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Leah P. McCoy, Editor

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Effects of the Earth/Environmental Science Requirement on High School Science Enrollment in North Carolina

By
Lori Beiles

With Robert Evans, Ph.D.
Wake Forest University Department of Education
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Introduction

In North Carolina, a new requirement of Earth/Environmental Science was implemented for high school freshmen in the year 2000 with the intention of increasing student awareness of earth and environmental issues. The new requirement was added to the already existing requirements of three sciences, two of which must be Biology and a physical science (ex. – Chemistry, Physics). This study seeks to determine if the addition of the Earth/Environmental Science requirement has caused a significant change in the enrollment of all high school science courses. The first section of this study analyzes the changes in enrollment data from the North Carolina Department of Public Instruction, while a second portion looks at the views of in-service teachers, to see if they noticed the changes in the everyday classroom.

Review of Literature

In 1997 the North Carolina State Board of Education approved a decision that would make Earth/Environmental Science one of the three science courses needed for high school graduation. Their reasoning was that "students need to know earth science not only to be good citizens, but also to protect themselves from the effects of natural disasters" (Watson & Tucci, 2002). The new requirement was put into effect for students entering the ninth grade in the year 2000 and made North Carolina the first state to require Earth Science and Environmental Science in its standard course of study. (Watson & Tucci, 2002)

In 1983, it was speculated that there could be some students whom increased graduation requirements would help, but most students might be hindered because "having to take additional courses in [science] will prevent them from taking other classes that might be equally valuable" (Florida, 1983). Huffman agrees with this, noting that "admission requirements may encourage college-bound students to skip secondary school earth science/geology courses in favor of taking an advance placement course in another science" (Huffman, 1999). However, now that North

Carolina requires earth science courses, it is imperative that the country "produce, recruit, and retain earth science teachers" (Ridky, 2002).

The Texas State Board of Education removed earth science courses from the high school curriculum in 1998 (Roy, 2002). Geoscientists went to the state and argued that "earth science resources have an important impact on [our] economy" (Roy, 2002). The goal of these geoscientists is to have Texas add earth science back into the curriculum for every grade; however, the state has yet to decide the fate of earth science in its educational policy.

Methodology

Data on the enrollment of all high school science courses and the total number of students enrolled in grades 9-12 for the school years 1995-96 through 2001-02 was obtained from the North Carolina Department of Public Instruction (NCDPI, 2002) (Long, 2002). The 1997-98 through 2001-02 data was sorted by State, NCSTA Regions, and individual LEA statistics, and seven science "core courses" that are offered in every LEA in North Carolina (Biology, Chemistry, Earth Science, Earth/Environmental Science, Environmental Science, Physical Science, and Physics). Bar graphs were produced for each of these categories using a percent of the total number of high school students enrolled in each science course (these graphs are included in the full report). Within each NCSTA Region, an average of the enrollment percentages found for the LEAs in that region were calculated to obtain the region and course graphs. Paired *t-tests* were performed on the State and NCSTA Region enrollment data for each of the seven science "core courses" to determine which courses had a significant change in enrollment. No paired *t-tests* for significant differences in means could be performed on the individual LEA data since there were no averages to compare.

One out of the 117 LEAs (Local Education Agencies) was randomly chosen for the survey and interview portion of this study. This LEA was in the North Carolina Science Teacher Association (NCSTA) Region 7 (NCSTA, 2002). Within the chosen LEA, one high school was selected that has a population that is 85% Caucasian, 10% African American, and 5% Hispanic and is on a 90-minute block schedule. All of the science teachers in this school were used for this study after the principal and the teachers gave their informed consent.

At the school chosen, the survey was first distributed to the group of participating teachers. General knowledge on each teacher's background was gained in questions 1 through 4. Three questions attempted to gain insight into each teacher's opinions and knowledge about

course requirements for graduation; five questions were used to see if the teachers noticed changes in enrollment; and one question asked for an opinion about adding an End of Course (EOC) Test (used to measure students' performance in various classes) (NCDPI, 2002) for the Earth/Environmental Science requirement. After the survey, the graph of the enrollment data for North Carolina from 1997-98 through 2001-02 was given to each teacher and the group's verbal comments on the trends observed were recorded as field notes. Then, a graph of the selected LEA's enrollment was given to each teacher and again verbal comments were noted.

Results

The paired *t-tests* compared the school years of 1999-00 with 2000-01 and 2000-01 with 2001-02 for all of the State enrollment data, and the school years 1999-00 with 2000-01 for each of the NCSTA Regions. The significant results of these tests are shown in Table 1.

Table 1
Significant results of paired *t-tests*

Course	Area/Year	Correlation (r)	Significance (*p*) at α=0.05	N
Chemistry	Region 2 99/00-00/01	0.851	**0.047***	14
Earth Science	NC Data 99/00-00/01	0.394	**0.040***	116
	Region 8 99/00-00/01	0.590	**0.026***	16
Environmental Science	NC Data 99/00-00/01	0.279	**0.000***	100
	Region 6 99/00-00/01	0.368	**0.035***	12
	Region 7 99/00-00/01	0.168	**0.042***	13
Physical Science	NC Data 99/00-00/01	0.291	**0.000***	117
	Region 2 99/00-00/01	0.443	**0.005***	14
	Region 3 99/00-00/01	0.634	**0.003***	14
	Region 5 99/00-00/01	0.475	**0.031***	15
	Region 6 99/00-00/01	0.396	**0.002***	12
	Region 8 99/00-00/01	0.067	**0.012***	17
Physics	NC Data 99/00-00/01	0.786	**0.029***	116
	NC Data 00/01-01/02	0.807	**0.011***	116

* significant at α=0.05

There were no significant changes in enrollment for Biology during this time period. Since the course of Earth/Environmental Science did not exist prior to 2000, it logically follows that all of its changes are significant between the 1999-00 and the 2000-01 school years.

The teachers surveyed represent a wide variety of teaching experience, degrees, and content areas, and thus their opinions should reflect the diversity in their background and experience. Most of the surveyed teachers support increased science graduation requirements and many of them do not know why the Earth/Environmental Science requirement was

implemented. Four out of the six experienced teachers have noticed that fewer students are taking higher level courses and that required courses (Biology) have not seen a change in enrollment. They attribute this change to the observation that students prefer to take lower level science courses and are not willing to take two science courses in one school year in order to incorporate an additional science class. In the future, these teachers believe enrollments in higher level courses will continue to drop and may cause students to be unprepared for college entrance requirements. Eight of the ten teachers support the development of an EOC Test for the new requirement, stating that it holds students and teachers accountable for the required material.

After completing the survey, teachers were given a graph of the enrollment data for science courses across the state. Teachers first noticed the decrease in Physical Science and upper level course enrollments. They agreed that enrollment for Physical Science in their LEA should remain constant because they require it for graduation. After this, teachers were shown the graph for their LEA, upon which they noticed that some courses listed are not taught in their LEA, which means the names were probably changed by the state for statistical purposes.

Discussion

The results of this study show that the Earth/Environmental Science requirement did indeed have an effect on the enrollment of high school science courses in North Carolina. For courses that have remained among those acceptable to fulfill graduation requirements, the effects noticed on the changes in enrollment were not significant (Biology). Other non-required science courses did experience a significant change in enrollment, and for the most part these effects were negative and caused a decrease in course enrollments.

Chemistry had decreases in enrollment in several areas, but none of those were significant. Earth Science's enrollment percentages increased and then remained fairly constant, which could be a result of the course's existence before the requirement was added, its ability to fulfill the physical science requirement (NCDPI, 2002), or because it now meets the Earth/Environmental Science requirement as well. The teachers also felt that students take Earth Science over "more strenuous" upper level courses because it is "easier". Environmental Science saw an increase in enrollment, and it is expected that its enrollment will continue to increase or remain approximately constant in the future because it fulfills the new requirement.

Physical Science was the most significantly affected course, with most areas seeing significant decreases in enrollment over the years sampled. This may be a result of students

taking courses to meet the new requirement instead of Physical Science. Most of the teachers surveyed expected to see a large drop in Physics because it is an upper level course. Possibly, this anticipated decrease did not occur because the first class that needs Earth/Environmental Science to graduate have not yet reached the level needed for enrolling in Physics.

Many of the teachers surveyed believe that increasing science graduation requirements will cause enrollment in non-required sciences to decrease, even though most of them support future increases. Eight of the teachers believe that an End of Course Test should be developed and required for Earth/Environmental Science because it will hold teachers and students more liable for the curriculum material. Watson (2002) theorized that the test would take three years and a "minimum of $150,000 to create". As Ridky (2002) observed, more earth science teachers are needed to meet the enrollment demands an earth science requirement necessitates, which was supported by teachers during the verbal comments portion of this study.

One teacher stated after the meeting was over that the this new requirement may lower EOC Test scores for upper level courses since students may not perform as well without having Physical Science first. The enrollment changes for all high school science courses need to be evaluated again in about three or four years in order to fully understand the implications on high school science enrollment, the number of courses, and the changes in EOC Test scores. It follows that this study on the effects of the Earth/Environmental Science requirement on high school science enrollment in North Carolina can be used to help make future decisions about adding graduation requirements, specifically for those states, such as Texas (Roy, 2002), that are considering adding earth science to high school graduation requirements.

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Variations in Teaching Approaches Used in High and Low Minority Schools

By
Paula B. Boozer

With Raymond C. Jones, Ph.D.
Wake Forest University Department of Education
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Introduction

Research shows that individuals differ in their unique learning styles. These learning styles relates to how students process the information presented to them in various environments (Campbell, Campbell, & Dickinson, 1999). With this thought in mind, there has been an effort to implement a myriad of instructional approaches to help students process information in the various disciplines, including social studies. Those most commonly used in classrooms include lecturing, questioning, student-led discussion, technology usage, cooperative learning groups, and independent learning assignments (Silvernail, 1979).

The purpose of this study is to determine whether there are variations between the instructional methods used to teach students in high minority and low minority schools. The frequency and duration of these teaching methods was observed in four schools in the Southeastern region of the United States.

Given the effects on learning that different instructional methods have, it seems reasonable to consider whether teachers' approaches to instruction correspond to the findings of prior research. This study examined the instructional approaches used by teachers in high and low minority schools to determine if there is a corresponding variation in methodologies. Are teachers using teaching methods that research finds helpful for particular ethnic groups?

Review of Literature

In a study on motivational strategies of social studies teachers it was found that participatory experiences gave students the greatest ability to understand and interpret information, while the most widely used method, lecture, gave them the least support in understanding and interpreting information (Hootstein, 1994). In a study conducted on learning styles, African-American males were found to work well under teaching conditions which engaged them in participation, thought, and cooperative learning activities. White students achieved with a more structured approach, with lectures, set procedures, rules, memorization of

facts, and order (Mulear & Richardson, 1994). In another study conducted on learning styles of low and high achieving African-Americans, males were more responsive to learning styles which engaged them in continual movement and cooperative learning (Jackson & Christenberry, 1994). In a study on the learning style preferences of Native Americans, students were found to succeed when they were paired in cooperative learning groups and given special tasks (Wilcox, 1996). In a study comparing learning styles of various ethnic groups, African-Americans were found to value physically active and verbal experiences, Hispanic-Americans valued group over individual learning, Asian Americans valued accurate and objective content presented by the teacher, Native Americans worked best when skills for hands-on experiences in groups were involved, and European American students were found to value an independent and less interactive approach (Fierro, 1997).

Methodology

The participants for this study consisted of eight high school social studies teachers from four of the high schools in a suburban school district in a southeastern region of the United States. Two teachers were selected from each of the four schools. Two out of the four schools had a high minority student population and two of the four schools had a low minority student enrollment. Minority population was determined by reviewing demographic information published by the school district. A high minority school consisted of a minority population of at least 51%.

All social studies teachers in the targeted schools were sent an email asking them to participate in the study. The obligations required of them were explained and an informed consent letter was provided. After receiving consent and signatures of the teachers to participate, class observation periods were established. Since the two minority schools were on a block schedule the number of observations was set at three class periods of the same class and the traditional schools in the study were observed for four class periods of the same class. The study was conducted over a period of three weeks. The instructional method used during the class was documented in increments of ten minutes or after instructional strategies changed during the class period. It was found, as might be expected, that some instructional methods were used simultaneously.

Data was collected using a data chart, which categorizes teaching methods and measures the frequency of their duration. The data was analyzed by reviewing the frequency chart and

categorizing the information based on the average of the minutes used by the teachers. These minutes were converted into percentages to get an average of the most frequently used instructional methods by teachers with high minority populations and those used by teachers with low minority populations. The averages of the teachers in the high minority and low minority schools were compared to one another to get an understanding of the differences in instructional methods used in the two types of schools. Pie charts were created to represent this data.

Results

Given the previous research about effective methods for teaching various subpopulations of students, the researcher was interested in determining whether actual practices corresponded with those earlier findings. The implication is that schools with a higher minority population should use more cooperative learning activities and those with a low minority population might rely more on lecture as the primary instructional method in the classroom. This study tells us that there is a difference in the instructional methods used in schools with high and low minority populations. Schools with high minority populations tended to use lecture, independent learning, and video presentations as the dominant instructional method. Teachers in the low minority schools used lecture aided with discussion and cooperative groups more often. There is still a question whether these differences relate to the teacher's understanding of what instructional strategies help various ethnic groups learn best or to the teacher's preferred teaching styles.

Discussion/Implications

There are several relevant questions that remain from this study and several alterations and considerations that must be acknowledged. One factor is the amount of time allotted for the schools in the study. The two minority schools were on a block scheduling period, with 90 minutes per period, while the two majority schools were on a traditional school schedule, with 50 minutes per period. The teachers in block schedule schools were each observed three times for a total of 270 minutes per teacher, while teachers in the traditional schedule schools were observed four times each, for a total of 200 minutes per teacher. However, it is uncertain whether this had an impact on the findings.

A difficulty in data gathering was also found in categorizing the methodology when student actions conflicted with teacher directions. For instance, a teacher might ask students to work individually on assignments, but the students turned the individual assignment into group

work. As a result, there could be a discrepancy between intended and enacted methodology, which future research might more carefully discern.

Other biases which were difficult for the observer was watching some of the actions occurring in the classroom. There were consistent tardies in the classroom which caused interruptions and delayed instructional time, periods where students tried to or had to leave the room, periods setting up and breaking down instructional technologies, side conversations dealing with outside occurrences, questions and comments made to the observer, and interruptions by announcements, telephone calls to teachers from the office, and all-calls for students to come to the office. As a result, 16% of time in all schools fell into a category of no instructional method. Though it is inevitable that there will be some class time with no instruction, it was problematic to see so large a block of time that should have been used for instruction.

An aspect for further study would be to determine how the instructional methods used in the classroom are effective in promoting high achievement, both within the classroom and on standardized tests. This study did not evaluate the effectiveness of the methodologies, only whether methods differed between schools serving different populations. It is one thing to know from research that some methods are empirically validated; it is another to validate their effectiveness across varying school populations.

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Teaching and Applying Language for Communication: The Strategies of K-12 French Teachers

By
Shauna K. Callahan

With Mary Lynn Redmond, Ed. D.
Wake Forest University Department of Education
December, 2002

Introduction and Review of Literature

Changing demographics and globalization are increasing the demand for individuals who can communicate across linguistic barriers. In order to meet society's need for citizens who are proficient in a language other than their native language, the current approach to foreign language instruction emphasizes listening, speaking, reading, writing, and culture as interdependent skills in the development of communication ability (*ACTFL Performance Guidelines for K-12 Learners*, 1998). In 1996, the foreign language profession developed the *Standards for Foreign Language Learning* (ACTFL, 1996), reinforcing the importance of proficiency development in grades K-12. The national standards guide the content knowledge that students are expected to have attained at the end of their foreign language studies. Five goal areas known as the five C's are stressed: Communication, Cultures, Connections, Comparisons, and Communities (ACTFL, 1996).

Following the creation of the national standards, the foreign language profession designed the *ACTFL K-12 Learner Performance Guidelines* (ACTFL, 1998) which enable foreign language educators to measure how well students perform content knowledge as they develop proficiency at the novice, intermediate, and pre-advanced levels throughout the K-12 foreign language program. The K-12 performance guidelines involve three general modes of communication that foreign language educators should use to make classroom instruction more meaningful: interpersonal, interpretive, and presentational. These communication modes are best established and articulated in a contextualized framework so that students use the target language for authentic communication purposes while developing proficiency. Van Patten (1987) highlights grammar instruction as a tool that can enable students' meaningful language practice. He also emphasizes grammar instruction as a necessary part of the foreign language acquisition process that should evolve with the learner's competency. In addition, Van Patten encourages

implicit instruction at the beginning of the language learning process, followed by explicit grammar instruction. Implicit grammar instruction exposes students to language elements in context. Grammatical rules and syntax are integrated into instruction so that students begin to develop language skills *before* explicit grammar instruction begins.

Oral, aural, written, and reading skills are needed to acquire language proficiency and should be developed interdependently throughout the foreign language acquisition process. Foreign language educators can integrate these communication skills through a variety of methodologies. Shrum and Glisan (2000) discuss several effective means of advanced communicative strategies. Foreign language teachers can provide opportunities that include creating and carrying out dialogues, reading stories and poems in the target language, and asking students to present a culture-related project orally. Each of these techniques gives the teacher an opportunity to evaluate how well students have assimilated grammar and vocabulary, and to observe how they are applying these language skills in communicative situations. This is best achieved through reflective lesson planning, beginning at the elementary school level, which designs foreign language outcomes with the goal of long-range proficiency. The purpose of this study is to investigate how French teachers at varying levels of instruction in grades K-12 teach and reinforce language for communication, and to determine the most effective strategies they incorporate throughout this process.

Methodology

The researcher conducted the study in a public school district and a private school in a southeastern city in the United States during the fall of 2002. First, during October and November, 2002, the researcher interviewed six French teachers, two each at the elementary, middle, and high school levels. The researcher asked questions regarding the types of instructional strategies that the French teachers use to teach grammar for communication. The interview questions also investigated how the teachers contextualize language during the instructional process and how they articulate language from level to level. These interviews were audio recorded for documentation purposes. The second step also took place during October and November, 2002. In this portion of the study, the researcher observed six French teachers at the elementary, middle, and high school levels and noted specific classroom strategies that the teachers employed to develop students' language proficiency. The researcher compared these strategies with communication strategies cited in the research and with each teacher's

interview responses regarding classroom practices in order to determine the most effective instructional approaches to teach grammar for communication.

Interview and Observation Results

The data analysis is categorized based on question topics used in the teacher interviews with the six French teachers. Five of the six interviewed teachers affirmed familiarity with both the 1996 *Standards for Foreign Language Learning* and the 1998 *ACTFL Performance Guidelines for K-12 Learners*. Three of the six teachers stated that they regularly use the national standards and the guidelines to help plan their instruction. Three teachers stated that they periodically refer to the national standards and the guidelines when planning instruction and reflect upon how each should influence their instructional techniques. One teacher was not aware of the national standards or guidelines.

At the elementary level, both teachers stated that grammar is not taught explicitly, but rather that language skills are enhanced through questioning strategies that improve mastery of language structures. The middle school teachers expressed similar philosophies, but described distinct procedures they execute when presenting grammar for communication. One teacher emphasized implicit grammar instruction in a communicative context, while another teacher said that she integrates meaningful grammar activities with cultural and conversational elements after explicit grammar instruction. At the high school level, both teachers promoted the necessity of explicit grammar instruction.

In response to the question concerning articulation of language from level to level in the program, one elementary-level teacher collaborates with the middle school foreign language teachers to ensure an effective and smooth transition between these levels. The other elementary-level teacher does not actively collaborate with middle school teachers. Both middle school teachers said that they collaborate with the elementary and high school teachers. The high school teachers expressed limited collaboration efforts.

Teachers were also asked questions about the use of the text book. At the elementary level, text books are not used, and the specialists develop activities that promote communication and purposeful language usage. Both the middle and high school level teachers stated that they use the textbook as a supplementary guide to reinforce concepts being taught through communication-based activities. None of the teachers felt that textbooks dictate their approach to foreign language instruction. Each teacher stated that she has established techniques that are

separate from the text book in order to extend material to the students' experiences and to meet the needs of diverse learners. Each teacher also felt that currently used text books are incorporating more activities that integrate grammar for communication. In addition, teachers cited group activities that require students to use their communication skills, contextualized writing exercises that develop grammatical accuracy and authentic listening comprehension exercises as examples of textbooks' improved focus on communication.

All teachers were then asked to describe additional instructional techniques that encourage students' development of communicative ability. The elementary teachers emphasized instructional approaches that related to students' personal experiences. One example of this involves asking students questions in the target language about the current season or requiring password use when students express a need or desire. At the middle school level, the teachers asked students to record and write sentences about personal feelings and experiences. Each high school instructor added the importance of praising and reinforcing correct grammar use in context so that students would continue to improve their language proficiency.

Assessing the students' development of communicative ability was also discussed. All teachers stated that they informally assess students' language development daily by listening to how students' apply vocabulary and grammatical structures during organized activities. Formal tests and quizzes are given at regular intervals, but the teachers said that they also use skits, role-play activities, listening comprehension exercises, and written reports to assess students' progress formally.

The following techniques were emphasized as the most effective techniques for teaching grammar for communication across the K-12 program: keeping students immersed in the language, reviewing and spiraling language, giving students opportunities to communicate for a variety of purposes, making language practice meaningful and enjoyable, developing skills that will enable students to function in the target culture, using a variety of instructional techniques that integrate grammar use in communicative contexts, and assessing students' proficiency on a frequent basis. All the teachers considered grammar instruction without a context and worksheet-based activities as ineffective means of teaching grammar for communication.

During observations of each teacher's classes, the researcher found that both elementary grades specialists developed students' language ability using instructional techniques and activities that emphasized communication. Middle school teachers used both implicit and

explicit grammar instruction to establish a communicative classroom environment. The approach at the high school level was one of explicit grammar instruction. One of the teachers followed each grammar presentation with an activity that required students to use the grammar communicatively; the other high school teacher did not integrate contextualized activities.

Conclusion

In order to attain foreign language proficiency, students should have the opportunity to practice and develop their communicative ability. The majority of teachers in this study were aware that in order for students to become more proficient in a foreign language, it is essential that instructional practices integrate the *Standards for Foreign Language Learning* and the 1998 *ACTFL Performance Guidelines for K-12 Learners* in classroom practices that focus on communicative language instruction.

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Religious Issues in the Classroom: Teacher Attitude and Student Response

By
Jennifer Leigh Carlyle

With Joseph O. Milner, Ph.D.
Wake Forest University Department of Education
December, 2002

Introduction

The role of religion in public education has been a source of controversy in America since the establishment of the First Amendment, which states that "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof." The U.S. Department of Education (1998) interprets this to mean that public schools "may not provide religious instruction, but they may teach *about* religion." Although these rulings set general standards for the role of religion in public school classrooms, the interpretation of these standards is debatable. Their implementation is often left up to the individual teacher, whose curriculum may include religious texts and other texts that focus heavily on religious issues. In North Carolina, state-approved high school English textbooks include excerpts from the Bible and the Koran as well as *The Merchant of Venice*, *Paradise Lost*, and *Night*.

In addition to texts that concern religion, religious and moral issues also arise in classroom discussion, and a teacher must decide how to handle these topics of discussion. These teachers are faced with the question of how to teach about religious issues without infringing upon the First Amendment rights of their students. What methods or techniques do teachers use when discussion religion in the classroom? Do students respond better to certain methods or techniques? How much objectivity is used in teaching about religious issues? Does sharing personal religious beliefs help or hinder learning?

Review of Literature

All teachers hold personal sets of beliefs, which necessarily affect how teachers interact with students in the classroom. Although teachers often try to present an unbiased review of the facts, a teacher's personal ideology determines the manner in which those facts are presented. McCarthy (2000) argues that it is necessary for teachers to consider how their personal beliefs affect their teaching. McCarthy claims that teachers' presentations of reality affect their

students' perceptions of the world, and suggests that teachers reflect on what biases they may be communicating to their students.

Where religion is concerned, however, teachers are often advised to keep their personal beliefs to themselves. One might expect that teachers with strong religious convictions would feel differently about sharing their beliefs with their students, but in a 1995 survey of public school teachers enrolled in elementary and secondary education courses, Milson (1995) found no significant difference between the attitudes of "very religious" and "somewhat religious" teachers toward teaching about religion in public schools.

Some critics insist on objectivity in the teaching of religious issues. Ackerman (2000) argues for the inclusion of religious studies in the public school curriculum, but says that teachers are ethically obligated to teach their students in as balanced and unbiased way as possible. Other critics, such as Phenix (1982), support a more subjective approach. Phenix argues that a school's emphasis on "textbook" knowledge leads to the depersonalization of the learner. Phenix suggests that in order for teachers to be truly effective, they must appeal to the personal development of their students, including their students' religious beliefs. Phenix suggests that teachers encourage their students to personalize the study of religion and explore their religious beliefs in the classroom setting.

