Culminating Experience Action Research Projects, Volume 4, Fall 2003

Edited by
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College of Health, Education, and Professional Studies
The University of Tennessee at Chattanooga

Introduction

As a part of the teacher licensure program at the graduate level at The University of Tennessee at Chattanooga (UTC), the M.Ed. Licensure candidate is required to complete an action research project during a 3-semester-hour course that coincides with the 9-semester-hour student teaching experience. This course, Education 590 Culminating Experience, requires the student to implement an action research plan designed through (a) the Education 500 Introduction to Inquiry course, (b) one of the two learning assessments required during student teaching, or (c) a newly-designed project not used as one of the learning assessments.

With funding through a UTC Teaching, Learning, and Technology Faculty Fellows award, the Education 590 course is conducted through the use of an online, course management system (Blackboard Learning System Release 6), allowing for asynchronous discussion and use of the digital drop box feature for submitting required papers.

The course syllabus for Education 590 Culminating Experience is presented in the next section, followed by action research projects from fall semester 2003.

Deborah A. McAllister

Susan M. Bothman

October 2005

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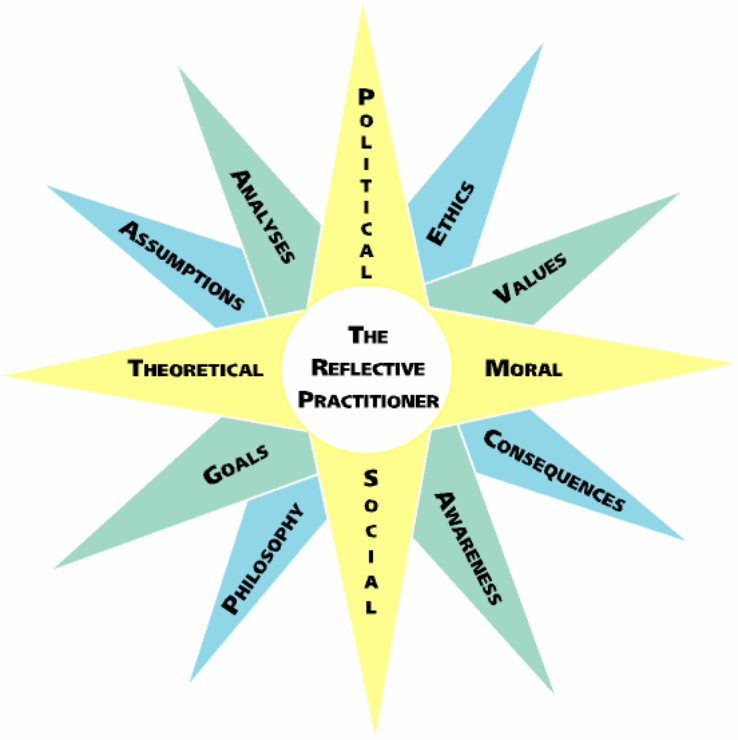

ATTENTION: If you are a student with a disability (e.g., physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class or any other class, call the Office for Students with Disabilities/College Access Program at 423-425-4006 or come by the office, 110 Frist Hall.

To enhance student services, the University will use your UTC email address (firstname-lastname@utc.edu) for communications. (See http://onenet.utc.edu for your exact address.) Please check your UTC email on a regular basis. If you have problems with accessing your email account, contact the Help Desk at 423-425-2678.

Educ 590 Culminating Experience – Fall 2003
Section 001, By Appointment, 3 credit hours

Instructor

Dr. Deborah A. McAllister
Office: Hunter 310C
Office hours: M 2:15 p.m. to 5:00 p.m., Tu 2:15 p.m. to 5:00 p.m., W 2:00 p.m. to 3:30 p.m., or by appointment
Phone: 423-425-5376 (Office), 423-842-1607 (Home)
Email: Deborah-McAllister@utc.edu

Catalog description

Directed research or development project under faculty supervision. *Prerequisite: Admission to candidacy, approval of M.Ed. committee.*

Recommended text and web sites (text was also ordered for Educ 501)

American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

Online Writing Lab at Purdue University. (2002, September). *Using APA format.* Retrieved August 7, 2003, from the Purdue University OWL Web site: http://owl.english.purdue.edu/handouts/research/r_apa.html

Degelman, D., & Harris, M. L. (2003, July 22). *APA style essentials.* Retrieved August 7, 2003, from the Vanguard University Web site: http://www.vanguard.edu/faculty/ddegelman/index.cfm?doc_id=796

University of Wisconsin - Madison Writing Center. (2003). *Writer's handbook: APA documentation style.* Retrieved August 7, 2003, from the University of Wisconsin - Madison Writing Center Web site: http://www.wisc.edu/writing/Handbook/DocAPA.html

Objectives

1. The student can apply a variety of research strategies for use in the elementary, middle grades, and/or secondary classroom, or with professionals in the field. Reflective decision making, a process involving reading, reflecting, and responding, will be applied by the student to evaluate ongoing research techniques, procedures, and materials, in order to become a reflective practitioner.
2. The student will select or design surveys and/or rubrics for data collection in the content area.
3. The student will understand current issues in the content area, including current research methods, materials, professional development and grant opportunities, and programs suitable to all learners, from exceptional populations to diverse ethnic and cultural groups.
4. The student will demonstrate the ability to connect new learning with prior knowledge and skills through a case study conducted during the Induction Experience.

Requirements

1. Select a case study option:
   a. Implementation of the project designed in Educ 500 as your case study. Include modifications to the project, if necessary, based on knowledge gained since the completion of Educ 500. Submit a corrected copy.
   b. Plan to use one of your learning assessments from your first placement as your case study. Submit an outline of the topic, what will be assessed, who will be assessed, how and when assessment will occur, and what instruments will be used. Submit an outline.
   c. Design a new project of your own choosing. Submit an outline for approval.

2. **Prior to data collection, complete the REQUIRED process for UTC's Institutional Review Board For the Protection of Human Research Subjects (http://www.utc.edu/~instrb/). Request either an Exemption from IRB Review (Form A) if your sample includes only adults, or an Expedited Review (Form B), if your sample includes children. Form C must be completed at the end of the study. Review the information and forms on the IRB web site for additional details. An Exemption requires approximately 1 week to process. An Expedited Review may require several weeks to process. (Full board approval is required if there is more than minimal risk to the subject.) Any updates to the IRB process will be followed.**

3. Implementation of the project will be completed during the Induction Experience (Educ 596). Implementation **cannot** occur prior to IRB approval.

4. Completion of the written project, **in APA style**. Include the following elements:
   a. Introduction to the problem. Why was this topic selected for study? Is this topic a current national, state, or local issue? Is this topic a staple of the curriculum in your field? Etc.
   b. Review of literature. Use at least five refereed sources. The online ERIC advanced search should be used to locate references in educational journals and documents. See http://ericir.syr.edu/Eric/adv_search.shtml.
   c. Data Collection and results. Describe data collection procedures. Provide results of the project, in narrative form and including a chart and/or graph to display the data collected. Analysis of results is from the perspective of higher order cognitive skills. Use descriptive statistical measures (mean, median, mode, frequency distribution, charts, graphs, etc.) for communication of project results. Charts and graphs are imported from Excel to Word and cited as tables and figures. See Microsoft Excel [spreadsheet] software, used in Educ 575.
   d. Conclusions and recommendations. What generalizations, if any, can be made, based on the results of the case study? What is the consensus of your professional organization with regard to the problem studied? What recommendations would you make for teacher professional development? Is grant money available to support further research in this area? What role could be assumed by the use of technology in this area? Please address all items in this section.

e. Copies of the instrument(s) used for data collection. Instrument(s) are placed in individual appendices. Word process instruments from the Web, books, etc., but place a citation on the page and in the reference list.

5. Communication:
   a. Current email address registered with UTC for communication between student and instructor. The UTC email address will point to the email address you have on file. See http://www.utc.edu/itd/email/stu_saindex.shtml for more details.
   b. Web access to check course announcements and post messages to the discussion forum on Blackboard a minimum of once per week. See http://utconline.utc.edu/.

6. All work is to be computer-generated and turned in through the Blackboard digital drop box. You may complete your project either on the Macintosh or Windows platform. Please use Microsoft Word and Microsoft Excel. If other software is to be used, please ask for approval. Keep a copy of your work on a hard drive or a disk so that it can be accessed, if needed. Reminder: You will need a student ID card to use the university student lab in Siskin Memorial and/or the University Center.

7. Please note:
   a. Ask another person to proofread your work for correct syntax and semantics before submitting it. You are encouraged to post it to the Blackboard discussion forum.
   b. The Writing Center is located in 119 Holt Hall. See http://www.utc.edu/~scribble/ for hours and information.
   c. Case studies may be displayed at a professional meeting and/or gathered for a publication.

Grading rubric

Criteria	A	B	C	F
Project outline and IRB approval	Submitted online. Submitted for IRB approval; approval received.	Submitted online. Submitted for IRB approval; approval received.	Submitted online. Submitted for IRB approval; approval received.	Not submitted online. Not submitted for IRB approval, or IRB approval denied.
Instruments	Items appear to be reliable and valid for the case study.	Items appear to be reliable and valid for the case study.	Reliability or validity is questionable.	Reliability and validity cannot be defended.
Data collection and results	Narrative gives descriptive account of data collection and results, and higher order analysis of results; data chart and graph display results accurately and appropriately.	Narrative provides descriptive account of data collection and results, but analysis of results is weak; data chart and graph display results satisfactorily.	Narrative provides limited descriptive account of data collection and results; analysis of results is flawed; data chart and graph display results, but contain errors.	Neither narrative nor chart and graph convey the data collection procedures and results of the study.
Conclusions and recommendations	Provides a cohesive summary to the project; all recommendation areas addressed satisfactorily.	Provides a cohesive summary to the project; most recommendation areas addressed satisfactorily.	Summary lacks insight to the intent of the project; recommendation areas not completely addressed.	Conclusions do not reflect results; recommendation areas not completely addressed.
APA style	APA style elements present: headings, subject-verb agreement, citations, references, abbreviations, commas, semicolons, lists, tables, figures, appendices, etc.	APA style elements present, with minor errors.	Ideas are understandable; acceptable writing style, though not APA.	Written style is inconsistent; difficult to follow the flow of ideas.
Spelling and typographical errors	No spelling errors; minimal typographical errors; correct use of plural and possessive forms.	Spelling and typographical errors present.	Errors detract from quality of project.	Poorly written.
Completion time	All elements completed on time.	Major elements completed on time; some minor	Most major elements completed late;	No time deadline.

		elements late.	**some or most minor elements late.**	
Communication	**Open communication between student and instructor. Progress message posted to the discussion forum at least weekly.**	**Response time is less than once each week.**	**Response time is less than once in 2 weeks**	**Response time is less than once in 4 weeks.**
Professional quality and usefulness	**Previous and current suggestions, and modifications, fully incorporated into project outline; project is relevant to education.**	**Previous and current suggestions, and modifications, selectively incorporated into project outline; project is relevant to education.**	**Previous and current suggestions, and modifications, minimally incorporated into project outline; project is relevant to education.**	**Previous and current suggestions, and modifications, not incorporated into project outline; project has little relevance to education.**
Represents graduate level work	**Completed project is presented as a coherent whole.**	**All project elements present but project is not presented as a coherent whole.**	**One or more project elements missing; project is not presented as a coherent whole.**	**Major project elements missing; project is not presented as a coherent whole.**

Week (Tentative course schedule, subject to change) **Assignment due**

1 Week of 08/18/03 Check email account; access Blackboard.
Meetings - M 08/18, 8:30 a.m. – 5:00 p.m.
1st placement begins - Tu 08/19

2 Week of 08/25/03Case study option selected; proposed outline posted to discussion forum.
Paperwork submitted for IRB approval (Exemption/Form A, Expedited Review/Form B).
Copy of IRB approval placed in my mailbox in Hunter 311, when received.

3 Week of 09/01/03 Begin case study work on introduction and review of literature;
Labor Day Holiday - M 09/01 (UTC/HCDE) place file in digital drop box for a check of APA style.

4 Week of 09/08/03 Submit instruments for approval.

5 Week of 09/15/03 Begin data collection.

6 Week of 09/22/03 Case study work continues.

7 Week of 09/29/03 Case study work continues.

8 Week of 10/06/03 Case study work continues.
End of 1st quarter - F 10/10 (HCDE)

9 Week of 10/13/03 Data collection is complete.
HCDE Teacher Professional Development - MTu 10/13 – 10/14
First placement ends - Tu 10/14
HCDE fall break – WThF 10/15 – 10/17
Meetings - WTh 10/15 – 10/16, 8:30 a.m. - 5:00 p.m.
UTC fall break – F 10/17 – Tu 10/21 (I will not be in my office.)

10 Week of 10/20/03 Writing of case study.
2nd placement begins – M 10/20

11 Week of 10/27/03 Writing of case study.

12 Week of 11/03/03 Writing of case study.

13 Week of 11/10/03 Writing of case study.

14 Week of 11/17/03 Proofreading of case study.

15 Week of 11/24/03 **Completed case study due, W 11/26/03, 5:00 p.m.**
W 11/26 **Case study assembled in a single file; placed in digital drop box.**
Thanksgiving Holiday – W 11/26 – F 11/28 (HCDE), W 11/26, 5:00 p.m. – F 11/28 (UTC)

16 Week of 12/01/03 **Late case studies accepted.**
Second placement ends - F 12/05

17 Week of 12/08/03
Meeting - M 12/08, 2:00 p.m. – 5:00 p.m. **IRB Form C completed when we meet.**
W 12/10/03 - Grades due for graduation candidates, 12:00 p.m. **Late case studies accepted;**
Th 12/11/03 - Grades due for all other students, 12:00 p.m. **not guaranteed to be graded by 12/10.**
Su 12/14/03 - Commencement, 2:00 p.m.

APA style (general guidelines; use reverse indent)

1. Journal

Last name, Initials., & Last name, Initials. (year). Title of the article in lower case letters except first letter of the title and proper nouns. *Journal name, volume*(number), page number-page number.

Many, W., Lockard, J., Abrams, P., & Friker, W. (1988). The effect of learning to program in Logo on reasoning skills of junior high school students. *Journal of Educational Computing Research, 4*(2), 203-213.

2. Book

Last name, Initials., & Last name, Initials. (year). *Title of the book in lower case letters except first letter of the title and proper nouns.* Place of publication: Publishing Company.

Turner, T. N. (1994). *Essentials of classroom teaching elementary social studies.* Needham Heights, MA: Allyn and Bacon.

3. Software

Last name, Initials., & Last name, Initials. (year). *Title of the Software in Upper Case First Letters* [Computer software]. Place of publication: Publishing Company.

Microsoft Corporation. (1996). *Encarta 97 Encyclopedia* [Computer software]. Redmond, WA: Author.

In example 3, the author and the publishing company are the same, so the word 'Author' is used.

4. Online source

Last name, Initials., & Last name, Initials. (year). *Title of the web site in lower case letters except first letter of the title and proper nouns*. Retrieved today's date, from complete URL

National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Retrieved August 7, 2003, from http://standards.nctm.org/

In example 4, I omit the period '.' at the end so it will not be confused in the address. Others choose to leave one space, then place the period at the end of the URL.

Professional Organizations (examples)

American Council on the Teaching of Foreign Languages. (2003). Retrieved August 7, 2003, from http://www.actfl.org/

Council for Exceptional Children. (2003, August 7). Retrieved August 7, 2003, from http://www.cec.sped.org/

International Reading Association. (2003). Retrieved August 7, 2003, from http://www.ira.org/

International Society for Technology in Education. (2003, July 30). Retrieved August 7, 2003, from http://www.iste.org/

National Art Education Association. (n.d.). Retrieved August 7, 2003, from http://www.naea-reston.org/

National Association for Music Education. (n.d.). Retrieved August 7, 2003, from http://www.menc.org/

National Association for the Education of Young Children. (2003). Retrieved August 7, 2003, from http://www.naeyc.org/

National Council for the Social Studies. (2003). Retrieved August 7, 2003, from http://www.ncss.org/

National Council of Teachers of English. (2002, November). Retrieved August 7, 2003, from http://www.ncte.org/

National Council of Teachers of Mathematics. (2003). Retrieved August 7, 2003, from http://www.nctm.org/

National Middle School Association. (n.d.). Retrieved August 7, 2003, from http://www.nmsa.org/

National Science Teachers Association. (2003). Retrieved August 7, 2003, from http://www.nsta.org/

Rubrics (examples)

Barnard, P. (2003, July 2). *Learning central @ Pioneer: Rubric resources.* Retrieved August 7, 2003, from http://www.asd.wednet.edu/pioneer/barnard/index.htm

Chicago Public Schools. (2000). *The rubric bank.* Retrieved August 7, 2003, from http://intranet.cps.k12.il.us/Assessments/Ideas_and_Rubrics/Rubric_Bank/rubric_bank.html

Chicago Public Schools. (2000). *How to create a rubric.* Retrieved August 7, 2003, from http://intranet.cps.k12.il.us/Assessments/Ideas_and_Rubrics/Create_Rubric/create_rubric.html

Coxon, E. (2003, August 4). *The staff room for Ontario's teachers.* Retrieved August 7, 2003, from http://www.quadro.net/~ecoxon/

LessonPlanZ.com. (2003, July 31). Retrieved August 7, 2003, from http://lessonplanz.com/ (use 'rubric' as a search term)

South Dakota State University. (n.d.). *Rubric template.* Retrieved August 7, 2003, from http://edweb.sdsu.edu/triton/july/rubrics/Rubric_Template.html

Teach-nology. (2002). Rubric, rubrics, teacher rubric makers. Retrieved August 7, 2003, from http://teachers.teach-nology.com/web_tools/rubrics/

The Landmark Project. (n.d.). *Rubric construction set.* Retrieved August 7, 2003, from http://landmark-project.com/classweb/rubrics/4x4rubric.html

Surveys (examples)

The International Consortium for the Advancement of Academic Publication. (2003, June 10). *Resources for methods in evaluation and social research.* Retrieved August 7, 2003, from http://gsociology.icaap.org/methods/

University of Southern Indiana Sociology Department. (2003). *Social research and statistical links.* Retrieved August 7, 2003, from http://www.usi.edu/libarts/socio/stats.htm

Bibliography

American Association for the Advancement of Science. (1993). *Benchmarks for science literacy*. Retrieved August 7, 2003, from http://www.project2061.org/ (choose Benchmarks On-line).

