project. From this information results are analyzed and conclusions drawn on the place of reading aloud in the modern classroom as well as the benefits of this practice on student engagement.

Results & Conclusions

The results drawn from this research experiment center on locating the place of oral reading and its effects on student engagement in the particular observed secondary school, but they are easily transferrable as an accurate data sample which could compiled with other data representing a much larger population. The first result discovered through the analysis of compiled data was that the teachers allotted only a small percentage of their class time to reading aloud. The average percentage of class time these teachers spent on read-aloud activities was fifteen percent, but ranged individually from three percent to twenty-three percent (Figure 1).

The second result discovered through the data collection analysis was that Teacher B, who had the lowest amount of reading aloud occurring in the classroom had lowest average levels of posture, the highest amount of low-level enthusiasm, and the highest amount of distaction among the students observed. Teacher A, who had the average amount of reading

aloud time, fifteen percent, had the highest levels of enthusiasm and the lowest levels of distraction. Teachers C and D, who conducted read alouds on a regular basis were able to maintain high levels of enthusiasm even though their class were considered moderately distracted. Teacher C also had the greatest amount of students who were involved in the read-aloud activity. A direct measure of engagement was not tested through one specific chart, but should be derived through the three graphs on posture, distraction and enthusiasm.

Figure 1

I.	II. Teacher	III. Teacher	IV. Teacher	V. Teacher
	A	B	C	D
VI. Reading Aloud	VII. 15 %	VIII. 3 %	IX. 23 %	X. 19 %

Analysis and Future Implications

Overall student condition plays a large factor in student engagement regardless of the activity being conducted; however, the results of this study identify a significant correlation between positive student engagement and reading aloud in the secondary classroom. It is in the opinion of this researcher that a balanced amount of reading aloud activities should be incorporated into the secondary classroom as a way to foster student engagement. Previous research has proven that reading aloud has incredible effects on comprehension and vocabulary, and this research adds student engagement to its list of benefits. Future studies could provide more information on the differences in reading aloud at a specific grade level, or as a larger population. A strong oral foundation is central to the development of a strong English Language Arts curriculum. Students benefit from practicing their own reading aloud skills as well as from

having good reading aloud modeled for them by a teacher or a recorded professional. None of the students observed during this project objected to time spent on oral reading, and in most cases, reading aloud transformed a jumpy distracted class into a group of students who were focused and extremely willing to volunteer. Reading aloud should not be reserved for young students; its engaging abilities are also very effective on the secondary student, and even the visiting observing graduate student.

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Teacher Strategies that Promote Study of the French Language in Grades K-12

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According to a 2005 article published in *Newsweek*, “The Future Does Not Speak French” (Zakaria, 2005). The focus of the article is not on the decline of French, but rather the increased interest in learning Chinese, as China’s economy continues to grow and require the attention of American businesses. However, the article’s title hints at some of the new challenges facing French programs in grades K-12. As schools and school districts are beginning to offer more non-traditional language programs such as Chinese, Arabic, and Farsi in response to economic and national security needs, what will become of French programs? As the political climate changes, the importance of the French language seems to be in danger of being overlooked. Yet, these needs are separate from those of businesses and international organizations that still require French speakers. In order to sustain enrollment at all levels in K-12, French programs must appeal to the interests of students, provide encouragement for continued study, and emphasize the usefulness of French not only in the United States but globally (AATF, n.d.).

REVIEW OF LITERATURE

At the beginning of the 21st Century, largely due to the September 11, 2001 terrorist attacks against the United States, national security needs obligated more proficient speakers of foreign languages. As a means to this desired end, in 2006, the National Security Language Initiative allotted \$114 million for language study programs. Today, Arabic is a popular offering that came about in response to the country’s security needs (USA Today, 2006). Therefore, in response to international economic competition, promotion of non-traditional language offerings such as Chinese has gained momentum (Curtain & Dahlberg, 2004; Zakaria, 2005). As a result of these recently emphasized needs for citizens who are proficient in foreign languages and changes in educational requirements in grades K-12, in the past decade overall enrollment in

foreign languages has been on the rise, and the numbers of languages offered by schools has increased; however, enrollment in French programs is decreasing (Pufahl & Rhodes, 2008).

One reason for declining French enrollment is the lack of perceived need for French within communities. Indeed, the decline of French has often been explained in the context of the growing number of Spanish programs (Brown, 1994; Condon, 1997; Jedan, 1998). The increasingly large population of Hispanics in the United States has rendered Spanish an important language of communication for the United States, and the increase of Spanish programs in grades K-12 reflects this need (Santiestevan, 2005). French programs must also compete with the non-traditional languages that are now being offered, such as the Arabic, Farsi, and Chinese programs, affecting enrollment at all levels (Zakaria, 2005).