Carter (2002) also suggests a more subjective approach to discussing religion in the classroom. When Carter assigned her students to study the Bible in her English class, she discovered that her students were more comfortable entering a discussion on the text if she claimed a personal bias before beginning the unit.

Beck (1985) argues for a combination of the objective and subjective approach. Beck contends that classroom discussions concerning religion should have a strong factual basis and a comparative emphasis, focusing on the similarities between various religions. However, Beck also suggests that whenever possible, students should be given the opportunity to study their personal religious beliefs.

Yet religious exploration may not take the expected form. Talbert and Romanowski (2002) describe student resistance to learning about the role of religion in American history. Rather than misbehavior, the students' resistance may take the form of vocal questioning or a conscious lack of participation in classroom assignments and discussions. As a cause of this resistance, Talbert and Romanowski point to the general confusion over the role of religion in the

classroom. Students may not know if it is appropriate to discuss their personal beliefs, or may not feel that school is a safe environment for discussing personal matters.

This may be particularly true if a student's religious beliefs differ from the community norm. In a 1998 case study, Jervis observes the effect of a family's extreme religious beliefs on their child's behavior in the classroom. To promote a more receptive environment, Jervis argues the importance of maintaining open communication and collaboration between home and school, which may include the sharing of religious beliefs with the teacher or the whole class.

Many educators believe that religious issues are of considerable importance in the classroom. Smith (1988) asserts that knowledge about various religious traditions is essential to public education, since religion greatly impacts culture. In a study on adolescent literature, Cotton (1990) finds that many novels written for adolescents have significant religious themes. Cotton argues for the recognition and discussion of religious issues when studying adolescent literature in the classroom, but says that a teacher should discuss religion without endorsing or belittling specific religious beliefs.

Does the objectivity of a teacher affect a student's response to discussion? This study explores the relationship between teacher attitude towards the discussion of religious issues and student response to discussing these issues.

Methodology

Subjects

The subjects for this study consist of four English teachers from East Forsyth High School in Kernersville, NC. These teachers are master teachers associated with the Masters Teachers Fellows Program at Wake Forest University. To preserve confidentiality, these teachers are identified as "Teacher One," "Teacher Two," "Teacher Three," and "Teacher Four."

Measures/Procedures

Throughout most of the fall semester, the researcher observed the four classrooms for approximately eight hours each. During the observations, the researcher took field notes regarding when and how religious issues are discussed. The researcher noted every mention of religious issues in the classroom (both teacher-generated and student-generated) and rated the teacher attitude on a 1-4 scale: 1 = Reflects personal bias, 2 = Objective (neutral),

3 = Dismisses topic, 4 = No response. The researcher also noted the student response for every instance. Student response was judged by desire to talk (amount of voluntary comments), eye contact with the teacher, and posture.

Analysis

The researcher analyzed the collected data and determined a general attitude for each teacher, and a general student response to the teacher's attitude. The researcher then synthesized these findings into conclusions about the relationship between teacher attitude towards religious discussion in the classroom and student response to religious discussion.

Results and Conclusions

In Teacher One's classroom, there was not enough evidence to determine a general teacher attitude or general student response to religious issues. The only instance of religion-related material was during a video of *The Adventures of Huckleberry Finn*, which contained a scene of a con artist swindling the crowd at a revival meeting. Since there was no direct teacher instruction at that moment, the teacher attitude cannot be determined, but students' laughter during the scene showed their understanding and appreciation of its context.

Teacher Two presented a generally objective attitude toward the discussion of religion. Students in Teacher Two's classroom often volunteered comments involving religious subject matter, and Teacher Two typically answered their questions on the subject with a factual, straightforward tone.

Although Teacher Three presented a viewpoint biased towards Christianity, Teacher Three also frequently dismissed student comments concerning religious issues. Teacher Three often shared personal beliefs, yet Teacher Three did not foster extended discussion of students' beliefs. However, students in Teacher Three's class seemed comfortable sharing their personal religious beliefs with the entire class.

Teacher Four alternated between an objective and a biased point of view when discussing religious issues, although the bias often took the form of humor. Teacher Four was also the only teacher in this study to tell a Bible story in class. Students in Teacher Four's class appeared engaged, judging from their eye contact and posture; however, students in Teacher Four's classroom never voluntarily discussed religious issues or shared their personal religious beliefs in class.

The results of this study are only valid for the researcher's period of observation, and therefore the results may not represent the teachers' overall attitudes towards religious discussion. However, the researcher noted that the teachers' attitudes towards religion and the students' responses tended to reflect the general atmosphere of each classroom. Therefore, the researcher concluded that the teachers' attitudes seemed to relate more to their personal teaching styles than to their personal feelings about religion. The researcher also noted that all religious references were Judeo-Christian in nature, and that religion-related comments arose in almost half of the observed classes. However, the research is too limited to determine whether this is a reflection of the prevalence of Judeo-Christian tradition in the city of Kernersville, the state of North Carolina, the southeastern region of the United States, or Western culture in general.

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Student Perceptions of a WebQuest Activity in High School Biology

By
Crystal Carter

With Robert Evans, Ph. D., Anne Kennedy, and Lisa Faulk
Wake Forest University Department of Education
December, 2002

Introduction

As technology has become increasingly proliferate and vital to progress in our society over the last three decades, computer use has inevitably found its way onto the educational scene. The advent of the Internet has made available the vast resources of the World Wide Web, which can be used to enhance student learning through research, planning, and design by both teacher and students while also meeting established national technology standards. The use of a structured web activity is one way to harness the learning potential of the Internet in the context of a safe and meaningful learning environment. A WebQuest is a structured web activity that presents a problem for students to solve in a collaborative setting. WebQuests can be easily designed to fit the specific time and content needs of each individual teacher. Student perceptions of this type of learning environment are important to investigate because their opinions of classroom activities may translate into successes in the classroom.

Review of Literature

It was hypothesized by many that the potential for computers to address students' various learning styles by presenting material in a meaningful and engaging manner would translate into greater success in the classroom (Kulik, C. & Kulik, J., 1991). The focus of the research over the last two decades has primarily been on the use of problem and case-based computer simulations and software as a tool to enhance learning. Using computer problem-based simulations and software has generally shown a positive affect on student achievement as well as an increase in student motivation and attitude toward the subject being studied (Geban, Askar & Ozkan, 1992; Sanders & Morrison-Shetlar, 1997; Lundeberg, Bergland, Klyczek, Mogen, Johnson & Harmes, 1999; VanMealle & Tomalty, 2000;).

However, implementation of technology has been problematic due to various challenges for the teacher and limitations of the software (Mandinach & Cline, 1996; Greenberg, Raphael, Keller & Tobias, 1998; Becker, Ravitz & Wong, 1999; Snyder, 2001). The arrival of the Internet could play a vital role in bridging the gap between the confining nature of software and

opportunities for customization and ease of use by the teacher and students (Seamon, 1999; Watson, 1999; Snyder, 2001,).

For this study, the use of an Internet "quest" as described by Scott (2000), was compared to a standard cell biology lab to investigate student perceptions and attitudes towards a technology enhanced, problem or case-based learning environment in biology. Student's attitudes toward their learning environment are an important factor in learning science, which may reflect positively on their achievement (Hofstein, Ben-Zvi & Samuel, 1976). The results of this research may provide teachers with incentives to integrate this technology into their classroom.

Methodology

Students from four standard level high school biology classes were randomly selected from an accessible population of a local high school to complete a questionnaire following a standard cell biology lab and again after a WebQuest activity provided they had returned signed consent forms. Two different teachers at this high school in central North Carolina taught these classes of approximately 25 – 30 students, and agreed to participate and assist in this study. One student from each of the four classes was randomly selected for two informal interviews during the study—once after their cell biology lab and again after the WebQuest activity. The two participating teachers gave their consent to be interviewed upon completion of the WebQuest. From the four participating biology classes, the teachers planned a different lab activity for each of their two classes. A flowchart of the study design is provided in Figure 1.

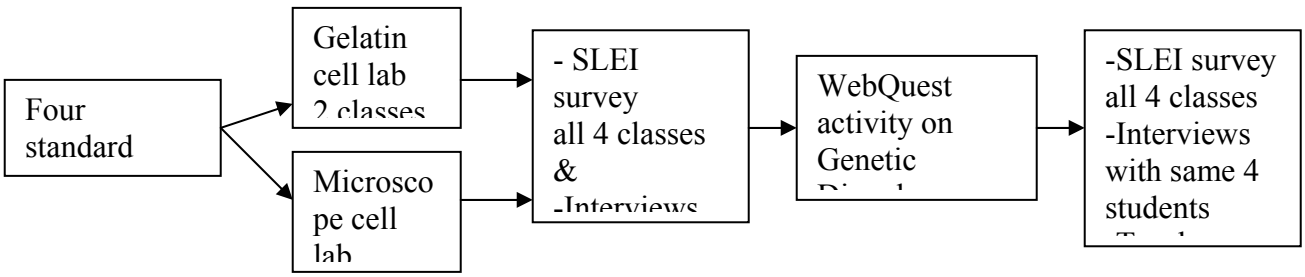

Figure 1. Flowchart of Investigation for Student Opinion Study

As a tool to investigate student perceptions of their psychosocial environment in science laboratories, Fraser (1993), developed a Science Laboratory Environment Inventory (SLEI) to assist instructors in obtaining feedback about students' views of their laboratory environment and to learn about the impact of lab activities on student outcomes. The SLEI Likert scale was

slightly modified from its original version to measure student perceptions of their environment while participating in a standard biology lab activity and again during a WebQuest activity. The survey was composed of 20 statements asking students whether they would "Strongly Agree (5), Moderately Agree (4), have No Opinion (3), Moderately Disagree (2), or Strongly Disagree (1)," to the series of statements about their lab or WebQuest activity.

Upon completion of the standard biology labs, the SLEI questionnaire was distributed to the study participants and the four participating interviewees were interviewed within several days following the lab. One week later, a one-day WebQuest activity on genetic disorders was conducted in each of the four biology classes. The author designed the WebQuest for the purposes of this study and it was examined by a panel of teaching experts and found to be suitable for use in a high school biology classroom. The four students were again interviewed about their opinions of the WebQuest activity and how they perceived their learning environment as compared to the standard biology lab. The two teachers were interviewed upon completion of this study to ascertain their opinions on the WebQuest learning environment.

Results and Conclusions

Data collected from both surveys was coded with numbers for identification and analyzed using Microsoft Excel and SPSS. The results of a paired *t-test* from SPSS were used to evaluate the differences in the means of the total SLEI scores regarding student perceptions of the lab activity and the WebQuest activity to see if they differed significantly. In addition, the means of each of the twenty questions from the SLEI of each class were also compared with a paired *t-test* to determine if there was any significance between the individual questions. Notes from the student interviews were analyzed and compared for significant findings of student attitudes toward school and learning from the SLEI questions of the two activities.

Analysis of the paired *t-test* revealed an insignificant mean difference in the total scores of the laboratory SLEI and the WebQuest SLEI surveys of all four classes as seen in Table 1.

Table 1. *Results of paired t-test for total SLEI score of four biology classes.*

	Mean	**Correlation (*r*)**	**alpha = .05 Significance (*p*)**	**n=**
Lab SLEI	78.17	*r*=.543	*p*=0.791	n=42
WebQuest	78.52			

However, question numbers 1, 2, 7, 10, 11, 12, 13, 16, and 20 did show a significant difference in the mean total values of the two SLEI surveys. Questions 1, 2, 10, 11, 12, 13, and 16 revealed significantly more positive student perceptions of the WebQuest activity than the regular biology labs. Questions 7, and 13, showed significantly more positive results for the regular biology labs. Although the null hypothesis is accepted and the alternative hypothesis, that a significant difference would exist between these two learning environments, is rejected, many significant findings from individual questions and interviews yielded worthwhile results.

In response to questions about student opinions of the WebQuest during the interviews, each of the four students was very positive about the WebQuest experience. For example:

- "Do you have an opinion as to which activity, the regular biology lab, or the WebQuest activity had more relevance to your regular biology class work? To real life?"
  - Brad and Mary*: They found the labs to be more relevant to their regular biology class work but the WebQuest more relevant to real life.
  - Sandra and Mike*: They found the WebQuest to be more relevant to their regular biology class work and to real life.

Interestingly, the students interviewed were evenly divided on the relevancy of the WebQuest to their regular biology class work. Question 20: *"This WebQuest and our regular biology class work were related,"* was found to be significant for the biology lab as opposed to the WebQuest ($p = .018$). This may indicate that students perceived the regular biology labs to be more relevant to their current class work. However, question 12: *"We used the scientific method from our regular biology class sessions during the WebQuest activity,"* was found to be significant for the WebQuest ($p = .008$) implying perhaps that students did not make the connection between using the scientific method and their regular biology class work at the time.

The students concurred that the WebQuest was more relevant to real life than the cell biology lab which reaffirms research by Geban et. al (1992), and Chang (1999), that found problem-based computer-assisted learning effectively challenges students to solve problems surrounding a real life scenario. Using genetic disorders in the WebQuest engaged students to solve the many mysteries surrounding their particular genetic disorder and therefore they perceived genetics as being more relevant to their real life than the two cell biology labs.

As a result of the means of the SLEI scores being nearly identical (Table 1), teachers can use a WebQuest in their curriculum and feel confident that students' perceptions of this type of learning environment are generally equal to a standard biology lab. Likewise, the reverse is true:

***** Students' names have been changed to protect their identity.

in general students are as positive about a standard cell biology lab as they are about using computer-assisted Internet instruction. From concluding interviews, teachers agreed that students with positive attitudes tend to perform better in their classrooms and hopefully the positive attitudes developed from this WebQuest activity will translate into success in the genetics unit. The results of this study suggest that students perceive that both regular biology labs and WebQuest activities are beneficial to their learning in biology and that WebQuests should be used more often in their classrooms.

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Students' Attitude Toward School: Motivation or Apathy

By
Chrystal D. Cox
With
Leah McCoy, Ed.D.
Wake Forest University Department of Education
June, 2002

INTRODUCTION

High school can be a difficult environment for some students. For most people, high school is the time in life when fashion determines popularity, peer acceptance determines self-worth, and parents just do not understand. While the majority of students smoothly matriculate through high school, some students are faced with difficult dynamics that directly affect their success in school. Many factors affect a student's success in school. Factors can range from parental involvement, to early childhood educational experiences, to peer relationships. Understanding the specific factors that affect student attitudes is an interesting task.

It is a common belief that most at-risk students are apathetic towards school. Gehlbach & Roeser (2002) state that "for motivation to occur one must: set goals for the future, generate sufficient emotion to produce action, and think that one has the ability to achieve the stated goals" (p. 40). The purpose of this research study is to explore exactly what "motivates" at-risk students to achieve or not achieve in school. This study will seek to describe at-risk students' attitudes toward school from their perspective. Furthermore, factors that may influence their sentiments will also be explored.

LITERATURE REVIEW

Home is the primary learning environment. It is there that children are socialized into society. Furthermore, from home, children bring their learned social skills to school. Campbell and Silver (1999) assert "social condition, social tradition or culture, and social goals influence student learning" (p. 4). An example that they provide involves poverty and education level of parents. They believe these two social conditions impact learning. Therefore, poverty limits the out-of-school educational experience

and materials that students encounter, affecting both the prior knowledge that students bring to the classroom and access to the tools that students may need to accomplish assigned tasks. (Campbell & Silver, 1999, p. 4). It is clear from this reasoning that the home life for a student is an integral part of their perception about school.

Schools are the secondary place of learning for children. It seems only logical to assume that schools will also be an effective determinant of a child's sentiments about school. Research was clear in that the status of schools (teacher quality, minority participation in honor classes, low achievement of minorities, drop-out rates) adversely affects how students view school.

Friends can also cause students not to be motivated towards school. African American students are sometimes discouraged from taking advanced courses and excelling in school by the stigma of "acting white." High achieving African-Americans encounter negative pressure from (some of) their African American peers for excelling in school. The U.S. Department of Education conducted a study and found that friends were important to learning activities, i.e., studying and getting good grades (U.S. Department of Education, 1998, p. iii). Therefore, the fear of being labeled "acting white" can adversely affect a students' motivation to do well in school. Although, excelling in school is sometimes seen as "acting white" by some minorities, Pedro Noguera suggests in *Education Week* that "educators…should get over the often-repeated idea that minority [parents] don't value educational performance" (Viadero & Johnston, 2000).

METHODOLOGY

For this study, fifteen students attending a medium sized public high school in the southeastern United States participated in semi-structured interviews. The researcher asked administrators to identify students who were "at-risk." At-risk was defined as students who were faced with one or more factors (i.e., low attendance, socio-economic status) that may increase their risk of dropping out of school. Students who were chosen by administrators of the school were asked to participate in the study. All interviews were tape recorded to assure accuracy in reporting and analyzing the data. Interviews lasted from thirty minutes to one hour. After all interviews were conducted, tapes were reviewed to gather major themes that appeared to describe students' attitudes towards school. All interviewees were confidential. Students were identified as Student A, Student B, etc.

RESULTS & CONCLUSIONS

The researcher interviewed fifteen high school students about their attitudes towards school. The study was designed to find out how certain factors influenced their outlook on school. The majority of the students were African-American (13 out of 15), while others were Latino and Caucasian. The percentage of grade levels was well distributed, and thirteen out of fifteen students interviewed were taking college preparatory coursework. When students were asked to score how well they like school, ranging from 1 to 10 (10 being the highest), the average score was 7.2. Concerning gender, 11 of the 15 were females, and the same number of students had never repeated a grade.

All of the students interviewed planned to attend college. Some planned to venture to technical school and then transfer to a four-year college. Others planned to attend college immediately after graduation. These students were very bright individuals with great dreams and aspirations. They were students whose lives were not easy, but the majority of these students had an internal will to "be something in life."

From this data, factors such as family, teachers, and the school administration were the most influential factors that affect students' attitudes toward school. Students appeared most vulnerable to the external factors of their families, teachers, and their school administrations. It seemed that students' attitudes were directly determined by opinions and expectations of their families. The students were motivated by their families to succeed, and received encouragement and praise when they excelled in school.

A common theme of negative experiences with their teachers or administrators created negative sentiments towards school. Students seemed to believe that teachers were obligated to treat students with respect, and the students repeatedly stated that lack of respect made them angry and insulted. This sort of behavior from the teachers and administrators was reported to be the most damaging influence on the students' attitude towards school.

Evidence was found to support the following conclusions: Motivation for student success is most evident from family. Mainly teachers and school administrators directly affect the attitudes of students towards school. The types of interaction, positive or negative, with the teachers and/or administrators determine the type of attitude a student will have towards school. From the students interviewed it appeared that the type of interaction had to be constant to produce reciprocal attitudes.

For example, one student stated that she was in an argument with a teacher, but she liked this particular teacher because that teacher would "help her out".

Since whether students are apathetic or motivated towards school is shaped by important external factors such as family, teachers, and school administrators (i.e., principals, assistant principals), it would be most appropriate for these parties to work together to make a child's educational experience the best possible. Based on the results of this study, schools working with students' familial environments to foster positive attitudes towards school may allow for the students to be more motivated towards school. Furthermore, this interaction with schools and families provided for greater community support of the schools. Schools must cultivate relationships with students' families, so that a healthy and constructive perception of school could be formed. This could mean
possibly their grandparents (as in one student's case, his grandmother was his primary caretaker) or students' aunts and uncle, or others who might have a direct influence on how a student views school.

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Teaching Methods in Economics Education

by
Kristen Evensen

with Raymond Jones, Ph.D.
Wake Forest University Department of Education
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Introduction

Many people who took an introductory economics class in high school or college can probably remember the teacher standing at the front of the classroom with a small podium and a piece of chalk drawing what seemed to be an endless number of graphs on the board. Students with a variety of learning styles were all supposed to glean an understanding of economics from these often complex pictures of economic theory. In addition, students with a limited or mediocre mathematics background can be confused about economic concepts and may merely memorize what they can to get by on the test, but they never really understand the economic theory behind what they memorize.

However, there are now several different models for teaching economic concepts to students. Educators are realizing that the lecture format traditionally followed in economics classes is not the only way—and might not be the most effective way—to teach the subject. This research will explore the different teaching methods that high school economics teachers are using in the classroom through observations conducted in a school district in North Carolina.

Literature Review

There is a limited amount of current literature concerning the methods used to teach economics to high school students. Most of it is related to the teaching methods employed by undergraduate economics professors and by high school social studies teachers in general. Recent literature on the methods used to teach economics to undergraduates shows that newer teaching methods can be employed in the classroom to promote active student engagement rather than passive listening to a lecture (Becker & Watts, 1995; Benzing & Christ, 1997; Wentland, 2000). The newer methods described by Becker and Watts (1995) for teaching students economics include the use of games, simulations, laboratories, writing assignments, literature, drama, case studies, and the popular and business press.

Despite the innovative methods being discussed in the literature for teaching economic ideas, undergraduate economics professors have been slow to implement the methods described by Becker and

Watts (1995) and Wentland (2000). In a survey of undergraduate economics instructors, Benzing and Christ (1997) discovered that lecture is still the most prominent method for teaching economics in the undergraduate classroom. They found that lecture is sometimes supplemented with the use of class discussion, textbooks, research papers, short papers, and experiential exercises, but few professors reported the use of the most innovative teaching methods involving the incorporation of cooperative, collaborative, or active learning.

Becker and Watts (2001) also conducted a survey of academic economists in 1995 and 2000 in order to see if the newer, more innovative teaching methods were being used in the classroom. They wanted to see if the teachers of undergraduate economics courses have been moving away from the traditional lecture method to the more active learning methods. They found that despite recent trends in higher education towards class discussion and away from lecturing, the time spent lecturing in economics classes remained at a constant 83% of class time from 1995 to 2000.

Schug and Baumann (1991), two researchers and economics educators who have done work in the field of high school economic education, reported on the strategies used to correct misunderstandings of economics among high school students. They interviewed twenty high school teachers who were known to be effective communicators of specific economic concepts such as opportunity cost, supply and demand, creation of money, and Gross National Product. They determined through these interviews that the teachers in the study often use examples that relate to the lives of the students and sometimes use games, simulations, or auctions. At the end of their study, Schug and Baumann suggest that it would be helpful to conduct a similar study using observation of high school classrooms in order to better understand effective methods of teaching economics.

Methodology

My research focused on Economic, Legal, and Political Systems (ELPS) teachers in a school district in North Carolina. Through my research I attempted to determine whether high school economics teachers in the district are employing innovative, more effective teaching methods that undergraduate economics teachers are largely failing to incorporate into their classrooms. This is useful knowledge for economics educators who are trying to determine and keep up with best practices in their field so that they can effectively educate high school students in economics.

In order to find out what methods the ELPS teachers are using to teach economics in their classrooms, I observed five teachers for six class periods each. Every two minutes I recorded the teaching method that the teacher was employing at that particular point in time. From this information, I

was able to draw some conclusions about the methods that are prevalent in the high school economics classrooms that I observed.

Results

The results differ significantly from the methods that are reportedly being used by undergraduate economics professors who lecture during 83% of class time (Becker & Watts, 2001). An analysis of the charts that I completed during my observations reveals that the five high school economics teachers I observed lecture an average of 18.74% of the time. Class discussion is the method that the teachers employed most often, but this method was only used an average of 28.39% of the time. The teachers also used a variety of other methods including small group activities, classroom games and simulations, videos, textbooks, current events, and student presentations.

Table 1 outlines the average percentage of time that the five teachers spent employing a variety of methods.

Table 1

Method	Percentage
Total Class Discussion	**28.39**
Total Lecture	**18.74**
Small Group Activities	**14.41**
Current Newspapers/Magazines	**11.05**
Classroom Games/Simulations	**9.79**
Textbook	**7.69**
Administrative Tasks	**5.17**
Quizzes	**4.76**
Video	**4.48**
Student Presentations	**4.48**
Instruction Ends Early	**2.10**
Writing Assignments	**1.68**

One can see that the percentages do not total one hundred. This is because there are other methods that were included on the observation chart that were not included in this table because of the low frequency of their occurrence. In addition, several of the categories overlap with one another. Some of the methods that were not used at all during the classes that I observed include programmed instruction, guest speakers, pictures/35 mm slides, and computer simulations. It is clear from the results of this study that each of the teachers employed a variety of methods in their classrooms. None of the teachers used any particular method more than half of the time total time that I observed in their classes.