Association of College and Research Libraries. (2003). *Information literacy competency standards for higher education*. Retrieved August 7, 2003, from http://www.ala.org/acrl/ilstandardlo.html

Creswell, J. W. (1994). *Research design: Qualitative & quantitative approaches*. Thousand Oaks, CA: Sage Publications, Inc.

ERIC Clearinghouse on Information and Technology. (2003). *ERIC database advanced search.* Retrieved August 7, 2003, from http://ericir.syr.edu/Eric/adv_search.shtml

Fogarty, R. (1995). *The mindful school: How to integrate the curricula awareness program.* Palatine, IL: IRI/Skylight Training and Publishing, Inc.

Freiberg, H. J., Driscoll, A., & Stetson, R. H. (1992). *Universal teaching strategies.* Boston, MA: Allyn and Bacon.

Gay, L. R., & Airasian, P. (2003). *Educational research: Competencies for analysis and applications* (7th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Hamilton County Department of Education. (2003, August 4). *Standards- grademarkers-benchmarks*. Retrieved August 7, 2003, from http://www.hcde.org/standards/stindex.html

Johnson, A. P. (2002). *A short guide to action research*. Boston, MA: Allyn & Bacon.

Martin, D. B. (1999). *The portfolio planner.* Upper Saddle River, NJ: Prentice-Hall, Inc.

McAllister, D. A. (2003). *Faculty page – McAllister*. Retrieved August 7, 2003, from http://oneweb.utc.edu/~deborah-mcallister/

McMillan, J. H., & Schumacher, S. (2001). *Research in education* (5th ed.). New York, NY: Addison Wesley Longman, Inc.

Menges, R. J., & Weimer, M. (1996). *Teaching on solid ground: Using scholarship to improve practice.* San Francisco, CA: Jossey-Bass Inc.

Mills, G. E. (2003). *Action research: A guide for the teacher researcher* (2nd ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Mills, S. C., & Roblyer, M. D. (2003). *Technology tools for teachers: A Microsoft Office tutorial.* Upper Saddle River, NJ: Pearson Education, Inc.

National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Retrieved August 7, 2003, from http://standards.nctm.org/

National Research Council. (1999). *How people learn.* Washington, DC: National Academy Press. (see also http://www.nap.edu/readingroom/books/howpeople1/notice.html)

National Research Council. (1996). *National science education standards*. Retrieved August 7, 2003, from http://www.nap.edu/readingroom/books/nses/

Novak, J. D., & Gowin, D. B. (1984). *Learning how to learn.* New York, NY: Cambridge University Press.

Palloff, R. M., & Pratt, K. (2001). *Lessons from the cyberspace classroom: The realities of online teaching.* San Francisco, CA: Jossey-Bass Inc.

Provenzo, E. F., Jr. (2002). *The Internet and the World Wide Web for teachers.* Needham Heights, MA: Allyn & Bacon.

Reed, A. J. S., & Bergemann, V. E. (2001). *A guide to observation, participation, and reflection in the classroom* (4th ed.). New York, NY: McGraw-Hill.

Roblyer, M. D. (2003). *Integrating educational technology into teaching* (3rd ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Roblyer, M. D. (2003). *Starting out on the Internet: A learning journey for teachers* (2nd ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Tennessee Department of Education. (n.d.). *Curriculum frameworks*. Retrieved August 7, 2003, from http://www.state.tn.us/education/ci/cistandards.htm

Treffinger, D. J., Hohn, R. L., & Feldhusen, J. F. (1979). *Reach each you teach.* Buffalo, NY: D. O. K. Publishers, Inc.

Tuckman, B. W. (1999). *Conducting educational research* (5th ed.). Fort Worth, TX: Harcourt Brace & Company.

Items available in Lupton Library

Campbell, L., Campbell, B., & Dickinson, D. (1996). *Teaching and learning through multiple intelligences.* Needham Heights, MA: Allyn and Bacon.

Haladyna, T. M. (1997). *Writing test items to evaluate higher order thinking.* Boston, MA: Allyn and Bacon.

Krulik, S., & Rudnick, J. A. (1995). *The new sourcebook for teaching reasoning and problem solving in elementary schools.* Boston, MA: Allyn and Bacon.

Ross, S. M., & Morrison, G. R. (1995). *Getting started in instructional technology research.* Washington, DC: Association for Educational Communications and Technology.

Silberman, M. L. (1996). *Active learning: 101 strategies to teach any subject.* Boston, MA: Allyn and Bacon.

Wilson, B. G. (Ed.). (1996). *Constructivist learning environment: Case studies in instructional design.* Englewood Cliffs, NJ: Educational Technology Publications.

Increasing Parental Involvement In Children's Literacy

Regina Brantley
EDUC 590
November 26, 2003

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-082.

Introduction

The issue of parental involvement in a child's academic achievement, specifically in the area of literacy, is of great interest to me. My parents have both been teachers for many years, and many of their friends are teachers, as well. Thus, I have grown up listening to different aspects of the teaching world. Frequently, I would hear comments about how parents just aren't as involved as they should be. For years, I was under the impression that the lack of parental involvement was the fault of the parents, and that the parents were responsible for the amount of their own involvement.

When I was older and began working in the real world, I became friends and acquaintances with many parents. I heard different stories from the parents, especially working parents. They felt like the schools didn't give them the opportunities they needed to be involved. With this new information, I began to rethink the situation. I knew that teachers and parents had different points of view on this matter, but it was clear they both felt it was important for the children's academic achievement to have more parental involvement.

Today, the issue of parental involvement affects me personally, now that I am entering the teaching field and have a daughter of my own. I want my daughter, as well as the children I teach, to have every possible benefit in order to enhance their literacy and academic achievement.

For years, people have been doing research studies that support parental involvement in children's literacy and academic achievement. According to those studies, increased parental involvement improves literacy. Unfortunately, there is no standard method on how to successfully include parents in their child's literacy and academic programs. My review of

literature appeared to point toward a correlation between teachers who were more involved in soliciting parent participation and increased parental involvement with the children's literacy. Based on this correlation, I believe, that in order to increase parental involvement, teachers need to accept more responsibility as professional educators in taking the necessary steps to create a smooth and successful program for involving parents. Therefore, teachers need to find ways to increase parental involvement. How much involvement should an early elementary teacher request of a child's parents? How can a teacher successfully encourage that level of parent participation?

Based on what I have learned from reviewing current literature, I hypothesize that, if a teacher provides personal communication (phone calls, conferences, etc.) and take home literacy kits to individual families, while also allowing parents the opportunity to provide their own feedback, then parental involvement in school, including children's literacy, will increase.

Review of Literature

There is an abundance of research available pertaining to all aspects of childhood literacy achievement. For years, research has been conducted to determine the impact of parental involvement in early childhood learning. In the article, *Literacy 2000: Challenge to Parents*, Rayborn references several studies that found "the quality of parent-child-interaction in the home to be closely related to the development of reading and writing skills" (1993, p. 56). Further research studies have indicated that the amount of parental involvement is directly related to a child's literacy achievement (Anderson, 2000). To be more specific, the more involved parents are in their child's literacy education, the higher the child's academic achievement will be (Dunlap & Bruneau, 1992).

If increased parental involvement leads to improved literacy achievement, then it seems that educators need to more concerned with finding ways to get parents more involved. How does a teacher successfully increase parental involvement? To answer this, one needs to understand the different reasons as to why more parents aren't already involved. According to Anderson (2000), there are several possible barriers to parental involvement. The three barriers that seem to appear most often in other literature are mistrust, poverty, and language differences (Dunlap & Bruneau, 1992; Barbour, 1998/1999; Linek, Rasinski, & Harkins, 1997). Knowing and understanding the causes and effects of these barriers is beneficial in establishing a plan to increase parental involvement. In reading through the various literature and research documents, it is clear that the issue of parental involvement is a significant issue for both parents and educators (Roeser, 1995). However, there is no one standard procedure or program for increasing parental involvement.

The first barrier is mistrust. Unfortunately, some teachers perceive parents as outsiders that are "lacking basic skills" (Anderson, 2000, p. 66). According to a study by Linek et al., "over 90 percent of the teachers they questioned recognized the importance of involving parents. Less than 5 percent, however, supported involving parents as partners" (1997, p. 90). One of the main reasons given for this lack of support was that the teachers felt the parents were "unqualified because they lacked the knowledge and training of an educated teacher" (Linek et al., 1997, p. 101). Although this information is quite compelling, the aspect of mistrust does not stop there. Just as teachers feel that parents are outsiders, many parents view teachers "as outsiders who might be critical or judgmental" (Dunlap & Bruneau, 1992, p. 256).

The other two barriers are poverty, or lack of resources, and language differences. According to Anderson (2000), many families who live in low-income communities tend to have

negative feelings toward schools, which are generally run by the middle class community. These parents “often recall many negative experiences in their school-related activities” (Anderson, 2000, p. 66). Perhaps this is why many teachers believe that the lack of parent participation is due to the lack of interest or time on the part of the parents (Linek et al., 1997). However, these same teachers “believe that parents should be involved, but that they should be ready to respond and be involved on the teacher’s terms” (Linek et al., 1997, p. 102). Other studies conducted indicate that teachers generally send information they want parents to have, but rarely do they receive input back from the parents (Lazar & Weisber, 1996). In Roeser’s study, Roeser states, “Some strategies endorsed and used by teachers and administrators are ineffective at involving parents simply because they are not attuned to the social-cultural-historical situation of a given community, which in turn leads to a lack of parent involvement” (1995, p. 6). Other literature reviews indicated that the lack of parent participation may be due to the parents’ lack of resources brought about by social economic issues (Dunlap & Bruneau, 1992; Barbour, 1998/1999). How do teachers overcome these barriers in order to increase parental involvement?

Reading through various pieces of literature on this subject confirmed that there is no one standard program to follow in order to increase parental involvement in children’s literacy. There are many different strategies being used to increase parental involvement in children’s literacy; however, a few consistent facts can be seen from reading various articles and studies based on this issue. Teachers who have been successful in increasing parental involvement appear to have participated in some, if not all of the following:

1. Making extra efforts to personally communicate with parents and getting to know individual families.
2. Provide a positive and consistent two-way form of feedback between the teacher and the parents by using journals. These journals may also include entries from the students.

3. Produce effective literacy kits that children can take home on regular basis. These kits include books and hands-on activities that can be worked on with the entire family (Dunlap & Bruneau, 1992; Barbour, 1998/1999; Ortega & Ramirez, 2002; Lazar & Weisber, 1996; Flood, 1995).

From this literature review, it is evident that any educator, who wants to help students improve their literacy achievement, needs to be proactive in the struggle for increased parental involvement.

Data Collection and Results

Population

The general population for my project includes all parents and/or guardians of students attending early elementary grades (K-4) in the Hamilton County public school system. This is the most logical population because the sample will be based on convenience. The population is restricted because the sample group will be established from only one public elementary school in the Hamilton County area. The restriction is based on my student teaching assignment, determined by The University of Tennessee at Chattanooga (UTC). The first student teaching assignment will become the sample group for my project. Unfortunately, this sample will contain some possible bias due to the fact that it is a convenience sample and not a random sample. Not all Hamilton County public elementary schools are eligible for selection through the University's program.

Measurement

To measure the progress of the following hypothesis:

> If a teacher provides personal communication and appropriate literacy kits, while encouraging feedback from individual families, then parental involvement in children's literacy will increase.

One must understand the operational definitions involved for each variable, or simply how to measure the results.

1. In order to measure “a teacher providing personal communication,” one must use a chart to track the number of personal contacts being made to individual families such as phone calls, home visits, and meetings or interactions at school.
2. When measuring the appropriateness of literacy kits, the teacher must compare a child’s developmental reading level and family background to the activities and books included in the each of individual child’s literacy kits.
3. Measuring the encouragement of parental feedback can be accomplished by using a weekly journal that the students take home and noting the number of reply requests made by the teacher and the number of responses the teacher makes to the parents’ comments and suggestions. Feedback journals encourage both teachers and parents to make suggestions and comments about the child’s literacy achievement.
4. Parental involvement can be determined by using a chart to track the frequency of parents’ feedback entries in the journals, as well as actual comments pertaining to their participation with the take home literacy kits. The teacher can also track the number of times the parents volunteer in the classroom or for fieldtrips, etc.

Validity and reliability are certainly issues that must be considered for this type of data collection. A teacher’s own time constraints and personal moods can interfere with the results. Also, any personality conflicts that may arise between teacher and student, or even teacher and parents, can become a problem. Unfortunately, these are issues that the teacher needs to be aware of in order to avoid as much bias as possible. There are other issues that may involve individual families, such as the amount of time they have for participation and whether or not they are consistent at returning the journals. Some parents may have to work frequently or they may not have a good form of transportation. These issues may cause significant problems in relation to

the validity and reliability of the data collection and results. The teacher will need to make note of any issues such as the above-mentioned that may interfere with the results.

Procedure

The design for this project will include a sample group, which consists of all the parents/guardians of children who are currently attending an assigned elementary classroom in the Hamilton County public school system. The control group will consist of all the parents/guardians of children who are currently attending a different classroom of the same grade level, at the same elementary school.

The sample group will receive personal phone calls, literacy kits, and feedback journals from their child's teacher, while the control group will continue to receive the standard classroom communications provided by that school and teacher.

This project will be conducted in the sample classroom for a 5-week period. All appropriate personnel will be notified to make sure all of the procedures are acceptable. The following is a general schedule that will be followed during the 5-week period for the sample group. During the same time frame, the control group will continue with their regular procedures.

Week 1

The sample group will receive a personal phone call from the teacher in order to establish a personal acquaintance between the teacher and the parents. This contact will also be used to explain the feedback journal and literacy kits the children will be bringing home over the next few weeks. The teacher will also inform the parents that they can contact her if they have any concerns.

Week 1 – 5

On Monday, send home literacy kits/feedback journals for the week.

Continue personal phone calls to invite parents to any scheduled meetings or other school activities.

Week 4

Call parents to personally invite them to visit and/or participate in the classroom and to talk about the literacy kits.

Week 5

Send survey to parents regarding frequency and type of teacher communication.

Week 6

Conclude the project by sending a personal thank you note to each of the participating families. This note will include one final message of encouragement regarding the child's literacy achievement.

Results

In order to collect my information more efficiently, I decided to make the literacy kit and journal one folder. I called this the Literacy Folder. Inside the folders' rings, I included several blank pieces of notebook paper where the students and parents could write their thoughts and comments about each of the weekly activities. This kept the students from having multiple folders to keep up with, allowed the students and parents immediate access to writing their comments upon completing assignments, and gave me an organized way to keep up with the information. With the first activity, I sent an official letter explaining the literacy folders and how they worked (see Appendix A).

The first week the folders went home, I personally called each parent to invite them to open house and to discuss the literacy folders. We talked briefly about their children, and I gave each parent the opportunity to ask any questions they may have about the folders. I also encouraged them to contact me at anytime if they had additional questions. I was able to successfully contact all but two of the families.

Every Monday for 5 weeks, I sent home a new literacy activity (see Appendix B) for the students to complete with a family member and return by the following Friday. As an additional incentive, I offered a small treat to those students who returned their completed folders on time. It was very encouraging to receive so many positive comments from parents and students about the literacy folders. I had 15 students in the sample group participating in the project. Every week, I included feedback in each of the students' folders regarding the previous activity that was completed. I included comments to the students, as well as the parents. Over the 5-week period, I made 75 total feedback entries (one per week per student). In return, I received a total of 57 family feedback entries and even more student feedback entries. Although some of the comments were general statements about the activity, all the comments were positive and some were very insightful.

Parent Comments:

1. "I loved this activity. It was time-consuming, but incredibly enjoyable to do with [my son]. I made him sound out the words himself today, instead of spelling them for him." (My Turn, Your Turn – Our Story)
2. "It was a little more difficult trying to get her to look at the clues in the pictures. I really liked the fact that she felt like she had really accomplished something using clues to figure it out." (Laughing Order: The Comic Strips)

3. “We really enjoy these activities with our son. It allows us another opportunity to interact with him and take part in his homework assignment. He is able to communicate with us on how he feels about his assignments and what he is learning. These activities really keep the parents involved and we feel that is very important to a child’s success.” (Family Words Matter)
4. “What I liked about *The Story Cloth* [is] this story reminds me of my own ancestry. It gave me the opportunity to relate to [my son] about some of the things that his great-grandparents went through. …this gave me the opportunity to share some of our heritage with him.” (Building Stories)
5. “[My daughter] loves to make menus and play restaurant for dinner, so this was right up her alley. Usually, her menus are not quite as extensive as this one for ‘The Sweet and Spicey House.’ She was very eager to create a menu that was larger and longer for the assignment. …It was interesting to hear her food selections and their prices. When we ordered our dinner, she added up our selections, so she practiced some math, too! We were both happy with the lesson.” (Moose Café)

Throughout the 5-week period, I also collected additional contact and participation information from both the sample class and the control class. At first glance, the data results show an obvious correlation between the number of contacts and parent participation of each group (see Figures 1 and 2).