Yet, more recent demands for these foreign languages do not negate the fact that French is an important language on the international level as well as domestically. French is the only language other than English to be spoken on five continents. The International Organization of Francophonie has 51 active state and government members, and 28 countries list French as their official language (Shryock, 2009). It is also the second most frequently used language of the Internet. With over 200 million French speakers in the world, the United States needs citizens who are proficient in French in order to engage in successful communication and trade in the global market (The French Language Initiative, 2009). There is a consistent need for French speakers in businesses and international organizations. Over half of the new jobs created annually in the United States are the result of foreign trade (Curtain & Dahlberg, 2004). Learning French may also benefit students in other academic areas. With the Norman invasion of England in 1066, over 10,000 French words were added to the English language. Today, between 40-50% of English vocabulary is of French origin, which is why the study of French has been shown to increase verbal scores on Standardized Achievement Test (SAT) scores (AATF, n.d.).

Despite the evident need for French speakers, the number of French courses offered in grades K-12 in the United States has declined over the last couple of decades. According to the 2008 study on the status of foreign languages in the United States conducted by the Center for Applied Linguistics, French programs in elementary schools suffered the largest percentage of decline of any individual language in the last decade, dropping from 27% to a mere 11%. The survey included Foreign Language in the Elementary School (FLES), Foreign Language Exploratory (FLEX), and immersion programs in its results. At the middle school level, the

percentage of schools offering foreign language programs dropped from 75% to 58%. High school numbers have remained at a solid 91%. Even at this level, however, French programs declined with an increased number of Spanish classes offered (Pufahl & Rhodes, 2008).

In the face of decreasing enrollment in K-12 French classrooms, the need for French speakers globally and domestically nonetheless remains strong, and necessitates the promotion of French programs in United States schools. French promotion can occur within the classroom, within a school district, within a community and beyond. Given the declining number of French programs across the country, the purpose of this study was to investigate strategies used by French teachers in grades K-12 to promote the study of French and to promote students' continued study beyond high school.

METHODOLOGY

This two-part study took place from September to December, 2009. The subjects were nine teachers of French from two elementary, four middle, and three high schools in a central North Carolina school district who taught a range of levels. The teachers were chosen for the study based on the recommendation of the researcher's advisor and their ability to participate in the study. The purpose was to have a wide variety of teachers of French in terms of the levels taught. The subjects were provided with informed consent documents prior to participation in the study.

Once permission and informed consent were obtained, the researcher first conducted interviews of all participants using a self-designed instrument. Structured items were used to determine which activities or instructional strategies are most often used by the teachers in order to promote study of the French language both within and outside the classroom setting. Open-ended questions allowed participants to expound upon ideas related to the implementation of such activities or strategies. If permission was granted, the interview was audio-taped. After administering the interview, the participants could volunteer to be observed for one class period. Among those who gave consent, five teachers were randomly selected to be observed for a single class period. The researcher took field notes throughout the observation periods.

RESULTS AND CONCLUSIONS

All teachers agreed that there were some challenges facing the French program, even if they believed the program is in good standing. Without being prompted by lists of responses, the

majority of the teachers stated that the decline in the French program is tied to the growth of the Spanish program. They drew evidence from conversations with parents and administrators to support this claim. While these important figures see the benefits of expanding the Spanish program, the teachers do not believe the benefits of French are clearly known. Based on these responses, the researcher believes that there is an evident need for promotion to occur outside of the classroom so that decision-makers are aware of the need for French in the schools.

A second challenge cited by all of the teachers interviewed was a lack of perceived regional need for French. Some of the teachers affirmed that there is, in fact, a regional need for French, yet only a couple of teachers reported any collaboration with the community, either through trips to cafés or having guest speakers from the business community. The researcher therefore believes that increased collaboration could improve overall understanding of the regional needs for French.

All of the teachers interviewed reported that they have actively responded to the need for promotion outside of the classroom at some point. However, while classroom promotional activities were common, promotion occurring outside of the classroom was much less frequent. Yet, the researcher noted that teachers often defined their promotion outside of the classroom in terms of extension of classroom promotion. For example, National French Week activities were among the most popular activities held to promote French, and the majority of these activities were visible within the school, such as sharing a French word-of-the-day in the morning announcements, or displaying student-made flyers about French language and culture. The researcher especially noted the number of French posters in the hallways of the elementary school where she observed. Given the number of parent volunteers filling the halls on a daily basis, such activities reach both internally, within the classroom, and externally to parents and other educators to promote the language. The researcher therefore believes that the distinction between the two settings for promotion is perhaps less concrete than expected.

The greatest diversity of responses came from the questions regarding how students are informed of their foreign language options. While some teachers believed the district was actively distributing information, others did not know of this occurring. However, most of the teachers sponsored some type of promotional activity during the course pre-registration period. This implies that teachers may act independently of schools or districts in spreading information about enrolling for French classes. It is impossible to know from this study which approach

reaches most students- however, combined efforts could increase the likelihood of a student exploring his or her options in French.

In terms of classroom promotion, the majority of teachers believed classroom atmosphere to be the most important factor in encouraging students to continue their study of French. Experiences with food were shown to be an integral part of promotional activities both within and outside the classroom. The foods used were also often tied to a particular Francophone culture. Since the majority of teachers believed international travel to be a top reason for learning French, the researcher concludes that teachers may use food items both to capture student interest and as a means to promote travel benefits of the French language.