Conclusions

I began this study in order to determine what methods are most prevalent in high school economics classes, and I expected to find that high school economics teachers lectured about as often as their counterparts who are teaching undergraduate economics courses. However, it appears as though there is a marked difference between the methods being used by the high school economics teachers who participated in this study and undergraduate economics professors, who have been found to lecture during 83% of class time (Becker & Watts, 2001). The differences in methodology between the Becker and Watts study and this study could possibly account for the apparent variation in the methods used by high school and undergraduate economics teachers. Whereas Becker and Watts used a survey with 591 respondents, the results of this study were limited to observations that occurred in five high school classrooms.

On the other hand, perhaps the variation in methods used by high school economics teachers indicates their awareness that the students in their classes have a variety of learning styles and that they are doing their best to accommodate those learning styles. Perhaps the high school economics teachers who participated in this study are doing their students a great service by using methods that researchers such as Schug and Baumann (1991), Son and VanSickle (1993), and Fraenkel (1992, 1995) have determined to be more effective than lecture.

Although the teachers are using a variety of methods, this does not indicate that the variety of methods makes their teaching effective. The purpose of my research was not to analyze the effectiveness of the methods that high school economics teachers are employing in the classrooms, but simply to gain a better understanding of the types of methods that teachers are employing. Therefore, I did not formally collect data in order to determine the effectiveness of the methods that the teachers used. However, these observations do seem to suggest that almost all teaching methods can be used effectively or ineffectively.

In order to draw sound conclusions about which of the methods are effective most often, more research needs to be done in high school economics classrooms. This information would be useful so that high school economics teachers can alter their practices in order to enhance the learning of students in their classes. There is a significant amount of literature which indicates teaching methods that are effective across the disciplines, but further research is needed (Marzano, Pickering, & Pollock, 2001). Very little is known about what is actually going on in high school economics classrooms.

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Exploration of the Frequency and Depth of Moral Discussion in Secondary English Classrooms

by
Joan E. Ferran

with
Joseph Milner, Ph. D.
Wake Forest University Department of Education
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Introduction

In the wake of a politically correct society, it seems that moral instruction has a precarious place in the secondary curriculum. The term 'moral development' has gradually become synonymous with certain religious values, and thus is pushed aside as having no place in the school system. However, recent research suggests the crucial importance of moral discussions in the classroom to help students think critically and analyze material from a variety of perspectives. Moral discussions challenge students to think beyond a surface understanding of classroom material to consider a broader spectrum of ideas and principles. Teaching literature provides a springboard for moral discussions with its presentation of human interaction and conflict. Therefore, the purpose of this research is to explore the frequency and depth of moral discussions in several high school English classrooms. Through these specific studies, I will investigate whether or not English teachers provoke moral discussion through questions or statements in the study of literature to help students gain a deeper and more abstract understanding of the material.

Review of Literature

Despite the difficulty of measuring and analyzing moral development, many researchers have found consistent evidence of the importance of education in the enhancement of individual moral development. Perez-Delgado and Oliver (1995) found that formal education has more of an influence on moral development than age. Therefore, education plays an important role in the development of students' moral judgments, because students do no necessarily progress naturally toward a more abstract understanding as they grow older.

Tirri and Pekhonen (2000) examined the teacher's central role in their study focusing on the moral reasoning and argumentation skills of gifted adolescents in a science classroom. They found that students with high intellectual abilities do not necessarily possess mature moral

judgment skills. Further studies with gifted adolescents performed by Howard-Hamilton (1994) focused on the use of the dialogue method of dilemma discussions in the classroom. This approach, which they found to be successful, involved "the ability to maintain open-ended questioning and an appropriate balance between support and challenge" (Sprinthall & Sprinthall, 1990 cited in Howard-Hamilton, 1994, p. 57). As a result, they pointed to the crucial role of teachers and educators in nurturing the moral growth of their students by guiding them through explorations and discussions of ethical issues in the classroom.

Other researchers have applied these methods directly to the study of literature. Garrod and Bramble (1977) point to the pertinence of moral discussions in literature study to promote students' critical thinking and personal moral development. Johannessen (2001) found that values discussions fusing character analysis with students' personal values were an effective technique for enhancing student understanding of literature. These studies indicate that teachers of literature possess the tools to promote moral and critical thinking due to the moral content that many writers and poets employ in their works.

The most recent research suggests that literature may be the vehicle through which students are able to grasp moral concepts and develop their moral judgment skills. Ultimately, the body of research suggests that an English teacher may guide the moral development of his or her students by creating an atmosphere in which students can discuss moral issues that arise naturally out of literature.

Methodology

The subjects in this study were sophomore, junior, and senior secondary English students as well as four English teachers at a suburban high school of approximately 1,700 students in Winston-Salem, North Carolina. These students span a wide range of ability levels including Practical English, Standard English, and Honors English. The students represent different cultural, racial, and economic backgrounds.

The researcher did not specifically interact with the students or teachers, therefore student and teacher names were kept anonymous. Teachers were assigned numbers for the purpose of data analysis. The researcher observed approximately three to four classes per week for an eight-week period. Because this study focused on moral discussions arising from literature study, only those classes in which literature discussion occurred were included for data analysis. Data was collected in the form of field notes recorded during classroom observations with special attention

to discussions involving moral questions or dilemmas. The researcher paid close attention to the methods of each teacher in terms of the way in which he or she fostered, hindered, or encouraged moral discussion among the students. The purpose was to record the frequency as well as the types of moral questions and statements that teachers used and the depth of the student discussion that followed.

After the data was collected, it was synthesized using four charts to categorize the frequency, type, and depth of moral discussion. The first chart was used to record the frequency (presence/absence) of any type of moral question or statement that could provoke a moral discussion. A statement or question was considered moral if (1) it had the potential to provoke student discussion about the judgment of goodness or badness of human action or character or (2) it had the potential to provoke students to consider their personal set of values or beliefs. The chart was divided into the presence or absence of moral content in each class period, and a percentage was derived to indicate the frequency of moral questions or statements in each class.

The second chart categorized the teachers' moral questions or statements as open-ended (broad question with little teacher input), guided (leading question or statement of teacher opinion), and dismissed (statement ending discussion or neglecting student opinion). An overall percentage was derived to indicate which of these types of questions or statements were most prominent.

The third chart demonstrated the depth of the moral discussion that arose from each question or statement based on the amount of time the discussion continued after the question or statement was made. The amount of time was categorized as extended (more than 3 minutes of discussion), brief (short individual responses or less than 3 minutes of discussion), and none (no student response or discussion). A percentage was calculated for each category in terms of its relationship to the whole number of questions or statements to determine which ones evoked the most discussion. Chart four divided this information according to the depth of discussion evoked by each individual teacher.

Results and Conclusions

Overall data indicated that a teacher presented a moral question or statement 45.8% of the time the researcher observed. Teacher One presented a moral question or statement 75% of the time, while Teachers Two and Three posed moral ideas in a given class period only 25% of the

researcher's visits. Teacher Four used moral questions and statements in discussions of literature 62.5% of the class periods observed.

The data from chart two revealed that 75% of the teachers' moral questions or statements were open-ended, 6.25% were guided, and 18.75% were dismissed. Teacher One and Teacher Three prompted two moral questions/statements, while Teacher Two presented only one during the researcher's observation period. Teacher Four created seven moral questions or statements for her students during the research time.

The third chart indicated that the guided and dismissed moral statements and questions did not evoke any student response whatsoever. The open-ended statements and questions promoted four instances of extended discussion and eight instances of brief discussion. A derivation of this data indicates that approximately 33% of the open-ended statements resulted in an extended moral discussion. Data from the fourth chart reveals that Teacher Three fostered the most extended moral discussions. Moral statements and questions posed by Teacher Four resulted in the largest number of brief moral discussions.

After combining the relevant data, the researcher concluded that although teachers presented moral questions and ideas to students, extended moral discussion was not often present in the English classrooms observed during the research period. Because almost half of the overall literature discussions contained some type of moral question or statement, it appears that these teachers are successful in fostering moral discussion. However, since there were only four instances of extended moral discussion that resulted from these questions in twenty-four total class periods, it seems that moral discussion itself is not prioritized in the classroom. Teacher One appears to promote the most moral discussion, because he or she presented a moral question or statement during 75% of the class periods observed. Teacher Four ranked second with 62.5% and also posed the most open-ended questions or statements. However, both of those teachers' questions or statements fostered only one extended discussion each. Teacher Three who created moral questions only 25% of the time, promoted two extended discussions. This indicates that it may not be the frequency of teacher provocation of moral topics that determine the occurrence of moral discussion in the classroom.

Thus, it may be the types of questions alone that lead to in-depth student discussion of moral issues. The remainder of the data revealed that open-ended questions were definitely the most effective means of promoting moral discussion. Despite the obvious failure of guided and

dismissed questions, it seems that the open-ended questions did not automatically lead to extensive moral discussion either. Because extended moral discussion occurred as a result of only 33% of the open-ended questions, it seems that the *nature* of the open-ended questions is also a determining factor. The nature of questions must be considered in terms of each individual teacher's approach.

The most effective questions incited students to examine their personal beliefs directly through a discussion of religion, and indirectly through a role-play scenario. Follow-up questions that the teacher posed during the discussion were also effective. This research suggests that it is the type and nature of the questions that each teacher asks rather than the frequency of moral questions posed that ultimately influences the presence or absence of moral discussion in an English classroom. A study of these four teachers reveals that in order to provoke moral discussion, teachers should ask questions that are broad, intriguing, and questions that provoke examination of students' personal values. Further suggestions include asking follow-up questions to foster further discussion and encourage students to justify their responses.

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Exploring Students' Perceptions of the Relevance of Mathematics

By
Jill Frankfort

With Dr. Leah McCoy
Wake Forest University Department of Education
December, 2002

Introduction

In *Principles and Standards for School Mathematics*, the National Council of Teachers of Mathematics describes a vision for math education and outlines the need for math in today's changing world. The organization focuses on the importance of knowing math for life, for the workplace, for the scientific and technical community, and as part of our cultural heritage (NCTM, 2000). Despite these goals, recent research has suggested that American students may not understand the connection between their coursework and its application to their current and future lives (Johnson, 2000). Kloosterman, Raymond, and Emenaker (1996) have also shown that while students believe that math is "useful," few can provide examples of using math in detail or in a variety of settings.

Related research exploring the consequences of this lack of understanding suggests a relationship between math achievement and perception of the relevance of math. Fennema and Sherman (1978) found that students who scored high on math achievement tests viewed the subject as more useful than students who scored low. They also observed gender-related differences in students' perceptions of the usefulness of math only in schools where there were gender differences in math achievement.

This study will explore high school students' perceptions of the relevance of their math coursework to life as well as the relationship between their perceptions and achievement in math. In doing so, this study will further past research by looking qualitatively at how students articulate their perceptions of the relevance of math.

Literature Review

Some researchers have conducted qualitative studies that have focused on revealing students' perspectives on classroom learning and its relationship to their futures. In a study of 400 6th and 9th graders, Johnson (2000) found that the majority of students did not view school

work as being pertinent to vocational objectives and had little or no awareness of how lessons in their favorite school subject could relate to future occupations.

Kloosterman, Raymond, and Emenaker (1996) focused on the development of mathematical beliefs in elementary school students. They found that while 90% of the students believed math was useful, the majority were unable to give more than superficial examples on the use of math in real-life. Moreover, the researchers discovered that students' examples of the use of math did *not* increase in complexity over the three years of the study.

Fennema and Sherman (1977) have studied the implications of beliefs about the usefulness of math on achievement. In their study of four high schools, they observed sex-related differences in students' perceptions of math only in schools where there were sex-related differences in math achievement. When these attitudinal factors were controlled, the difference between the sexes in math achievement was not significantly different, suggesting that beliefs about math do indeed impact achievement. However, more recent research suggests that the relationship between perceived usefulness and achievement may be more complicated than initially realized. Studies (Elliott, 1990; Pajares & Miller, 1994) have shown that self-efficacy beliefs mediate the effect of perceived usefulness.

Methodology

Using a convenience sampling technique, 44 students at a public high school in a medium-sized city in central North Carolina were recruited to participate in this study. All of the participants were enrolled in an Algebra 2 course and were taught by the same teacher. The sample included 22 females and 22 males.

Participants were asked to complete a 25-item questionnaire, designed to assess their perception of the relevance of their mathematical coursework to their current life and future. The questionnaire contained open-ended and demographic questions as well as the Perceived Usefulness of Mathematics Scale (Fennema & Sherman, 1976). The open-ended questions focused on how participants use math now, how they think they will use it in the future, and how their teachers have related math to daily living and/or careers. The responses given to the open-ended questions were analyzed thematically.

Scores on the Perceived Usefulness of Mathematics Scale, which has a reliability of .88, range from 12 to 60. The scale is designed so that higher scores indicate that participants find math to be more useful. The questionnaires, which took approximately 15 minutes to complete,

were administered by the researcher during Algebra 2 class periods. The researcher also collected participants' scores from the statewide end-of-course math test from the school's administration. Scaled scores for the end-of-course tests range from 0 to 100. End-of-course test scores from the previous year were available for 27 participants.

Results and Conclusions

Quantitative: The mean score on the Perceived Usefulness of Mathematics Scale for males was 45.95 (SD = 8.22), which is in the 41st percentile and the mean score for females was 50.68 (SD = 3.58), which was in the 73rd percentile (Fennema & Sherman, 1976). The mean scaled score for participants on the end-of-course math test was 74.19 (SD = 11.82). The correlation between participants' perception of the usefulness of math and achievement on the end-of-course math test was .209 and this was not significant.

Qualitative: An overwhelming majority of the participants indicated that it was important to learn math. Three key themes emerged from participants' responses about why it is important to learn about math.

Everything in life involves math. Many participants emphasized the ubiquitousness of math in the real world without providing specifics. Responses, which are reported verbatim, included "You need to know math to survive everyday" and "Everyday in life, whether we know it or not, we use math."

Math is necessary for the future. Many participants focused on some nebulous value of math for the future. Responses included "I may need math when I grow up" and "If I don't learn math, I won't have a good future."

Math is necessary for careers. Participants also stressed the role math plays in career success. Responses included "Many careers depend on math" and "Math helps you accomplish tasks in different professions." A handful of participants were quite specific, referring to distinct careers such as engineering.

The data also revealed the role math plays in participants' daily lives. The majority of participants indicated that they use math almost all the time. Participants indicated that they primarily use math at school or to perform basic daily activities such as counting money, shopping, and telling time. When participants were asked what they have learned so far in math that is most relevant to their everyday life, their responses appropriately paralleled their responses on how they use math. Nearly all participants offered one or more of the following

responses: addition, subtraction, multiplication, division, or percentages. Only three students named more advanced math facts or skills as most relevant to their everyday lives.

When participants were asked how their math coursework might be used in the future, most participants referred to careers in general or offered a specific profession. Significantly, beyond the few students who mentioned paying bills or buying stuff, no other participants offered details on how their math lessons could be applied in the future. Participants were also asked to share how their math teachers have related math to employment. Most participants indicated that their math teachers have told them that math is important in all professions.

In light of previous research, it was surprising to find no relationship between the affective variable, perceived usefulness of math, and math achievement (Fennema & Sherman, 1978). However, this study did find females to perceive math to be more useful than males, another conclusion contrary to the findings of previous research studies (Fennema & Sherman, 1977). Taken together, it is possible that the sample for this study, which was small, was skewed in some way that prompted such unexpected results. Another possibility is that the results support recent work that suggests that perceived usefulness does not directly affect achievement, but is rather mediated by other affective variables like confidence and self-efficacy (Elliott, 1990; Pajares & Miller, 1994).

Across the board, this study's results indicate that students believe math is important and useful. The majority of students, however, are unable to provide specific examples that reveal the value of math. Such a result parallels the findings of Kloosterman et al. (1996).

Kloosterman et al (1996) also found that elementary school students do not develop more thoughtful examples about the uses of math as they mature but continue to offer simplistic responses. Given that this study shows that high school students can provide few details about the usefulness of math when questioned, it appears that students' articulations about the importance of math remain consistent – and limited -throughout the K-12 experience.

Students in this study overwhelmingly believe that nearly everything in life involves math and accordingly, they indicated that they use math almost all the time. However, students employ only the most basic math skills and accordingly, they see math's worth only in terms of helping them shop, tell time, or "counting money so no one will cheat you." It is only the rare high school student that employs math in more complex ways.

Students also report that math is necessary for the future. Yet, it appears that many students are just reiterating statements that they have heard and lack an understanding of how math is actually used in adult life. When questioned about the relationship between math and employment, only a handful of students could be as specific as to state professions that require math. The majority of students could only offer general comments such as "all careers have something to do with math." Even more significant is the fact that not a single student mentioned any high school level math that would relate to a future career.

While further research is necessary to confirm the qualitative findings of this study, the results suggest that many students leave high school without a concrete understanding of how math, beyond the basics, can be used in the workplace, in the scientific community, and in daily life. As the NCTM purports, today's world demands students who understand the multiple applications of math. To achieve this aim, math educators must replace trite statements about the importance of math with lessons that show how advanced math knowledge is actually used outside of the classroom. As one participant explained, "When I don't see how the math we learn actually affects my future, it feels like a waste of time."

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Process Over Product: Does It Really Make a Difference?

By
Evelyn C. Frye

With Mary Lynn Redmond, Ed. D.
Wake Forest University Department of Education
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Introduction

In the technologically permeated twenty-first century and in an ever-changing global world that continues to rid itself of the age-old limitations that language, distance, and culture once imposed, communication has become the key to success, and in fact, the very essence of survival in a number of arenas. Communication is the central focus of the foreign language classroom, indeed, its *raison d'être*. The foreign language teacher is faced with the challenge of integrating the development of listening, speaking, reading and writing skills for the purpose of communication within the context of the cultures of the target language. This research project examines the effects of the use of an approach to writing known as "process writing" in the beginning foreign language classroom. Process writing is an approach to writing which involves a series of carefully sequenced stages (Omaggio Hadley, 1993), including *pre-writing, writing,* and *post-writing.* The primary focus of process writing is on the *learning* that takes place *during* the process of writing, rather than *solely* on the final product. This study examines the effects of process writing on both the final written product and the comfort level with which students approach writing.

Review of Literature

Writing is an essential component of a well-balanced foreign language curriculum, a vital communicative skill that connects human beings and the exchange of information through the written word. Liontas (1989) states that it is crucial for foreign language teachers to choose and structure writing tasks carefully that mirror "the same natural and authentic purposes for which writing is actually used by native speakers of the target language" (p. 3). Understanding the purpose and the elements of the writing process, as well as knowing how to structure this process appropriately for the student's level of proficiency become key components in the development of effective strategies for teaching writing.

Scholars such as Scott (1995) and Liontas (1989) are calling for the teaching of writing to begin at the novice level. Kroll (1990) states that written expression in the foreign language is even more difficult for the learner than in the first language, requiring the student to learn how to use limited linguistic proficiency in the foreign language to express his/her ideas in a less complex way and to reflect the culture inherent in the target language. It is essential that the teacher recognize the challenging nature of writing and its potential powerful effects, both positive and negative, on the learner and that a variety of strategies which help the student to generate, organize, and express ideas in written form be used.

Omaggio Hadley (1993) states

> second language writing instruction that is carefully planned can help students learn more about the composing process itself, a recursive, problem-solving activity that has the potential to affect students' writing and thinking skills in their native language, thus extending the benefits of language study well beyond the limits of the second language classroom (p. 294).

The teaching of writing can become a powerful and effective tool in the hands of foreign language teachers who are pedagogically well-equipped for the instruction of writing.

The development of written expression in the foreign language is a complex, multi-faceted process that requires deliberate and diligent construction on the part of the teacher. Researchers concur that the writing process includes three primary stages: pre-writing, writing, and post-writing, although they employ a variety of terms for each stage (Silva, 1993; Shrum, 2000). During the pre-writing stage, the importance of activating schema in order to facilitate the acquisition of new information, as well as their application and synthesis has been emphasized for some time now. The pre-writing stage can be viewed as a time to assimilate available information and resources, as well as the screening and organization of that material. The use of the graphic organizer during this stage of writing is highly effective with beginning second language learners according to Kaelin (1991). DeWispelaere and Kossack (1996) state that graphic organizers seem to have been "specifically designed to facilitate the teaching of foreign languages" (p. 42). Venn Diagrams, comparison matrices, Know, Want to Know, and Learned (KWL) charts, and classification webs and columns are just some of the types of graphic organizers that enable students to visualize, organize, analyze, and synthesize previously and newly learned materials before beginning the actual composition process.

Once a sufficient number of ideas has been generated, selected and organized, group composition is an effective method to initiate the next stage of the writing process, giving the

foreign language teacher an open door to include a variety of vocabulary, grammar, and cultural tidbits in a completely natural, need-to-know setting, thus fulfilling the "natural and authentic purposes" referred to by Liontas (p. 3, 1989). Modeling the writing process serves as a guided practice activity that provides a firm foundation from which students can begin to apply and practice the skills that they are learning. Thus, they are empowered gradually to write independently within carefully constructed parameters.

When the first draft is completed, students enter the third stage of writing, identified as *revising*, *reviewing*, and/or *editing* by many researchers (Lee & Van Patten, 1995.) Most researchers support the frequent use of reviewing and rewriting throughout the writing process and not solely in a distinct, final stage. Three important components of the rewriting stage are peer editing, teacher feedback, and the writing of multiple drafts. The entire final stage can be repeated more than once. The implementation of process writing in the foreign language classroom has the potential to develop a wealth of integrated communicative language skills far beyond those of the traditional composition.

Methodology

The purpose of this study is to compare the effectiveness of the traditional approach to writing with process writing, including the use of a graphic organizer and group composition. A rubric which reflects some of the Five Domains of Performance in the *ACTFL Performance Guidelines for K-12 Learners* (1998) was used to evaluate the compositions on a scale from 1 to 4 (1 being lowest and 4 being highest) in each of the following categories: *Comprehensibility, Communication of Ideas, Organization, Accuracy, and Creative Use of Language*. Additionally, the researcher observed the questions students asked during the writing process and reflected upon the ease with which they approached the writing task.

This study was conducted in the researcher's two Sixth Grade French classes in a Middle School in north-central North Carolina during the spring of 2002. Group A consisted of 20 students, who had begun French for the first time in August 2001. Group B consisted of 27 students in a different French class, most of whom had had 3-6 years of French instruction in two well-developed and carefully sequenced elementary programs prior to entering the Sixth Grade. The instructional unit focused on the home. Students in both groups participated in a variety of activities and tasks during the introductory and practice stages of the unit. Both groups participated in a brain-storming activity led by the teacher. This step led the subjects in Group B

into the independent writing stage, while students in Group A were led by the researcher during two additional pre-writing activities in which Group B did not participate: (1) The students in Group A organized the information generated during the brainstorming session on a graphic organizer that depicted the outside of a house. (2) The researcher then modeled how to write a descriptive paragraph during a group composition, as well as a paragraph about one of the rooms in that house. Students were then directed to proceed with writing their compositions in the same way as Group B. The researcher evaluated the compositions using a rubric with the previously-mentioned categories, in order to compare the frequency of scores at each level in each category for both groups.

Results and Conclusions

The less-experienced Group A had more *Comprehensibility* scores of 4 than Group B, but Group B had a slightly higher number of combined percentage scores of 3 and 4. Their prior Elementary Foreign Language experience may have been a factor in this category. The *Organization* scores were significantly higher for Group A, but the *Communication of Ideas* scores were very similar for both groups. Group A had higher *Accuracy* scores, but lower *Creative Use of Language* scores. The subjects in Group A were more accepting of encouragement to keep their thoughts simple and limited to what they knew in French, while the Group B subjects delighted in branching out with more complex language structures and in putting language together in new ways.

The researcher also noted that the less experienced Group A subjects began their first independent paragraph much more quickly, confidently, and with fewer questions than their counterparts in Group B. It is possible that the relatively error-free modeled paragraphs created a successful beginning that enabled them to begin working independently with relative ease. The researcher had expected much more anxiety from the beginners than occurred, indicating that the process writing techniques used led to increased comfort level and may have lowered the affective filter.

In both groups, the students' awareness of similarities and differences between writing in French and English was heightened and their sense of empowerment through the creative use of language and the production of a quality project was evident. The researcher found that flexibility in the required amount of writing enabled all students to proceed comfortably and efficiently. It was noted that several writing skills that are taught in the core Communications

curriculum seemed to transfer readily to the foreign language; however, without exception, the students had to be helped in creating a concluding sentence for each paragraph and for the entire paper itself. In addition, it is certain that a significant amount of time should be devoted to process writing.

It is clear from this study that process writing does have a positive effect on both the actual writing process and the quality of the final written product. Specifically, during the pre-writing stage, the use of a graphic organizer and group composition have a positive effect on the writing process and on the quality of the final written product. Even beginning foreign language students can participate in a writing project confidently and successfully with the careful selection, structuring, and sequencing of pre-writing steps.