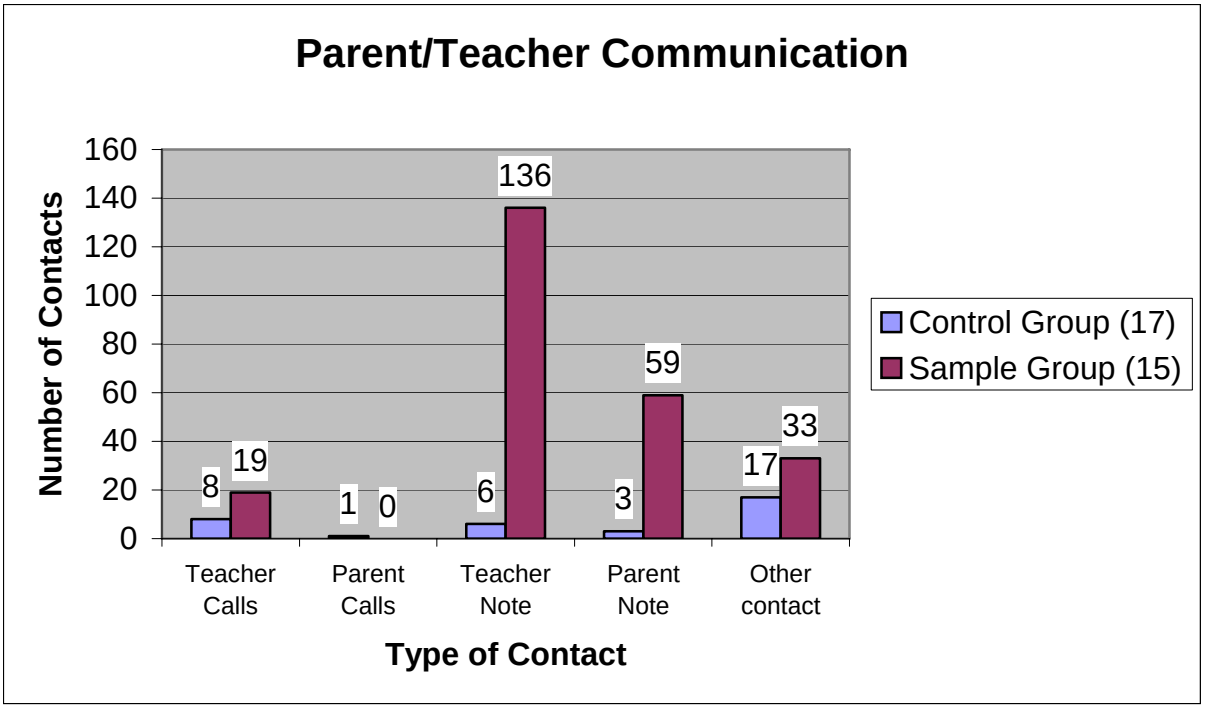

Figure 1. Parent teacher communication.

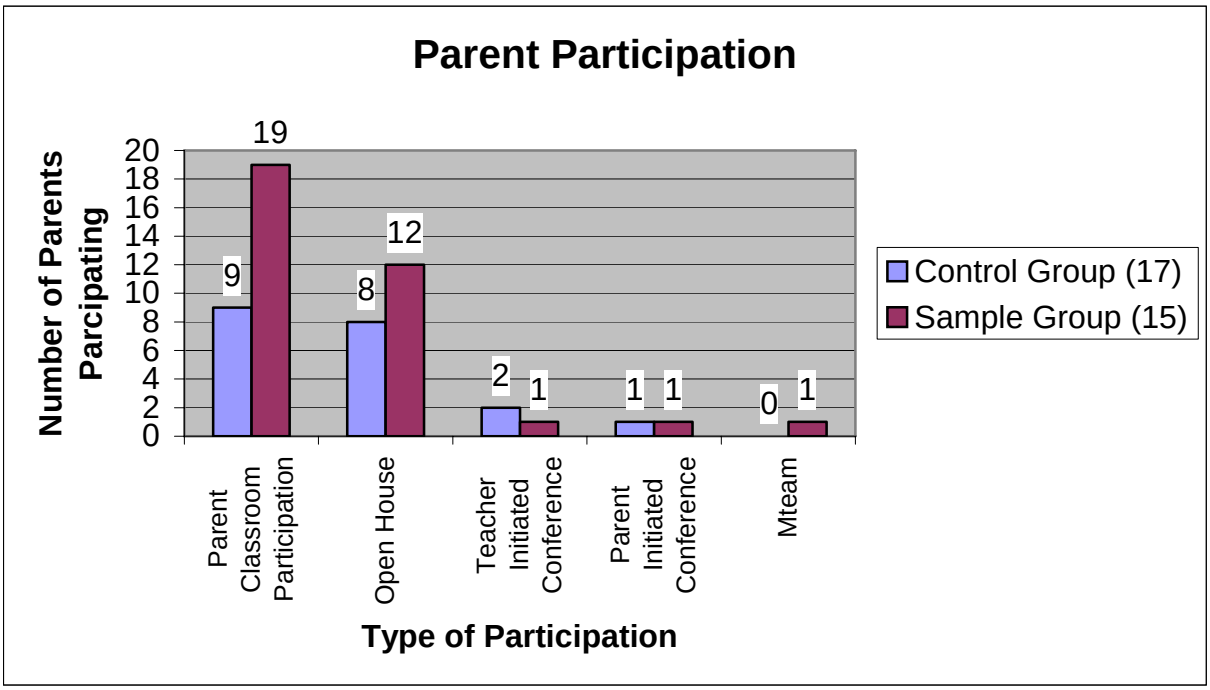

Figure 2. Parent participation.

The reasons for parent teacher communication also varied per group (see Figure 3). These results may indicate the main focus of parent teacher communication in the two groups.

Although each group shared in some of the same reasons, the sample group's contacts were focused mainly on parent and teacher feedback, as well as other general communications such as activity reminders, sickness, and fees. The control group's communication was focused mainly on other general communication, as well as behavior and homework issues. Although the sample group had its share of communication related to behavior and homework issues, more positive forms of communication clearly outweighed them.

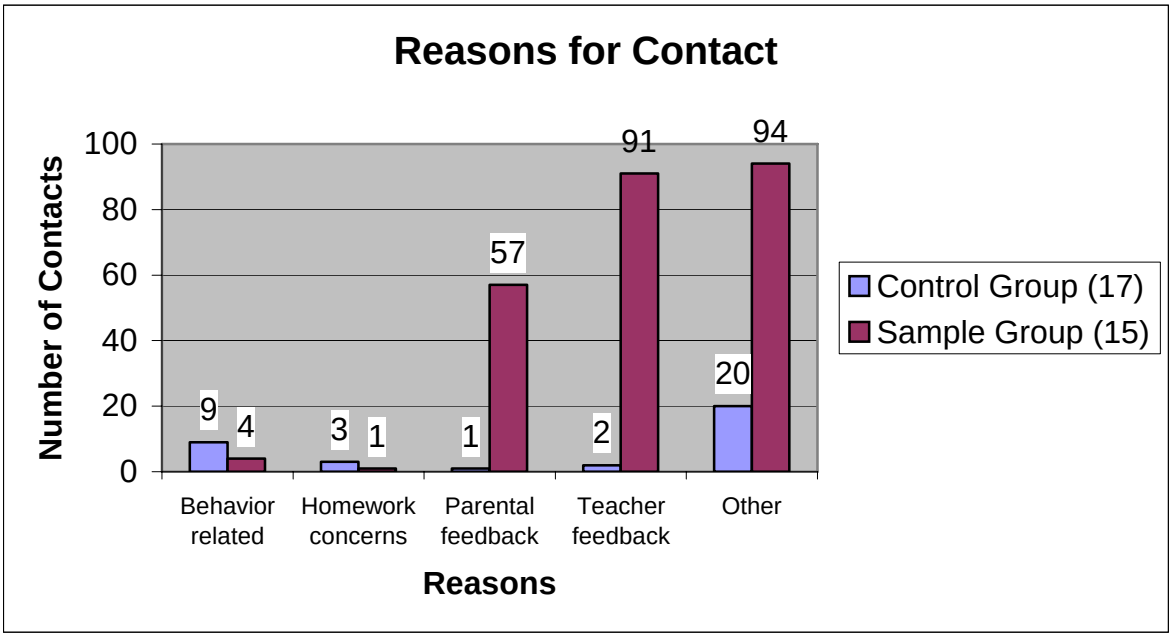

Figure 3. Reasons for contact.

When comparing the two groups, the sample group has more contacts than the control group. The sample group in return also had a higher rate of parental involvement. These results would seem to prove the hypothesis that, if a teacher provides personal communication (phone calls, conferences, etc.) and take home literacy kits to individual families, while also allowing parents the opportunity to provide their own feedback, then parental involvement in school, including children's literacy, will increase.

According to a short survey (see Appendix C) completed by the parents in both the sample and control groups, most parents indicated that they have spent the same amount of time each week participating in their child's assignments over the past 5 weeks as they did last year (see Figure 4). However, one parent from the sample group has increased participation from less than once per week to 3-4 times per week. The control group has had several parents slightly decrease their participation. Several uncontrolled factors could be the cause of this drop. One of these factors may be that some parents feel they need to do less, as their children get older. Another factor could be that the previous teachers solicited and/or supported more communication with the parents. I believe it is important to note one parent's comment at the end of the survey from the control group: "But we used to get information regarding what is going [on] in the class and what they are learning once a week." This comment tends to support the theory that the previous teachers may have communicated more with the students.

In just 5 weeks, you can see that many of the parents in the sample group are regularly visiting their child's classroom (see Figure 5), while about one third of the parents in the control group report that they have not visited their child's class this year. This is really discouraging since all but one parent reported they had visited their child's classroom at least 1-2 times each semester. The data presented in Figure 5 also show that the parents that visited their child's classroom on a weekly basis are still consistently visiting in the classroom. The sample group also shows a slight decrease in the number of parents visiting the classroom on a monthly basis and a slight increase in visiting on an as scheduled basis. The control group however, shows a decrease in monthly visits, as well visits of 1-2 per semester and a noteworthy increase in not visiting the classroom at all.

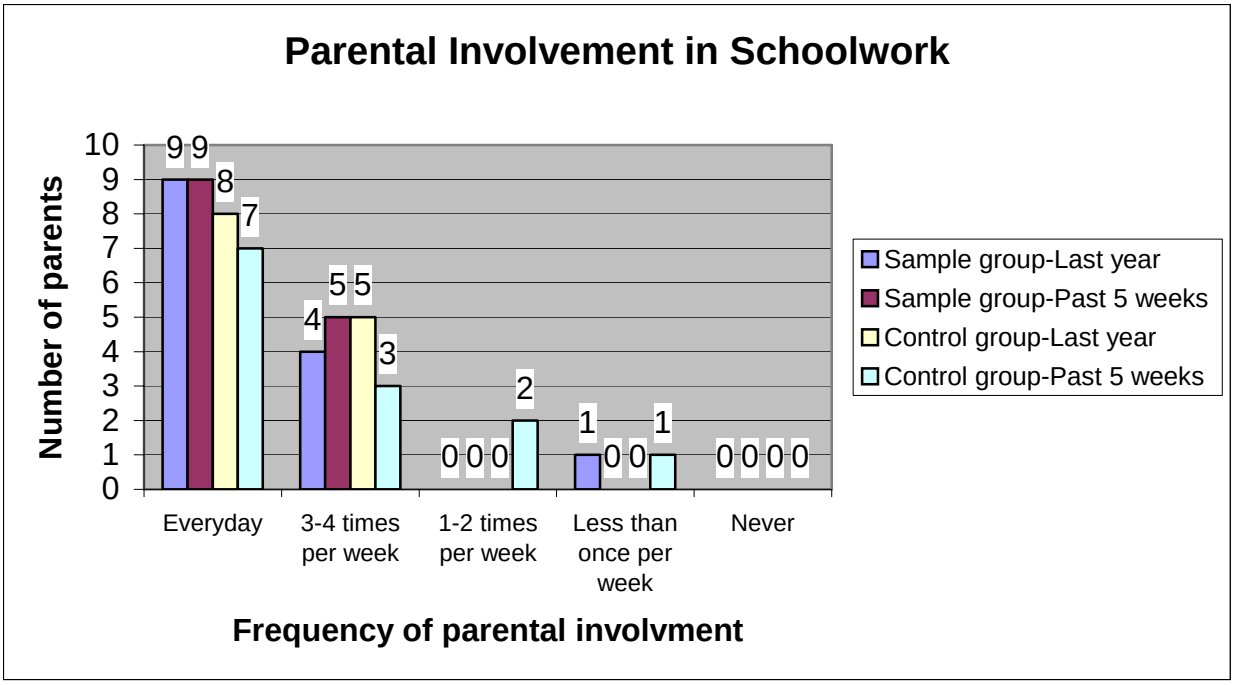

Figure 4. Parental involvement in schoolwork.

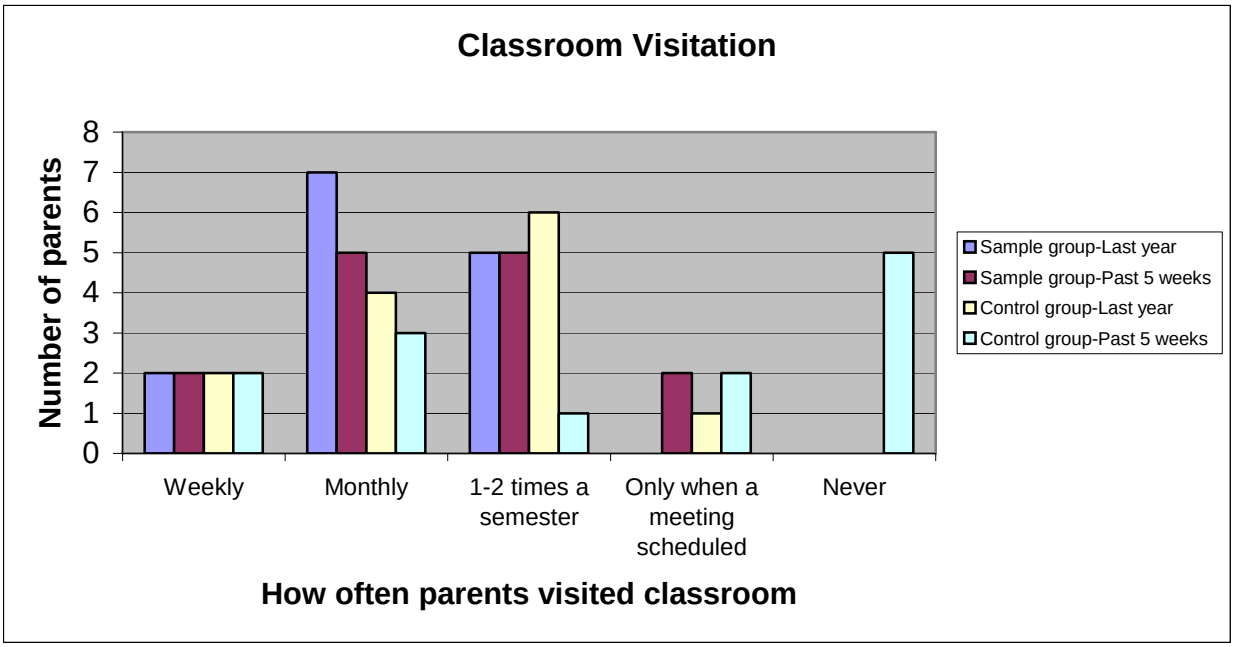

Figure 5. Classroom visitation.

The last two questions on the parent communication survey (see Appendix C) deal with how parents prefer to be contacted and how often. All forms of communication were preferred except for fax (see Figure 6). The most preferred types of contact for the sample group were written feedback on the student's work, letter sent through child, and phone. The control group seemed to prefer phone calls first, letters sent through the child second, and then written feedback on work. Since the sample group had more experience with the written feedback on their child's work, they may feel more comfortable excepting this as a good way to communicate with the teacher.

Although parents have different opinions on how they want to be contacted, it is clear from Figure 7 data that the majority of parents want their child's teacher to contact them regularly to let them know what is going on with the classroom. The most popular choice was "As often as the teacher can," followed by monthly. Only four parents from each group (control and sample) chose options "only as needed" or "academic/behavioral problems only," as well as "1-2 times per semester". Figures 6 and 7 clearly support the idea that parents want regular contact with their child's teachers. With these statistics, teachers may want to consider more ways they can communicate with their students' families.