All teachers interviewed strongly believed that students could benefit from learning French. Their reasons often aligned with those listed by the American Association of Teachers of French (AATF), most notably the opportunities in business and travel allowed by knowledge of the French language. However, almost all of the teachers reported that they did not use AATF-provided pamphlets in their promotional activities for French, except to discuss post-graduation opportunities in French. Textbooks, on the other hand, were frequently used as supplementary resources for promotional activities within the classroom. This may imply that textbooks themselves are acting as promotional materials within the classroom, keeping both teachers and students up-to-date on the benefits of learning French. Indeed, with the exception of food, many of the topics that teachers reported to be of interest to the students are touched on in the textbooks that they use. However, the interview questions did not focus on the role of textbooks, so it is impossible to say the extent to which teachers employ them specifically as a tool for promotion.

The teachers interviewed came from diverse backgrounds in terms of levels taught and years of experience, yet they offered several very similar ideas on challenges and promotion. While nationally non-traditional foreign language programs such as Arabic or Farsi may be threatening the French program, the teachers in this school district saw the Spanish program as the main threat. It is clear that the teachers do not believe the benefits of learning the French language are outlined adequately, and that they desire to promote the language. While the teachers proceed with this promotion in various ways, their main focus is on their students first, and ensuring that their experience in the French classroom is worthwhile and memorable.

As evidenced in this study, promotion of French extends beyond the classroom; it involves parents, teachers, administrators, students, and other decision-makers. It may utilize materials, textbooks, songs, tangible items and web-based content. Most significantly, this study revealed French promotion to be a long, ongoing process, beginning with elementary grades students, and looking towards college and career opportunities.

While this study revealed the most popular strategies employed by teachers to promote French in and out of the classroom, it also revealed additional possibilities not yet explored. Extending French promotion into the community to universities or business, though not a widely reported strategy in this county, may make more valid the needs for French speakers offered by the teachers.

The researcher feels that the promotion of French was in fact important to the teachers interviewed, and that despite limited communication between the teachers, they shared many of the same ideas and fears regarding the French program. This study confirmed the challenges to maintain enrollment in *this* district's French program, however further research in other geographical locations would offer greater evidence as to whether or not these issues are regional. Additional research may also add strategies for community collaboration that were not confirmed by this study.

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How Social Studies Teachers Teach: State Standards and Their Impact on Teacher Pedagogical Strategies

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There is an ever-increasing emphasis in public schools of placing standards and objectives on teacher instruction and requiring instructors to match these requirements. This theme of holding teachers and students accountable for their work makes educators follow a state-mandated curriculum. As a result, it is necessary for teachers to cover each of the goals and objectives given to them in their respective state curriculums in a timely manner. Further, student and teacher performance is often gauged by student results on an end-of-course test, resulting in increased pressure for high performance relative to state standards. Because state curriculums tend to include a great deal of content, it is important to investigate what pedagogical strategies are being used the most, which are used seldom, and why this is the case.

Literature Review

Hazel Hertzberg, a professor at Teachers College of Columbia University, once posed the question of “Are method and content enemies” (Seixas, 2001, p. 317)? Seixas aimed to get to the heart of this matter in his 2001 study on the use of pedagogy and the social studies content within the classroom. Citing John Dewey, Seixas remarked that while not all educators see content and method as opposing forces, there are those that see separate spheres in that the material is “insert knowledge” and that the method is its avenue for delivery (Seixas, 2001, p. 317). One of the teachers Seixas interviewed addressed this problem by stating that the main problem is that a teacher learns all new material, content, etc., but it is never really told how they can implement it into the classroom (Seixas, 2001). As a result, the teachers are supplied the content to meet the standards, but have to rely upon themselves to use appropriate techniques in its implementation.

Another important facet of teaching is whether and to what degree teachers instruct students in higher or lower level learning. Newmann (1988) defines higher level thinking as “a

challenge that requires the person to go beyond the information given; that is, to interpret, analyze, or manipulate information” (p. 11). In contrast, Newmann refers to the routine mental work as the type of low level learning that today’s social studies classrooms promote (1988).

Standards for Teaching Social Studies

In regards to the North Carolina Standard Course of Study for high school social studies courses, the state promotes that “we can concentrate on educating citizens who will be scholarly, exercise leadership, and support democratic ideals” (CITATION). The standard course of study for North Carolina calls upon all high school students completing a world history course, civics combined with economics course, and a United States history course.

Past research has shown that teachers are more and more being forced to teach to the test. Stephen Buckles, Mark C. Schug, Michael Watts found that content that is most likely a national or state controlled assessment is given more consideration in instruction by the teachers. As a result of these assessments, teachers are being put under the microscope to perform as a reflection of their instructional methods can be seen by everyone in the students’ test scores (Buckles et al, 2001). My research study will look into how this pressure on a teacher’s career can influence their decisions on how to teach their students material, if at all.