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Between Ideal and Real: Pedagogy in the Social Studies Classroom

By
Benjamin C. Galea

With Raymond C. Jones, Ph.D
Wake Forest University Department of Education
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Introduction

The goal of social studies education is often described as the acquisition of the knowledge, skills, and attitudes required for effective citizenship (Banks, 1990; Bining & Bining, 1935; Fenton, 1996). There are many different interpretations of what this goal means and how we are to achieve it. Social studies can be, and has been, taught in many ways: the lecture method, the problem or inquiry approach, through simulation or reenactment, working with primary sources, and through historical novels and films (Bateman, 1990; Beyer, 1971; Freire, 1970; Lee 1994; Weiner, 1995). Despite the variety of available instructional techniques, social studies education has historically been dominated by the lecture method (Banks, 1990; Bining & Bining, 1935). This study finds its origins in the dilemmas teachers face in choosing approaches to instruction. The research examines whether teachers perceive a conflict between the way they teach and how they would prefer to do so.

Literature Review

The basic principles of the traditional lecture are in accordance with the primary goal of American education, namely the acquisition of knowledge and information (Fenton, 1966). This aim is far from the articulated goal of social studies education, but some scholars are satisfied with this outcome (Banks, 1990). Even though lecture dominates our social studies pedagogy, it is not without its critics; scholars claim that students taught through factual content coverage soon forget the knowledge with which they are presented and that the lecture method does not promote critical thinking skills (Adeyemi, 1992; Banks, 1990; Bateman, 1990; Beyer, 1971; Fenton, 1966; Lee, 1994).

If these claims are accurate, then there must be a reason, or reasons, why we do not see a greater variety of instructional techniques in secondary social studies classrooms for, in the end, the choice of pedagogy lies with the teacher alone. Many scholars describe specific factors that negatively affect social studies pedagogy including a lack of pedagogical or content area

knowledge, the influence of other teachers, unskilled students, school or department norms, and the national and state emphasis on standardized tests (Burroughs, 2002; Cohen & Nath, 2000; Fenton, 1966; Fielding, 2000; Freidus, 1997; Lee, 1994; Muskin, 199). If teachers desire to use alternative methods of education and feel unable to do so, then which of these factors do they perceive to be the most significant barrier to practicing in their ideal manner?

Methodology

The participants in this study were drawn from all faculty members in the social studies departments of three randomly selected high schools in a district in the southeastern United States. The first ten teachers to respond to an initial email and a subsequent additional email request became the participants in this study. Each signed an Informed Consent agreement indicating their willingness to take part in one interview of approximately thirty minutes in duration. The participants were asked questions focusing on their educational and professional backgrounds, their preferred methods of social studies instruction, the way in which they currently practice, and the variables that negatively impact their pedagogy.

Data Analysis

The purpose of this study was to determine whether a gap exists between actual and preferred practices among high school social studies teachers. After analysis of the ten interviews, consistent themes emerged that suggest these participants can be divided into two distinct groups, occupying either side of the essential question. Half of the participants believe their current practice is close to their ideal; half perceive a gap. The "no gap" group includes four teachers who have been teaching for ten or more years, and one who has two years experience. Four of the five teachers in the "no gap" group teach courses associated with an end-of-course test. Four of the five teachers in the "gap" group have graduate education degrees, but all five teachers in this second group have been teaching for less than ten years and are responsible for a course associated with an end-of-course test.

This study found similarities in the way the two groups describe their ideal objectives. Four of the five teachers in the "no gap" group want their students to understand the social, political, and economic themes in social studies. Four of these teachers also hope to promote the development of critical thinking skills among their students. Three of the five teachers in the "gap" group also want to teach students to use cognitive skills and to analyze generalizations, but, unlike the teachers in the "no gap" group, these teachers feel as though they are unable to

achieve these goals with their students. Instead, all five teachers in the "gap" group describe teaching "to the test" as the primary objective in their social studies courses.

The next category of analysis was the activities that the participants use in the classroom in order to bring students to an understanding of the objectives. Of the ten participants in this study, nine cite lecture as an instructional technique, but there are noteworthy differences between the weights the "gap" and the "no gap" groups assign to this method. All five teachers in the "gap" group describe lecture as a dominant form of instruction, but four of the teachers in the "no gap" group claim that they use lecture only sparingly. Instead these "no gap" teachers use class time for discussion and group research. Four teachers in the "gap" group would like to use activities such as primary source research and peer teaching in their classrooms, but they feel as though they cannot do so without sacrificing full coverage of the core curriculum.

The assessment practices of the teachers in the "gap" and "no gap" groups reflect the same trend as the objectives and the classroom activities. All five teachers in the "gap" group use multiple-choice tests as their primary way of measuring the change that takes place within their students as a result of the learning process. Four of these teachers would rather their students demonstrate understanding through various writing exercises, but feel as though they must prepare their students for the end-of-course tests. Three teachers in the "no gap" group also use multiple-choice questions to prepare students for these standardized tests, but do not rely on this method to accurately gauge student progress. Writing is used more than any other assessment strategy in four of the five teachers' classrooms in the "gap" group, and evaluating discussion also provides these teachers with an opportunity to reduce the threat and pressure students associate with grades.

Teachers in the "no gap" and "gap" groups both cite a lack of academic skills and the required pacing of their courses as the most notable barriers to teaching in their ideal manner. These are the only two notable variables about which teachers in the "no gap" group comment. At least three teachers in the "gap" group also mention unmotivated students, a lack of technology in the classroom, pressure to have their students perform well on the end-of course test, and administrative pressure and policies as other factors that negatively influence their pedagogy.

Conclusions

The purpose of this study was to examine whether secondary social studies teachers feel they are able to employ methodologies that they deem most appropriate, or if they feel constrained in their choice of approaches. Moreover, this research sought to determine if teachers could articulate the source of any such conflict from the pressures, expectations, and requirements associated with the profession. The design of this study is not without its limitations. The scope of the research is too limited to accurately project findings onto the population, the method of subject selection is biased toward those interested in pedagogy, and any self-reported data without associated observation or other means of confirmation must be somewhat suspect.

This research demonstrates that ninety percent of social studies teachers are using the lecture method in some capacity in their social studies courses. All have chosen to do so because didactic instruction allows them to fulfill their objectives, in part or in whole. Since both "no gap" and "gap" groups are responsible for courses associated with an end-of-course test, this study suggests that teachers can choose their objectives for their course because those in the "no gap" group are able to do so. As this study indicates, fifty percent of the participants report that they are not able to help their students reach their ideal objectives for them. The similarities between the ideal objectives, activities, and assessments of the "no gap" and "gap" groups suggest this is not a matter of knowledge or intelligence. This study implies that experience is the primary variable in determining whether teachers are able to facilitate the achievement of their desired objectives. Although this study does not reveal the secret, teachers in the "no gap" group must have learned some way to work within the system and to mesh their own beliefs about social studies education with those of the state.

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Strategies and Techniques Used to Develop Oral Proficiency in the Secondary Spanish Classroom

By
Krishauna L. Hines

With Mary Lynn Redmond, Ed.D.
Wake Forest University Department of Education
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Introduction

The United States should strive to educate students who are linguistically and culturally prepared to communicate effectively in a pluralistic American society and abroad (American Council on the Teaching of Foreign Languages 1996). One no longer has to travel abroad to witness the growing demand for foreign language learning due to the fact that the United States is a melting pot to which many cultures assimilate. According to the *2000 US Census Report*, (U.S. Census Bureau 2000) the Hispanic population appears to be the most rapidly growing minority group. Over the past ten years, the national Hispanic population in the United States has grown by more than 60% causing this group to surpass the African-American population as the largest minority group.

Review of Literature

As the Spanish-speaking population grows, there is also an increase in the enrollment in Spanish at the secondary level. A nationwide project conducted by Draper and Hicks (2002) entitled *Foreign Language Enrollments in Public Secondary Schools* reported that Spanish continues to dominate foreign language instruction in the United States. Spanish accounts for almost 70% (68.7%) of all language enrollments in grades 7-12. From 1994-2000 while most languages had declined or remained steady, Spanish enrollment increased by 3%, causing the number of students enrolled to increase to 800, 000 (Draper & Hicks 2002).

According to the United States Department of Education's *Educate America Act* (Goals 2000), foreign language is now recognized as a core subject. The purpose of Goals 2000 was for selected academic disciplines to delineate national standards for instruction and learning (Leloup & Ponterio 1998). As a result, the American Council on the Teaching of Foreign Languages (ACTFL) developed the *Standards for Foreign Language Learning* (1996) as a means to create a uniform standard for K-12 content knowledge so that foreign language instruction could have a national gauge for excellence. They are organized within five interconnected goal areas called

the Five C's: Communication, Cultures, Connections, Comparisons, and Communities (ACTFL 1996). The *Standards for Foreign Language Learning* (1996) are the "what," while the ACTFL *Performance Guidelines for K-12 Learners* (1998) are the "how" of foreign language learning (p.1). The content standards define the content knowledge students should attain and be able to perform in K-12 foreign language instruction. The guidelines were developed to help foreign language educators measure how well students demonstrate language ability at various points along the K-12 foreign language continuum. To measure how well students communicate in a foreign language, the guidelines use the following modes: Interpersonal, Interpretive, and Presentational.

According to the national standards, communication is the heart of foreign language study. While the other four C's are essential to foreign language development, communication is the present organizing principal for foreign language study (ACTFL 1996). Emphasis is given to communication because of the growing need for citizens who are proficient in more than one language. Learning to communicate at the level of a native speaker is the ultimate goal of the foreign language program (ACTFL 1996).

Current research and literature detail effective instructional strategies and techniques that aid the foreign language teacher in maximizing his/her potential to promote oral proficiency development (Hadley 1993; Krashen 1982). One instructional approach is Communicative Language Teaching (CLT) which builds on the principle that language use is not only governed by phonological and grammatical rules, but also by sociolinguistic and discourse rules (Schultz 1999). For the purpose of helping students develop oral proficiency, the teacher can implement role-play, oral presentations, skits, question and answer activities, and dialogues.

The assessment of oral language convinces learners that communicative language use is a major goal of the foreign language program (Hadley 1993). Assessment is defined as an ongoing process of collecting data to use in making instructional decisions (Fradd & McGee 1994). The collection of student data is a means for teachers and students to monitor language development over time. Various assessment tools can be used to measure oral proficiency such as portfolio assessment, video and audio recordings, oral interviews, and assessment rubrics.

The purpose of this study is twofold: 1) to investigate strategies and techniques used by selected high school Spanish teachers to help foreign language learners, who have begun their

study at the high school level, to develop oral proficiency and 2) to examine how the teacher assesses the effectiveness of these strategies in the Spanish program.

Methodology

The researcher used two means of data collection to investigate the strategies and techniques used by the selected high school Spanish teachers to promote oral proficiency, and to determine how the teachers assess oral proficiency. First, during the months of October and November 2002, the researcher interviewed eight high school Spanish teachers of Levels 1-5 in a public school district in a city of North Carolina. The eighteen questions in the study were used to gather information about the strategies and techniques used to develop oral proficiency and to determine how the teachers assess oral development over time. On all questions related to instructional strategies, techniques and assessment, the researcher gave the teachers a list of choices to choose from in addition to their initial response.

The second means of data collection was through observation. The researcher observed one of each of the eight teacher's classes in order to see how the strategies and techniques are presented in foreign language instruction. During the observation, the researcher noted the teacher's overall presentation of material. Some of the characteristics of the observations included the degree to which the teacher used the target language and the degree to which the students used the target language when communicating with the teacher and with peers. Finally, during the observations, the researcher looked for common strategies used by the eight teachers to promote and assess oral proficiency

Results and Conclusion

According to research, oral proficiency development is best achieved in a communicative environment where the target language is used extensively both by the students and the teacher (Hadley 1993). During the interviews, teachers were asked how much of class time was spent using the target language. Five of the eight teachers stated that they used the target language approximately 75-100%. One teacher stated s/he used the target language approximately 50%. The remaining two teachers averaged their use of the target language at 50-75%. The researcher found through observation that in classrooms where the teachers used Spanish less frequently, the students demonstrated difficulty understanding the teachers when addressed in the target language. Also, rarely did any of the students of the eight teachers observed ask and answer questions of their teacher and peers in the target language. With the exception of two of the

teachers' classes, most students communicated in English except when doing a specific activity, which required them to use the target language.

During the interview, the teachers were also asked about specific strategies and techniques they use in foreign language instruction to develop oral proficiency. The primary strategy used by the majority (seven of the eight) of teachers was dialogues that are normally centered on real life events. Other common strategies reported by five of the eight teachers included role-play, oral presentations, students asking and answering questions in Spanish (although this technique was not supported by the observations), skits, and oral descriptions.

Another question asked during the interview was about assessment practices used with the oral proficiency activities stated above. Six of the eight teachers chose assessment rubrics as a tool for measuring a student's oral development. The next assessment chosen by four of the eight teachers was the oral interview. Although teachers implement strategies and techniques and assess them in the foreign language classroom, only two of the eight teachers had recorded each individual student's oral proficiency development consistently throughout the semester. Of these two teachers, only one allowed the recordings to remain in the student's possession for the purpose of self-monitoring oral proficiency development.

Next, when teachers were asked how they document student progress within the foreign language program as the students move from language level to language level, none had consistently documented student progress. Similarly, teachers were asked how they maintain communication within their department and also with the middle school teachers to articulate student progress. Although there was no communication within the high school foreign language departments, half of the teachers reported receiving Foreign Language Exit Checklists from the middle school Spanish teachers for rising freshmen. All teachers who received the checklists from the middle school stated that they felt it was not an accurate tool to use in determining a student's level of proficiency due to the subjectivity involved in completing it.

Teachers regularly reported no uniform standard for measuring oral proficiency development. Since the ACTFL *Standards for Foreign Language Learning* (1996) serve as a uniform standard for content knowledge and the ACTFL *Performance Guidelines for K-12 Learners* (1998) are a means of measuring the content, the researcher asked the teachers if they were familiar with these standards and how they incorporate them into instruction. In response to

this question, six of the eight teachers reported being familiar with the standards and guidelines, although only two of the six teachers could explain how they incorporate them into instruction.

The final interview question for teachers dealt with specific circumstances that hinder instruction to develop oral proficiency. Teachers reported that they find it difficult to incorporate and assess oral strategies and techniques into instruction on a regular basis due to large class sizes and varying level ability of students.

Through the investigation of the strategies and techniques used to help foreign language learners to develop oral proficiency, the researcher found that it is necessary to use the target language extensively in the classroom, to incorporate oral strategies and techniques into instruction, and to assess those strategies regularly. Through the interviews and observations, the researcher estimated moderate use of the target language on the part of the teacher and little use of Spanish on the part of the students in most cases. Students were not expected to speak Spanish unless they were doing a specific oral activity. All other communication such as asking and answering questions, and making statements were done in English. Furthermore, even though teachers implemented oral activities into the foreign language instruction, oral development was not consistently assessed due to various factors, but mainly that of large class size.-

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Fear Factor: Foreign Language Anxiety in the Secondary Spanish Program

by
Lacey Horner

With Mary Lynn Redmond, Ed.D.
Wake Forest University Department of Education
December, 2002

Introduction

Learning a foreign language can be exciting for some, but for others, it can also be dreaded because many foreign language students experience what is known as foreign language anxiety. Horwitz, Horwitz, and Cope (1986) found that anxiety inhibits a student's aptitude for learning a foreign language for a variety of reasons, including fear of negative evaluation, communication apprehension, and low self-concept.

Until recently, there has not been a great deal of research conducted on foreign language anxiety. In the past two decades there has been a movement leading researchers to study this phenomenon and how it affects language learning. Stephen Krashen (1982) was one of the first to conduct research on foreign language anxiety. According to his *Affective Filter Hypothesis*, anxiety plays an important role in a student's ability to learn a foreign language. Since Krashen's original research on second language acquisition, others have concurred on this topic.

Review of Literature

One of the most commonly reported aspects causing anxiety in learning a foreign language is the act of speaking a foreign language. This is the most anxiety-inducing part of foreign language learning because it requires students to apply what they have learned in order to produce results in the presence of others. The cognitive processes involved in listening, writing, and reading cannot be as straightforwardly evaluated with regard to anxiety because they do not require the same performance aspect as speaking does and thus do not cause as much anxiety.

While anxiety experienced in speaking a foreign language is very prominent, this does not mean that other types of foreign language anxiety do not exist. In fact, some researchers have placed increased emphasis on the role anxiety plays during listening comprehension. Vogely (1998) conducted a study with foreign language students where they reported sources and possible solutions to listening comprehension anxiety. She says that foreign language teachers expect students to have oral communication anxiety and, consequently, they use tasks to counteract it. However, they occasionally forget that some students do not have good

comprehension of the oral message before they even attempt to participate orally. This research argues the fact that listening comprehension is just as important as one's speaking ability.

Furthermore, other less known aspects of foreign language anxiety have been investigated as well, including the areas of writing and reading. Although it was previously thought students who had oral communication anxiety compensated for it by being stronger writers, Hassan (2001) says this is untrue, finding that poor skills in both the native language and second language, and the fact that writing is product-based, along with other factors, may cause anxiety during the writing process. Reading is another active process in learning a foreign language that may not be perceived to produce anxiety, but it has also been found to cause students to become more anxious. Even though the majority of reading may not be done aloud, Saito, Horwitz, and Garza (1999) have theorized that anxiety is caused by the fact that the writing system and cultural material are unfamiliar.

Acknowledging that foreign language anxiety exists, what suggestions have been proposed to alleviate the problem? Both Hassan (2001) and Vogely (1998) found that there are many approaches to lessening anxiety. Some suggestions include teaching writing skills improvement courses to students, offering strategies to boost students' confidence, having the Internet available for writing assignments, having students write more frequently, using clearly structured tasks, and being sensitive to students' fears.

The occurrence of foreign language anxiety has gained much attention in recent years. What factors cause one situation to be more anxiety-inducing than another? In order to understand what causes foreign language anxiety, it is necessary to comprehend which specific situations trigger anxiety. The purpose of this study is to reveal specific situations that create anxiety in secondary level Spanish students and the ways in which their teachers address anxiety in their students.

Methodology

In order to discover which specific situations cause foreign language anxiety in Spanish students and the strategies that teachers use to alleviate the anxiety, the researcher followed a three-part procedure. First, the researcher selected eight secondary Spanish teachers from a public school district in a southeastern city of the United States to participate in the study. These teachers were interviewed to help the researcher identify situations in which students experience

anxiety and how teachers address it. During the interviews, each question was asked with a list of possible answers from which to choose.

Secondly, the researcher obtained parental permission for six students in the eight teachers' classes and interviewed them regarding specific situations that cause them to become anxious and ways in which their teachers address their anxiety. Six students were selected for brief interviews; four from Level I and two from Level III or above classes. Each question from their interviews also had a list of possible answers from which to choose. Prior to the interviews, the researcher obtained permission from the parents, teachers, and students to audio tape responses in order to ensure accuracy.

The third and final part of the study was completed when the researcher observed part of a class period of each teacher involved in the study. The researcher observed specific situations discussed in the student and teacher interviews that cause anxiety in the Spanish students and noted strategies teachers used to ease anxiety in these situations. The observations were used to find similarities between the interview results and instructional classroom strategies used by the teachers to alleviate anxiety.

Results and Conclusions

From the interviews with students, there were clear answers about specific situations that cause the students to feel anxious. When asked what happens when they become anxious, most students said they rehearse their answers, do not participate in the activity, or use simple phrases rather than more complex ones. Only a few students said that they become embarrassed or self-conscious. This is surprising because admitting that one experiences any level of anxiety indicates that one feels embarrassed or self-conscious, but these students did not seem to have these feelings. In order to relieve this feeling of anxiety, most of the students stated they undertake measures related to effort, such as studying more out of class, trying harder in class, or rehearsing what they might say if the teacher calls on them. The students tended to utilize less severe methods of easing their anxiety, such as using simple phrases, rather than more extreme methods, such as skipping class. This could be because they have strict teachers and actions such as skipping class do not often occur in their classes.

The researcher also learned from the interviews that the specific situations which cause the most anxiety for students are test-taking situations and speaking "on the spot." Students said that speaking "on the spot" and having to understand what they hear in order to respond cause them to become the most anxious. A testing situation has higher importance placed upon it because it measures comprehension and is graded, which naturally causes someone to become

anxious. Speaking "on the spot" has the element of surprise when one is unprepared. Some people cannot handle being required to think spontaneously which causes them to become anxious.

The students said that their teachers helped relieve their anxiety in many positive ways, including repeating what they say in Spanish in a variety of ways, speaking in English when the student becomes frustrated in the target language, encouraging participation, and praising correct answers. When students were allowed to give their own advice for their teachers, the primary suggestion was for the teachers to review the material more often prior to a quiz or test. They also asked for more tutoring, keeping the subject "fun," and remembering that Spanish is not the native language of the students.

The researcher found while interviewing the teachers that their answers varied somewhat from the students' answers. Teachers said they notice many behaviors when the students become anxious. Although few students said so, the teachers said that the students become embarrassed or "blank out." Confirming the students' answers, the teachers said that the students become quiet, and revert to the use of simple Spanish phrases. Some other interesting answers provided by the teachers were that students avoid eye contact, hurry their answers, "tune out," skip ahead to prepare, or actually do a "nervous dance" where they drum their fingers continuously on the desks. Almost every teacher interviewed said that students use simple phrases when trying to avoid anxiety. Even though all the teachers said that participating is not optional for the students, they added that many of the anxious students still try not to take part in some class activities. Some withdraw from class activity, according to one teacher, and refuse to volunteer answers. Another responded that the students revert to English instead of trying to say the word or phrase in Spanish. Presenting, responding, and speaking "on the spot" are the situations in which students become the most anxious, according to most of the teachers. Like the students, the teachers also said speaking "on the spot" is the most anxiety-producing situation for students. Instead of the students' answer that comprehending in order to respond causes the most listening anxiety, the teachers' said that not understanding every word said by themselves causes the most listening anxiety for the students.

When asked what strategies they used to alleviate anxiety, the teachers' answers were nearly identical to the students' answers. Almost every teacher said that she does everything on the given interview checklist to lessen anxiety in her students. This included giving learning

strategies, repeating the message, using English as a last resort, encouraging participation, praising correct answers, and responding positively to incorrect answers. They also said they do outside tutoring, give websites for additional practice, and try to establish an environment of mutual respect.

Brief class observations were conducted to compare with the information given during the interviews about ways teachers tried to alleviate anxiety. The teachers used many different strategies throughout their instruction. Some teachers allowed their students to listen to music during more "relaxed" activities. They also modeled activities frequently before having the students do them. All of the teachers reverted to English after having repeated the message in different ways if the students still did not understand. Mnemonic devices were incorporated such as songs, and even humor was a commonly used technique. All of the teachers encouraged participation, responded positively to incorrect answers, and praised correct ones.

Foreign language anxiety is an area of study that continues to be researched in order to find ways to reduce it. Given the need for language proficient citizens, foreign language study will continue to grow as an academic subject. It is inevitable that students will experience anxiety at one point or another while learning a foreign language; however, it is up to the students and the teachers to find ways to minimize the anxiety level in order to make learning more effective and, consequently, help students attain a higher level of proficiency.

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Effects of Informing High School Females about Attribution Research

By
Emi Iwatani

With Robert Evans, Ph.D. and Janet Crigler
Wake Forest University Department of Education
December, 2002

Introduction

The number of females who choose to pursue a science degree or science related career are significantly lower than the number of males despite many efforts to provide equal education and opportunities (Rosser, 1990). One of the many speculated reasons for this is how women tend to have an inaccurately low self perception of their math and science abilities (Beyer, 1994).

The purpose of this research project was to determine the effects of an after school workshop that will familiarize high school female students with general and specific results of attribution studies that have been conducted in the past. The hypothesis was that if adolescent female students are introduced to research findings that "females, more than males, tend to attribute failures to internal, stable factors and attribute success to external factors (Shroyer et al., 1995; Beyer, 1997; Valas, 2001)" and have a discussion on possible consequences this tendency promotes, they would become more thoughtful of their behavior and decisions in the future as a result of increased self-awareness. The null-hypothesis was that such a workshop will have no significant impact on females.

Review of Literature

Past studies indicate that there is a difference in how male and female students attribute their academic success and failure outcomes (Shroyer, et al., 1995; Guzetti & Williams, 1996; Beyer, 1997). Males have a tendency to attribute their academic success to ability, and failures to external controllable factors (such as task difficulty), while females tend to attribute their success to effort, and failures to their lack of ability.