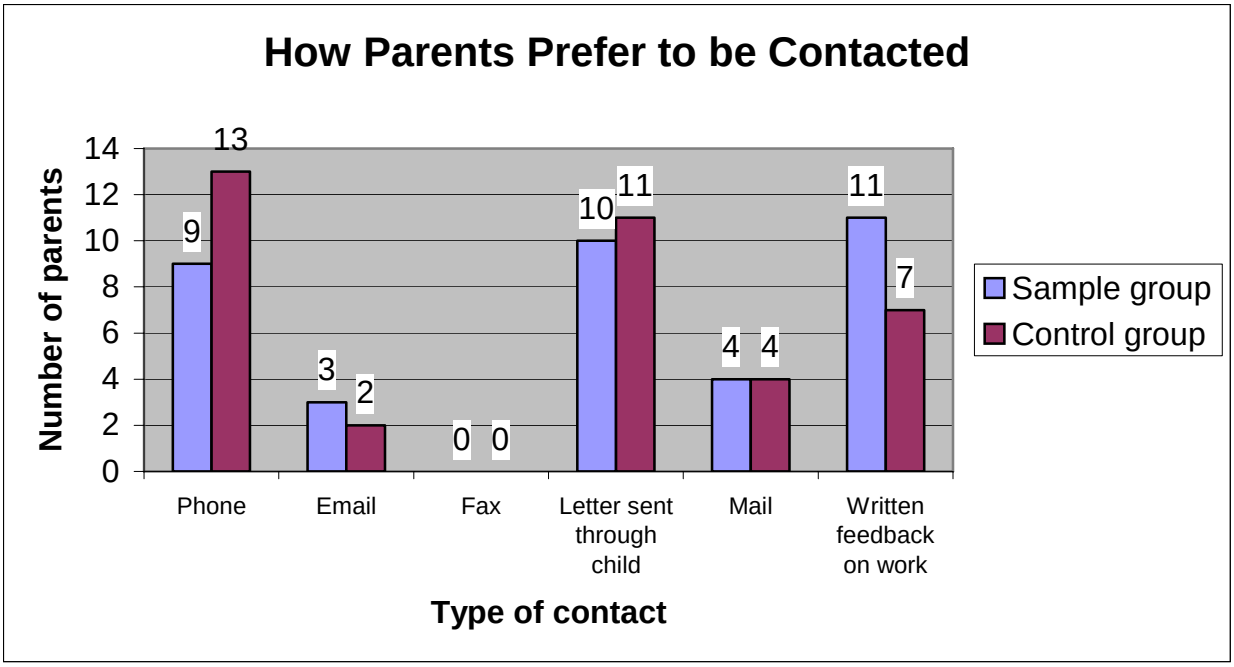

Figure 6. How parents prefer to be contacted.

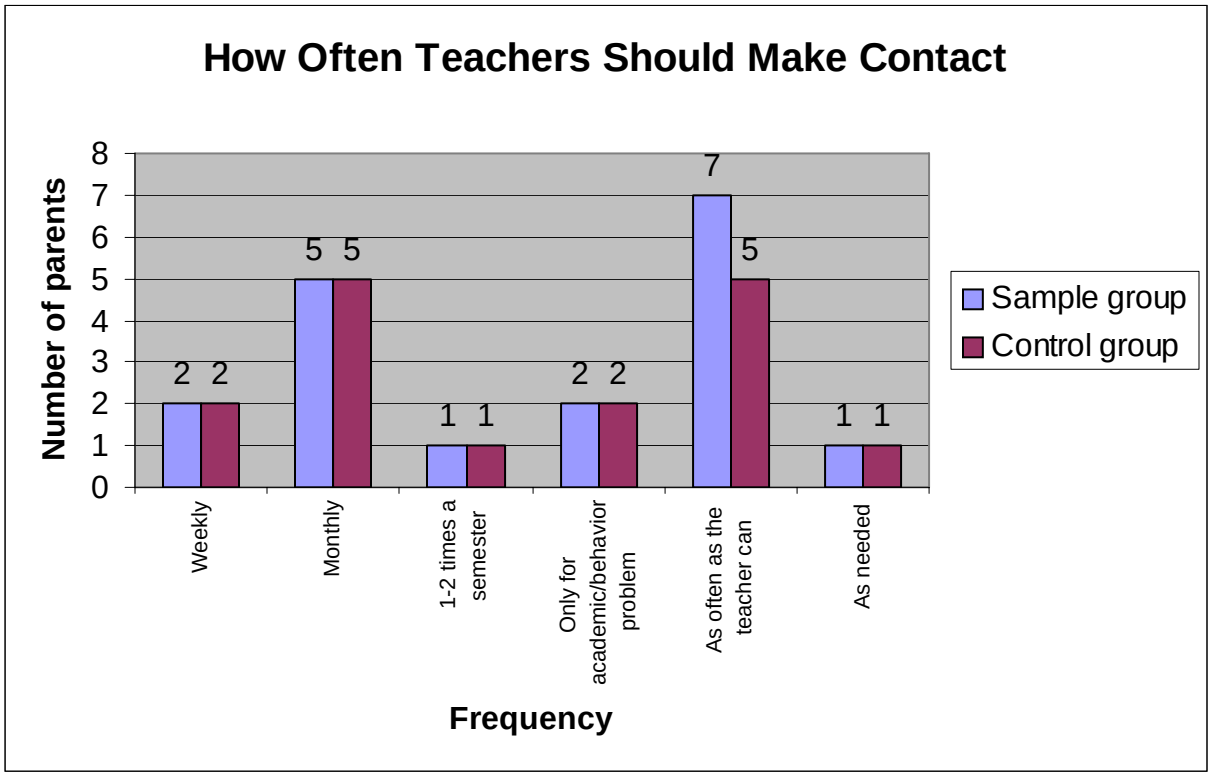

Figure 7. How often teachers should make contact.

Conclusions and Recommendations

Whether or not the hypothesis that, if a teacher provides personal communication (phone calls, conferences, etc.) and take home literacy kits to individual families, while also allowing parents the opportunity to provide their own feedback, then parental involvement in school, including children's literacy, will increase is true still remains to be fully seen. There are many factors that remain undetermined, at this point. Each classroom including the teacher, students, and parents is different. It's hard to say using only one sample and control group, if the end results were truly a result of the teacher's increased communication with parents or from other factors. There are many factors that may vary from one class to another. For example, one class may simply consist of more parents who feel they need to be involved in their child's work, while the other class may consist of parents that do not. However, my end results do support the findings from other research studies in the previous literature review. The sample group in this study had more frequent parent teacher contacts than the control group. In relation, the sample group had more parental involvement than the control group. It is my opinion that further sample and control groups should be evaluated in order to effectively prove the hypothesis.

Although I cannot say my hypothesis is true with complete certainty, I am comfortable enough to say that, with the results and the positive parental feedback, it is something every teacher may want to consider in the classroom. Although parents may prefer different ways of being contacted by their child's teacher, the results of the collected data clearly indicate that parents want to be contacted by their child's teacher on a regular basis. With today's technology, there is no reason why more communication should not be taking place whether through personal phone calls, word-processed newsletters, or even E-mail. It will take more effort on the teacher's part to establish a regular routine of contacting parents, but I believe the possible results far

outweigh the extra work asked of the teacher. Besides, there is no reason to believe that participating in such a project is in any way harmful to the students' education. Also, the added effort to communicate with the students' parents helps to establish a better rapport with the families. For instance, it is much easier to talk with the parents about different issues regarding their children when you know more about them and their backgrounds. Parents, in turn, also seemed more comfortable communicating various concerns and/or appreciation for the students' work and behavior. However, I believe that in order for teachers to take that first step toward creating better communication with parents, they will need some professional development support. Although individual teachers assume the main role of communicating with parents, training should be provided on how to use various technologies such as E-mail and/or fax machines, as well as how to develop literacy kits and simple word-processed newsletters.

Although not fully proven, the results of this research clearly favor the hypothesis that if a teacher provides personal communication (phone calls, conferences, etc.) and take home literacy kits to individual families, while also allowing parents the opportunity to provide their own feedback, then parental involvement in school, including children's literacy, will increase. Therefore, if a teacher's extra effort to communicate with students' parents has the potential to improve and enhance the students' education, while not causing any negative affects, then it is something to highly consider.

Appendix A: Introduction to Literacy Folders

Dear Parents,

Over the next five weeks, your child will be bringing home a Literacy Kit. This kit will be sent home every Monday containing a reading activity for your child to complete with your assistance. The activity needs to be completed and returned no later than the following Friday. The activity information can be found in the inside front pocket of the orange folder. Completed activities should be placed in the inside back pocket. Each week that your child returns the completed activity he/she will receive a small treat. Occasionally, some activities may contain some supplies that will not fit into the orange folder. These items will be sent in a small bag and are required to be returned with the completed project in order for the child to receive a treat.

This week's activity is called "Building Stories." Your child has been asked to choose a favorite book that he/she can read within a week or less. Your child is to read the story with you and complete the handout included in the orange Literacy Kit folder. Further instructions are on the "Building Stories" handout.

Paper is included in the Literacy Kit folder for feedback. After completing each assignment, your child is to write at least two complete sentences about what he/she liked or disliked about the activity. Once your child has written his/her sentences, I would like for you to consider how the activity went and provide your own feedback. Please write your information on the same page as your child's sentences. You may write on the back, if you need more room. Your feedback may include information on the activity itself or on your child's abilities or attitudes toward the activity. Any information you provide is greatly appreciated and helpful.

Sincerely,

Regina Brantley

Appendix B: Take Home Literacy Folders

BUILDING STORIES
Stories are built in much the same way that houses are. Just as houses have floors, walls, and a roof, stories have some basic parts. Every story has *characters* (the people or animals in the story), a *setting* (the time and place the story occurs), a *problem* (a difficulty that the character(s) have to overcome and solve), and a *resolution* (a solution to the difficulty or problem). Knowing the parts of a story helps children understand the whole story (U.S. Department of Education, 1997).

Included in Activity:

- A brief story or fable
- Story outline page including the following parts: title, main character, setting, problem, and resolution to be filled out as the parent and child read through the story.
- Instructions for the parents and child:
    - At different points in the story the parent will stop and ask the child to identify the various parts.

FAMILY WORDS MATTER
Reading and writing can enable family members to share important life stories (U.S. Department of Education, 1997).

Included in Activity:

- Pencil
- Paper
- Instructions for parents and child:
    - Have a special family member or friend write a letter to your child containing a funny story or event about your child.
    - Have your child read the letter to you.
    - The child will then write a letter back to the family member or friend including a funny story or event about that family member or friend.

THE MOOSE CAFE
Opportunities for reading and writing are all around us--even when the subject is food (U.S. Department of Education, 1997).

Included in Activity:

- Menus
- Crayons
- Paper
- Instructions for parents and child:
    - Have the child read several items from the menus.
    - Together come up with a creative restaurant name.
    - Ask the child to create his/her own menu.

MY TURN, YOUR TURN – OUR STORY
Writing stories is fun, but it really comes alive when your child creates and writes a story with you (U.S. Department of Education, 1997).

Included in Activity:

- A story title randomly selected by each child during class
- Pencil
- Paper
- Instructions for the parents and child:
    - Write a story together that follows the title your child selected in class.
    - Each of you should take turns writing one sentence at a time until the story is complete.
    - Be sure to include both authors' names (you and your child).

LAUGHING ORDER: THE COMIC STRIPS
When children read about events, they must keep the major actions in order. Children can develop a sense for order while reading comic strips (U.S. Department of Education, 1997).

Included in Activity:

- A favorite comic strip cut into separate frames
- Piece of paper
- Glue stick
- Instructions for the parents and child:
    - Have the child put the piece of comic strip in the right order then read the comic together.
    - Paste the comic strip on the paper provided.

Appendix C: Teacher communication survey

1. How active were you in your child's schoolwork last year?
    - Every day
    - 3-4 times per week
    - 1-2 times a week
    - Less than once a week
    - Never

2. In the past 5 weeks, how active were you in your child's schoolwork?
    - Every day
    - 3-4 times per week
    - 1-2 times a week
    - Less than once a week
    - Never

3. How often did you visit your child's classroom/teacher last year?
    - Weekly
    - Monthly
    - 1-2 times a semester
    - Only when a meeting is schedule by the teacher or other school personnel
    - Never

4. In the past 5 weeks, how often did you visit your child's classroom/teacher?
    - Weekly
    - Monthly
    - 1-2 times a semester
    - Only when a meeting is schedule by the teacher or other school personnel
    - Never

5. How do you prefer to be contacted by your child's school/teacher? (Circle all that apply)
    - Phone call
    - E-mail
    - Fax
    - Letter sent through child
    - Mail
    - Written feedback on child's work

6. How often do you feel your child's teacher should contact you?
    - Weekly
    - Monthly
    - 1-2 times a semester
    - Only when there is an academic or behavioral problem
    - As often as the teacher can

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Reasons and Methods to Establish a Global Education Curriculum

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The University of Tennessee at Chattanooga

Submitted in partial fulfillment of

The requirements for EDUC 590

Fall 2003

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project.

Table of Contents

Abstract

This study will examine the programs available to implement a global education curriculum in American high schools. A curriculum focused on international connections will benefit greatly from the interactive Internet applications that today already enhance global understanding. The traditional classroom remains the optimum method of educating students. In those instances where available faculty or sufficient student demand for global education classes are lacking, virtual schools can provide the educational opportunities that students seek or from which they can otherwise benefit. In virtual schools, students interact primarily with a computer to obtain lessons, file assignments, and take exams. In the past, at-risk students often had little option other than to fail and take mandatory classes. Via the virtual school, these students have an individualized learning opportunity that can require a certain level of demonstrated understanding before moving on to the next lesson. A virtual school enables gifted students to move into challenging areas of study that many schools are unequipped to provide. Those students who have unusual academic interests can have the ability to enroll in classes that, perhaps, no single school system could offer but which can be justified on a state- or nationwide basis.

Introduction

School administrators who discern a need to prepare their graduates for the new global economy may wish to explore the offerings of virtual schools until the time that a fully-developed global studies curriculum can be established within each school. Knowledge retention is enhanced whenever students exchange information among themselves. Utilizing the cross-cultural capabilities of the Internet, students can expand their understanding in the natural and social sciences by communicating with others from around the world. The increasing ubiquity of broadband Internet access affords students with a practical way to glean in-depth information from a range of sources beyond those found in textbooks or school libraries. This paper will attempt to highlight various programs offered by private and governmental institutions that expand student understanding of the global issues that will impact their futures. Whether studying global warming through analyzing globally-collected data or researching global industrial trends via trade journals and statistics, students can utilize their cross-cultural skills learned in social studies and foreign language classes. A mature global education high school curriculum adapts mathematics, natural science, and social science classes into a holistic framework that emphasizes, wherever possible, the best characteristics of a global citizen. Students can utilize their newly-acquired knowledge to better understand the global trends that will influence the future and help them to decide their most promising career path.

The increasing globalization of the American economy has important implications for delivering a relevant education to American primary, secondary, and college students. As manufacturing jobs continue to depart the United States for lower-cost locales in Asia and Latin America, the career opportunities for school graduates are changing rapidly. There is evidence to suggest that the secondary school curriculums in use today do not adequately engage the

minds of American students (Greenberger, 2001). Many surveys have shown that as American students proceed through high school, they increasingly under-perform relative to their peers in virtually all industrialized countries (Hoff, 2000). When schools are unable to provide compelling courses to its students, they should, at a minimum, consider offering classes via a virtual school that can cater to those students on either extreme of the academic spectrum. American high school curriculums can be made more globally competitive, relevant, and interesting to current and future students by emphasizing international education and utilizing the technologies that demonstrate the increasingly interconnected world in which students will live.

Reasons to emphasize a global perspective in secondary education include the accelerating pace of change within our economy. As our economy is transformed, our society also undergoes fundamental changes. The American educational system needs to be responsive to these changes. Yet another compelling reason to promote global studies in American education is the rapidly advancing communication technology that can deliver the world to a student's computer monitor. By transforming American schools into a student's actual window upon the world, secondary schools can take advantage of America's technological lead and become a more useful and interesting place for students to spend their pre-adult years.

International education has been defined as a "dynamic concept that involves a journey or movement of people, minds, or ideas across political and cultural frontiers. The development of a 'worldmindedness' can become the goal of any school, and hence, any school can become truly international" (Tye & Tye, 1992, p. 4-5). As we shall see, the manifestations of international education are quite diverse. This study seeks to justify the creation of a computer-assisted learning environment for high school students to provide an overarching framework for their world history, foreign language, mathematics and science programs.

The Euro-centric focus of foreign language instruction in American high schools is, perhaps, the greatest illusion perpetuated by the American educational establishment. According to Alex Dunkel, Director of the Critical Languages Program and Executive Director of the National Association of Self-Instructional Language Programming (NASILP), "The languages least commonly taught in the United States are often among the most commonly spoken languages of the world. The 21st Century belongs to them" (Dunkel, n.d. paragraph 6). Of the three most commonly taught foreign languages in the United States (Spanish, French, and German), only Spanish is expanding worldwide. Combined, the number of speakers of these languages is not half that of Mandarin Chinese (Aneki, Inc., 2003). By denying students the opportunity to learn to communicate with non-Europeans, the students have little opportunity to appreciate the global trends which are certain to have a great impact upon their lives.