Example Research Questions:

- How often does the teacher take state standards into account when he/she plans a lesson? What about the end-of-course test?
- Does the teacher believe that state standards affect his/her teaching? Why/why not?
- If the standards and/or EOC didn’t exist, would you teach the same way? If not, please describe how you would teach.
- Why does the teacher use certain pedagogical strategies over another?
- Which teaching strategy(s) does the teacher believe the students respond the most positively to? The most negatively to?
- On which levels of Bloom’s Revised Taxonomy does the teacher educate your students?

Methodology

The participants in this study are North Carolina social studies teachers out of the Winston-Salem/Forsyth County school system. This qualitative study focused on six teachers and their respective classrooms in which they teach. The research was focused on teacher opinion in regards to state standards and pedagogy. The study focused on the participants in two different scenarios: observations within the social studies teachers' classrooms and personal interviews with the teachers themselves. Subjects were originally recruited through an email script which was sent out to all social studies teachers within the aforementioned county school system. Formal interviews were set up with the participants to discuss their instructional practices and the researcher's questions on the study topic. While interviews were not transcribed, each one was reviewed as to collect all possible information from the participant.

Results

Participants in this study were asked to dictate how often they take the North Carolina state standards into account when they plan a lesson. Two out of six teachers that teach United States history or Civics/Economics (End-of-course test courses) said they look at the North Carolina Standard Course of Study (NCSCOS) standards in their planning often and/or daily.

Impact on Pedagogical Strategies

Teachers were also asked if the state standards/EOC's affected their pedagogical strategies and if they did not exist, would they teach the same way. Every teacher but Mr. Graves agreed that they would, for the most part, teach the same way. Mr. Graves said his class would still be structured, but there would be more creativity from the students and the teacher; meaning, he would find a topic that engages them and expand on it so that they can "appreciate history." While for the most part, the teachers' reported their pedagogy staying the same if the standards and EOC's did not exist, they all agreed to change the material that they taught on.

Considering the teachers are given a list of standards and perhaps an end-of-course assessment to prepare their students for, it was pertinent to ask if they were taught

implementation of the material required for their respective courses. Four out of the six teachers reported not being taught, at least adequately to their own standards, how to teach the material required for their course(s). The two who were taught the methodology and how to implement the material went through a master degree program in social studies education. A few of the teachers that were not taught implementation, such as Mr. Graves and Mr. Ginyard, were lateral entry teachers from the work force. The common theme among the teachers on how they figured out how to teach the content using the standards given to them was that it was a trial and error process.

Most participants in this study agreed that they make an effort to teach on the higher-end learning of Bloom's Taxonomy. Even though Mr. Ginyard acknowledges his weakness in trying to reach this type of learning, his approach is to use scaffolding to reach the high level of Bloom's. The problem, he claims, is that the EOC is a test of facts and that focuses the teacher to educate the students using lower-end learning skills on Bloom's. Upon reflection, Ms. Drew teaches to a higher-level of Bloom's but reports not being as conscious of it as the other interviewees. In other words, she thinks about the higher-end learning methods but does not necessarily plan her lessons out for them.

Discussions and Implications

The main focus of this research study was determining if the content of a social studies course in the state of North Carolina had an effect on which teaching strategies educators use to present the material. Seixas (2001) poised the question even further, questioning if content and pedagogy are actually disguised enemies. The study seemed to indicate that the required content, dictated by the North Carolina Standard Course of Study (NCSCOS), did not hinder the interviewees from teaching the way they would like. All but one teacher, Mr. Graves, claimed that if the standards-based content were not there, that they would teach the same.

Seixas (2001) mentioned a teacher in his study that explained the main issue with content and pedagogy is that teachers are instructed to learn new material but never really taught how to implement it into their teaching styles. Most of the teachers that were observed reflected this by commenting on their main way of figuring out how to teach being trial and error.

One of the largest findings of the study was the acceptance of the teachers of Grant's argument that teachers choose their pedagogical strategies based on their prior experience and not the required content (1997). As aforementioned, most of the teachers said they would not change their pedagogical strategies even if they standards did not exist. Most pointed to their personality and past experiences doing lessons in how they instruct their students. This type of response echoes Dewey's sentiments that content and pedagogy are involved in separate spheres and can each be altered without a major hindrance on the other (1902).

As reported in the results, most of the participants made a conscious effort to include higher-end Bloom's Taxonomy in their teaching practices. Newmann found contrary evidence when he interviewed teachers that said they felt that the need to address specific content outweighed their need/ability to use higher-level thinking (1988). The conclusion appears to be that even though the content might seem to promote lower-level learning on the surface, it is the teachers job to accommodate their teaching strategies to appease higher-level learning, in the process better helping the students truly learn the material for the assessments.

Limitations and Future Studies

This study was limited in several ways including time allowed for research and the crop of researchable interviewees. The totality of research including observation and interviews was only able to be done over a two-week time frame. As a result, this leads to one-time conversations and observations of the teachers that agreed to participate in the study. These teachers were all from one school system in the southeast and as a result, their answers and opinions should be used cautiously in reflecting the truth of all social studies teachers in the state or nation. While their responses and cooperation were helpful and insightful, one might not be able to generalize the rest of the teachers in the state/nation with the results found here.