Beyer (1994) showed that self-perception of females, particularly their self-perceived abilities on tasks traditionally considered "masculine", is not just low but *inaccurately* low. Knowledge on gender differences in cognition and perception have been applied in various female inclusion and empowerment strategies (Rosser, 1990; Gender Equity Expert Panel, 2000). However, there have been few, if at all, reported instances where female students were made aware of the gender difference in attribution.

Methodology

A 30 minute after school workshop was designed for this study with the primary motivation to inform high school female students of attribution studies and to receive their feedback on how personally meaningful they found this information to be. The opportunity to participate in this research study was advertised by the primary investigator in five different biology classrooms at a coeducational suburban public high school in North Carolina. Twenty-four high school females in grades 9 through 11 volunteered to participate in the study, of which sixteen were Caucasian, five were African American and three were Hispanic. The workshop was conducted five separate times.

Participants were asked to watch a video demonstrating four different high school students attributing their test scores to different causes. The video was created by the primary investigator for the purposes of this research project. A summary of the video is provided in Table 1.

Table 1. Reconstruction of the Attributions Video Clip

Name	*Score*	*Reason*
Zack	100	Good at biology
Emily	100	Studied hard
Ted	55	No time to study, test was hard, studied wrong thing
Alyssa	55	Not good at biology

Following the video, participants were asked to recall and reconstruct its contents as shown in Table 1. After an introduction to the concept of attributions, the participants were informed that the attribution pattern shown in the table is typical for males and females in success and failure situations. This was followed by a description of three research studies (that provides evidence for the theory on gender differences in attribution) and a short discussion on the implication of such differences in cognitive tendencies.

Two surveys conducted in after the workshop. The first survey was conducted immediately after the workshop. This 'short-term survey' asked the participant to list one thing they had learned from the workshop, and to indicate the workshop's degree of meaningfulness and enjoyment on a five-point Likert scale. The second survey was administered two weeks

after the workshop. The main objective of this 'longer-term survey' was to determine whether, how and to what extent the information on attributions provided at the workshop affected the participants over a two week period. There were eight questions in this survey, including: "Have you thought about what we discussed in the workshop since two weeks ago?" and "Do you think the workshop would be useful to other female students in your school?"

Twenty four short-term surveys were collected and 21 long-term surveys were collected. All collected surveys were reviewed and analyzed by the investigator.

Results

The Short-Term Survey Results

Most students found the workshop to be useful and informative (Figure 1). In addition, responses to this survey confirmed that all of the participants understood the ideas that were presented in the workshop (data not shown).

Question #2: Did you feel that the workshop was MEANINGFUL?

Question #1: Did you ENJOY the workshop?

	5	*4*	*3*	*2*	*1*
5	**9**	**1**			
4	**5**	**4**	**1**		
3	**1**	**1**			
2		**1**			
1					**1**

* *Italicized numbers*: Scale of response from 5 (very enjoyable / very meaningful) to 1 (not enjoyable at all / total waste of my time).
*** Bold numbers**: Number of participants who marked the particular response (n = 24)

Figure 1. **Responses to Questions 1 and 2 on the short-term survey.**

The Longer-Term Survey Results

Knowledge on attributions was assumed to be beneficial when: 1) the participant gave indication of being more aware of attributions by giving an example of when they had thought of attributions, and 2) participants reported that the information would be useful for other females for the reason that it would enhance their awareness or self-esteem. From this analysis, 18 out of 21 participants supported the hypothesis that information on attributions could benefit high school females by enhancing their awareness towards attributions (Figure 2).

	Indication of significance		
Participant	**A**	**B**	**C**
*1**	X	X	X
*2**	X	X	X
*3**	X	X	X
*4**	X	X	X
*5**	X	X	X
*6**	X	X	X
*7**	X	X	
*8**	X	X	
*9**	X	X	
*10**	X	X	
*11**	X	X	
*12**	X		X
*13**	X		X
*14**	X		
*15**	X		
*16**		X	X
17		X	
*18**			X
*19**			X
20			
21			

Column A = Cited example of when they thought about the workshop.
Column B = Indicated that workshop would be useful for other females.
Column C = Thought about attributions more often than before.
***Survey supports hypothesis that information on attributions can benefit high school females by increasing their awareness on attributions.**

Figure 2. **Evaluation of the significance of the workshop**

Conclusions

Evaluating the 'worth' of any type of knowledge is bound to be a subjective, debatable and even an inconclusive issue, particularly since individuals differ in their understanding of the world, experiences and concepts of knowledge. Yet educators, by nature of their profession, must make value-judgments on knowledge all the time.

This investigation was one attempt to determine whether or not information on attributions is "worth" teaching, and the answer appears to be yes. Eighteen of the 21 surveys, conducted two weeks following the workshop, provided support for the hypothesis that information on attributions benefits females by increasing their awareness of attributions. In addition, five participants self-reported positive cognitive or behavioral changes as a direct result from knowing about attributions. These changes included: considering a new career option, trying harder in school and feeling deserving towards a good grade, stressing less about bad grades, thinking more, and becoming more curious about the world. This study suggests that high school females would appreciate being informed about knowledge on gender differences in attribution, and when informed, they are likely to process this information in a sensible manner that is beneficial to their well-being.

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Text vs. Context

By
Jason R. James

With Joseph O. Milner, Ph.D.
Wake Forest University Department of Education
December, 2002

Introduction: In this study I will try to determine if limiting teaching to specific texts or teaching that involves the inclusion of context creates greater interest and involvement among students. I define teaching text, as that teaching that only addresses the written word of literature. Conversely, context may include the biographical information of an author, historical information from the time in which a text was written, discussion of the everyday life of students, and activities that draw upon this everyday experience. This information is important and beneficial to any teacher, because by gaining a greater understanding of which teaching methods better engage students in educational material, teachers will be able to improve their teaching technique and ultimately become better teachers.

Literature Review: Bush Jr. (2002, ¶ 9) writes, "As Arthur Applebee has pointed out, the English curriculum's primary objective should be the enhancement and maintenance of the conversational feature of culture within the domain of the English classroom. Applebee and his colleagues advocate a view of curriculum that creates 'a domain for culturally significant conversation into which we want our students to be able to enter'."

It seems obvious that free flowing classroom discussion is pivotal to the learning process. The question now becomes, "How can a teacher create an environment that encourages student conversation?"

One way in which classroom discussion can be encouraged is by relating textual material to the context of students everyday lives. Moje, Dillon, and O'Brien (2000, p. 172) have stated that, "A context can be an event, a place, a social group, a realm of knowledge, or a moment in time. [And these] contexts have dramatic implications for shaping and reflecting learners' identities and subject positions, as well as particular interpretations of texts."

A common form of context that a teacher can draw upon is the incorporation of popular culture into classroom discussion. In a classroom studied by Duff (2002, p. 483), one discussion was filled with pop-culture references. Duff writes

> The article made an analogy between Internet postings and bathroom graffiti, which led to a discussion about gendered graffiti practices; comments about the television series Ally McBeal, where employees share coed bathrooms; American television announcements of the past directed at parents; and then a reference to an episode of The Simpsons, in which Homer appears to respond to a television announcement by saying that he doesn't know where his children have been for 2 days.

Duff goes on to suggest some reasons for the seemingly meandering conversation. Duff (2002) says, "References to pop culture in excerpts like this provided connections to the contemporary cultural worlds of students and, more subversively perhaps, enabled students to prolong and provoke discussion and forestall their return to potentially less engaging lesson content"(p. 485). I would suggest there was another reason, however, for this cultural divergence in the conversation. It serves as common ground where the students can relate on a personal level with their teacher, and the teacher allows and participates in the talk for the exact same reasons. This foray into pop-culture also serves to keep the students interest when otherwise they are likely to "zone-out" of purely academic material.

Another way in which teachers better relate to their students and in so doing create a classroom of discussion is by appreciating the whole person of the student, and not just the academic side of the kid in your class. Merwin (2002) writes,

> Part of the solution lies in respecting the whole person and engaging students in high-level classroom participation. In an effort to curb disengagement I strive to see students within a larger framework. I try to know them better through informal writing and personal contact. (p. 88)

A final device used by teachers to engage students on a personal level is humor. In an article by Haws (2001, p. 140), it is claimed that, "Humor is a vital element in all aspects of life, but especially in teaching." Haws goes on to relate that, "When I ask children what kind of teacher they really want, they always say 'someone who laughs'" (p. 140). This is true because students want teachers with whom they can relate. Part of feeling comfortable with a teacher is seeing the teacher as a human being, and a sense of humor is vital to this perception. Furthermore, a study by White (2001, p. 340) finds, "the use of humor to relieve stress, to gain attention, and to create

a healthy learning environment; over 80 percent of both groups [students and professors] agreed that these uses of humor were appropriate."

Many scholars acknowledge the importance of conversation in the learning process. The central question is, "How can teachers create a classroom of conversation". It appears that the answer to this question lies in making students feel safe and comfortable enough to share their thoughts. The incorporation of context material which includes discussion of popular culture, relating to students as "whole persons", and the use of humor in the classroom seems to be the best strategy for creating classroom discussion. In my research, I hope to show that when teachers employ the context strategies listed above there is greater student engagement with material when compared to discussions that only revolve around the written text being studied.

Methods: To conduct my research I have spent time observing in the classrooms of four separate teachers. I have attempted to minimize my impact on the classes that I have studied in order to gain a more accurate notion of the normal workings of the classes.

While observing, I have noted instances when the students seem more engaged than normal with the instruction of the teacher or the assignments they have been asked to attempt. I also record what the teacher is saying or the instructions of the assignment to ascertain if text, or context is being used in the lesson. I have defined text as discussion or a task that only draws on the written words of any piece of literature. My definition of context is much more general, encompassing author biography, historical setting both of the literature, and the author when writing, and finally, talk with no obvious connection to a literary work. This final example of context could include current events, pop culture, or even jokes.

It is impossible to construct some concrete criteria for measuring student engagement since it sometimes takes the form of a mood rather than action. However, in my observation I have paid extra attention to student eagerness to answer questions, amount of class time devoted to one line of discussion or assignment, reluctance by the students to leave a line of discussion or an assignment, and students generating their own questions and discussion. I look at these factors as indicators of engagement..

At the conclusion of my classroom observations, I will look for a pattern to emerge between a teachers use of text and context, and the effect each has on the level of classroom engagement.

Analysis: When teachers instruct their students using the text, the lesson most often takes the form of a lecture or very objective, yes or no questions. The students in these classes are often disengaged from the information being taught as evidenced by off-topic discussion between students, laying on top of desks, and an overall lethargic attitude among the students. There is hardly enthusiasm among the students to answer questions, and the students rarely generate any on-topic discussion.

Conversely, when context arises in the classroom, students become extremely engaged with what is occurring. Most often, context arose in the very beginning of class, before the "lesson" began with students joking with the each other and the teacher, or the raising of current event questions. When context did occur during the "lesson", students were indeed engaged, but the overall time devoted to the context talk was minimal, perhaps because the teacher felt a need to return to the textual information they wanted to cover.

A final category of teaching arose in my observations, and that was the combination of text and context. This style most often took the form of a teacher relating the textual material to the everyday life of the students. Students were engaged in this method because they were placed in the role of voicing their own opinions and experiences. Teachers also encouraged this type of learning because the information they want to convey involving a text is central to the discussion or activity.

Conclusion: It is the aim of every teacher to engage students in the material they are teaching. It seems that a good way to foster engagement is to use contextual devices such as humor and pop-culture to relate on a more personal level with students. Then, when context can be incorporated into the teaching of text, students will be both engaged with the lesson, and learning information that the teacher deems as important. I believe this to be the ultimate goal of all teaching, to incorporate necessary information into a fun and engaging context.

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The Self Efficacy of Students in High Poverty Schools

by
Kristen Kay Lucas

With Raymond Jones, Ph.D.
Wake Forest University Department of Education
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Introduction

Students in high-poverty schools have lower levels of achievement than students in schools of higher socioeconomic status. A number of studies have shown that students from low socioeconomic backgrounds often demonstrate lower levels of academic achievement than other students (Levin, 1986; Hatton, 1988). Several studies that have investigated this problem, such as Colvin (1988) and Marcon (1999), have called for more research to explore different ways to reach students from low socioeconomic backgrounds. This study again examined students from high poverty situations, this time focusing on self-efficacy. Studies show that self-efficacy, or how effective and successful a student feels, is strongly related to academic achievement (Kim & Park, 2002). This study examines what instructional methods, teacher characteristics, and teacher actions students from high-poverty schools report to be helpful in making them feel effective and successful.

Review of Literature

Many studies have shown certain kinds of instructional techniques to be especially effective for students from high-poverty backgrounds. Instructional methods that have been shown to increase self-efficacy include greater emphasis on reading, writing, and analytical questions (Wong & Alkins, 1999; Wheelock, 2000; Taylor, Pressley, & Pearson, 2000). The characteristics of teachers who are effective for at-risk students have also been researched extensively. A teacher characteristic that has been shown to raise achievement levels in high-poverty schools is high academic expectations (Wong & Alkins, 1999; Reynolds, 1999). Teachers with good classroom management skills who put an emphasis on discipline have also been found to help students from lower income backgrounds increase achievement (Taylor, Pressley, & Pearson, 2000; Peng & Lee, 1993). Finally, many studies suggest actions that can be taken by teachers that are effective for students from low SES backgrounds. A number of

studies have found that an action teachers can take to increase levels of achievement is to involve parents (Barth et al., 1999; Johnson & Asera, 1999; Peng & Lee, 1993). Another teacher action that has been shown to affect student achievement is working to increase student motivation. (Marcon, 1999; Peart & Campbell, 1999)

Methodology

The participants in this study were ten high school students, ranging in ages from 14 to 18, from a high-poverty school. The students were interviewed about their feelings of success in the classroom. Forty students from a single social studies teacher's classes were randomly selected. These forty students were given parental consent forms and student assent forms. The first ten students to return their signed forms became the participants in the study. The information from the study was analyzed by combining characteristics of instruction and teachers that students discussed which were used to sort and code information into the three larger categories, the themes of this study.

Results and Conclusions

Analysis of the data of this study suggests that instructional methods, teacher actions, and the characteristics of interactions between students and teachers affect students' self-efficacy. The categorization is useful, but partially contrived in that all three overlap and are interconnected. First, the instructional methods used can have a great effect on students' feelings of self-efficacy. In instruction, it seems that it is necessary to students' feelings of success that they be able to participate actively in class. Class discussion provides a useful way to allow students to participate; it also increases self-efficacy by helping students to feel as though their opinions are important enough to be voiced. Class discussion was the most widely agreed-upon method of instruction in helping students to feel successful. Another necessity to increasing students' self-efficacy in their classes is multiple representations of information. All students learn differently, and multiple representations give many students the opportunity to succeed. Students also feel successful when they are given the opportunity to express their knowledge in creative ways. A final necessary part of instruction is to cause students to think and analyze rather than simply learn facts.

Other commonly used methods of instruction include lecture and group work. Both lectures and group work can increase students' feelings of self-efficacy, but both must be used in moderation, at suitable times, and in the appropriate manner. Lectures must be clear and well-

organized and provide a structured way for students to take down the information. Group work must be directed and well-monitored. The findings of this study suggest that in order to increase self-efficacy class instruction should be varied among methods and should allow students the opportunity to be active and engaged.

Actions that teachers take can have a great effect on students' feelings of success. Actions that have been shown to increase self-efficacy include listening to and responding well to students' questions, leading students to answers and understandings rather than telling students the answers, offering extra help, encouraging students, and giving attention to how well they are learning. An interesting aspect of these findings on teacher actions is the emphasis that students put on the ways teachers answer questions. Many students stated that the teachers who make them feel most unsuccessful are those who have an attitude when they answer questions or ignore student questions. It seems to be imperative to students' feelings of success that teachers answer questions with care. Another interesting piece of this research concerned students' comments about teachers' classroom management. Most felt that teachers who were more strict actually helped them to feel more successful, as long as those teachers continued to respect the students. In fact, those students who admitted to being in trouble the most were the ones who felt successful with the strictest teachers. It seems that these students do not want to act up, but they will if given the opportunity.

The characteristics of interactions that students say increase their self-efficacy include expressions of respect, care, trust, understanding, and high expectations. Two of the most important of these characteristics are teachers' demonstrations that they respect students and hold high expectations for their students. All the teacher actions, mentioned previously, can communicate these characteristics that are important to students' feelings of success. For example, most of the students said that they feel successful if teachers express that they care for students. Teachers can communicate their care by offering extra help, which is one of those actions that students indicate make them feel successful. All of these things that teachers can do to increase the self-efficacy of students are interconnected.

One of the most shocking findings of these interviews was that many of these students seem to have experiences with teachers who do not even attempt to teach them. A number of these students discussed ineffective teachers, who actually decreased students' self-efficacy, who gave them pages to read and worksheets, expecting the students to teach themselves. An

implication for teachers in high-poverty schools is that any kind of teaching is better than this method. Another basic implication from this study is that students simply want to be given attention. They want to be listened to and to have their questions answered. They feel successful when teachers take note of how they are performing in class and offer to help them understand better. Teachers have so many students to give their attention to, but consideration for students should be one of their main efforts in the classroom.

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The Use of Alternative Assessment Strategies in Secondary Spanish

by

Heather Needham

With Mary Lynn Redmond, E.d.D.
Wake Forest University Department of Education
December 2002

Introduction

One of the most difficult yet necessary tasks of an educator is to evaluate student performance. Two challenges of evaluating students' knowledge are deciding how and what to assess. Assessment has an important role in the classroom and serves a variety of purposes in instructional settings. According to Cameron (2001), assessment is concerned with students' learning or performance, provides information that may be used in evaluating students, and should be seen from a learning-centered perspective. Assessment not only provides valuable information for the students about their own progress, but it also provides necessary information for teachers to make instructional decisions.

Review of Literature

Assessment strategies are generally classified into two categories: those of traditional nature and those of alternative nature. Traditional tests refer to the familiar paper and pencil tests, which are usually itemized selections of questions. A traditional test normally functions as a one-time measure that relies on student achievement on a given day and is usually dependent upon a single correct response per question. This type of test often gives little regard to the thinking processes a student used to arrive at his/her answers. Traditional tests are just one technique or method of assessment (Cameron 2001), and it should be noted that traditional tests are not inherently ineffective.

In an instructional program, traditional tests and alternative assessments are very different. Alternative assessment is usually an ongoing strategy where students are evaluated on a continuum (Hancock 1994). Such alternative assessment strategies include exhibits, short stories, journals, video productions, self-reflections, role-plays, observations, and portfolios (NCDPI 1999). These assessment strategies focus on outcome-based education where the students' performance, thought process, and final products are valued.

In foreign language instruction, the use of alternative assessment is particularly important because teachers can use a variety of instructional practices to assess student knowledge (Hurley & Villamil Tinajero 2001). The goal of alternative assessment in foreign language instruction is to match effectively the goals of the curriculum with student performance and to measure achievement of these goals in terms of application of knowledge rather than rote learning (Curtain & Pesola 1994). Alternative assessments aim to give meaning to the task at hand.

It is evident from the research that there are many ways to evaluate student proficiency in the foreign language classroom beyond the use of traditional tests. Research confirms that traditional tests, while important, should not be the primary way to measure students' foreign language proficiency (Cameron 2001). The call for increased use of meaningful assessments that involve language students in their own learning requires that foreign language teachers use a wider range of measurements in evaluating students. With the incorporation of a variety of assessment strategies, foreign language classes will also be more responsive to the students' different learning styles. Language programs that focus on alternative assessment are likely to instill in students lifelong skills related to critical thinking which will build a basis for future learning, and enable them to evaluate what they learn both in and outside of the language class (Hancock 1994).

Given the supportive research in favor of alternative assessment, the purpose of this study is to investigate whether alternative assessment strategies are used and how in high school Spanish classes. The researcher studied what types of alternative assessments are currently being used in evaluating student proficiency in Spanish, how they are incorporated into foreign language instruction, and which strategies are most effective in evaluating language development.

Methodology

For this study, the researcher interviewed six randomly selected high school Spanish teachers working in the public school system of a mid-sized city in the southeastern United States. The teachers taught various levels of Spanish ranging From Level one to Level Four. To ensure anonymity, in reporting the results of the study, the researcher did not refer to the participants' names. Throughout October and November of 2002, the researcher collected data using interviews. The researcher implemented the same interview questions for each teacher. Questions on the interview asked teachers to define alternative assessment, discuss the

assessment strategies they use in their classrooms, and indicate whether alternative or traditional assessment is a more effective way to evaluate student language proficiency. The researcher provided an oral checklist with specific answer choices regarding the types of alternative assessments used, and their purposes, for some of the interview questions. Each interview took approximately thirty minutes. Prior to the interviews, each participant received an informed consent letter with an option of audio-record the interview. If the participant agreed to audio-recording responses to the questions, the researcher used a hand-held recording device to record the interview for reference purposes only.

Results and Discussion

Presented here is a brief summary of the results of the study. Most teachers responded that the term, alternative assessment, refers to any evaluation that is not traditional. When asked to list the assessment strategies they commonly use, all teachers answered that they use chapter tests, listening comprehension activities, reading comprehension activities, written compositions/assignments, and oral presentations to assess their students. When asked to name specific alternative assessment strategies they use, all six answered that they use skits, special projects, role-playing, and story retelling. All teachers stated that they use alternative assessment strategies to reinforce oral proficiency, reading comprehension, and writing proficiency. Only two teachers responded that they use portfolio assessment, and that the portfolios serve as an organizing tool for keeping track of students' tests and writing assignments throughout the year. None of the teachers use portfolio assessment as a means of evaluating students' performance in Spanish. All six teachers stated that they use rubrics to present students with criteria to be evaluated before assignments are assessed. A trend in their responses pointed to the goal of accommodating diverse learners as the main purpose for using alternative assessment. Six teachers responded affirmatively that they think alternative assessments are effective in reaching different learning styles. When asked to compare traditional and alternative assessments, some teachers stated that they think students often need the structure of traditional tests to assess whether they know the fundamentals of a unit, chapter, or lesson, and that traditional tests are more time efficient. Six teachers indicated that alternative assessment practices are good because they give students opportunities to practice and show what they know in greater detail, require students to use and create the language, accommodate diverse learner styles, and provide a chance for students to be creative.

Based on the teachers' responses, the researcher found that three out of six teachers feel that traditional tests do not measure the full scope of students' foreign language abilities and that most traditional tests avoid a very important communication component, which is speaking, and oral proficiency. Six teachers responded that they think alternative assessments present students with the best real-world experiences assignments in the classroom. Two teachers answered that they use alternative assessments more frequently while three others stated that they have approximately an equal balance of the two. All teachers answered that alternative assessments give them the best idea of students' development of foreign language proficiency.

Conclusion

As this study shows, the alternative assessments that are used in high school Spanish classes are effective tools for promoting and evaluating foreign language proficiency. Such assessment strategies as role-playing, skits, special projects, oral presentations, story retelling, and creative writing are useful in reinforcing oral proficiency, reading comprehension, and writing proficiency. Alternative assessments are used frequently in Spanish classes for the purpose of evaluating the students' abilities to produce the language, providing opportunities for student creativity, articulating language progress, and accommodating diverse learning styles. It is evident from this study that alternative assessments increase meaningful uses of the language in the classroom as well as foster a broader scope of Spanish communication through a variety of evaluation strategies.

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Deconstructing Difficult Texts: Four Teachers and Their Methods

By
Lucy Beth Pearce

With Joseph O. Milner, Ph.D.
Wake Forest University Department of Education
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Introduction

The high school literary canon contains works that upon first glance seem extremely difficult for high school students to understand. Students may take one look at a text and vow never to read it, believing the text to be too hard to understand and inapplicable to their daily lives. However, with the help of a teacher's guidance, students can begin to understand and deconstruct a difficult text, gleaning deeper meaning as the analysis process continues.

If students do not understand or are overwhelmed by a literary text they deem difficult, the teacher provides the necessary tools of effective practices to enable students to begin to understand the surface and deeper meanings. However, merely providing all the correct answers will not foster an inquisitive approach to literature. Teachers need to adopt a role as facilitator and navigator rather than one of absolute authority when teaching a difficult text. The purpose of my study is to identify and examine effective practices and methods that secondary English teachers use to help their students deconstruct difficult literary texts.

Review of Literature

The goals of any literary program should be "to transform, to broaden thinking, to pose questions, to debate findings, to inquire about the possibilities, and to see with the eyes of another" (Cella, 2002). What, then, are the best practices teachers are using today that help their students understand difficult texts in light of the goals of Cella's idea of a literary program? How do teachers encourage students in their pursuit for understanding difficult literary works? Several research studies have been conducted to determine the effectiveness of new programs and to explore the mechanics underlying the methods that have proved to be successful.