Foreign languages are generally taught by non-native speakers equipped with little more than a whiteboard and a textbook. Once the power of the Internet is harnessed to provide simultaneous audio and video communications with students outside the United States, Americans students will find foreign languages more interesting, accessible, and applicable to their lives. By interacting with a person, as opposed to a textbook, students will come to appreciate both their common and exclusive characteristics relative to their peers outside of the United States. Other countries view second language learning as vital to their national interest. America has many products, services and ideas to offer to the world, but they require culturally adept individuals to promote them.

It will be very instructive to students, teachers, parents, and administrators to compare American educational standards with those in other countries. It is no longer sufficient to compare a student's performance with only his classmates or national cohort. The global market

will increasingly determine who succeeds academically and professionally. American universities are already inundated with highly-qualified nationals from other countries. Will this country be content to see its industrial jobs move overseas and the advanced research positions that remain go to non-citizens? It is hoped that a powerful effect of international school partnerships will elucidate the areas in which American schools fall behind their global counterparts.

Creating Globally-Conscious Graduates

The manifestations of international education are quite diverse as they relate to language arts, environmental studies, hobbies, computer science, foreign languages, and social studies. The idea behind this study is to provide a rationale for creating an interactive learning environment for high school students that supplements current world history, foreign language, mathematics, and science programs. The exclusive Western European focus of foreign language instruction in American high schools denies students the opportunity to engage with the societies elsewhere in the world which will continue to have a great impact upon the United States. The foreign languages that are widely taught in the United States have not changed in decades – and are all closely related to English. By harnessing the power of the Internet to provide simultaneous audio and video communications with students in China and elsewhere, students will learn an accessible language and appreciate both their common and exclusive characteristics relative to their peers outside of the United States. Additionally, it will be very instructive to students, teachers, parents, and administrators to compare American educational standards with those in China and elsewhere in the world. It is hoped that a powerful effect of international schools partnerships will elucidate for American students, parents, and educators the steps that are needed to keep America's educational system focused on producing productive citizens.

Examples of Successful Global Education Programs

Many writers have remarked on the intangible benefits that students gain by adapting non-Western approaches to classroom management, foreign language study, and physical education. That these benefits are shared across the socioeconomic spectrum is demonstrated by the positive results found in a Boston charter school located in an inner-city neighborhood. One of the two founders of this school, known as The Academy of the Pacific Rim, is a first generation Chinese American who felt that the educational system in Taiwan was a worthy model to follow. Founded in 1997, this school selects students via a lottery in accordance with state law. Several unique innovations account for the middle and high school's enviable success in building a disciplined and academically-successful student body. To begin with, the calendar for the Academy of the Pacific Rim has 30 days more than required by Massachusetts law. Thus, students trying to avoid work and school altogether will be less likely to apply. The school day stretches from 8:10 a.m. to 4:10 p.m., and students themselves are required to clean their classrooms. This sense of communal responsibility is intended to foster self-esteem and school pride. Students are frequently tested and meet weekly with their advisor. Despite the rigorous standards of discipline that are imposed, the students "respond to the extra demands like little foot soldiers eager to please" (Hartigan, 2002, p 12).

The Academy of the Pacific Rim's mission is "to combine the high standards, character education, and discipline of the East with the individualism, creativity and diversity of the West" (Hartigan, 2002, p. 12). The only foreign language currently being offered is Mandarin Chinese. The difficulty inherent in this pictographic language may serve as an important exercise in self-control and desire for knowledge. Gym class consists of martial arts, which have a long tradition

of promoting self-reflection and defensive tactics. Occasionally derided as a "reward and punishment" system, the school's scores on the Massachusetts Comprehensive Assessment System place it at the top of Boston's public schools. Each morning, students are greeted with a handshake from the Academy director, Spencer Blasdale. Along with this respect from teachers comes responsibility for the students. Homeroom class begins with students standing to greet their teacher in unison.

Discipline at the Academy of the Pacific Rim is maintained by teachers frequently sending students to the principal's office for minor infractions that might go unremarked at other schools. To be sure, there are complaints by students about the rigorous academic curriculum and discipline regimen, which help account for the 10 to 20 percent attrition rate. Teachers at the Academy of the Pacific Rim report that improvements in student discipline have increased their job satisfaction. Along with the improved order in the classroom, student progress in learning has also improved. Significantly, Donna Bracey, an 8th grade English teacher, says that her students are not exceptional when they arrive but that "these high standards could work in any public school" (Hartigan, 2002, p. 15) Each evening, the Academy's principal shakes students' hands on their way out. There is an emphasis on individual responsibility for the group's well-being. Certainly seeing students sweeping cafeteria floors is unusual in the United States yet is a common practice throughout Asia. The teachers reinforce good behavior by punishing not just the offender, but the entire classroom by denying recess and other rewards for the misbehavior of one individual. These adaptations of Confucian practices suggest that innovative approaches can lead to improvements elsewhere in American education.

Another example of the powerful effect of global education can be seen among one of America's most at-risk communities: Native Americans. In Zuni, New Mexico, children of the

Zuni tribe have traveled in their minds via the Internet to places that they could scarcely imagine (Zehr, 1998). Many of the adults in this community have not traveled outside of New Mexico and possess only a rudimentary knowledge of the outside world. But in a manner that is repeated throughout the world, the Zuni schoolchildren are leading the way toward a better understanding of the outside world and the role they can play in the future to improve their livelihoods.

The Connecticut-based Save the Children Federation presented A:shiwi Elementary School with a computer and an Internet connection in 1992. Since that time, Zuni students have exchanged art with Australian Aborigine children, made donations to Myanmar refugees, and given comfort to Argentineans who lost family members in a fire. Since few of the Zuni parents own a personal computer, the school's computer is the students' primary window to the world. Teachers have remarked how the students' perceptions of their own culture have improved since they discovered people in foreign lands that value their traditional dances, songs, and language. Not surprisingly, this school has its own website (A:shiwi Elementary School, n.d.) which promotes the economic interests of the entire community. As school children weave a web of international dimensions, the area's geographic and cultural attributes receive more attention and, inevitably, tourism. Traditional artists have witnessed a tangible benefit from the work of their community's youngsters. This dawning realization in the minds of Zuni citizens encourages each of them to think better of themselves and to improve their community. It seems to be a fact of human nature that either a person or an organization will make greater efforts when they know somebody else is watching.

Following the example of organizations like Sister Cities International (sister-cities.org, n.d., 2004), the Canadian province of Alberta has signed numerous cultural and educational agreements with the Japanese prefecture of Hokkaido. Beginning in 1973, officials from these

two states began exchanging delegations that led to the 1980 signing of a Proclamation of Friendship and Affiliation between the Province of Alberta, Canada and the Prefecture of Hokkaido, Japan. Weir (1995) reported that 10 cities in Alberta have "twinned" with cities in Hokkaido (Weir, 1995). At the time of the 15th anniversary of this program, the Alberta Department of Education prepared a social studies teaching resource to address the 7th grade program of studies on cultural transition. This report is illustrative of the rich subject matter that an overseas relationship can provide. By describing the history, seeing pictures, and exchanging visits with citizens from Hokkaido, students experience the benefits of this special relationship. Students are taught the history and current state of the three decade twin relationship and challenged to think of new areas for cooperation. Students are then given assignments to describe their own province and learn basic facts relating to the Japanese educational system. Later, lessons introduce the Japanese language and ask students to write a letter of introduction to their partner school in Hokkaido. Issues such as climate, topography, resources, population density, and industry are explored in order to better understand the living conditions there. There are cultural activities that introduce Japanese paper crafts and customs. Japanese idioms are studied in order to appreciate the context of the language and culture. Although there is no mention in this study guide describing the use of the Internet to bring students and schools into a robust educational environment, one can imagine that such contacts are now being made.

The public school system in the state of Alaska has emphasized international education by creating the Alaska Sister Schools Network in 1985 (Parrett & Hartsock, 1990). Alaska's geographic position between North America and Asia provides an excellent vantage point to observe international relations. Since many of their schools are in remote areas, local resources may sometimes be inadequate for bright young minds. By creating a network with schools in

Japan, China, Australia, South Korea, the Philippines, and the Russian Republic, organizers have sought to go beyond the traditional penpal relationship and into curriculum development and actual visits to their new-found friends overseas. In some cases, students have created quilts that depict historical facts important to Alaskan development. Other schools have produced and exchanged videotapes featuring their geography and cultural lives. In so doing, students gain a better self-understanding, as well as learn various craft and technological skills that will serve them well later in life.

Introducing a Global Studies Curriculum via a Virtual School

As school systems are called upon to serve an increasingly diverse student population with limited funding, the college technique of distance learning has been adapted to the K-12 student population. Known as virtual schools, these programs predominantly serve secondary school students by providing Internet or media-based instructional materials that must be completed within a certain time period. Courses delivered over the Internet offer many advantages over the traditional classroom approach including:

- Access to advanced placement coursework or less-commonly studied foreign languages.
- Scheduling conflicts for high school seniors with job or extra-curricular responsibilities.
- Repeat students for whom summer school is not an option.
- Students with attendance problems due to a myriad of causes.
- Home-schooled students seeking accredited coursework.
- Inexpensive solution to access problems for underserved communities.
- Classroom or teacher shortages.

Most virtual schools today are asynchronous, implying that students do not communicate

with their teacher via Voice over Internet (VoIP) or through videoconferencing. Students and teachers generally communicate via an electronic bulletin board. As the promise of broadband Internet becomes realized, students and teachers will enjoy a richer online experience. Presently, virtual school providers appear reluctant to make full use of the video capabilities of the Internet since only 22 million homes in America have broadband capabilities. Given the explosive growth of the Internet over the past 10 years, teachers can expect to see great improvements in virtual education in coming years. There are now over 200 American universities partnering on the next generation of connectivity known as Internet2. This technology already provides connections over 2,000 times faster that which will one day enable advanced videoconferencing at low cost for primary and secondary schools. There is also the possibility of providing tax incentives to Internet service providers (ISPs) for connecting students' homes to the Internet.

A Description of Supplementary Programs in Global Education

Some global education programs are conducted through a consortium of schools around the world. One such program that is supported by a rich assortment of U.S. government agencies is GLOBE, which stands for Global Learning and Observations to Benefit the Environment (n.d.). GLOBE describes itself as worldwide hands-on, primary and secondary school-based education and science program. Connecting over 12,000 schools in 112 nations, over one million primary and secondary students have participated in efforts to measure atmosphere, hydrology, soils, and land cover. The data collected is reported over the Internet and adapted into graphs for comparison with other regions on the earth's landmass. By bringing a global focus to science, students learn to collaborate with counterparts throughout the world. This experience will broaden their horizons and prepare them for college and graduate studies which

may well include overseas students. The information gained by students is often forwarded on to state curriculum committees to make up for the relative lack of teaching materials relating to Asian cultures and countries.

The International Education and Resource Network (n.d.), known as I*EARN, is a nonprofit global network that enables young people to use the Internet and other new technologies to engage in collaborative educational projects that both enhance learning and make a difference in the world. Founded in 1988, IEARN is a nonprofit organization funded by Hewlett-Packard and numerous foundations in America and abroad. With representation in over 110 countries and 15,000 schools, IEARN claims to offer the following:

1. An inclusive and culturally diverse community.

2. A safe and structured environment in which young people can communicate.

3. An opportunity to apply knowledge in service-learning projects.

4. A community of educators and learners that makes a difference as part of the educational process.

IEARN offers collaborative projects between schools around the world in a variety of subjects: creative/language arts, science/environment/mathematics, and social studies.

The Paul Coverdell WorldWise Schools program was founded in 1989 in conjunction with the Peace Corps to put U.S. students in touch with Peace Corps volunteers around the world. Over the past 14 years, some one million students have communicated with Peace Corps volunteers around the world. Their mission has expanded in recent years to provide lesson plans, videos, and an online newsletter. By relating the experiences of American volunteers in remote and undeveloped regions of the world, students have the opportunity to pose questions to people capable of describing their surroundings in terms that American students can readily understand.

When preparing a role-playing exercise relating to a region of the world, it is helpful for students to have this online resource to draw upon.

The Foreign Policy Association (2003) is a national, nonprofit, nonpartisan, nongovernmental, educational organization founded in 1918 to educate Americans about the significant international issues that influence their lives. Each year they prepare a textbook, and a teacher manual, that investigates important global topics in current events. Known as *Great Decisions*, this program serves a vital role in educating all Americans about world events. This program provides lesson plans and projects that activate student curiosity and create learning opportunities.

The National Center for Education Statistics (nces.ed.gov, n.d., 2004) reports that, as of fall of 2001, over 99% of American public schools had not only computers, but Internet access, as well. There has been much discussion about the "digital divide" which is claimed to further divide the haves from the have-nots. Actually, we may now be seeing that computers and Internet technology are doing more to erase this division than to accentuate it. As the costs of a computer and an Internet connection continue to drop, they become affordable to a wider range of school districts and households. Not only are new computers cheaper than their predecessors, but they also have more capabilities. In this manner, we are seeing that many lesser-developed nations are rapidly expanding their computer infrastructure beyond their cities to the village level. Americans would be remiss to ignore the potential for an enriched, globally-focused curriculum.

Conclusions

The various models for international cooperation described are all proven methods of

building a global education curriculum. Teachers of foreign language, history, mathematics, and science have the tools to develop a program that brings an international focus to their lesson plans and homework assignments. The development of school to school relationships reinforces for students the ideal of global interdependence. Chattanooga is fortunate to have five sister cities of its own, in Germany, China, Israel, the Russian Federation, and South Korea. Ooltewah High School already has already begun an electronic pen pal relationship with the counterparts in Wuxi, China. It is intended that this relationship will be broadened to allow for videoconferencing via the Internet and the free exchange of information.

Within the subject areas of mathematics and science, where an international focus may be relatively difficult to implement, students can endeavor to learn what their peers in other countries are learning. Students may be required to join at least one global collaborative project and report these findings to their class. When properly directed, these activities can lead to greater student and teacher satisfaction. Upon graduation, today's students face great competition in higher education and in the job market. By stressing at an earlier age the global facts of life which affect virtually every aspect of our existence, students are likely to make wiser decisions regarding their careers.

Broad generalizations about the state of American secondary education can easily fall prey to faulty reasoning. The facts do bear out, however, that the academic performance of American students begins to decline relative to their international peers around the time they enter high school (Hoff, 2000). There are many factors to account for this including athletic pursuits that may not be available in more densely-populated countries. Certainly there must be more to this relative decline than the proliferation of organized sports. Might it be that American education is in need of an overhaul? For example, it has long been a practice to offer the French

language in American high schools despite that nation's relative decline in global importance in recent decades. It stands to reason that students find a curriculum more compelling when it is in line with their future economic security. Presently, the United States conducts more trade with Asian nations than it does with European ones. While the latter are in relative decline, the Asian region is surging ahead and will be an increasingly important factor toward America's economic and social vitality.

The internationalization of our society and economy has long been a reality. American school curriculums continue to follow a traditionally Euro-centric perspective may be ill-suited for 21st Century. Since the purpose of education is to prepare students for the rest of their lives, schools should respond proactively to the changing times to keep their instruction relevant. For years, despite various reports decrying America's low levels of academic performance, attempts to rectify the situation have had little effect (Greenberger, 2001). The expression that describes sunlight as the best disinfectant can be applied to the situation at hand. By utilizing the Internet and assigning comparative studies to students, they will gain a new perspective to their test scores. An “A” on a mathematics test will take on a less-presumptuous meaning when compared with the mathematics tests of their peers overseas. There are also increasing opportunities to engage in school-to-school mathematics, science, and geography competitions. As American students, parents, and teachers come to better understand the relative deficiencies and strengths in our educational system, they will be in a better position to improve and reform their institutions.

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Effects of Cross-age Tutoring on Reading Fluency, Self-Esteem,
and Overall Performance at the Elementary Level

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The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-091.

Effects of Cross-age Tutoring on Reading Fluency, Self Esteem, and Overall Performance at the Elementary Level

Introduction

One-to-one tutoring is a method of instruction in which learners help each other. The tutee learns from the individual instruction while the tutor learns by teaching. Cross-age tutoring is generally defined as a form of one-to-one tutoring in which an older child instructs a younger child. Same-age tutoring is a form of one-to-one tutoring in which an academically strong student instructs a low-achieving, at-risk, or nonmotivated classmate. Sometimes educators and researchers use the term, "peer tutoring," to refer to both types of instruction. To make matters worse, other names, such as "peer education," "peer teaching," "peer learning," "peer mentoring," and "child-teach-child," among others, have been used to refer to the same type of instruction. For the purpose of this paper, the term cross-age tutoring will refer to a type of one-on-one instruction by students in which the tutor is older than the tutee.

Organizational Models for Tutoring Programs

Tutoring programs can be organized in many different ways. According to Thomas (1993), these include, but are not limited to, the following: (a) resource tutoring, (b) classroom tutoring, (c) tailored tutoring, and (d) ripple tutoring. In the resource model, pairs of students from different grade levels are scheduled together in the resource room for tutoring sessions. In the classroom model, teachers in two different grades set aside specific times and a particular place each week for the tutoring sessions. In the tailored model, a teacher selects a particular criterion, such as vocabulary, by which to pair an older student with a younger student. In the ripple model, a school begins a cross-age tutoring program that involves only a few classes and then expands this until all classes and all students are involved. In this last model, everyone is a tutor, and students view being a tutee as preparation for eventually becoming a tutor. Since all

students participate in both giving and receiving help, the negative attitude that often accompanies the process of receiving help is removed (Gartner & Riessman, 1993). These models, or variations of these models, can serve as an organizational framework for the implementation of a cross-age tutoring program in any school.