Conclusion

This study provided many insights into the effects of state standards and state testing on the pedagogical strategies of six social studies teachers in North Carolina. While the results differed in many aspects, it became clear that the educators in this study teach according to two

characteristics: (1) the best way that fits their personality and how they feel that they are being more effective and (2) if their content course has an EOC, they cater some of their instruction method to teach to the test. While this is a generalization for the responses, it can be concluded from the results that while some of the reasoning in their pedagogical strategies differs, the end results are the same: the teachers teach what is best for them and what is best for the students.

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Student Attitudes toward Mathematics Homework

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Mathematics is a subject that requires understanding concepts and processes. Homework is one method teachers use to facilitate students' learning these concepts and processes. In America's culture, homework has been supported or rejected at different times throughout history (Thelen, 2008). Some believe students have too much homework while others believe they are not assigned enough. Students have opinions about homework that need to be heard. Teachers, administrators, and parents should be aware of how students view their education, and how they feel about learning outside of the classroom.

Review of Literature

Research studies have shown a strong positive relationship between homework and achievement (H. Cooper, 2008; H. Cooper, Robinson, & Patall, 2006; Thelen, 2008). In mathematics especially, homework has been found to have a positive effect on achievement (H. Cooper, 2008; Thelen, 2008). Homework helps students practice what they learn in class and develop a stronger understanding of the material. Two studies found that for secondary students, class grades and test scores were positively associated with time spent on homework (H. Cooper, 2008; H. Cooper et al., 2006). However, Thelen (2008) evaluated two different surveys from two different groups of teachers and found that completing assignments was more valuable to mastery than time spent on them. All students are unique and have different learning needs. From interviewing teachers and surveying students, Sallee and Rigler (2008) found that "homework effectively benefits students when it takes into account students' individual differences" (p. 4). These researchers concluded that if students can get involved in their learning and get excited about what they are doing, then they will be more inclined to produce higher quality work. Homework allows students to practice what they learn, which should lead to greater student achievement.

Through interviews with teachers, Sallee and Rigler (2008) found that homework benefits students most when teachers know what they want students to learn and experience in

their class; then, find how homework can help them reach their goals. Some teachers use homework to accomplish other goals in the classroom, such as self motivation, independence, and responsibility (E. Cooper, 2008). It is important for teachers to know the end goal so they can evaluate and see if it is met.

Students' attitudes about school can be a leading factor in determining how successful they are in school. Xu (2008) concluded that "homework was a function of individual student characteristics and experiences" (p. 1196). There are a variety of reasons why students do not complete homework. First, students argue they do not have time to do homework because they are busy with extracurricular activities, helping out their families, and having a social life (Hinchey, 1996; Sallee & Rigler, 2008). Second, students contend they do not see the point in doing homework because they do not care about their grades and teachers do not value the homework they assign (Hinchey, 1996). Finally, students believe homework will not help them (Hinchey, 1996; Reddick, 1993). It is important for teachers to consider students' attitudes toward homework because students who have more positive attitudes tend to be more productive.

Students have different motivations for completing homework. Coughlan-Mainard (2002) argues that "the mere presence of grades makes school work an extrinsically motivating task" (p. 37). Amerine, Pender, and Schuler (2009) analyzed parent and student surveys and found the largest gain in homework completion was the result of extrinsic rewards. Thus, students are more likely to turn in homework if there is an extrinsic reward.

J. Cooper, Horn, and Strahan (2005) learned through interviewing teachers and observing classes that students perform better when they are assigned more difficult problems. Harder problems encourage students to think critically and reason logically. Every student is unique, and research confirms that students learn better when assignments are created so that all students are inspired. Homework is an instrument used by educators to teach students content, processes, creativity, technology skills, and life skills. Since homework is important to students, it is important to know their attitudes and motivations toward homework. Thus, the goal of this research is to determine students' attitudes toward mathematics homework.

Methodology

In this qualitative study, focus groups were formed using students from two high school Geometry and one Honors Geometry classes in a southern high school. Each of the three classes had its own focus group. Twelve students participated in the research study, four from each class.

In the focus group setting with the researcher, students were given the opportunity to discuss their attitudes about mathematics homework. The researcher asked students a set of questions and encouraged the participants to answer honestly. The discussions were audio recorded and later transcribed. The narrative data gathered from the focus group discussions were studied and then classified into three categories: student achievement, student attitude, and student motivation. As in the literature, these were common themes identified in this study.

Results and Conclusions

In the focus groups, most students were eager to discuss their attitudes towards mathematics homework. Students agreed that their Geometry teacher assigned homework, and on average it took 30 minutes to complete. Also, students reported that the homework related directly to information learned in class. A student responded, “She doesn’t give us anything we haven’t already learned.”