Almost all the research articles reviewed contain statements about connecting literature to students' lives and emphasizing the relevance of the messages and themes presented. Students are motivated to read for "authentic purposes, connected to their own lives in meaningful ways. Challenge, choice and collaboration tend to motivate children to read. Experiences which afford

students the opportunity for success, challenge, choice and social collaborations are likely to promote motivation" (MOEC, 1999).

California teachers described in research conducted by Kane (1988) also found that reading aloud to students can be an effective method of presenting difficult texts. Kane reported that California teachers used a four-step process for introducing difficult texts as illustrated when exploring a poem: tapping prior knowledge, moving through the work by reading the poem aloud, having students draw images of what they hear, and going beyond the work by writing something in response to the poem.

Druian & Butler's research emphasized the importance of "holding the expectation that all students are involved in their own learning and that all students understand and respect the fact that school is a place dedicated to learning" (1987). At-risk students may be more willing to explore a difficult text when they know they are responsible for being active participants in their learning, therefore creating a sense of ownership in their education.

With so many important findings outlined in the literature review, this study seeks to uncover methods four high school English teachers are using to teach difficult texts so more information may be added to further the understanding of how students learn.

Methodology

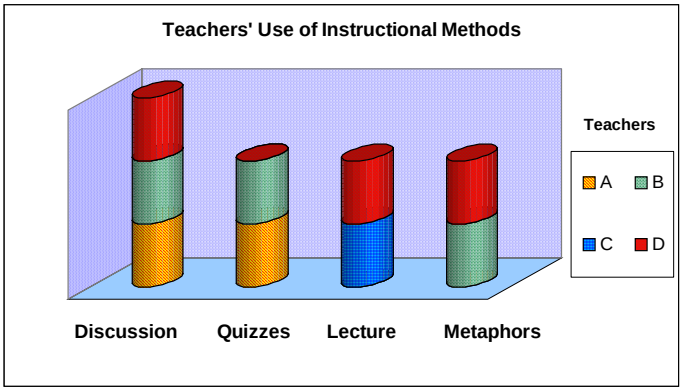
The participants of this study are four English teachers at one high school in the Piedmont region of North Carolina. Three are male and one is female, and all teach subjects ranging from remedial through honors level classes in World, American, and British Literature. These four teachers work with the Master Teacher Fellows program in the Education Department at Wake Forest University. Teachers will be identified through a system of Teacher A, Teacher B, Teacher C, and Teacher D.

Over the course three months, the researcher observed four teachers' style of presenting and teaching difficult texts to high school English students of various abilities. For the purposes of this research study, a "difficult text" is defined as any text that students would not naturally gravitate towards, read completely, or understand without the prompting and guidance of a teacher. As an example, standard level students would not be naturally inclined towards picking up the *Canterbury Tales* for leisure reading, nor would most honors students naturally be inclined to delve into Socrates on a Saturday afternoon for pleasure reading. The researcher did not find any exceptions to the operational definition of "difficult text."

Classes were chosen at random and constituted a variety of times and days. Observations included identifying any metaphors or explanatory language, making note of certain activities used to introduce or explain a text, and overall teaching strategies used to help students identify with and understand difficult literary works. All observations were recorded in a field notebook. After the observations were complete, the researcher analyzed data and drew conclusions. Data were presented on December 11, 2002, in a research forum at Wake Forest University.

Results and Conclusions

Table One: Teachers' Use of Instructional Methods



This study examined four teacher's methods used to deconstruct difficult texts. Although four themes were discovered--discussion, quizzes, metaphors, and lectures--the methods in which the teacher used these devices varied greatly. While one teacher successfully uses quizzes in aiding student understanding, other teachers are not so successful.

Teacher A's methods of quizzes and discussion did not assist students in gaining a deeper meaning from the texts. Her discussion methods did not engage the class or elicit authentic student questions pertinent to the topic, with the exception of one student on an isolated occasion. Her students were never invited to make a personal connection between their lives and the literature at hand, adding to their listlessness and outbursts of inappropriate behavior in the classroom.

Teacher B's methods of discussion and use of metaphor proved to be the most effective use of methods mirrored in the review of literature. Teacher B parallels Cheryl James' treatment of her "students as reflective, critical readers and writers" (Applebee, Burroughs, & Stevens, 2000). Teacher B encourages class discussion as a way to examine the layers of meaning imbedded in Plato's *Republic*. Since students know that Teacher B's classroom is a safe place for discussion and open questioning, students have the freedom to explore the text more than if the teacher merely provided a lecture and stifled student questions or personal reactions to the text.

Table Two: Difficult Texts Taught in Observed Classrooms

Teachers	*Texts Teachers Taught*
Teacher A	Chaucer's *Canterbury Tales* Introduction to Anglo-Saxon Literature
Teacher B	Socrates' Allegory of the Cave from Plato's *Republic*
Teacher C	Edward Taylor's "Huswifery"
Teacher D	Flaubert's *Madame Bovary* Chaucer's *Canterbury Tales*

Teacher C engaged the students in a composition exercise, allowing students to be creative in constructing their own extended metaphors. By allowing the students to compose their own metaphors, students might have turned to "Huswifery" for a supreme use of conceit and metaphor. While composing to comprehend a difficult text is an excellent practice in theory, no connection was made for students between Edward Taylor and their own lives. Perhaps if the process had been inverted, students would be more ready to accept "Huswifery."

Teacher D used a discussion format with his honors level students, but used a lecture style with his standard level students. The atmosphere and tone of the classes were dramatically different: students in the honors class were jumping out of seats shaking fingers at each other, while the only thing students' fingers were doing in the standard classes were writing down notes. If Teacher D was consistent, then perhaps the standard level classes could achieve the same level of excitement and engagement in the text as the honors classes experienced.

This research experiment is valuable not only for the discovery of four methods teachers use, but also for recognizing that the magic of the classroom lies in how teachers use those particular methods to engage students in deconstructing and understanding difficult texts. Chaucer's *Canterbury Tales,* Anglo-Saxon literature, Flaubert's *Madame Bovary*, Edward Taylor's poem "Huswifery," and Plato's *Republic* are not texts that high school students naturally gravitate towards, reading them in their free time or understanding them without a teacher to guide their understanding. By examining the ways in which these four teachers utilize these particular

methods, pre-service teachers can glean ideas on how to teach difficult texts, while in-service teachers can evaluate their own practices against the results of the research.

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Teacher Questioning Types and Patterns

by
K. Brooks Ranton

With Joseph Milner, Ph.D.
Wake Forest University Department of Education
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Introduction

Teachers use a variety of question types and strategies to engage students. The goal of questioning students is to promote and confirm greater understanding of the material the teacher is presenting. The discussions teachers engage in with students during class are the primary means by which students begin to define themselves and their relationships with their teachers, peers, and subject matter. The purpose of this study is to evaluate which types of questions and instructional approaches teachers use most frequently, and to what extent those approaches are successful at promoting active engagement and comprehension among students.

Review of Literature

Attempts to invigorate the quality of teacher questioning have been studied to understand how teachers view their own questioning patterns (Wedman, 1991). Because the teacher routinely functions as the leader of classroom discussions, the methods he or she uses are crucial to engage students (Maloch, 2002). The use of different types of questions is the most direct way teachers can provoke student thought during class. However, because research shows that the majority of teachers ask the majority of their questions at lower cognitive levels, it is necessary for teachers to consciously prepare higher order questions to raise the quality of student participation in classroom discussions (Mills, 1980).

Researchers note the difficulty in measuring the effects of classroom discourse (Green, 1981). Classroom observation is more effective at discerning best practices than purely quantitative measurements (Green, 1981). The intensive ethnographic study of these measures provides the researcher with the best possible means to evaluate the effects of various types of instruction (Green, 1981).

The integration of theory with practice is fundamental to an understanding of how teachers successfully instruct their students (Grossman, 1990). Teachers must take into account the entire spectrum of learners when designing pedagogy. Specifically, language use is the most

crucial skill for young learners to master; its proper use is necessary for student success in all subjects (Smitherman, 2000).

The quality of the opportunities for students to respond to teacher questions and prompts is an integral part of their development. Triplett and Tech have investigated Vygotsky's theory that ideas are formed and strengthened as students converse with more knowledgeable people, namely their teachers (2002). Because real discussions are difficult to generate in classrooms, it is often up to the teacher to create the right circumstances to allow students to enter into a dialogue (Christoph, 2001). While some acknowledge the necessity of allowing students to negotiate the social and academic cultures of their peers for themselves, the primacy of the teacher in constructing a framework that has the potential for student success is a common theme (Rex, 2001).

How teachers go about extending student engagement is the salient issue. Explicitly talking to young learners about the importance of their own efforts and responses to questions is crucial if students are to understand their role in the education process (Miller, 1999). Without an overarching view of where they fit into their own education, students cannot fully explore their readings and discussions (Miller, 1999).

Methodology

Four area high school English teachers were observed for eight classes each for a total of thirty-two classroom hours of observation. The goal of the research project was to measure the frequency and effectiveness of various question types on student performance. Teacher question and instruction types were divided in two: lower-order and higher-order. All statements, directions, and simple, closed-ended questions were classified as lower-order. More complex, open-ended questions and activities were classified as higher-order. Examples of both lower- and higher-order questions and statements were recorded during each observation period, as well as immediate and delayed student reactions. Student behavior and engagement was recorded to ascertain the effectiveness of different teaching strategies. This combination allowed the researcher to establish both micro and macro views on best teaching practices; by measuring different strategies inside one teacher's classes; by juxtaposing those strategies with their uses and results in other teachers' classes; by measuring teaching effectiveness as a whole between teachers; and by comparing general findings among the teachers. Once teacher questions and instructional approaches were identified, their effectiveness was judged according to student

response. Extended student responses to any teacher prompt were regarded as positive, and therefore reflecting well on that particular use of a teaching practice. When students responded to teacher questions or statements with questions of their own, whether for clarification or further insight on the topic, this was regarded as productive. When students produced original thoughts or lines of inquiry during class, those teaching practices that led to them were regarded as highly effective. Special attention was given at all times during observation to note whether certain teaching strategies were effective for the whole class, or just some students. If students were disengaged, or were not given adequate opportunities to interact and ask questions, those teaching practices which preceded these behaviors were regarded as ineffective.

Results and Conclusions

The four teachers exhibited markedly different teaching styles, particularly in their use of questions as a way to promote student engagement. Each teacher displayed a high degree of consistency in his or her instructional approach throughout the entirety of the observation process. Changes from hour to hour, month to month, and class to class were minimal. This degree of consistency, while problematic when attempting to judge the effectiveness of different strategies within an individual teacher's repertoire, proved helpful when comparing and contrasting the teachers with their peers.

Teacher A asked very few questions in his classes. They were invariably lower-order and directed at concrete examples of words and ideas already in circulation in the class. Teacher A talked for the greater part of every period. This teacher's questions were often based on vocabulary; if a student could give a one word definition, this was considered a good response by the teacher. Teacher A also posed semi-rhetorical questions such as "You guys don't read poetry, do you?" during class. There seemed to be agreement between the teacher's expectations of a lack of student response and the students' refusal to participate.

Teacher B asked the most questions of all the teachers in this group. This teacher asked a great variety of questions and question types in many contexts. There was a general progression of questions from lower-order to higher-order. However, the distribution of question types leaned heavily towards the lower end of the spectrum. Often, students were out of control, shouting out absurd answers in quick succession and looking for a laugh. The teacher tried to ignore these outbursts. Teacher B answered many of his own questions; sometimes immediately after asking them, and at other times only after a volley of strange answers were shouted by

students. This teacher tended to ask question after question at times, not giving students time to comprehend all of the issues the questions raised, and not returning to them later in the class.

Teacher C asked virtually no questions during class. This teacher gave orders and specific directions on how and what students should do in class. Teacher C was abrupt and short, and at times rather intimidating. Students were not encouraged to engage in discussions with the teacher or each other. One word answers were offered by the teacher when students asked questions. The exception to this scenario was the teacher's use of games in the classroom, generally as filler activities. The teacher would ask a great number of trivia or spelling questions, allowing students to respond with short, direct answers. No discussions of incorrectly answered questions were offered.

Teacher D incorporated the greatest variety of instructional approaches. The teacher used lower- and higher-order questions throughout class as appropriate. Teacher D asked students to read texts from a variety of perspectives and put themselves in the place of different characters. This teacher was willing to let students take ownership of their classes at times and direct their own learning. Only in Teacher D's classes did the researcher witness students interacting with one another on material from their lessons, students posing higher-order questions themselves, and multiple students responding to teacher questions in an appropriate and intelligent manner.

In conclusion, classes in which teachers asked questions at all were more likely to have students talking about ideas related to the lesson. Teachers who asked fewer questions received little from their students. Low expectations tended to foster poor student performance. Higher-order questions prompted active student engagement at all levels. Students in lower level classes were more responsive to higher-order questions than lower-order questions, though they were offered few opportunities to engage in higher-order thinking. In classes where the teacher discouraged vocal student participation, it was almost impossible to gather what they were learning during lessons. In classes where the teacher asked many questions, but did not focus on their answers, their effects were negligible. Student participation was highest and most productive in classes where the teacher asked a variety of lower- and higher-order questions on the same idea, layering and returning to salient issues over the course of the class.

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Secondary Social Studies Textbook Selection

By
Jonathan L. Rybka

With Raymond C. Jones, Ph.D.
Wake Forest University Department of Education
December, 2002

Introduction and Literature Review

Textbooks remain an integral tool in classroom instruction; however, an evaluation of secondary history textbooks provides evidence that many of these textbooks are inadequate in meeting the learning needs of students (Siler, 1989). For example, some studies evaluated textbooks for factual accuracy and found many fallacies (Folsom, Leef, & Mateer; Miller, 1992; Kailin & Sylvester, 1974). To contribute to the factual fallacies, other researchers found that the breadth of coverage was often redundant and lacked depth, which often led to misrepresentations (Patrick, 1988; Schlene, 1991; Bellitto, 1996). In developing criteria for selection, some research stresses the importance of promoting higher level thinking skills (Michaleis, 1973; Thelen, 1979; Giannangelo & Kaplan, 1992). Other research emphasizes the readability of the textbooks, arguing that a careful evaluation of the language used in the textbooks should be the primary factor in selecting textbooks (DaCosta, Gomez, Iskold, Jitendra, Nolet, Renouf, & Xin, 2001; Kinder & Bursuck, 1992). Finally, some research places a high value on multicultural perspectives, arguing that many of the secondary history textbooks fail in addressing the history of certain ethnic and gender populations (Harada, 2000; Sanchez, 1999; Alvermann & Commeyras, 1994; Epstein, 1994; Gruz, 1994; Julian, 1979). Clearly, the body of criticisms of secondary history textbooks is both dynamic and diverse.

The purpose of this research is centered on the process of secondary textbook selection for social studies in a school district. This research devotes particular attention to the criteria that the selection committee develops in selecting a textbook, with a particular focus on readability and multiculturalism; however, this research also anticipates the raising of other issues such as accuracy, coverage versus depth, and levels of thinking. As a result, this research will contribute to the understanding of textbook selection at the district level.

Methodology

The researcher interviewed a convenient sample of nine teachers from three different high schools in a single school district during the textbook adoption year of 2002. From each high school, representatives of U.S. History; World History; and Economic, Legal, and Political Systems were interviewed during the months of November and December through one-on-one sessions in person or over the telephone. All the teachers were contacted through the Director of Social Studies Curriculum for the district or referrals from other teachers within the high school. The answers were analyzed by using the index card method for any themes or unusual patterns with a particular focus on issues of readability and inclusion of the experiences of women and minorities.

Data Analysis

Six out of nine teachers commented on consistently encountering factual inaccuracies within textbooks, thus their confidence in the validity of the information in the textbooks was questionable. Although the factual accuracy of the content is a concern, eight out of nine teachers were more worried about the language of the textbooks being "dumbed down." They said that the current trend is for texts to be written in a simplistic and basal language. The general consensus on the appropriate reading level of the text was that it should be challenging but still accessible to the students; however, eight out of nine teachers could not suggest a method of determining the appropriate level, given the variation in reading levels between each individual student.

The inclusion of visual aids was also a prime issue. Five out of nine teachers concluded that maps and charts are generally more helpful than illustrations or pictures. Teachers said the use of good maps and charts explained some concepts or events even better than the lecture; however, teachers were more skeptical about the integration of illustrations and pictures. Not only were teachers concerned about the representation of content, they were also concerned about the level of thinking the textbooks facilitate. Five of the teachers thought, in the words of one of them, that "if the textbook is not asking them to think, then it is not doing its job." On the other hand, four out of nine teachers thought that higher level thinking is a worthy goal of classroom instruction, but it is not the role of textbooks to cause it. Clearly, both sets of teachers value higher level thinking, but differ on whether textbooks should fulfill that role.

Teachers also disagreed on the range of perspectives that textbooks should present. Interestingly, the teachers who thought that textbooks should address higher level thinking also

believed that textbooks should include a broad range of perspectives. On the other hand, the teachers who believed that the textbooks do not have to address higher level thinking thought that textbooks do not have to include a broad range of perspectives. The inclusion of varying perspectives of history also extends to the integration of the experiences of women and minorities. Six out of nine teachers commented that the inclusion of women and minorities in textbooks has improved over the past couple of decades; however, they also had concerns about the poor integration of women and minorities in textbooks. They were afraid that students will think that women and minorities are included not because of their contributions but rather because of their gender and race, therefore creating a patronizing image.

Although much of the interview concerned the evaluation of textbooks, some of the questions addressed the evaluation process. An overwhelming theme all the teachers identified is the concern over the lack of time, resources, and/or interest in the process. Seven out of nine teachers claimed that the importance of their teaching responsibilities outweighed the time and energy needed for a good evaluation of textbooks. Finally, there is a consistent suspicion about the textbook selection process. Six out of nine teachers conveyed feelings of distrust or skepticism about the integrity of the process, speculating on whether there were some secret deals and decisions.

Implication

The dominance of negative experiences might explain the huge disparity between the national average of classroom instruction based on textbooks and the average of the participants in this study. A clear theme in the negative experiences with textbooks is the current trend of "dumbing down" the language; however, there is a discrepancy between the perceived reading levels by the teachers and the reading levels as indicated by previous research. There could be several possible explanations for this discrepancy. First, although teachers agree that textbooks should have a challenging reading level, without clear ideas of how to determine the appropriate reading level, they continue to comment on goals without recommending a specific method. Second, teachers were generally not familiar with the factors in readability formulas, thus often placing more emphasis on the style of writing in determining readability rather than more traditional factors of syntax. Finally, many teachers speculated that the pressure to produce good end of course test scores outweighed the need for increasing the reading level of the students.

Teachers are concerned about recognizing the authentic contributions of women and minorities within the flow of history without patronizing those historically marginalized groups. Although the textbooks have improved on the inclusion of women and minorities, they have not developed a good integration strategy to recognize the authentic contributions, rather than patronizingly spotlighting. If teachers use the textbooks to promote recognition of multiple perspectives, the students can come to terms with their history through actively encouraging respect for diversity, rather than presenting history in a monolithic and finite manner that continues to exclude varying perspectives and multicultural experiences.

One of the primary causes of skepticism about the integrity of the process is rooted in the lack of time and resources to prepare for the selection. If the teachers had more time and resources to evaluate the textbooks, then perhaps the teachers would not characterize the selection process as a "sales pitch" for textbook publishers, but rather a worthy and deliberative process. The teaching demands on teachers limit the time that they can spend to authentically and carefully evaluate the textbooks. This researcher is not suggesting that the system should place more demands on the teachers. Instead, we must dedicate more time and resources so that teachers can evaluate with more reflection and deliberation. Otherwise, the process alienates teachers and gives them a vote without an equitable opportunity for informed evaluation of the textbooks.

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Technology Enhanced Instruction in the Foreign Language Classroom

By
Laura Sams

With Mary Lynn Redmond, Ed.D.
Wake Forest University Department of Education
December, 2002

Introduction and Review of Literature

The world continues to become more globalized as societies and cultures merge and blend. Though several factors contribute to globalization, technology has a profound effect on the merging of cultures. Technology facilitates connections among people and cultures that would have been difficult or even impossible a decade ago. As societies grow closer through technological connections, computer skills are no longer a luxury; rather, they are a necessity in many professions. Consequently, in educating the children who will be joining this workforce, educators must keep the idea of technology at the forefront. Not only do children need to be taught technological skills, but they need proper instruction for ethical and reliable computer use.

When discussing technology in the foreign language classroom, two sets of national standards should be considered. *The National Educational Technology Standards* (NETS) are goals toward which each teacher should strive in order to make his/her students technologically literate and prepared for a future of language use (ISTE, 2000). By adhering to the NETS, teachers not only prepare students to live in a technological world, but they also enhance the instruction of foreign language. The second set of standards that should be considered is the *Standards for Foreign Language Learning* (ACTFL, 1996). These standards consist of five goal areas, known as the five C's: Communication, Cultures, Connections, Comparisons, and Communities, which have the potential to optimize communication in another language (ACTFL, 1996). When both sets of standards are simultaneously being met in the classroom, students are receiving superior foreign language instruction.

There are two categories of computer technology which have strong potential to enhance foreign language instruction: the Internet and software programs. According to Kost (1999), the Internet provides both teachers and students with access to authentic documents and photographs from the target culture, which aid in contextualizing the language. As well as access to

documents and photographs, the Internet provides students with the ability to communicate with native speakers of the target language which provides opportunities to scaffold the language throughout the learning process (Kataoka, 2000). Woolfolk (2001) explains that the educational practice of scaffolding provides enough support to allow the student to work more independently as language develops in a gradual manner.

Some software programs that have the potential to enhance foreign language instruction are *PowerPoint* and *HyperStudio*. According to Cunningham and Redmond (2002), vocabulary acquisition can be aided by the use of *PowerPoint* because students receive textual, graphic, and audio input. *HyperStudio* provides similar advantages, but also allows teachers and students to create BigBooks, which can enhance the total learning experience for students of all levels (Cunningham&Redmond, 2002). In addition to these presentational software programs, simulation software programs also prove beneficial in the foreign language classroom. These programs provide real life situations, and therefore aid both in contextualization of language and vocabulary acquisition (Higgins, 1993). In addition to and in conjunction with these types of programs, foreign language teachers can also use computer technology as an alternative means of assessment. Instruction is enhanced because the variety of assessment techniques made possible by computer technology is appealing to diverse learning styles (Spanos, Hansen, & Daines, 2001).

Research has shown that as the foreign language teacher implements technology into instruction, classroom dynamics begin to change. Students rely more on technology than before, so the teacher is less of a central figure in the classroom. Students gain some control while the teacher becomes a mediator of the classroom (Daines, Hansen & Spanos, 2001). Students have the opportunity to benefit from the evolving classroom because they can express themselves in different ways in an accepting and supportive environment. Computer technology can provide support for the students because they have more control over their actions in the classroom. In addition, Spodark (2001) believes that student motivation rises as a result of the transformed classroom.

Despite the numerous benefits of computer technology in the foreign language classroom, some teachers remain skeptical and anxious about using technology. Not only do some foreign language teachers feel that information from the Internet does not pertain to the lessons, they are also fearful of losing control of the classroom when the students are focused on the computer

screen. In addition, Kost (1999) states that the abundance of information on the Web can be overwhelming, making the textbook appear to be a safehaven.

In order to decrease the skepticism and the level of anxiety faced by teachers, it is critical to provide assistance in the development of technology skills. Foreign language teachers should also be provided with the resources with which to improve these technology skills. However, not enough teachers have access to the resources or the professional development necessary to develop appropriate skills (Bowling, Brown, & Mitchell, 2001). In order to provide the resources and skills necessary, teachers should be educated in the field. Beginning and continuing teacher education programs and professional development workshops should include technology training to provide teachers with comfort and skill when implementing technology into foreign language instruction (Suleiman, 2001).

Much research has been conducted on the benefits of technologically enhanced instruction in the foreign language classroom. Though computer technology elicits positive results, not all foreign language teachers take advantage of its use in instruction. The purpose of this study is to investigate how selected foreign language teachers use computer technology for instruction and how often they use it in instruction. For what purposes do teachers use technology to make instruction more effective? What is the availability of computer technology to the teachers?

Methodology

During the month of October 2002, the researcher interviewed eight elementary, middle, and high school French and Spanish teachers from a public school district and one local independent school in a small city in the Southeastern United States. The high school teachers taught Levels I-IV, while the elementary teachers taught pre-K through 5th grade. The purpose of the interviews was to determine the computer technology resources available for teachers, what resources the teachers use, and for what instructional purposes they use the available resources. The interviewer used the same twelve questions to conduct each interview.