Critical Elements of a Tutoring Program

> According to Fisher (2001); Schneider & Barone (1997); Thomas (1993); Evertson, Emmer, Clements, & Worsham (1997); Marious (2000); Gartner & Riessman (1994); Salend (2001); Jones & Jones (1998); and Butler (1999), a good tutoring program should contain certain critical elements. Furthermore, there are some basic steps that should be followed in setting up a cross-age tutoring program in a school in order to ensure its success. Although these writers do not agree on every element of a tutoring program, or even on the exact steps to follow in setting up such a program, much can be learned from their writings. In an ideal situation, a coordinator would assist the teachers in the planning and implementation of a cross-age tutoring program. But, in any case, the teachers involved must establish specific goals for the program, must have the support of the administration, and must design an appropriate program by using a model similar to one of those discussed earlier as an organizational framework. The program may include various components: pre-tests and post-tests, tutor training, parent training, tutee orientation, regular tutoring sessions, weekly training meetings with the tutors, charting of progress, evaluation of the program, and celebrations of successes. Careful planning is very important in order to ensure the smooth implementation of a program that will result in positive outcomes.
>
> The teachers must select and match the tutors and tutees and must provide training and supervision of both. Students could be matched according to their reading ability. For example, the better readers in a higher grade could be matched with the better readers in a lower grade. This type of pairing should reduce the possibility of any embarrassing situations during the tutoring sessions. The tutees need to understand the value and goals of the tutoring program and to know what is expected of them during the tutoring process. The tutors need to understand the value and goals of the tutoring program, to know exactly what is expected of them during the tutoring process, to know what materials to use during the tutoring sessions, and to understand how to best help the students who they will be tutoring. Teachers must take the time to model fluent reading and appropriate behavior during the training sessions. They must teach the tutors

specific tutoring techniques: how to hold a book so that the tutee can see the pages and follow along as the tutor reads, how to have the tutee hold a book when reading to the tutor, how to encourage predictions and discussions, and how to ask questions in order to check for understanding, among others. Opportunities should be provided for the tutors to practice with each other before working with their assigned tutees. In order to increase the likelihood of success, the tutor training should also include such topics as how to prepare simple tutoring lesson plans; how to give clear instructions; how to stay on task; how to attain the tutee's full attention; how to redirect the tutee's attention, when necessary; how to give and accept praise and constructive feedback; and how to establish rapport with the tutee. Tutor training cannot be completed in just five or six sessions and then forgotten; training meetings should be held on a regular basis. This will provide time for the discussion of specific tutorial problems and issues, for the sharing of successes, for the introduction of new instructional strategies, for reviewing management and interpersonal skills, and for reflection by the tutors. Group discussions and individual journal writings about their tutoring experiences may help the tutors gain a better awareness of the learning process and may help them refine their tutoring skills. These sessions would provide excellent opportunities for the tutors to express their ideas for running the program. This idea of ownership may well increase the level of student satisfaction with the program.

Initially, another responsibility that falls on the teacher is the planning of learning activities to meet specific goals and the listing of the materials that will be needed to complete these tasks. As the program progresses and as the tutors accept more and more responsibility for their tutees, the teachers may only need to provide guidance in the selection of the materials

used. A variety of activities, including board games, flash cards, word searches, crosswords, etc., can also be used to reinforce reading skills.

Last, but certainly not least, the program needs to be monitored and evaluated throughout the school year. Teachers need to look for and document evidence of progress. They also need to provide frequent feedback to the tutors and to the tutees.

Potential Benefits of a Tutoring Program

> Some of the benefits of successful cross-age tutoring programs have been documented in articles by such writers, researchers, and educators as Fisher (2001); Schneider & Barone (1997); Thomas (1993); Evertson, Emmer, Clements, & Worsham (1997); Marious (2000); Gartner & Riessman (1994); Salend (2001); Jones & Jones (1998); and Butler (1999). Some of these benefits include the learning of academic skills, the enhancement of interpersonal relationships, the development of appropriate social behaviors, the improvement in classroom discipline, and improvements in self-esteem. Research shows that cross-age tutoring is effective in improving the social, as well as the academic, development of both the tutee and the tutor. In fact, the literature states that the gains for the students giving help are often far greater than the gains for the students receiving the help (Gartner & Riessman, 1993). A well-planned cross-age tutoring program can also improve the overall school climate as it is very beneficial to the tutees, the tutors, and the teachers.

One of the most apparent benefits of a cross-age tutoring program is the program's impact on the tutees. In fact, this method of instruction was probably first developed to improve the achievement level of the tutees. Several studies have shown that this is, indeed, a positive outcome of such a program as the tutees benefit greatly from the individualized instruction. Tutees involved in cross-age tutoring programs made gains in reading accuracy, fluency, and comprehension. Their attitudes toward reading improved, they developed self-confidence, and they began to correct their own mistakes as they read aloud (Marious, 2000; Schneider & Barone, 1997). Cross-age tutoring provides excellent opportunities for tutors to effectively model many skills and behaviors for their tutees. According to research, similarity between model and learner increase the influence of modeling. Cross-age tutoring takes advantage of both of these principles. Since the tutors and tutees are children, they are much more similar

than a tutor who is an adult and a tutee who is a child. But, the students involved in cross-age tutoring programs differ in age; therefore, the higher status principle is also in place. This combination promotes the effects of modeling even more (Gaustad, 1993). Thus, tutees tend to learn many positive behaviors and values, as well as many skills from their tutors.

While the benefits of a cross-age tutoring program to the tutees are great, the benefits to the tutors appear to be even greater. According to some literature, tutors made gains in reading accuracy, in fluency, in comprehension, and in sight word recognition. Their attitudes toward reading improved; they developed self-confidence; they learned to help, to support, to comfort, to share, and to empathize with others; and they began to assume responsibility for their tutees. The connection between the tutor and the tutee became so close that the tutor began to plan lessons that were centered more on the interests of their tutee. In addition, the tutors gained a better understanding of teaching and of the learning process (Schneider & Barone, 1997). The tutoring experience proved to be very beneficial for the tutors because they had a specific reason for reading and because they received regular feedback from both their teacher and their tutee (Fisher, 2001). Tutors gained additional benefits from the tutor training sessions as they learned how to plan lessons, how to explain concepts, how to manage their time, and how to work with other students (Evertson, Emmer, Clements, & Worsham, 1997). Jones and Jones (1998) found that the tutors thoroughly learned the material that they were expected to teach. Furthermore, this understanding coupled with the satisfaction of helping others, made the tutors more excited and confident learners.

Initially, the implementation of a cross-age tutoring program requires a lot of time on the part of the teachers involved. There is much time spent in planning, in training the tutors, in preparing materials, and in supervising the tutors and tutees. However, once the program is

implemented, the teachers may be able to find time to give more individual attention to more students. The teachers will be able to take on more of a role as facilitators as their classes become more actively involved in the learning process, as individual students become more independent, and as the students learn to turn to each other as a first resource (Jones & Jones, 1998). This improved use of instructional time will lead to increased learning. Also, as teachers observe improvements in their students' academic skills, social skills, and self-confidence, the teachers' level of satisfaction will increase, and they will perceive that the time was well spent.

Another benefit of implementing a cross-age tutoring program in a school is its cost-effectiveness. A school can use the resources that it already has on hand in order to implement a cross-age tutoring program in reading instead of spending money on personnel to operate a reading resource room. According to a study conducted by Fisher (2001), struggling readers who participated in a cross-age tutoring program in which they tutored younger students showed greater improvement in academic achievement than their counterparts who attended sessions in a reading resource room. In this study, both groups of students read the same books. The students who went to the reading resource room were often embarrassed by having to read low-level books. The students who used these same books in their tutoring sessions were not embarrassed because they had an important reason to read these low-level books: their tutees were depending on them. The difference in the cost of operating these two programs could go a long way in relieving some of the budget problems facing schools today. An added benefit to schools that implement an effective cross-age, tutoring program is its tendency to improve the overall school climate. Students learn to share with others, to comfort others, and to help others. Discipline problems tend to decrease. Participants show improvement in self-judgment, behavior, and social interactions and generally display more positive attitudes (Thomas, 1993). These

improvements within the school definitely improve the overall school climate. Given the many benefits to the tutees, the tutors, the teachers, and the school, implementing a cross-age tutoring program within a school appears to be a winning proposition for all concerned.

Data Collection and Results

Area of Focus Statement

I am concerned about the reading ability of elementary students. More specifically, I am concerned that many students do not exhibit a love of reading, that they do not read to others, that they do not understand what they read, and that they do not seem to think that they read well. A quote by John Comenius, "He who teaches others, teaches himself," is the theory that I would like to test. I would like to test this theory by exploring the implementation of some type of student-based tutoring program in an elementary school. Therefore, the purpose of this study is to describe the impact of a cross-age tutoring program on the reading fluency, self-esteem, and overall reading performance of students at the elementary level.

Defining the Variables

For the purpose of this study, the term cross-age tutoring will refer to a type of one-on-one instruction by students in which the tutor is older than the tutee. The overall reading performance of the students will include the scores that students earned on statewide assessment tests, the reading level of the students, and the students' report card grades. The reading fluency of the tutors will be determined through observations made by the teachers. The tutors' attitudes

toward reading will be assessed through tutor surveys, informal interviews, group discussions, and journal writings.

Research Questions

- What is the effect of a cross-age tutoring program on the reading fluency of the tutor?
- Will a cross-age tutoring program improve the self-esteem of the tutor?
- Will a cross-age tutoring program improve the tutors' attitudes toward reading?
- What is the effect of a cross-age tutoring program on the achievement level (as indicated by the Accelerated Reading comprehension scores) of the tutor?

Description of the Intervention

The reading intervention that I will implement in my classroom is a cross-age tutoring program. My students will receive training in how to hold a book when reading to the tutee; how to give clear instructions; how to stay on task; how to attain the tutee's full attention; how to redirect the tutee's attention, when necessary; how to give and accept praise and constructive feedback; how to encourage predictions and discussions; how to ask questions in order to check for understanding; and how to establish rapport with the tutee. Then, they will act as tutors to younger students. I will observe the students during the tutoring sessions, take fieldnotes, and provide frequent feedback to the students.

Description of the Individuals Involved

Students from two different ages will be involved in this study. The older students will take on the role of tutors while the younger students will serve as the tutees. The teachers of these classes will also be directly involved in the study as they provide instruction, provide guidance, and collect data. All precautions will be taken to ensure that the subjects in this study are not harmed in any way and to ensure that utmost respect is shown for their welfare and dignity. Members of the administrative staff, the media specialists, and the parents of the

students may be involved indirectly as they give permission for carrying out the action research plan, as they provide assistance in the selection of books, and as they observe any changes that may occur during the study.

Procedures (Including Data Collection Procedures)

- Develop the necessary surveys, questionnaires, forms, and charts that will be used to collect data.
- Secure any necessary training materials that will be used in the study.
- Secure permission to conduct the study.
- Administer the teacher surveys about cross-age tutoring.
- Locate a teacher from a lower grade-level class who is willing to participate in the study.
- Administer tutor surveys that focus on a student's feelings toward reading.
- Conduct informal interviews with the students who will act as tutors and record the findings.

    d. Match the readers based on ability and age.

- Conduct tutor training sessions and guide the tutors as they practice reading before the first tutoring session.
- Meet with the tutees and explain expectations.
- Develop a schedule for the tutoring sessions and for group discussions.
- Take fieldnotes as I observe the tutoring sessions.
- Hold group discussions with the tutors.
- Administer surveys to the tutors at the end of the project.
- Provide the progress of comprehension levels of each tutor based on Accelerated Reader test scores.
- Compile data and construct graphs.
- Share the findings with the administrators and other teachers at the school.

Data Considerations

I will use several strategies during this project in order to ensure that my research is free from unnecessary error and that it is as good as it can be. I will act as a privileged, active observer during the tutoring sessions, taking fieldnotes as I observe, and recording them as fully as possible. Other observations will be recorded in my journal as soon as possible after the event. Furthermore, I will seek feedback from the other teachers involved in the study. In an attempt to ensure that my research is reliable, I will consider whether I think that this data would be consistently collected over time. The participants in this study will be treated with respect at all times. In an attempt to safeguard their privacy, I will assign a number to each student and use that number when referring to test scores, survey data, and specific observations. The students will not know their number; therefore, they will not know who is being described. The grade level teachers will be surveyed anonymously, even though only a few teachers will be participating. This will help to add to the ambiguity of specific comments that might be included within the study.

Data Analysis and Presentation

I will use simple graphs to present the before and after reading comprehension levels of the tutors. I will also use simple graphs to make a comparison of students' feelings toward reading before and after the study. I will develop a chart on which to indicate comments that I record during the observations that I make during the tutoring sessions. I will review this information and draw conclusions from what I have observed.

Negotiations to be Undertaken (Obstacles That May Need to be Resolved)

There are several steps that I will need to take before I can begin this action research project. I will need to seek approval from the supervising teacher and the administration. Then,

I will need to locate a teacher who is willing to participate in the project. I will need to select tutors from among the students in my class. I will also have to develop a schedule for the tutoring sessions that is acceptable within the weekly schedules of the two classes involved in the project. Other obstacles may surface as the project is initiated.

Timeline

- ❖ August:
  - Develop and print the necessary data collection instruments.
  - Secure permission to conduct the study.
- ❖ September:
  - Administer pre-surveys.
  - Conduct informal interviews.
  - Select and train student tutors.
  - Attend tutoring sessions and record observations.
- ❖ October:
  - Continue to attend tutoring sessions to provide feedback and guidance.
  - Conduct group discussion sessions.
- ❖ November:
  - Determine current reading levels.
  - Administer post-surveys.
  - Conduct informal interviews.
  - Compile and analyze data.
  - Record and share findings.

Resources

To implement this cross-age tutoring program, I will use Accelerated Reader books from the classroom. Furthermore, I will need time to develop the necessary surveys, questionnaires, and other data collection forms, as well as time to collect the initial data from student records. Finally, I will need a small budget for printing the needed forms, for printing the findings, and for purchasing additional books, if needed.

Information Dissemination and Possible Effect on the School

I will share any findings with the administration and the teachers at the school where the study is conducted. Hopefully, this program will have a positive impact on the students involved, and other teachers will be willing to implement such a program in their classrooms. It is possible that this could lead to a school-wide program where students view being a tutee as preparation for eventually becoming a tutor and where teachers make better use of the best resource that they have: their students. Such a school wide program may improve the overall school climate as students learn to share with others, to comfort others, and to help others. Students may begin to see themselves as an active part of the learning process.

Results

The tutor and control groups were selected based on current reading groups. A pre-test on word recognition, phonics, vocabulary, and comprehension, as presented in Table 1, showed that the two groups were similar in skills and abilities. The biggest difference between the two groups was in the comprehension scores; the tutor group scored 7% lower than the control group in this category.

Table 1

Pre-test Results of the Control and Tutor Groups

	Word Recognition	Phonics	Vocabulary	Comprehension
Control Group	90%	87%	58%	87%
Tutor Group	92%	86%	58%	80%

All of the students used the same Accelerated Readers; students were already required to read these books each week. Thus, the tutoring program did not take any time away from planned learning activities within the classroom. The Accelerated Reader tests were used to compare each student's reading comprehension. No apparent pattern emerged among the test

scores for the control group (see Figure 1), but a pattern of sorts did emerge among the test scores of the tutor group (see Figure 2). Some books were rated harder than others; this was reflected in the table. The test questions were the same for every student.

The tutor group did noticeably better than the control group on their Accelerated Reader test for every book except for one. Both groups scored the same on the test on the second book (see Figure 3). The overall average for the tutor group was 70% while the overall average for the control group was 50%. This is a difference of 20%. This difference is much larger if you consider the fact that the tutor group started out with a 7% lower average than the control group.

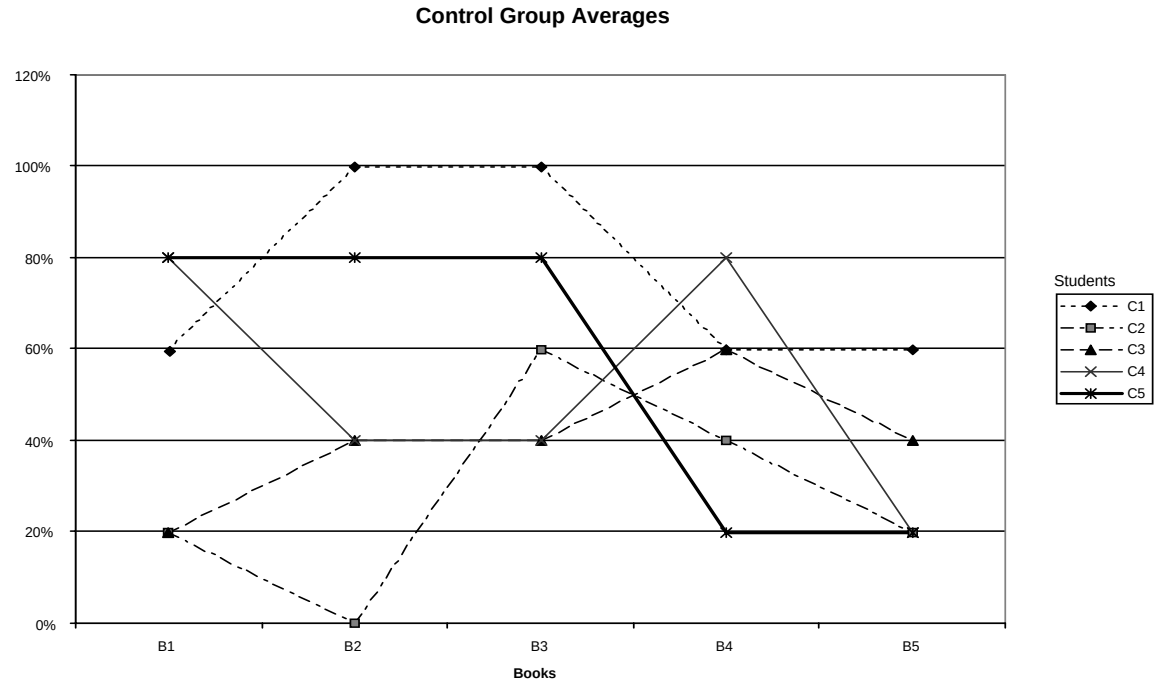

Figure 1. Control group averages per book.