As stated above, studies have shown there is a strong positive relationship between homework and student achievement (H. Cooper, 2008; H. Cooper, Robinson, & Patall, 2006; Thelen, 2008). Students in the current study had different responses when answering if they completed their math homework. Three regular Geometry students responded that they did their homework sometimes. Two students reported they do not complete assignments because they are lazy. These three students along with three other regular Geometry students said they did their homework when they found it easy, but they would not do it if they did not understand it. One student never did homework. Another student did not do homework every night because of homework in other classes. The honors Geometry students reported that they did their homework. Interestingly, one honors student did not do homework the first quarter, but is now trying to do assignments because the homework helps in understanding the material better. It seems there was a connection between the honors Geometry students and striving for high achievement by completing homework; while, students in the regular Geometry classes did not seem to care as much about doing their homework. However, it could also be a result of students meeting the expectations of the tiered system.

When asked about why their Geometry teacher assigned homework, students from all three classes had similar responses. The most noted reason was to give students a better understanding of the material taught in class. Second, they felt the teacher assigned homework to evaluate students’ mastery of the material and see how well they understand. Finally,

homework was for students to practice what they learned. Although they understood why they were assigned homework, some students still chose not to complete assignments. In particular, the student who never did homework, when asked if the homework was beneficial responded, “Everything we do is to have a better understanding of what we are learning.” As shown from the related research, not completing homework assignments can affect achievement in the classroom. There are students who understand the intent behind assigning homework, but choose not to do it anyway.

One student articulated that it would be nice if teachers took late homework. When asked why, the response was that if a student, for whatever reason, was not able to do the homework that night then there should be a way for them to make it up. For instance, if a student came in for tutoring then the teacher should accept the homework late. Another student in the group agreed with this suggestion and argued that there are so many things to remember that sometimes the homework is completed, but forgotten at home. Thus, having an extra day to turn in an assignment would be helpful.

Students were asked about their attitudes towards mathematics homework. All the regular Geometry students responded that they did not like or want to do homework. One student responded that, “I just don’t like homework at all.” Four other regular Geometry students discussed that when they get home they are tired and do not feel like doing work; they just want to relax. The honors Geometry students had different opinions. Three of these students said they felt mathematics homework was important. All four of them believed homework was a reinforcement of what was learned in class and a way for them to practice. This represents a distinct difference between classes. The honors Geometry students seemed to internalize the significance of completing homework; whereas, the regular Geometry students seemed to not want to do school work outside of school. This connection is interesting. First, the students could be in the honors class because they understand the significance of school work and the need to complete homework, and the students are in the regular classes because they have a lazier attitude toward completing school work. Conversely, it could be the result of placing them into the honors or regular classes. It could be the case that students placed in the honors class feel they need to work harder and achieve higher; while students in the regular classes feel they cannot compete with those students in honors classes so they decide not to try as hard. Students’

attitudes are important for success. This research shows, not all students have positive attitudes about completing homework.

Students were asked if the assigned homework helped them learn the material better. In one regular focus group all agreed that for the most part it helped if they took the time to look at it and tried to understand it, but it did not if they were lazy and did not try to understand. The other regular focus group reported that homework did not help them because if they did not understand then it was better to work when they were in class and the teacher explained it. It seemed that students in the regular Geometry classes did not attempt homework problems that appeared to be more difficult. Three students from the honors class believed homework helped them understand the material better. These three students said that if the material was easy and they understood it well then the homework was for practice and somewhat repetitive. However, these same students said homework was helpful when they did not understand the material. One of the honors students replied that homework does not help because understanding comes from paying attention in class. There seems to be a connection between honors students and seeing homework as beneficial when it is challenging, especially compared to regular students who say they only complete their homework when they find it easy.

Students reported that they have lives outside of school that impact their homework practices. One student discussed how after ball practice and being at school all day, that homework was the last thing on the “to do” list. This response aligns with previous research by Hinchey (1996) and Sallee & Rigler (2008) that students argue they do not have time to do homework because they are busy with extracurricular activities. However, three other regular Geometry students said their after-school activities did not affect them completing homework. It is important to note, that these three said they only do their homework sometimes. The four honors Geometry students had activities of at least one hour after school, and all of them said they then do their homework. One of these students said, “Homework doesn’t interfere with other stuff.” This shows how students who have other activities and still do their homework seem to make it a priority.

Students have different motivations for completing homework assignments. Students were asked if they did their math homework, and if so what motivated them or what would motivate them to do it. Students in the regular classes said they were motivated when the material was easier to understand, the assignment was shorter, the homework was more

interesting instead of boring, if half of the homework was done at school and the other half at home, and one student was motivated by the mother. Three students in the honors Geometry class said they did homework because they wanted to make good grades. Another student said it was to do well on the tests. It seemed that all students have extrinsic motivations for wanting to complete assignments. However, three students in the regular classes appeared to be intrinsically motivated because they said if the homework were more interesting they would be more motivated to do it. Nevertheless, most of the motivations were extrinsic, and these results align with the related research that most students are extrinsically motivated to complete homework (Amerine, Pender, and Schuler, 2009; Coughlan-Mainard, 2009).