Each interview was audio-recorded and notes were taken by the interviewer. Once the interviews were completed, all of the data was reviewed, analyzed, and compared to find common instructional practices among the different teachers. These interviews are the basis for the results, comparisons, and recommendations that follow.

Results and Conclusions

Results of this research provide helpful information about computer technology availability and purposes of use in the foreign language classroom. None of the teachers interviewed believed that technology does not enhance foreign language instruction. All of the teachers stated that they use the World Wide Web to enhance instruction, while others stated that they also use presentational software, spreadsheets, databases, and desktop publishing software. The majority of the teachers use computer technology less than fifty percent of the time to prepare instruction as well as for presentation of instruction. The remaining teachers use the computer fifty percent of the time. All of the teachers concentrate their computer use on instructional preparation as opposed to classroom instruction, implementing tools such as word processing and gathering information and visuals from the Internet. All of the teachers interviewed have access to a personal computer either in the classroom, the media center, or their workspace; however, two of the high school teachers do not have Internet access through their classroom computers. In addition, they all have access to a computer lab, though scheduling does not permit optimal instructional use. Six of the eight teachers would implement more technology if access were available, while one felt she had adequate access. When asked if they would use additional technology resources if they were made available, the majority of the teachers stated that they would incorporate do so to support teaching as well as for student use, while none stated they would use additional resources to prepare instruction. Half of the teachers interviewed feel they are at a disadvantage because of computer technology access. However, of these four teachers, two feel this way because of scheduling, not because of availability. Six of the eight teachers are aware of the NETS, while only one makes definite attempts to implement them into her curriculum. The majority of the teachers feel that the Internet is one of the more important technology tools to use in the foreign language classroom because of the access to cultural information, pictures, and documents.

Technology in the foreign language classroom is a very effective instructional tool if used correctly and if resources permit. Computer technology is composed of numerous facets, each of which can enhance instruction if used correctly and efficiently. However, the World Wide Web is one of the more effective tools because it provides endless resources for both teachers and students. Teachers have access to individuals in the target culture as well as authentic documents, such as accurate weather reports and newspapers, just to mention a few. This provides a sense of cultural immersion that was not possible ten years ago in the classroom setting. Access to the

Internet and other computer technology resources is available to a growing number of teachers. However, in order to truly enhance foreign language instruction, the resources should be more plentiful. One computer lab for an entire school does not allow adequate access for each teacher and student. Though schools are making progress in the field of technology, there is definitely room for improvement and growth.

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The Use of Music in the Foreign Language Classroom

by
Stephanie Simpson

with Mary Lynn Redmond, Ed.D.
Wake Forest University Department of Education
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Introduction and Review of Literature

For thousands of years, music has been used as a tool of communication. From traditions handed down through song and dance, to popular songs that reflect current culture, music is an integral part of our lives. Music is present in the human experience from birth to death, representing every facet of our emotions. Music has also been shown to be a viable teaching tool across the curriculum, including the area of foreign language instruction.

According to the statement of philosophy of the *Standards for Foreign Language Learning* in order for students to be "linguistically and culturally equipped to communicate successfully in a pluralistic society and abroad" (American Council on the Teaching of Foreign Languages [ACTFL], 1996, p. 7), success must be achieved in five related areas: Communication, Cultures, Connections, Comparisons, and Communities. In the foreign language classroom, authentic (original language) and adapted music can be used to link with these areas set forth by the *Standards* (ACTFL, 1996). Authentic music connects students to the world beyond the classroom, serving as cultural enrichment while providing opportunities for comparison and contrast. Through authentic music, students hear the natural rhythm and flow of the target language. Finally, authentic music can provide geographical and historical enrichment, by connecting styles of songs, rhythms, and instruments used with geographical and historical trends (Murphey, 1992).

Music can set the stage for a language lesson, in addition to playing a role in the lesson itself. Lozanov (1978) hypothesized that both sides of the brain are activated while music is playing or while students are singing, and this activation leads to greater relaxation, which in turn leads to a mind more open to language acquisition (Bancroft, 1995). Vaneechoutte (1998) and Murphey (1992) suggest that singing is linked to cognitive development, possibly reflecting Piaget's developmental stage marked by "egocentric language" (Murphey, 1992, p. 7), in which children talk aloud to themselves without concern for an audience.

Current research indicates that the learning process may not necessarily be as linear as was previously thought; rather, people learn by making connections from simple to complex and vice versa. For example, when a new word is learned, several of the senses may be engaged, and connections are made in many centers of the brain (Genesee, 2000). The idea of approaching learning from different angles ties in with Howard Gardner's Theory of Multiple Intelligences (Gardner, 1993). The use of musical intelligence strategies in the foreign language classroom can have positive effects on vocabulary acquisition. Connecting words to music activates different parts of the brain, and adding rhythm and movement makes further connections. For example, a language phenomenon known as "din" occurs when songs or pieces of language are heard. Din, an involuntary repeated mental rehearsal, helps the learner retain words and phrases. Murphey (1992) and Salcedo and Harrison (2002) believe that din may be activated by a person's internal Language Acquisition Device (LAD), first proposed by Chomsky. Din is a strategy used by the brain in the phase of memory storage known as "active processing," in which knowledge housed in short-term memory is processed in different ways before passing on to long-term storage (Jensen, 1998). Jensen maintains that for language learning to occur, it must be meaningful. Songs naturally create meaning through emotion, relevance, and context.

The purpose of this study is to determine for what specific instructional purposes and to what extent K-12 foreign language teachers incorporate music into their curriculum. What types of music do teachers choose to implement, and why? How often is music used, and what strategies do teachers use when incorporating music into their foreign language instruction?

Methodology

For this study, the researcher interviewed 15 French and Spanish teachers (five elementary, five middle, and five high) in a public school district and two private schools in a city in North Carolina. Teachers had from three to 32 years' experience. During interviews, teachers were asked questions to determine what importance they place on music in the foreign language classroom, what types of music they use, how often they use music, in what ways they use music in their instruction, and how students respond to the music. Some of the interview questions contained checklists of options for answers; others were open-ended.

Additionally, six classes (two elementary, two middle, and two high) were visited to observe how teachers incorporate music into their classes. Specific techniques for introducing,

repeating, and reinforcing songs were noted, along with levels of student interest and participation.

Results and Conclusions

All the teachers in this study consider music an important part of the foreign language curriculum. They use music to set a mood; integrate with a unit or theme; teach alphabet, numbers, or vocabulary; teach authentic songs representative of the target culture; enrich the study of holidays; reinforce grammatical concepts; and reinforce listening comprehension. Some teachers also use music to teach literature, as well as to improve pronunciation. In addition, teachers at all levels reported using music to address the different learning styles of their students.

Teachers use both authentic (original language) and adapted music. When explaining why they choose authentic music, all teachers agreed that the cultural aspect is of great importance. In addition, teachers at the high school and middle school levels reported playing authentic music as background music when students enter the class or while they do seatwork. Some also use authentic music to challenge students' stereotypes of different countries. Many high school and middle school teachers take advantage of current popular singers and groups such as Enrique Iglesias, Shakira, and Maná, working with their songs to illustrate grammatical points. During one observation, an upper-level Spanish class was entirely devoted to listening to a popular song, examining the lyrics, and identifying instances of a specific verb tense.

Throughout the levels, adapted songs are taught exclusively for reinforcing specific vocabulary and grammatical points. Movement and gestures are an important component of adapted songs; all five elementary teachers reported including movement or gestures in their songs, as did four middle school teachers and three high school teachers. Teachers at the middle and high school levels often notice students using motions for recall while taking a test. Similarly, during an observation of a third-grade class, individual students were asked to recite the alphabet in Spanish. Because they had learned the alphabet through a song and sign language, students were observed calling upon one or both of these strategies to help them recall the letters.

Teachers incorporate music with varying frequency. At the middle and high school levels, frequency of use is influenced by time pressure to get through material, the makeup of the

individual classes, and the units being covered. In addition, at the middle school level, teachers commented on the challenge of finding appropriate material to suit students' interests. In elementary school, because songs are such an integral part of the curriculum, teachers reported using songs daily or almost daily, especially at the third-grade level. Indeed, during observations of two third-grade classes, several songs were included in each class.

All the elementary teachers reported singing with their students. Three of the five middle school teachers and three of the five high school teachers also sing along. When teachers present a song through singing, usually slowing the tempo at first, students respond well because they can understand the words more easily and they feel comfortable having the teacher participate. When teachers use a CD or cassette, however, students enjoy the challenge of singing a song at the original tempo, as well as hearing authentic instruments and native accents. Regarding their own singing, the teachers noted that their personal confidence greatly influences student response.

In general, student response to music was very positive, although it varied by grade level. Three high school teachers reported a "very enthusiastic" response from students. One teacher said: "It's something different; they relate more to music." Another teacher mentioned the positive influence that a few student "leaders" have on other students in the classroom. Finally, difficulty of the musical material is a factor. At the lower high school levels, more difficult songs negatively influence participation; at higher levels (both reported and observed), difficult songs are viewed as a challenge and serve to engage the students.

The middle school years seem to be challenging for the use of music, for both teachers and students. For four of the five middle school teachers, student participation depends in great part on the makeup of the class. As one teacher explained, "Middle school is kind of sticky. Some students would rather die than sing. It depends on the group…I try not to embarrass them. Guys' voices are changing, and that can be tough. But more times than not, they will sing and will enjoy it." Two classroom observations at the middle school level supported this comment. Low pressure, group participation, silliness, and competition were techniques used by the observed teachers to encourage participation. Middle school teachers also face challenges in finding suitable songs for this level. Some traditional children's songs are considered "babyish" by students, while current popular songs often present complex grammatical structures or age-inappropriate themes.

Most elementary teachers reported a "very enthusiastic" response from students; music is expected, especially in the lower grades. Very enthusiastic student response may also be related to the fact that all the elementary teachers sing with their students, even if they feel their own vocal skills are not particularly well developed. At the same time, several elementary teachers have observed definite changes in levels of participation as students move up through the grades. Generally, at the third grade level, students participate well. In fourth grade, a transitional year, some students start the year wanting to sing the "old songs" from the previous year, but soon those songs are viewed as "not cool" by many students. In the fourth and fifth grades, teachers attempt to appeal to students' sense of challenge and novelty.

At the high school level, the Internet appears to be used extensively as a musical resource. All the high school teachers use the Internet to locate authentic songs, to find lyrics to popular songs, to preview music, and to look up information about the artists. Both high school and middle school students use the Internet to search for music to incorporate into their classroom presentations. In contrast, only two middle school teachers and one elementary teacher reported using the Internet as a resource for music.

The results of this study indicate that music is being used in a variety of ways in the foreign language classroom. Teachers are pressed for time and have large amounts of material to cover, especially at the middle and high school levels. However, when they incorporate music, they acknowledge significant benefits: better retention of vocabulary and grammar, opportunities for cultural exposure, and a relaxed classroom atmosphere. Students welcome music as a break from the everyday grind, and teachers use it as a way to provide multiple representations of material and appeal to diverse learning styles. Finally, through music, teachers are able to connect with areas of the *Standards for Foreign Language Learning* (ACTFL, 1996).

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Teacher Response and Classroom Discussion

By
Kathy Taylor

With Joseph Milner, Ph.D.
Wake Forest University Department of Education
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Introduction

Classroom discussion is arguably the most important aspect of student learning. Effective classroom discussions involve interactions between the teacher and the students and between the students themselves. Students learn to articulate thoughts clearly, speak publicly, and critique ideas of their classmates through effective classroom discussions. Most frequently, conversations in the classroom start with a question and an answer.

This study explores the teaching practices in four English classrooms in an effort to discover the underlying principles of those practices that are conducive to effective classroom discussions where students and teachers ask and answer questions or participate in textual conversation in an effort to disclose meaning and knowledge.

Review of Literature

Literature represents another consciousness by which students can refine themselves, confirm, clarify, modify, or refute attitudes and ideas. Adolescents are uniquely responsive to literature since literature invites their participation and judgments, and they are preoccupied with self in the adolescent stages of their lives (Probst, 1988). Teachers can help students bring their experiences into the classroom, which helps them gain confidence and motivation, but Morgan (1987) argues that teachers often miss opportunities to teach life lessons and help students meet their personal needs to express their ideas by "silencing" students.

When students connect their personal experiences to the literature, they take an active role in their learning, and the best way to do so is through discussions where students feel they can risk asking questions. Dillion (1982) asserts, "To know how to question is to know how to teach." Aycock (1995) adds that most of the research in education recognizes the reality that teacher questioning is the central skill in the teaching and learning process, but teachers fail to realize how many questions they actually ask and what kind of questions they are. These statements seem accurate if Borich is correct in his assessment that eighty percent of all class time is devoted to asking and answering questions (Borich, 1992).

Siee (1994) agrees that questioning is an integral part of any high school English classroom and adds that student response is often the result of the questioning techniques of a teacher. Typically, someone asks a question because he or she doesn't know the answer, but in the classroom, the teacher is the one asking the questions and she is presumably the one who knows the answers.

Borich (1992) argues that if students are to assume a major role in their own learning, they need to be taught how to ask questions that are valuable to the issue. Teachers can teach students how to question by modeling. Effective questions, which promote thinking and interacting, can be difficult to formulate even for teachers, and it requires practice to keep the interaction going (Meyers & Jones 1993). Good (2000) proposes seven characteristics of a good question: The question should be clear, purposeful, brief, natural, sequenced, thought-provoking, and adapted to the level of the students. Henson (1988) adds that wait time of three to five seconds should be given after posing the question.

Two major issues in teaching students to form effective questions are time and atmosphere. The classroom must provide a safe environment for students to ask questions without ridicule or negative feedback and a cooperative environment where students and teachers build on one another's ideas (Hunkins, 1972).

Collectively, researchers agree on the importance of effective questioning. New teachers and experienced alike should strive to become model questioners so that students will know how to ask effective questions. Teachers should strive to respond to students' questions and comments in a productive manner so that students are comfortable taking risks with their questions and comments.

Methodology

This study attempted to discover responses to students' question that sparked classroom discussions. The study considers various teacher responses to students' questions and comments and the resulting effect on the classroom climate. The researcher attempted to consider questions asked by teachers and the relationship to the amount and type of questions asked by students.

The subjects were four high school English teachers from East Forsyth High School in Kernersville, North Carolina. The students' ability levels ranged from remedial English students to honors English students in grades nine through twelve. The class sizes were around twenty-eight students.

Procedure

The researcher observed approximately seven classes by each teacher during the semester. During the observations, the researcher collected field notes, which included as much dialogue as possible. The main consideration was the teachers' responses to the students' questions and comments and the resulting effect on classroom climate. Other considerations were the teachers' questions and the attitudes and methods used in delivering oral instructions and information. In so doing, the researcher categorized the teachers' questions as either high-level, low-level, or managerial. The response to students' questions was classified as either positive or negative and the results of the interactions were noted.

Analysis

The researcher determined the number of high and low level questions that each of the four teachers asked and noted the quantity of discussions produced by teacher's questions. High level questions are those that require critical thinking, such as analyzing a situation, applying knowledge to a new situation, or synthesizing knowledge, and low level questions are objective, recall questions where teachers have a specific answer in mind. More significantly, the researcher noted the response of teachers to students' questions and comments and rated them either positive or negative. A positive response is one in which the teacher answered the student's question or referred it to another student to be answered. The response was also marked positive when the teacher expanded the student's idea or led the student to expand. A response that was marked negative is one that the teacher neglected to answer either by ignoring the question or comment or by telling the student they were wrong without explanation. The number of resulting discussions was noted.

Result and Conclusions

It is important to note that the teacher responses to student questions and comments may be misleading in relation to classroom discussion because a teachers' response was gauged to be positive when they simply gave the student the answer, which did nothing to promote discussion. Other responses that were gauged positive are: compliments the question, redirects the question to the class or another student, arranges to get the answer or explains that it will be answered in tomorrow's class. To be considered a discussion, there had to be an exchange between teacher and students or between students that was sustained longer than a simple question and answer. Although most questions that resulted in discussions were questions dealing with literature,

questions dealing with language were also included since some discussions occurred as a result of questions dealing with language.

Teacher A, who teaches honors sophomores and standard seniors asked 39% high level questions and 60% low lever questions. Teacher A responded positively 77% of the time and negatively 22% of the time to student questions and comments. The researcher disregarded managerial questions. There was plenty of interaction in this classroom, and this teacher's classes averaged a total of 1.8% sustained discussions per class. One discussion was recorded after a negative response to a student's question. It is significant that some of the classes observed were preparing for the SAT, which diminished literature discussion time.

Teacher B teaches remedial English and honors and standard seniors. Some of this teacher's classes were also devoted to preparation for the SAT. Teacher B asked approximately twice as many questions as teacher A, but of those questions, only 17% were high level questions with 82% low level questions, and approximately half as many student questions and comments were recorded. Teacher B responded to students' questions and comments positively 90% of the time and negatively only 10%. This classroom had an average of .004 discussions per class during the time they were observed.

Teacher C teaches practical English, and honors Sophomore English. Teacher C fell in between Teacher A and Teacher B on the number of questions that were asked, but gave more thought-provoking lectures than any of the other teachers. This teacher only asked 18% high level questions and 82% low level questions, and the positive responses to student questions and comments were 79% with 21% responses considered negative. Still, this teacher had twice as many discussions as Teacher A and more than ten times as many as Teacher B or Teacher D for an average 2.25 discussions per class.

Teacher D teaches standard junior students. The number of questions asked by teacher D was comparable to teacher A, less than Teachers B and C, but the percentages were similar with 19% high level questions and 81% low level questions. The standout statistic for this teacher was the number of student questions and comments. This teacher's classes had more than twice as many as teacher B and teacher C and about 25% more than teacher A. The positive teacher responses totaled 70% compared with 30% negative responses. Unfortunately, out of all those, there were only .16 academic discussions per class. The overwhelming amount of student questions and comments in this class were nonacademic.

These results suggest that it is the quality of teacher talk that promotes effective classroom discussions and not the quantity. Using analogies and relating the text to students' lives and interests produced more student comments and questions than asking many questions regardless of the cognitive level of those questions. Genuinely complimenting student questions and comments also produced more discussion than simply answering their questions. And generally, negative responses hindered the discussion possibilities.

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Developing Oral Proficiency in the K-12 Spanish Program

by
Megan D. Webb

With Mary Lynn Redmond, Ed.D.
Wake Forest University Department of Education
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Introduction

Currently in the United States, the need for citizens who possess strong communication ability in more than one language is critical. Increased immigration has led to the growth of diverse cultures and languages; hence, there is a greater demand for foreign languages in the job market. In order to meet the challenges presented by the growing need for a more language proficient society, the most recent movement in the area of foreign language education has been a focus on language development for communication. It is important to promote oral language proficiency in foreign language study, and this can best be achieved and supported through an articulated K-12 foreign language program.

Oral language development is an important part of the foreign language program and is strongly supported by national standards and guidelines. The *Standards for Foreign Language Learning* (ACTFL, 1996) developed by the American Council on the Teaching of Foreign Languages (ACTFL) provide the framework for the student expectations of the content knowledge in the foreign language. The *ACTFL Performance Guidelines for K-12 Learners* (ACTFL, 1998), which are used to assess these standards, determine the student's proficiency development as the student moves along the continuum of foreign language study.

The national standards serve as a basis for what students should know and be able to do at certain stages of their foreign language study. The national standards do not form a curriculum, but rather, "serve as a gauge for excellence, as states and local districts carry out their responsibilities for foreign language curriculum in the schools" (ACTFL, 1996, p.435).

Although there is no nationally mandated curriculum or formal proficiency assessment for the foreign language program, the national standards and performance guidelines serve as models with which curricula should be aligned. The standards and guidelines should also be considered in designing assessment practices to measure the development of language proficiency. It is the responsibility and obligation of each state, local school district, and

individual foreign language teacher to be well informed about both the national standards and performance guidelines. With a good understanding of the standards and guidelines, foreign language programs can develop curricula and assessment measures that correlate with the national expectations and that embrace oral language development for communication.

Review of Literature

Szostek (1994) states that oral proficiency and communication are the primary desired outcomes of foreign language programs. Willis (1996) notes that foreign language programs should prepare students to communicate appropriately with others in the target language. Much of the literature suggests that in order to improve students' oral proficiency in the foreign language, students need more opportunities for oral practice in the classroom. Azevedo, Heflin, and Rivers (1988) concur that oral communication practice is vital and state that students must interact and communicate in the target language on a continual basis in order to develop and build upon oral language abilities effectively. While providing more opportunities for students to engage in conversation is fundamental, this objective can be fostered by maximizing speaking time within the classroom, encouraging an atmosphere of mutual tolerance, collaboration, and respect among students, and providing a friendly and comfortable environment where students feel at ease communicating in the target language (Szostek, 1994).

Many effective strategies for promoting proficiency at all levels of foreign language study are centered on classroom instruction that is personalized and contextualized. Instruction that offers ample opportunities for the students to learn the language in context and apply their knowledge to real-life situations is referred to as the proficiency-oriented approach (Govoni, 1999). Teachers should find common ground with their students on which to base their instruction and develop real-life communicative situations in which students engage in the foreign language. Savignon (1983) reports that students need to be given the opportunity "to interpret, to express, and to negotiate meaning in real-life situations" (p.vi). Furthermore, research has shown that students should be encouraged and even required to speak in the target language without preparation or guidance, just as a person would normally be required to do in regular daily conversation (Williams & Sharp, 1997).

Presently, the lack of an articulated foreign language curriculum is one of the issues that surrounds the development of proficiency in the foreign language program. An articulated program is defined as foreign language learning that begins in kindergarten and continues in an

uninterrupted sequence through grade twelve. Another issue is the inconsistent approach used to assess proficiency development along the continuum (Sharpe, 2001; Curtain & Pesola, 1994).

Current research supports assessment of oral language ability in the form of interviews between teacher and student, interviews between students, spontaneous role plays with two to three students, oral monologues, conversation and situation cards, narration and/or description of an event or picture, and oral responses to a given situation in a culturally appropriate way (Shrum & Glisan, 2000). Curtain (1994) strongly supports the use of small group work and/or pair work as an assessment measure by maintaining that these assessments "are not optional extras…for the students' spoken language to improve…they are essential" (p.12). In addition, a major focus of assessment is the belief that students should not be surprised when it comes to the assessment process. Students should be tested on what was taught and in the same manner in which they were taught (Curtain & Pesola, 1994; Cameron, 2001). Assessment practices should be familiar to the students because they should directly support their classroom experiences.

In order to aid in developing language proficiency in foreign language instruction, there should be more emphasis placed on an articulated curriculum throughout the K-12 foreign language program. The curriculum should be a continuum in which previous knowledge is expanded on instead of the learner having to relearn the same basic skills at each new grade level. Driscoll and Frost (1999) note that for an articulated curriculum to be successful, there needs to be effective communication between elementary, middle, and secondary teachers and a flow of information that documents the abilities of the students so that their knowledge and abilities can be built upon. Teachers should track the growth at each grade level and communicate their findings to those teachers who instruct their students in subsequent levels. By using the findings to build upon the students' previously learned knowledge, foreign language teachers can more effectively promote language proficiency (Silber, 1991).

The purpose of this study is to examine ways in which selected Spanish teachers at the elementary, middle, and high school levels help students develop oral language proficiency and to determine instructional strategies they use to assess proficiency both formally and informally.

Methodology

In order to determine the instructional strategies Spanish teachers use to promote and assess oral proficiency, the researcher followed two steps. First, the researcher interviewed eight Spanish teachers at six local public schools in a city in the western central area of North Carolina.

The sixteen questions included in the interview were used to gather information about each teacher's awareness of the *Standards for Foreign Language Learning* and the *ACTFL Performance Guidelines for K-12 Learners* and how they implement them in their instruction, as well as other ways the teachers promote and assess oral language development. The interview questions also addressed the teacher's expectations of oral language proficiency and ways in which he/she tracks student progress from level to level. Second, the researcher observed a class taught by each of the eight teachers in order to see how instructional strategies are implemented in the classroom. During the observations, the researcher looked for additional ways in which the teachers promoted or assessed oral proficiency aside from those stated in the interview.

Results and Conclusions

Most of the teachers interviewed were aware of the national standards and the guidelines, but many thought the two documents shared the same purpose - to establish common national goals and objectives that teachers can use to create their curriculum. According to this finding, it appears that many teachers are unclear as to the purpose of the performance guidelines. Many of the teachers gave clear and defined goals and objectives for their foreign language programs, but did not give explicit expectations of oral language proficiency. This could be attributed to a lack of understanding of the *ACTFL Performance Guidelines for K-12 Learners*.

The results of this study found that oral language development, although deemed to be a very important aspect of foreign language learning, does not receive equal focus in the elementary, middle, and high school foreign language programs. The teachers at the high school and middle school level commented that they place equal emphasis on oral, reading, and writing proficiency, while the elementary teachers more highly emphasize oral proficiency. However, observations revealed that oral language was not given equal focus at middle or high school level.