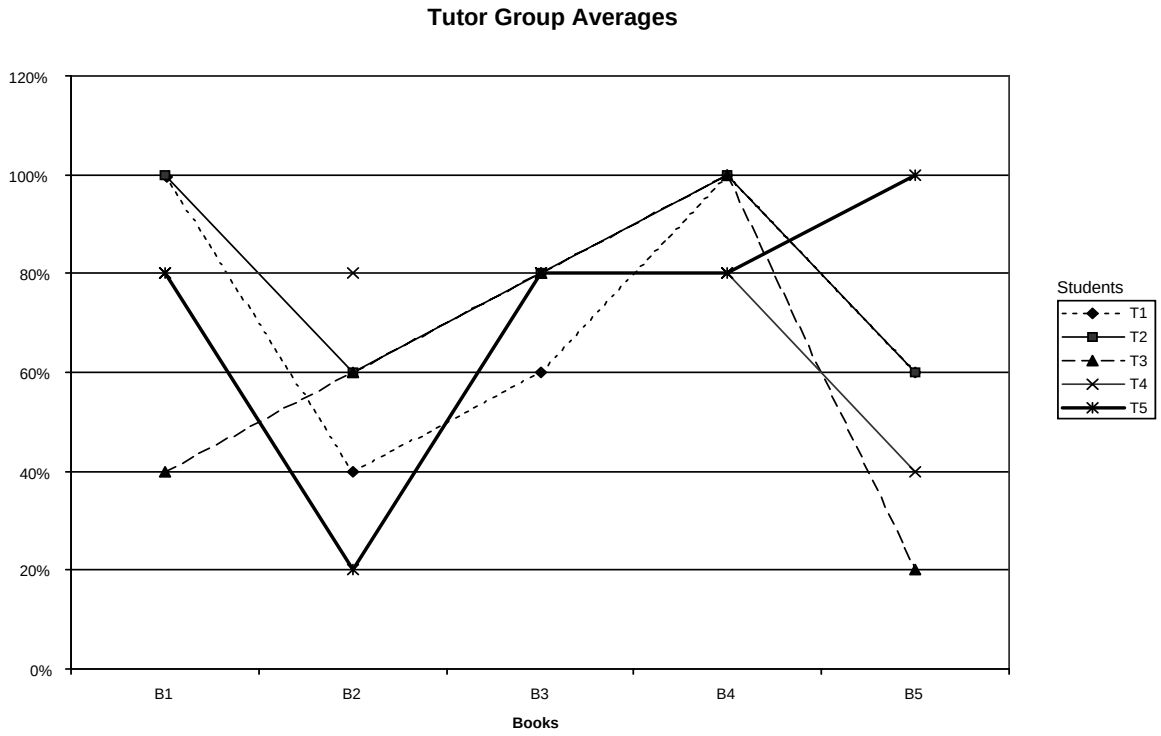

Figure 2. Tutor group averages per book.

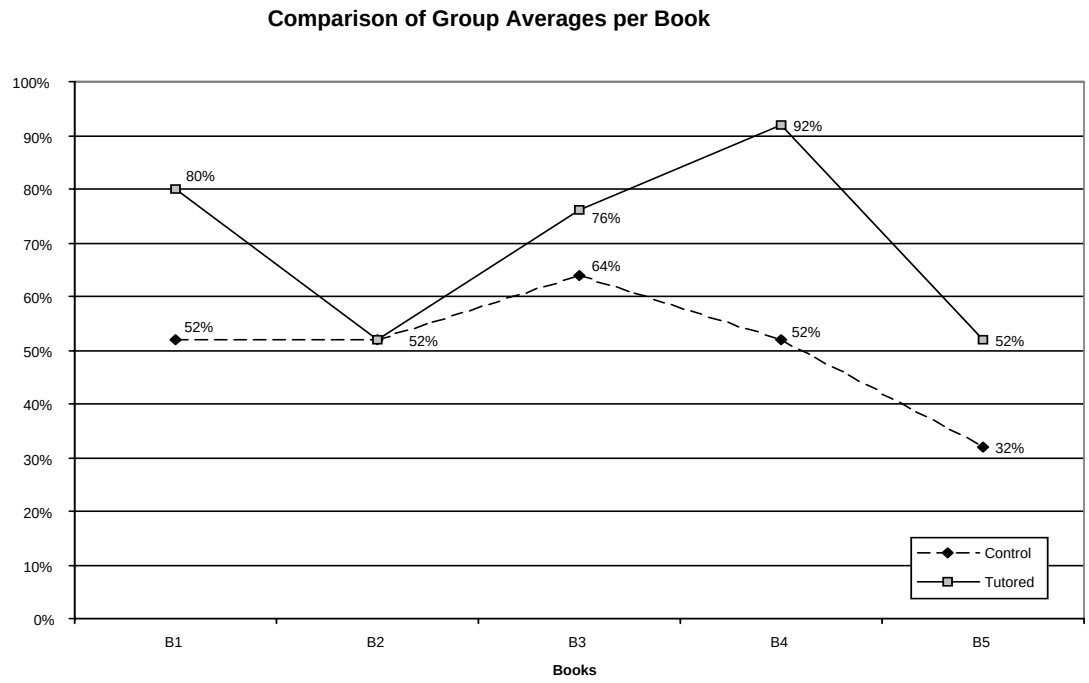

Figure 3. A comparison of the control and tutor group averages per book

Conclusions and Recommendations

Most students were excited about tutoring and reading to others; they wanted to read more. This enthusiasm seemed to spread across the classroom. All the students who were surveyed had books at home to read and read at least two or more times per week. Most students thought that they read very well even if they didn't read very often.

All the teachers surveyed had heard of cross-age tutoring, but only 75% had ever used cross-age tutoring in the classroom. All the teachers said that they would consider using cross-age tutoring in their classroom. The main obstacle to such a commitment would be finding time to fit this into their already tight schedules. Using the Accelerated Readers for the tutoring program could be a way to find the time for implementing a valuable cross-age tutoring program into an already busy schedule.

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Hands-on Games vs. Computer Games:
An Action Research Project

Cameron D. Hopkins

EDUC 590
11/26/03

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-095.

Introduction

I am currently a fourth grade teacher. I believe that learning should be fun and exciting. Thinking back to my own childhood and education, I can remember that I learned more from the teachers who made the classroom and curriculum exciting. Often, this excitement was brought about through some sort of game or hands-on activity. Math is one of those subjects that can be taught and reinforced through the use of hands-on activities and games.

I also remember a time when I was in school when I had very little interest in math because of one of my teachers. It was a couple years later when I had an excellent algebra teacher who got me interested again. This teacher made learning math fun and exciting again. She was able to keep my attention and teach me what I needed to know. What this teacher did has stayed with me, and my love of math is stronger today than it was then. I hope that I can get my students interested in math so that they will continue to grow academically throughout the rest of their lives.

This year, my students, as a whole, are struggling with the retention of the multiplication facts that were learned in the third grade. Thus, these students don't understand division and two-digit multiplication. Also, they show very little interest in mathematics, as a whole. I struggle to find ways to keep these students involved. I have been using math games provided by the Everyday Mathematics curriculum, yet somehow I feel that my students aren't benefiting from these as much as they should be.

After observing these students for a couple months, I have come to notice that my students love using the computer. It doesn't matter what the activity is; my students tend to stay more focused when using the computer to play a math game than when playing a hands-on

game. It is my assumption that my students will learn better by interacting with computer software than by playing hands-on math games.

Rationale

There are many problems that teachers face each school year. Students struggling with the learning of math facts is just one of them. This is one of the major problems my students are struggling with, which I know will be assessed on the state tests later in the school year. My students learn by doing and with continuous practice.

The skills that will be addressed in this intervention are the building blocks to more advanced math skills. The purpose of this study is to see if interacting with mathematics computer software will enhance the learning of math skills. The software will be used to reinforce multiplication facts taught in third grade, and to assist in the learning of division facts. Hopefully, this will make better use of class time throughout the year.

Problem Statement

Students' math skills will improve through the use of computer programs.

Review of the Literature

Introduction

"Technology permeates the lives of most Americans: voice mail, personal computers, and the ever-blinking VCR clock have become commonplace. In schools, it is creating educational opportunities at a dizzying pace and, within and beyond the classroom, it is providing unprecedented access to a universe of ideas and resources" (Quellmalz, 1999, p. 2). Teachers utilize technology for compiling grades, recording lesson plans, and many other professional development resources. Mathematical technology aids students' understanding of math concepts in more abstract ways than conventional methods. Students, who may have had

trouble understanding math from pencil-and-paper applications, now have the opportunity to explore new ways of deriving formulas and building skills from those formulas. For many kids, the long-established way of teaching math, which derived from rote memorization of algorithms and finding the "one right answer," was not the most beneficial technique (Connell & Abramovich , 1999).

Mathematics, as it was most often presented, was not a subject open for discussion, debate, or creative thinking, nor were students encouraged to find alternative ways to solve a problem or different procedures for carrying out an operation. Computational expertise resulted from this, but little else. Students followed the algorithms necessary to solve a problem, but could not understand why or how those algorithms answer the question at hand. Given this, it was hardly surprising that students became imbued with rigid mental representations of mathematical problems. (Connell & Abramovich, 1999, ¶ 3)

With the Internet and computer software, students can now access multiple ways of learning and various types of instruction (Connel & Abramovich , 1999). They can participate in projects with other classes around the world.

Computer technology allows me to collaborate with other teachers and obtain professional development. "The capacities of media, computers, and networks can permit mathematics and science educators to broaden and deepen expectations for student learning. Technology now allows educators to set standards not only for subject matter knowledge and inquiry, but for communication, metacognition, and collaboration" (Quellmalz , 1999, p. 5).

Software Programs

Mathematics, one of the most difficult courses for many students, can be taught utilizing advanced technology. There are many software programs that can be used at all grade levels to

assist and/or teach math skills based on individual needs. An example of such programs is the Integrated Learning System (ILS). "The term integrated learning system refers to software programs that provide tutorial instruction at several grade levels and keep extensive records of student progress on networked computer system" (Kulik, 2002, p. 1). For over 30 years, studies have shown that students have learned more in math classrooms where ILS instruction is included (Kulik, 2002). Test scores from these studies have shown sizeable improvements in classrooms using ILS and these improvements have been considered educationally significant (Kulik, 2002).

Computer networking is important in the success of a computerized mathematical program (Quellmalz, 1999). Having access to different material, and communicating to and from distant locations, makes a program more successful. In the case of the STAR math program, many computers are networked together so that students can be assessed before beginning instruction. More important, the networking makes it easier for faculty members to access the grades of all students. Students from all classes can be placed together if they are on the same level to receive group tutoring and/or peer tutoring. "The programs developed by Suppes and his colleagues presented drill-and-practice and tutorial lessons, required students to respond frequently during the lessons, provided feedback to students on their responses, and kept detailed records of student performance" (Kulik, 2002, p. 2).

In Hamilton County, the computerized mathematics system provided to Title I schools is Destination Math. Destination Math is a program that is designed to teach and reinforce basic mathematical skills, closely related to the ILS approach. Here, each student has a distinct username and password. Each week, students are required to log onto the program and to

complete a lesson individualized to their needs. Some of the benefits are that it stimulates student interest, and it provides instant feedback.

Student Motivation:

Computer based technology motivates students to not only reach, but also go beyond performance standards and helps students establish personal accountability. After working through a program, students receive immediate feedback. This information gives the students an idea of the next step they need to take toward meeting the performance standards. This process makes students take responsibility for their own learning. When students are allowed to take ownership of their learning, learning improves (Quellmalz, 1999).

> One group of researchers studied pairs of students as they worked on computers and found that the computer "somehow draws the attention of the pupils and becomes a focus for discussion," thus resulting in very little off-task talk. Although most children seem to enjoy working on the computer, such activity can be especially motivating for some students who have been unsuccessful with mathematics. (Connell & Abramovich, 1999, ¶ 7)

*Manipulative**s***

Manipulatives, both concrete and computer-based, demonstrate meaning through kinesthetic and visual interaction. To build meaning, students must reflect on this process and connect it to the underlying mathematical idea (Clements & McMillen, 1996). "Students who use manipulatives in their mathematics classes usually outperform those who do not" (Sowell, 1989, p. 498).

Data Collection and Results

Measurement

It is my belief that the use of computer software will increase student's math skills. The software to be used includes Math Blaster, Riverdeep, Kids College, and Orchard. The math skills that will be measured are multiplication and division.

There are two basic forms of software that will be used. The first form is a game format; Math Blaster, Kids College, and Orchard each teach kids math skills using various types of interactive games. Some of these games require one player and others require two students playing against one another. Kids College and Orchard each give the students feedback in the form of an onscreen report as to how well they did overall. All three games offer instant feedback if the student misses a problem after a couple tries. Riverdeep is a tutorial program. In the tutorials, students interact and learn by doing. When the students are finished, they are able to do several practice workouts on the computer and also a worksheet.

The students in the sample group will be allowed to use the computers for 30 to 45 minutes two or three times each week for 5 weeks. The students in the control group will be allowed to play math games from the Everyday Mathematics curriculum the same amount of time. I will assess the students using a self-created pre-test and post-test. The pre-test and post-test each will consist of 40 math problems. Both tests will contain 10 of each of the following: (a)basic multiplication facts, 0 to 12, where the students multiply the two factors to determine the product; (b)division facts where students solve for the quotient; (c)multi-digit multiplication problems consisting of two 2-digit numbers being multiplied to together; (d)and multiplication problems where one of the factors is substituted with a variable and students are to solve for the value of the variable. Both groups will participate in both above-mentioned assessments.

Intervention

Before beginning my intervention, parental permission will be obtained. Once permission is obtained, the class will be given the pre-test to determine each student's current level with the math skills being addressed. After the pre-test, I will divide the students into groups based on the scores obtained. This will ensure that both groups are balanced and comparable. The students will participate in the study for 5 weeks and then be given the post-test (See Appendix A).

Design

My inquiry will involve students interacting with the computer or playing hands-on math games two to three times per week for 5 weeks. The pre-test will assess each student's knowledge at the beginning of the inquiry.

All students will take the pre-test and post-test, as well as be assessed through the teacher observation rubric. The teacher observation will be given a numerical value through the use of the rubric. The control group will not use the computer programs during this intervention period, but will play math games from the Everyday Mathematics curriculum.

Analysis

Both the pre-test and the post-test were based on a numerical grade, with the score based on the percent correct. I analyzed the results of both tests using repeated-measures analysis of variance (ANOVA). Both groups significantly improved from pre-test to post-test condition ($F = 12$, $p < .01$).

There was no significant difference between groups (sample vs. control) over the two conditions (pre-test vs. post-test) ($F = .050$, $p > .05$).

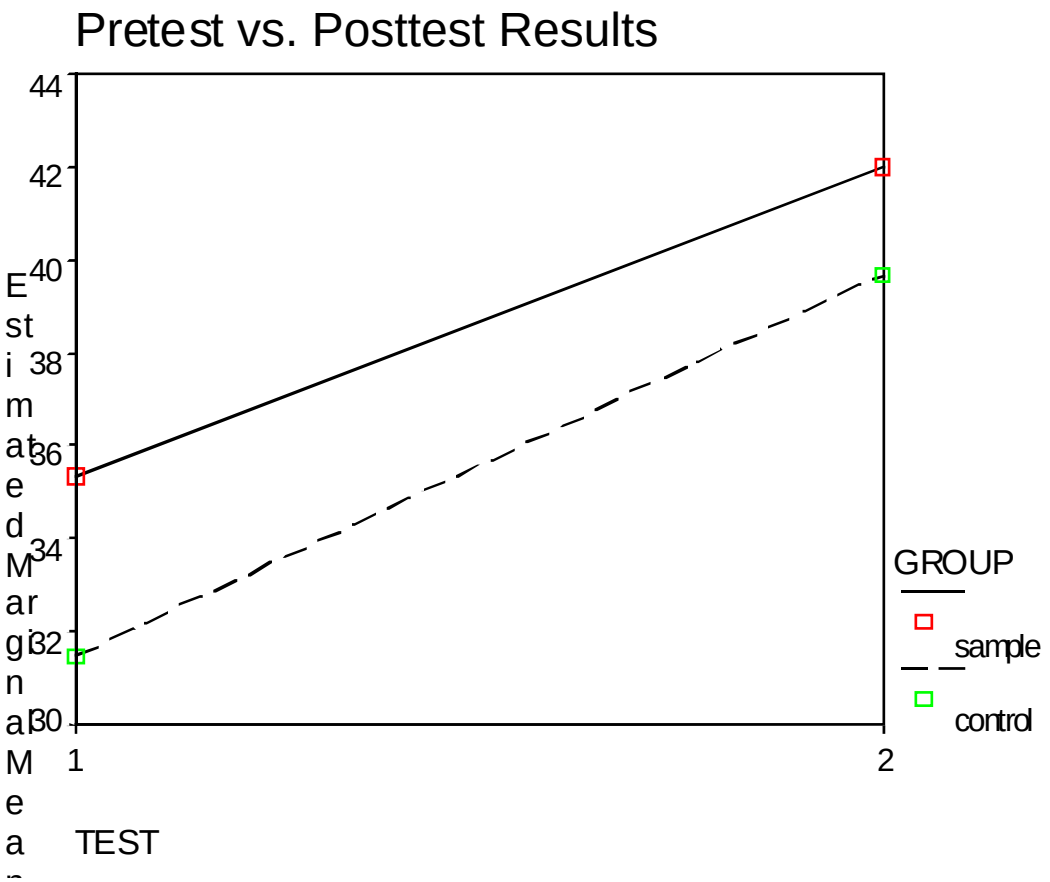

Figure 1. Pre-test versus post-test results.