Overall, the results of this study support previous research. Student reports indicated that homework directly related to class material was more likely to be completed by students in the honors Geometry class than by students in the regular Geometry classes. Also, students who were familiar with why they were assigned homework and who liked mathematics, might or might not have completed homework. Students had positive and negative attitudes about homework, and students tend to be extrinsically motivated. Students have varying reasons for completing homework. These results can help educators understand the attitudes and motivations of students to complete homework, and the impact of homework on learning.

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Writing in the High School Classroom: Student Answers to Essential Questions

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Conventionally mathematic teachers have relied upon extensive homework problems, in-class examples, quizzes, tests, and traditional styles of teaching to educate and assess their students. Students rely mostly on memorization or rote learning to pass tests and succeed in passing a mathematical course. Teachers may evaluate if a student knows the subject, which has been recently talked about in class, but in large part do not attempt to see if the student actually understands the concepts. Moreover students recall certain facts about concepts but have difficulty connecting and relating math concepts as a whole. Students run into troubles in mathematics because they do not understand the concept, connect the material with their previous knowledge, and communicate to themselves and the teacher what they really know.

These described problems are not new to educators or math instructors. Educational movements have been and are presently promoting a standards-based curriculum where teachers use a variety of instructional methods in order for students to learn mathematical concepts. One of the leading organizations to promote standards-based curriculum and on mathematical education as a whole is the National Council of Teachers of Mathematics (NCTM). NCTM promotes implementing writing in the mathematics curriculum in order to enhance student learning.

Researchers (Yates, 1987) have confirmed that language learning and experience are the heart of education. Teachers were encouraged to use writing activities such as organizing course content around central themes, giving teachers a more active role in students' learning, and providing opportunities for students to explore and describe their own experiences. Also numerous researchers (Quinn & Wilson, 1997; Yates, 1987) suggest that teachers should not think of writing as an additional burden but rather as a helpful tool that can be incorporated into their curriculum as an aid to learning.

NCTM's *Principles and Standards for School Mathematics* (2000) additionally affirms that mathematics students can use writing to organize and merge their mathematical thinking

through communication and “can also help students consolidate their thinking because it requires them to reflect on their work and clarify their thoughts about the ideas developed in the lesson” (NCTM, 2000, p.60). Along with communication, writing should be used to “understand how mathematical ideas interconnect and build on one another to produce a coherent whole” (NCTM, 2000, p.64). Thus writing in mathematics is a key instrument where students communicate their knowledge to the teacher and connect previous mathematical ideas and concepts together.

With the charge from the National Council of Teachers of Mathematics to integrate writing, mathematical teachers are directed to adapt their instructional methods to incorporate writing in their curriculum. The course objectives outlined in the mathematical content curriculum can be addressed as questions to students, more specifically essential questions. Essential questions are course objectives written in the form of a question. Teachers purposefully use essential questions for students to develop answers which may be expressed through writing. Writing answers to essential questions provides communication to the teacher of the student’s knowledge, makes students pull ideas together and connect various concepts, and provides an alternate form of assessment to oral communication and tests. Written responses to essential questions can act as a form of formative assessment, giving the teacher valuable information on students’ understanding.

Current math reforms call for classroom communication. Researchers Baxter, Woodward, and Olsen (2005) conducted a study on writing in mathematics as an alternative form of communication for academically low-achieving students. The authors concluded that the journals provided the teacher with “a picture of what students were thinking, facilitated a different type of planning, and offered a vehicle for students to communicate privately, an important alternative to oral communication” (p.14). Students were able to clarify their understanding of the concepts and become more comfortable with using them to communicate about mathematics when writing was implemented in mathematics.

Writing creates a process for students to learn. Students gather and organize old and new knowledge and synthesize it into their own structure of knowledge and words. Students also benefit from writing in mathematics by connecting the symbolic language of mathematics with the language they already know, creating a personal connection with the teacher, developing self-confidence and a positive self-concept, and relating other mathematical concepts (Cook & Craig, 1991, p.7).

Furthermore, writing responses to essential questions allows students to discover mathematical information or processes, empowering them to higher-order thinking and personal investment in learning. Miller's (1992) study concluded that math teachers should use writing "to think about the use of writing in mathematics and use of mathematics vocabulary and, second, as a way to diagnose students' needs in the process of learning" (Miller, 1992, 8). Writing responses to essential questions develops the idea of content writing while also providing a type of formative assessment. This study seeks to understand the effect of writing responses to essential questions on students' mathematical learning, on the depth of their understanding through connections, and on communication with the teacher on their content knowledge.

Methods

The study was conducted in a diverse public school in North Carolina. The students selected for this study came from three Algebra 2 classes of one teacher. The teacher required students to write answers to Essential Questions and data was collected from the student notebooks. A total of five students were interviewed and their written responses to the essential questions were analyzed.