Large class sizes, limited class time, and the lack of an articulated foreign language curriculum are contributing factors that impede the development of oral proficiency in the classroom. Current research states that in order to develop oral proficiency, oral language should be assessed formally, frequently, and consistently, yet the data from this research study found that the interviewed foreign language teachers are not formally assessing oral language at all. The observations concluded that the assessments used were informal and inconsistent. The assessment practices the teachers used did not require the student to produce language spontaneously, but rather, the students were given significant time to prepare oral responses for

presentations, role-playing, and asking/answering questions. The research affirms that one of the greatest contributing factors to oral proficiency development is frequent and ample opportunities devoted to oral practice. However, from the interview responses and the observations, it is apparent that aside from the elementary setting, oral activities are not a primary focus.

It is important for teachers to give students more opportunities to communicate orally, and at the same time, provide an environment that encourages all students to feel comfortable speaking in the target language. In order for students to advance their oral proficiency level, they must first feel encouraged and supported in their efforts to produce oral language. Communication should be the primary goal of foreign language programs because the ability to communicate is essential to living in a culturally diverse society. While proficiency cannot be attained over the course of a few years, there is a need for articulated foreign language programs that focus on the development of oral proficiency among today's foreign language learners.

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A Study of North Carolina Nationally Board Certified Science Teachers' Use of Technology

By
Karly Wortmann

With Robert Evans, Ph.D.
Wake Forest University Department of Education
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Introduction

Today technology is being changed on a daily basis. Secondary students will need to know how to use technology and use it well in order to be prepared for the future. This is a concern for our schools in being able to stay current with technology because of teacher preparation and costs. However, in order for the students to receive the information, teachers are required to know and use technology with their content curriculum.

Since many of the pressures of getting the information to the students is applied directly to the teachers, the preparation of the teacher is incredibly important. In order for the teachers to have the most current information, teachers must constantly continue their education to keep up with changing technologies. It is up to the school districts and the teachers to be sure they have the current information to be able to pass on to the students. Therefore, professional development is a necessity no matter the source, whether it be from university based courses, workshops, seminars, or instruction from colleagues, continuing education for the teachers can only be an addition to what the students have available to them as a resource during their educational experience.

Literature Review

A study by Scheffler and Logan (1999) was based on the idea that teachers need to have a certain amount of preparation with computers to be able to integrate them into a classroom. Many teachers' beliefs are in contradiction to the literature about the best practices in teaching students. However, a study by Czerniak, Lumpe, Haney, & Beck (1999), found that teachers'

attitudes are the best indicators of whether or not they use inquiry based learning practices in their classrooms.

There are drawbacks of using technology including: time (for development, planning, and implementation), lack of resources, limited access, and quality of items on the market (Czerniak, Lumpe, Haney, & Beck, 1999; Wiesenmayer & Koul, 1998; NCES, 2001; Wetzel, 2001). Most of all the teachers do not have the access to professional development opportunities either due to time or accommodations (Czerniak, Lumpe, Haney, & Beck, 1999; Wiesenmayer & Koul, 1998; NCES, 2001; Wetzel, 2001).

In the study of 'Teachers' readiness to use computers and the internet', it was noted that the teachers surveyed with a reduced number of years of experience were more likely to feel ready using computers (or the Internet) when compared to their colleagues (NCES, 2001).The study then implied that the more experience the teachers had, the less likely they were to integrate (NCES, 2001).

The purpose of this study is to assess the amount of technology integration in the science classroom of Nationally Board Certified Teachers. The study aims to find whether they, with their experience and heightened abilities to adjust to problems, are able to integrate and cover the ISTE standards within their classrooms, and conquer the other problems technology brings into a school. The null hypothesis is that there will be no correlation between their history in professional development and the amount of technology that they use in their classrooms.

Methods

Nationally Board Certified teachers were selected for this research in order to reduce the number of novice teachers in the subject group and to obtain teachers with high professional standards. This restriction also reduced some of the possible factors that could account for variability in the results. A national database of Nationally Board Certified Teacher's at http://www.nbpts.org was used to find North Carolina's NBCT's. Once the names and districts were obtained, each of the 193 teachers' addresses was searched for at the North Carolina Department of Instruction website (http://www.ncpublicschools.org/internet.resources/ncschools.html). A few of the addresses were not available, reducing the population to a total of 186.

A survey was designed for the purpose of assessing the use of technology in the classrooms of these Nationally Board Certified teachers. The survey went through several different formats during development before it could gather the information required in such a manner that was conducive to statistical analysis. This survey was reviewed by four colleagues in each of its stages. The survey was pilot tested with a group of five NBCT's in Iowa to assess its validity, then was converted into a web-based format so that it could be used via the Internet for the pilot testing and research. Once validated, the surveys were printed and placed in Wake Forest University envelopes with a letter on university letterhead, a consent form, and a self-addressed stamped envelope.

The responses for the amount of technology use were converted into weighted nominal data. The dates of their last technology course/workshop/training were also converted according to the year. Next, the average was taken for each of the individual pieces of informational technology equipment. These results were used to evaluate which technology was used most often in the classrooms. Finally, a correlation was used to compare each of the groups of teaching experience's last technology course with the amount of technology used in the classroom. The degrees of each of the teaching experience groups were looked at for patterns that may correlate with the statistical data.

Results and Discussion

Of the subjects, 59 percent were female, the other 41 percent male. Seventy-five percent of the teachers have block scheduling (90 minute class periods) and the other 25 percent have class periods that range from 43 minutes up to 60 minutes. Most of the teachers (over 50%) were trained in technology by workshops/seminars/other professional development opportunities. Few (5%) were self taught (an answer written in on the surveys), some (over 20%) were taught mostly by colleagues, and some (over 10%) had most of their technology instruction from college courses.

As seen in Table 1, there are differences in the technology use and in the date of their last technology course.

Table 1. Variations in technology use by teaching groups by amount and date of last use.

Teaching Experience Groups	Average Amount of Technology Use (on a scale of 0-10)	Average Date of Last Technology Course (on a scale from 0-5)
5-9	3.708	4.364
10-14	3.569	4.500
15-19	2.900	3.545
20-24	3.754	4.000
25-29	3.603	4.667
30-34	3.533	4.333
35-39	3.172	5.000

However, as seen in Table 2, there is no significant difference between the amount of use and the last technology based professional development course.

Table 2. Correlations between the above table showing that [r = .578, ρ=.257, n=56] where n stands for each of the individuals who returned surveys.

Pearson Correlation	Significance (2-tailed)
ρ = .257	r = .578

Since no significant difference was found in the correlation between the currency of coursework and the amount of technology use, the null hypothesis of this study was rejected. However, there was a common pattern between the teaching experience groups and their past education.

In Table 3, teachers suggest that there are some very strong limiting factors to the amount of technology they are able to use as a part of their curriculum.

Table 3. Percent of participant responses that answered each of the named limitations on their amount of technology use.

Limitation	Percent of Participants
Quality of available software	2
Time available	50
Money to purchase equipment	34
Equipment available or lack there of	54
Lack of training	14
Students knowledge	4
School support staff	4
No limit	2

With these limitations, it is important to know how well they feel they can use technology in the classroom, or if they feel any anxiety in the use of technology. Seventy-one percent of the participants said that there was no anxiety factor in their use of technology, and 29 percent said

there was an anxiety factor. With the anxiety or lack of anxiety, do the teachers feel that technology should be integrated into the curriculum? Most of the teachers responded with "yes" because it prepares their students for the future.

The technologies that are more likely to be available to teachers, due to time alone, are the technologies that have been in production the longest. The newer and more expensive the technology (SmartBoard, LCD projectors, digital cameras and camcorders) the less likely they are to be available to the teachers to use. This matches perfectly with some of the answers the teachers gave for the limitations of technology use in their classroom. Time and money are the limitations which hold the teachers back from being able to expand the exposure of their students to more technology. This finding agrees with what Czerniak, Lumpe, Haney, & Beck (1999), Wiesenmayer & Koul (1998), NCES (2001), and Wetzel (2001) all said in their studies. However, with all of these limitations, the teachers still find that technology is necessary and most do enjoy using technology for both their own sake and for their students' preparation for the years beyond secondary education.

Overall, on average, Adolescence and Young Adulthood/Science Nationally Board Certified Teachers are covering the standards for technology use that are required by ISTE and the state and national science standards. On average, students who are taking courses by teachers who are Nationally Board Certified are being presented with information that will help prepare them for their future.

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The Use of Metaphor in Classroom Instruction

By
Katharine O. Young

With Joseph Milner, Ed. D.
Wake Forest University Department of Education
December, 2002

Introduction

The challenge for any teacher is to convey information and concepts to students in an effective and engaging manner. In a culture of action movies, video games and interactive computer programs, the imagination is stunted by lack of use. Teachers must find a way to ignite student understanding of abstract concepts, or simple instructions. Relating unfamiliar concepts or re-introducing mundane facts in such a way that engages students becomes imperative. This study will investigate the effectiveness of metaphor and comparative figurative language as a creative and engaging means of instruction.

Literature Review

In the classroom, metaphor is often lumped into the category of 'literary devices,' most commonly termed as a "comparison that does not use *like* or *as*." This limited view of the function of metaphor in the English language, and thus the English classroom, is a gross injustice to the cognitive understanding and ways of thinking of both the student and the teacher. For the purpose of this study, metaphor functions as an umbrella term to encompass simile, analogy, personification, conceit, and any comparative form of figurative language. In response to the absence of cognitive theory concerning metaphor, authors Lakoff and Johnson make an argument that metaphor is not only a cognitive process, but also a pervasive medium in speech, thought and action. Lakoff and Johnson assert that the way we "think and act, is fundamentally metaphorical in nature" (Lakoff 1980, p.3). By exposing the metaphors that characterize our speech and the way we conceptualize issues, Lakoff and Johnson demonstrate that the English language is so infused with metaphor that many of us cease to notice.

If metaphor is proven to be a pervasive part of language over time, does that necessarily mean it deserves a place in the classroom? Cooper, another linguistic theorist, answers the question by surmising that metaphor "helps to make people 'at home' and this in a certain sense, is why it is so pervasively engaging"(Cooper, 64). Relating what is unfamiliar or complex in an

engaging manner is of utmost interest to classroom teachers, and discussed by authors and linguists as a theoretically sound means of cognitive communication of ideas.

As a basis to the idea that the goal is to engage students in metaphorical thinking, Pugh, Hicks, Davis and Vestra have compiled two books on the subject of using metaphor in classroom instruction, and cultivating the student's use of metaphor in cognition. Pugh defines metaphor as " drawing parallels between apparently unrelated phenomenon to gain insight, make discoveries, offer hypotheses, [and] wage arguments" (Pugh 1992, p. 2). This first book focuses primarily on helping the teacher to enable the student to be metaphorical learners, "build [ing] brides from the known to the new" through a variety of activities and strategies (p.5). The second book uses the image of the map to explain ways to help students navigate, or think for themselves in a metaphorical fashion. Metaphorical thinking engages students because it builds on prior knowledge, which falls in line with contemporary learning theories as a whole (Pugh 1997, p.19). Teaching students to think in this way is not only effective because of its built-in enabling structure, but also it is empowering. Showing students that metaphors have the potential be argumentative, show point of view, and condense weighty concepts increases their thinking power, especially if teachers give students the opportunity to use their understanding of metaphor to construct their own arguments and comparisons. The strength and power of metaphor as a means of instruction and consequently a means of thinking posits further research and investigation in the classroom itself.

Methodology

The researcher observed normal classroom instruction and discussion in four high school English classrooms, ranging from 10^{th}-12^{th} grade, remedial to honors level on a weekly basis for 7 weeks and recorded the use of metaphor. As the information was gathered, it was synthesized into categories concerning purpose, type, and elaboration of the analogy. Additionally, the researcher took detailed field notes during the entire class session. Using the field notes, the researcher documented the context of the analogy, charted the characteristics of the analogy as a means of primary instruction, emphasis or review; whether or not the analogy is a brief reference or extended comparison; whether the analogy was used for academic instruction or non-academic situation (classroom control, directions); whether or not the analogy is accompanied by visual aids or audio stimulus; if the analogy involves a comparison that references teenage or present day culture. These characteristics were organized in a chart format; other field notes

expanded on the analogy itself. In order to measure the effectiveness of specifically observed analogies, the researcher made a detailed account student reaction, noting behavior such as eye contact, questions asked or comments made, depth of response, and evidence of engaged note taking. After the collection of detailed field notes, the researcher selected five classes, two classes from one teacher, and one class from each of the remaining three teachers. The class ability levels included one Practical (remedial) class, two Standard level classes and two Honor's level classes and the grade level ranged from 10^{th} grade to twelfth grade. The researcher then randomly selected three students from each of the five classes and conducted a brief, seven to ten minute interview to investigate student understanding and retention of a concept and the metaphor the teacher used in class to teach it. The researcher chose two metaphors used in a class period earlier in the semester and inquired if the student remembered the concept presented, using the prompt of the metaphorical comparison. The researcher also inquired about the teacher's overall use of metaphor, how the student learned most effectively, and if the student remembered any other salient metaphors or analogies used by the teacher. Student interview questions included: Your teacher compared a something to (X) in class. Can you remember what concept, idea or topic your teacher was trying to teach with this image? What kinds of things help you understand and remember information and ideas? Do metaphors and analogies ever confuse you? Do you remember any other metaphors or analogies your teacher used in class? How frequently or infrequently does your teacher use metaphors and analogies in class? These interviews and field notes were used to determine the effectiveness of using analogy in instruction, and to categorize each teacher's overall use of metaphorical language.

Results and Conclusion

After the seven week period of taking field notes, counting and analyzing analogies, and following up the in-class data with student interviews, it was clear that the students in class A had the most exposure to metaphorical teaching. Teacher A used metaphor in everyday speech, as well as crafting metaphors for the most important concepts in the class. Teacher A not only used a high number of simple metaphors, but teacher A's use of extended metaphor surpassed other teachers' total use of metaphor. The level of student engagement during metaphorical teaching in teacher A's classes exceeded the other teachers as well. Teacher A had the highest number of extended metaphors, as well as the most engaged students during metaphorical teaching. The high level of engagement was due in part to the fact that the metaphors created in

teacher A's classes were often accompanied with humor, sarcasm, visual aids, auditory stimulus, diagrams, or voices and movements that enacted parts of the metaphor. When teacher A employed any of these elements, a frequent practice of teacher A, the level of engagement in the class increased.

Because the researcher totaled the number of analogies used by the teachers before conducting student interviews, the researcher recognized that teachers used more extended analogies in honors classes than in standard and practical classes. Therefore, the researcher chose to conduct interviews in both the practical level and the honors level of the teacher A, the teacher with the most analogies overall. The results showed that even for the most highly metaphorical teacher A, honors students had almost twice the retention of concepts of the practical class. This could partly be due to the fact that extended metaphors were remembered more often that simple metaphors. The problem is compounded by the fact that teachers generally used more extended metaphors in honors classes, and more simple metaphors in standard and practical classes. Even teacher A, the most metaphorical teacher, did not use an extended metaphor in the time that the researcher observed. Simple metaphors help students understand an immediate issue, but do not usually encapsulate entire concepts. Retention is increased if the metaphor is multi-layered, rich with imagery, and accompanied by some other visual or auditory stimulus. Based on this research, there is a link between highly metaphorical teaching, and retention of the central concepts presented by metaphor, but the correlation is stronger when extended metaphors are used. Because less extended metaphors are used in standard and practical classes, there is a lower level of retention of concepts taught using metaphor.

Teachers B and C had similar levels of metaphorical use of language, and similar levels of students retention and in-class engagement. However, teacher B had three major distinctions from teacher C. In-class engagement for teacher B was higher based on these three reason: B's metaphors were coupled with humor, incorporated teenage culture, and the extended metaphors were often repeated and expanded throughout many class periods. For example, when teacher B wanted his students to be working on task, produce good work, and behave correctly, B said "We want to be 'rollin' on dubs.'" This metaphor was repeated and expanded throughout the semester. The students responded favorably the metaphor, and even added their own extensions to the metaphor. Every student interviewed recognized the metaphor, an occurrence that did not happen with any of the other metaphors about which the researcher inquired. This metaphor also used

slang relevant to the student population, adding to the level of engagement and the level of retention of the students. Teacher C's use of analogy in the classroom did not usually cause a change in the level of engagement. The students questioned from teacher C's classes were honors students, and possessed a fairly high level of retention, but their in class reaction to analogy was minimal. Most of teacher C's metaphors were short, immediate, and added clarity rather than substance to the instruction.

The researcher did not observe any metaphorical language in the teacher D's classroom per se, but the students recalled metaphors that the teacher had used recently. All students interviewed reported that the teacher used metaphorical language, but one student could not produce any example. The other two students reported the same metaphor used by the teacher in class.

In summary, metaphor is an effective way to engage students in class instruction. Students are most attentive and engaged in metaphorical instruction when the metaphor is accompanied by a supporting element, either a visual aid, diagram, or auditory stimulus. These elements help to involve students, and sometimes produce student comments or questions. Students overwhelmingly self report that they benefit from the use of metaphors in the classroom, and that there teachers provide such instruction. In terms of student retention, extended metaphor is the most effective way to craft a memorable analogy. Unfortunately, standard and practical classes usually experience more simple metaphors and less extended metaphors than honors classes. This may account for the why honors classes have a higher level of retention than practical classes.

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Averting and Reacting: Four Teachers' Methods for Minimizing Lesson-Thwarting Outbursts

by
Kelli Zellner

With Joseph O. Milner, Ph.D.
Wake Forest University Department of Education
December, 2002

Introduction

In a 1993 study of teachers, Rancifer stated, "When beginning or experienced teachers lack control over pupils in their classrooms, they do not experience job satisfaction" (p. 1). While control may seem a strong word here, minimizing interruptions to productive classroom lessons is certainly an important concern for young teachers today. New educators need to have a clear idea of where and how management fits into the classroom so that the focus can be upon lessons.

Review of Literature

Classroom management continually arises as a major issue in the ongoing debates concerning education and teacher preparation. In fact, Brainard calls it "a paramount concern for many teachers, both new and experienced," (2001, p.207) and, as Shaughnessy, Coughlin, and Smith note, "teachers and administrators [continue] to seek more effective ways to prevent and manage [disruptive classroom behavior]" (1997, p.47).

As a teacher, Charney notes that, when students continually engage in disruptive behaviors such as blurting out irrelevant remarks or redundant questions, she "cover[s] only a fraction of the material [she's] planned" (1998, p.90). On the other hand, when teachers are able to effectively manage such disruptive, lesson-thwarting behavior, "time on task and active engagement increase, resulting in greater student achievement" (Shaughnessy, Coughlin, and Smith, 1997, p.44).

Suggestions for "managing disruptive behavior after the fact" (Shaughnessy, Coughlin, and Smith, 1997, p.46) range from immediate private confrontation, "perhaps by moving near the student and whispering a correction," (Brainard, 2001, 208) or public verbal address of the student(s) to removal of student(s) from the classroom or "us[ing] the disruptive behavior as a teaching tool" (Shaughnessy, Coughlin, and Smith, 1997, p.46). Clearly, the opinions on the matter vary greatly, and there is continual dialogue among educators as to the best methods.

Accordingly, this study will focus on narratively contextualizing and reporting the teaching methods employed by East Forsyth High School English and their students' tendency for disruption of lessons as well as the teachers' reactions when students "blurt out what's on their minds" (Charney, 1998, p.91). In addition to examination of the original disruptive student will be the observation of other students' subsequent behavior in order to describe what could be a " 'spill over' effect of [the teacher's] interactions with individual students" (Gunter, et al. p.13). Should this research prove promising, it could stimulate future studies involving analyses of the variables herein contained on a broader, more statistical basis in order to project most effective teaching styles and methods of addressing disruptions for these teachers.

Methodology

In this study, the researcher attempted to discover the teaching styles and methods of addressing student outbursts that are most effective for minimizing lesson-thwarting disruptions. If an outburst by a student does not disrupt the learning or flow of the lesson, then it is irrelevant. Indeed, a classroom free of lesson-thwarting outbursts does not necessarily imply a silent classroom. As such, an outburst was defined as lesson-thwarting only if it disrupted other students' learning.

Sample

Obtained through convenience sampling, the subjects observed in this study were four East Forsyth High School English teachers and the students in their classrooms, ranging from grade nine to grade twelve.

Instrument

No formal instruments were used in data collection during this study. All data were collected through the direct observation, oral interviews, and note-taking of the researcher.

Procedure

The researcher observed the classrooms of the four teachers for a total of thirty-seven class periods during the course of the study. During each class period, the researcher took careful note of the teaching methods/activities being used, any outbursts/disruptions that occurred, the teachers' reactions to those disruptions, and subsequent behavior in the classrooms. After all observations had been collected, the researcher interviewed each of the four teachers about the methods/activities they perceived as being the most and least effective for minimizing

outbursts/disruptions and the methods of reacting to the disruptions that they found most effective.

The data was interpreted by the researcher, and a narrative was developed. The narrative reports what was observed in the four classrooms and what the teachers said during the interviews. It describes the teaching methods employed by each of the teachers and the students' tendency for disruption of lessons as well as the teachers' reactions to those disruptions and subsequent class behavior. Finally, based on the average numbers of disruptions observed, the most effective teaching methods/activities employed by these four teachers are offered, as are the most effective reactions to disruptions.

Results

It is important to consider that, which patterns did emerge during the researcher's observations of these four teachers, no definitive conclusions may be drawn due to a number of compromising factors. As such, all that can be concluded from this study is that the researcher attempted to accurately illustrate the situations observed and the patterns perceived during the study.

During each observation period, the researcher recorded the classroom happenings by describing and categorizing them in a number of ways. For instance, the structure of the lessons—that is, the teaching methods and activities—were classified in one of six ways, such as whole class lecture (WCL) and Group Work (GW).

While the categories divide the activities into manageable, quantifiable parts, there are more specific elements and nuances of how the teacher carries out the lesson's activities that contribute to the shape of events in the classroom. Therefore, the researcher attempted to describe the methods not only categorically but also in terms of the teachers' classroom personalities and manners, which was furthered by the researcher's orally interviewing the four teachers.

Teacher 1

Teacher 1 was observed during 5 class periods for a total of 11 times. While being observed, Teacher 1 most often used a method of teacher-led discussion to structure classes (5 times). The researcher recorded 26 disturbances during the observation sessions, 10 of which occurred during teacher-led discussions. The most-often disrupted activity, teacher-led discussion, is likely such because of the disengaged nature of the students. The researcher

speculates that the reason for this: the teacher answered his own questions after giving students very little time to respond to them.

When disturbances arose, teacher 1 most often responded by addressing the student immediately, as an individual, by name, in public, by commanding that the student desist the interruptive behavior.

Teacher 2

Teacher 2 was observed during 3 classes for a total of 8 periods. Teacher 2 did not use predominately one method of teaching. The researcher recorded 3 disturbances during the observations, 2 of which occurred during lecture and one of which happened during a transition between methods.

In reaction to the 3 observed disturbances, teacher 2 addressed the entire class 100% of the time—twice after a delay and once immediately. The corrections always led back to the lesson without further disturbance.

Teacher 3

One outburst was recorded all through the researcher's study of teacher 3, who was observed during 5 classes for a total of 10 periods. Lecture was used once; teacher-led discussion, 4 times; student-led discussion, 3 times; and individual work, 5 times. The teacher transitioned between activities a total of 3 times during observations. The only interruption occurred during student-led discussion. The teacher reacted by asking the speaker to pause, looking directly at the student who was interrupting, and asking him, "Are you finished?" After sustained eye contact and silence (perhaps 3 seconds), the teacher indicated to the speaker that she may continue.

Teacher 4

Teacher 4, who was observed during 4 classes for a total of 8 periods, experienced 30 disruptions during observations. Teacher 4 most commonly reacted to disruptions by immediately naming the student and giving hints. That is, he reminded the student, in a non-threatening way, of the consequences of his/her behavior or reminded the student that the behavior was unacceptable.

The patterns that developed during the course of this study suggest that the teachers are most effective in preventing disruptions by, as teacher 2 said, getting the students "invested in what they're doing" through requiring their active engagement in discussion and activities, by

immediately reacting to disruptions with accurate, clear, and supported address of the problem, and by remaining firm but calm. Indeed, the one instance in which a teacher got noticeably angry, the situation escalated into heated argument, and the student was sent to in-school suspension. This research could be improved and furthered by increased and evenly distributed observation hours, times, and days. In addition, it would be helpful to record the amount of time spent on the activities and on the disruptions to develop percentages over time.

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