Data was collected through the written responses to essential questions and voice-recorded interviews. Written responses were analyzed before the students were interviewed. The researcher analyzed students' written responses using a coding system modeled by Baxter, Woodward, and Olson (2005). The coding system was broken down into conceptual codes. The conceptual codes consisted of four levels. The Level 1 (Recording) response consisted of students transcribing information, where students copy down responses directly from notes or the board. Level 2 (Summarizing) responses state student memory of concrete experience in his/her own words with no inferences. The student repeats steps to solve problems and do not attempt to explain what is happening mathematically. Level 3 (Generalizing) responses incorporate and identify generalizations, but organization and relationships are not perceived. Students attempt to use relevant mathematical ideas and representations to clarify solutions. Level 4 (Relating) responses state connections among concepts, note relationships between generalizations, and are organized logically or hierarchically. Out of all the levels, Level 4 writing represents the deepest understanding of knowledge.

After analyzing the written responses, each of the five students in the study were interviewed. In an interview setting one-on-one with the researcher, each student was asked questions to further explain the assigned essential question responses. Interviews took place in the students' classroom during their class period. Interviews were audio taped. Students were asked their attitudes and the effectiveness of learning through the essential questions. Each interview took around 10-15 minutes.

Results

What became apparent immediately was the correlation between quality interview responses and quality written responses to essential questions. Those students who wrote clearer, more in-depth responses like Student 1 and 5 contributed much more data during the interview process than the other students. In fact, these students made connections and elaborated on these connections significantly more than the other students. All students wrote Level 2 and Level 3 responses except for three instances, where Student 2 wrote a Level 1 and Student 5 wrote a Level 1 and Level 4. However each student showed a general progression in higher order responses as they wrote more outputs.

One of the most interesting responses of the interview process consisted of communication from the student to the teacher on whether the student understood the concept. All but one student said that if they did not understand a concept, the only means by which to learn the concept would be either to raise their hand to ask the teacher or come after school for tutoring. As far as communication and how essential questions are helpful to students and teachers, Student 2 stated "students can understand. Teachers can understand what they are teaching us too, by our responses to know that everyone is on track with everything."

After writing multiple responses to essential questions, students were asked if essential questions were busy work or actually beneficial to the learning and understanding process. Students answered on a spectrum pertaining to outputs being busy work: some students describing that responses were beneficial while other students deemed outputs as partial busy work. Consequently every student thought essential questions were beneficial to some degree and helped them understand the material. Therefore the student reports that responses to essential questions are beneficial and not all busy work was significant, by the mere fact students think most class work is busy work and helpful, to the further implementation of outputs.

Reflection came to be one of the biggest assets for writing responses to essential questions. Student 5 summed up the process of reflection:

If you can come home and answer the essential question, then that means you understand because (after doing other activities) you can come home and answer the question because it is stuck in your head. So when it comes time to study, all you got to do is just look over it instead of having to cram.

The same student stated that a student has to know the material to write the reflection/responses and the student has to learn it. Student 3 gave the vaguest responses but states essential questions “kind of sort of help you reflect.” Outputs, put in this student’s words, “are better written waiting a couple of days to see what all you learn and then write it down (to reflect).”

Implications

First and foremost, essential questions will be more successful if the purpose of writing essential questions is explained at the start of the school year: communication to the teacher on student’s understanding of concepts, student questions on a topic, and also to help them understand the given topic. This research also shows that it is beneficial that students should be urged to be honest and truthfully explain what they do and do not know. The approach of using written responses to essential questions as a written form of a conversation between the teacher and the student is advantageous to both parties. Reiterating previous research, this research concludes that stressing the usefulness of outputs as study tools for tests at the start of the school year allows an open communication line between teachers and students, offers a different modality for students to study for tests, and increases the confidence, participation, and independence of students (Countryman, 1992, p.8).

This study concludes new findings that writing in mathematics and written responses to essential questions are beneficial to student learning when taken up and graded. In order for essential questions and outputs to be highly successful, it is favorable for teachers to check outputs frequently and with a significant proportional grade to the class. Students report that when they know the responses will not be graded or graded heavily, their appreciation and completion of outputs will deteriorate. Outputs will become almost useless if students see no use for writing them and do not see that they affect the course grade.

The research has also shown that responses should not be of one type, mandated for all students to write in a certain way. Interviews and analysis of written responses have shown that

each student writes a certain way and understands the material through different mediums (examples, definitions, graphic representations, step-by-step solutions). Limiting the ways in which students can explain how they understand a mathematical topic will be an injustice to the students. However, it might be best to scaffold students to encourage them to possibly look at the notes in order to review the concepts but develop their own responses and ways of explaining the concepts as they write outputs.

In conclusion, written responses to essential questions have been shown to be useful with the proper scaffolding, teacher instruction, and implementation within a class period. When outputs are frequently mentioned, graded, and used as a tool for communication between student and teacher, they are effective. While the threat of outputs becoming busy work for students exists and will persist, the advantages significantly outweigh this threat. If teachers adopt the method of writing responses to essential questions, it is important that they implement it correctly in their classroom setting. If teachers do it, they must do it right.

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