Conclusions

After completing this project, I can see that when students are participating in a fun activity, they are learning and scores do improve. I did not see any significant improvement that says one method is better than the other method. I would like to study this further in the future to see if the same is true for other math skills. I recommend that teachers include educational games into their classroom curriculum to aid in the reteaching of math skills.

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Pre-test

1). 3 *3 = _____

2). 12 * 7 = _____

3). 9 * 4 = _____

4). 8 * 3 = _____

5). 12 * 8 = _____

6). 6 * 9 = _____

7). 4 * 8 = _____

8). 2 * 5 = _____

9). 4 * 2 = _____

10). 9 * 9 = _____

11). 7 * z = 49
z = _____

12). 6 * k = 60
k = _____

13). t * 3 = 27
t = _____

14). s * 7 = 56
s = _____

15). 8 * u = 80
u = _____

16). x * 8 = 48
x = _____

17). 12 * d = 120
d = _____

18). p * 4 = 44
p = _____

19). r * 12 = 36
r = _____

20). 8 * g = 72
g = _____

21). 41 * 63 = _____

22). 66 * 87 = _____

23). 38 * 97 = _____

24). 50 * 44 = _____

25). 21 * 51 = _____

26). 35 * 31 = _____

27). 94 * 80 = _____

28). 55 * 26 = _____

29). 40 * 34 = _____

30). 64 * 89 = _____

31). 63 / 9 = _____

32). 44 / 11 = _____

33). 21 / 7 = _____

34). 100 / 10 = _____

35). 60 / 12 = _____

36). 72 / 9 = _____

37). 60 / 10 = _____

38). 28 / 4 = _____

39). 56 / 8 = _____

40). 16 / 4 = _____

Post-test

1). 3 * 8 = _____

2). 11 * 9 = _____

3). 6 * 1 = _____

4). 12 * 3 = _____

5). 8 * 12 = _____

6). 5 * 10 = _____

7). 11 * 12 = _____

8). 6 * 6 = _____

9). 6 * 8 = _____

10). 11 * 2 = _____

11). 6 * h = 60
z = _____

12). t * 6 = 18
t = _____

13). 11 * z = 88
z = _____

14). 3 * r = 30
r = _____

15). 5 * d = 60
d = _____

16). k * 4 = 20
k = _____

17). 11 * t = 110
t = _____

18). 5 * h = 25
h = _____

19). w * 11 = 99
w = _____

20). 12 * j = 144
j = _____

21). 57 * 84 = _____

22). 60 * 55 = _____

23). 55 * 52 = _____

24). 94 * 42 = _____

25). 80 * 91 = _____

26). 35 * 12 = _____

27). 92 * 95 = _____

28). 14 * 98 = _____

29). 10 * 81 = _____

30). 100 * 37 = _____

31). 18 / 6 = _____

32). 99 / 9 = _____

33). 63 / 7 = _____

34). 30 / 3 = _____

35). 20 / 5 = _____

36). 24 / 4 = _____

37). 80 / 8 = _____

38). 30 / 5 = _____

39). 49 / 7 = _____

40). 54/ 6 = _____

Less Discipline and Better Grades

Summer Huskey

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-093.

Introduction

People wonder why one teacher's rules work and last throughout the whole year, and another teacher's rules fall apart in a few weeks, leaving him screaming louder and louder, and sending more and more students to the office. Teachers must come up with certain rules and procedures for their class. In order to do this, they must look at their personality and decide what rules work for them and their classroom.

Description of the Problem

Throughout my career as a student, I have noticed that some teachers have rules that work and some teachers do not. The teachers that have rules that work are respected more by their students. The student believes that the teacher has their act together and knows what is going on. Furthermore, this particular teacher will never be taken advantage of.

Setting rules help students behave better. Rules tell students how far they can go. Rules are important in school because different kinds of behavior are expected or tolerated by different teachers. For example, wandering around the room may be permitted by some teachers but not others (Wong, 2001).

I can remember a teacher that I had in high school. He was the algebra teacher. He told the students what he expected of them and expected them to fulfill his requests. For example, if people were late to his class an excessive number of times, there would be consequences. Also, gum chewing was not allowed in his class. His consequences consisted of getting a referral. Three referrals required the student to work on a Saturday at the school doing clean-up.

Some people may have thought that he was tough, but in the long run, he was very good for the students. They respected him. Plus he was a funny man and had fun with his students. He did not take himself too seriously. Even though he believed in a tight ship, the students looked forward to going to his class.

Hypothesis

Teachers who are effective use rules as a way of setting limits. Teachers who set limits give students a sense of security as to how far they can go. Students need to feel that someone is in control and responsible for their environment, and not only sets rules, but maintains them. School must be a safe and protected environment where students can come to learn without fear (Wong, 2001). If students are given specific classroom rules, then the student will perform better in the classroom with less discipline from the teacher.

Review of Literature

I believe there are many issues relating to classroom management. The main one I want to discuss is classroom rules. This is very important so the child will know the teacher's expectations. People are considered well-disciplined when they do the right things; so the goal of any effort to discipline children should be to help them learn how to be self-disciplined. Sometimes we use rules as a method for teaching children. Consequently, we want rules that will teach what we want children to learn without a lot of bad side effects (Wayson, 1985).

People wonder why one teacher's rules work and last throughout the whole year, and another teacher's rules fall apart in a few weeks, leaving him screaming louder and louder, and sending more and more students to the office. Seeman (n.d.), author of *Preventing Classroom Discipline Problems*, says that no one can tell another teacher what rules to make in their classroom. If the

rules are not harmonious with your personality and teaching style, these rules and their warnings will come off phony, the students will sense that these are not your rules, and these rules will eventually become ineffective.

Wong, the author of *The First Days of School: How to Be an Effective Teacher*, states in an interview with Education World that the very first day, the very first minute of school, teachers should begin to structure and organize their classrooms, to establish procedures and routines. Wong also notes that the most common management routine is to have the students begin work as soon as they walk into the classroom. That means an assignment is already posted, it is there every day, and it is in the same place every day (Starr, 1999).

Another common procedure that Wong discusses is one teachers use to quiet the class. He calls it the "Give Me Five" technique. This technique involves the teacher requiring the students to go through five steps. They include:

1. Eyes on speaker.
2. Quiet.
3. Be still.
4. Hands free.
5. Listen.

In five seconds, the class is quiet (Starr, 1999).

Some teachers make too many rules, and the children, confused or frustrated, ignore them. Teachers need to establish only a few rules and should specify the consequences for not following them (ERIC Digest #E408, 1990). Recent research indicates that consequences should be made in the form of warnings, if your rule is broken. If a student violates a reprimand the

second time, the severity of the consequences should be greater than the first time (Seeman, n.d.).

Next to the home, the classroom is the best place to teach students about fairness and rules. For example, the Center for Civic Education has a lesson in its curriculum, in which students are asked to examine a chaotic classroom scene, discuss what is wrong with it, and suggest how it could be fixed. These lessons point out to students the need for rules and someone in authority to enforce those rules. This curriculum also helps students determine what makes a good rule, how existing rules can be improved, and how to select people for positions of authority (Rosen, 1999).

Once elementary school students understand the importance of good classroom rules, they are ready to discuss with their teacher what kinds of rules are necessary in their classroom and how they should be enforced. To assist them, the teacher might suggest that the class make rules in such areas as talking, eating and drinking, safety, property, and class operation (Rosen, 1999).

Teachers often ask Wong what to do if they have not established classroom techniques soon in the school year. He tells them to ask themselves, “What one procedure can I establish tomorrow?” Wong then goes on to explain that he tells them to work out the steps for that procedure. The next day, they introduce that one procedure to the students. They explain it, model it, and rehearse it over and over again. The next week they introduce another procedure (Starr, 1999).

All teachers know that students learn best by doing. The only way a teacher can have a classroom in which kids can learn by doing, by activity and by discovery, is to establish rules and procedures. Students cannot be free to create without rules and procedures (Starr, 1999).

Wong believes that the most common mistake found is that teachers do not do classroom management. They present lessons, and if something goes wrong, they discipline. Wong states that classroom management is the practices and procedures that allow teachers to teach and students to learn. He says that all teachers are talented and that they can be creative, loving, funny, and successful. The only way that they can be this way is if the classroom consists of procedures and rules. Wong goes on to say that a teacher cannot be funny or loving or creative in chaos (Starr, 1999).

Instead of depending upon encouraging children to be good, or engaging in discussion over their misbehavior, it is recommended that teachers try setting up and consistently enforcing a brief set of classroom rules. The list should be short and simple, with clear, well-thought out consequences for breaking the rules. Rules must be practical and without prejudice (School-Wide Behavioral Management Systems, 1997).

The reasons for these particular rules are that they help to create a sense of structure for children. They introduce the concept of right and wrong. Also, they emphasize the teacher as an authority figure. Lastly, they remind children that actions do have consequences, and that individuals must take personal responsibility for their actions (Chandler, 1997).

The following are examples of classroom rules:

1. Be recognized before speaking.
2. Show respect to everyone.
3. Come to class prepared with complete homework and supplies (Hamilton ISD, 2001).
4. No eating or drinking in class.
5. Being on time.

Reducing challenging behavior is often hard work. The ultimate goal for schools is to implement a school-wide behavioral management support system that prevents problematic behaviors while being responsive to the teachers and other staff members who work directly with the children (Thomas & Grimes, 1995). Researchers claim that it takes consistency and ongoing training to make it work. By building a system of effective behavioral support, the school faculties that have stuck with it are beginning to see a positive change in student behavior (School-Wide Behavioral Management Systems, 1997).

Teachers should let students know specific rules. They should let them know which behaviors are expected or desired and which will not be tolerated. Then teachers must consistently reinforce the desired behaviors while ignoring or, in some other way, reducing the undesirable ones (ERIC Digest #E408, 1990). For example, a teacher should not say, "You are a discipline problem." Instead, they should say, "Your passing notes is a problem when I am trying to teach." (Seeman, n.d., ¶ 14) Therefore, if the student is given specific classroom rules, then the student will perform better in the classroom, with less discipline from the teacher.

Data Collection and Results

The data collection was taken from observing a kindergarten class. There were 9 boys and 8 girls. The data collection procedures involved recording the number of times each student misbehaved in a particular way. The different categories that I recorded were when they were playing at circle time and should have been sitting still and participating in the morning activities such as calendar time and the Pledge of Allegiance. Other ways they misbehaved were hitting, pushing, and shoving; throwing rocks outside at recess; and being too loud.

Table 1 describes the number of times the students misbehave during the week. There are a total of all the times they were disciplined during the week for their actions. The mean of the

total for the first chart is 7.66. The median is 4.5. The mode is 0. The students with the least discipline problems were students numbered 7, 11, 13, and 18. Students numbered 10, 17, and 6 were the individuals getting in trouble most often.

Table 2 describes the grades of each student's activities for the week. The grades are listed as excellent, okay, and needs work. The most often recorded grade was "excellent," followed by "okay", and then, lastly, "needs work". Students numbered 7, 11, and 18, were the students with all "excellent" marks for their grades. The student numbered 10 had all "needs work" marks for his grades. The student numbered 17 had three "needs work" marks for his grades**.**

Table 1

Number of Times the Student Misbehaves: Monday-Friday

Students	Running	Playing at Circle Time	Hitting, pushing, and shoving	Throwing rocks (outside)	Being loud (screaming and too much talking)	Totals
1	2	1			2	5
2					2	2
3	2	3			1	6
4					1	1
5		3	1		8	12
6		4	2	2	6	14
7						0
8		3			3	6
9					4	4
10	9	15	10	2	12	48
11						0
12					2	2
13						0
14					5	5
15					3	3
16		3			10	13
17		4	4	3	6	17
18						0

Table 2
Grades of Each Student's Activities: Monday-Friday

Students	Cut/Paste Owl Feathers to Owl	Practice writing the letter "O"	Coloring"O" words	Practice writing numbers 1-10
1	Excellent	Okay	Okay	Okay
2	Okay	Needs Work	Excellent	Okay
3	Excellent	Needs Work	Excellent	Okay
4	Excellent	Okay	Excellent	Okay
5	Excellent	Excellent	Excellent	Okay
6	Needs Work	Okay	Needs Work	Okay
7	Excellent	Excellent	Excellent	Excellent
8	Okay	Okay	Excellent	Needs Work
9	Excellent	Okay	Excellent	Okay
10	Needs Work	Needs Work	Needs Work	Needs Work
11	Excellent	Excellent	Excellent	Excellent
12	Excellent	Okay	Okay	Okay
13	Okay	Needs Work	Okay	Needs Work
14	Excellent	Okay	Excellent	Okay
15	Excellent	Excellent	Okay	Okay
16	Excellent	Okay	Needs Work	Okay
17	Needs Work	Okay	Needs Work	Needs Work
18	Excellent	Excellent	Excellent	Excellent

Conclusions and Recommendations

Generalizations that can be made as a result of the study are that the students that required less discipline are the ones that made better grades. This is found to be true throughout the data collection. Also, the students who misbehaved the most are the ones who did poorly academically.

The consensus of my professional organization with regard to the problem studied is that students who require less discipline perform better academically. The students who do not perform well academically need consistency with their discipline from their parents and teachers. This is the best way to improve their behavior and, thus, improve their academics.

Recommendations that I would make for teacher professional development would be to address these issues that are in this paper. Teachers need to know who the students are that require more discipline and who do not perform well academically. Then, they should come up with a plan that will help improve these students' performance. For example, they could have an assistant in the class to help the individual students who need more help in their academics.

Technology could help in this area by providing supplemental assistance to the teacher. There are academic activities on computer software that can help to enhance a child's learning. At this time, there is not any grant money to help further research in this area.

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Gender Bias in the Classroom

Al Lanphier
Spring 2004
EDUC 590
Dr. Deborah McAllister

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-.

Introduction

Many experts argue that discrimination against girls in the classroom, especially where math and science are concerned, continues to be a nationwide problem in elementary and secondary schools. Is there discrimination towards females in our science and math classrooms? Is there anything to the notion that boys are genetically and behaviorally programmed to have a higher understanding of these subjects? For example, even though girls enroll more frequently in mathematics and science classes than do boys, experts point out that girls still don't persist in them, nor are they expected to in the same way that boys do. While girls and boys enroll in algebra and geometry in comparable numbers, experts note that boys are more likely to go on to take calculus, while girls are more likely to drop out of math. Physics courses are especially male-dominated. A 1991 survey by the Council of Chief State School Officers showed that enrollment in first-year physics courses was 60 percent male and that 7 out of 10 second-year physics students were boys. Few studies have investigated the attitudes and interventions of teachers in science and math and then compared the data to teachers in other areas. A survey containing both 3 open-ended and 12 fixed-response questions was distributed to two separate middle schools in economically different areas. The researcher’s results provide evidence that teachers, regardless of the socio-economic backgrounds of their students, are concerned about gender bias in the classroom. Those in science and math seem to be less aware of how females learn and laws governing gender equity, however, they reported to be more up to date on research and ways to document gender equity in the classroom.

Because test results are often the basis for decisions that affect students' educational futures, tests should provide equal opportunities for all students to demonstrate their abilities and

knowledge. The issues of gender bias and fairness in testing are concerned with differences in opportunities for men and women and must be considered as a portion of the problem with gender bias in the classroom. Other types of errors are caused by factors that do not change. Known as systematic error, it is the result of characteristics of the examinees that are stable (such as gender or race) and that are characteristics other than those the test is intended to measure. Gender bias in testing is often a part of such systematic error. Although examination of the test items may reveal that the test contains questions that have the potential to yield biased results, such an examination may not be sufficient to determine bias. Statistical techniques are often used to examine for systematic gender differences. Therefore, for the purpose of this study, the focus will concentrate on attitudes and intervention of gender bias in the classroom, thus reducing the effects of bias in testing.

Review of Literature

What is gender bias? A review of the related literature states that a classroom is biased if men and women with the same ability levels tend to obtain different scores. The conditions under which a test or classroom is managed, the wording of individual items, and even a student's attitude toward the class, will affect the results. These factors may change with time as tests are administered differently, as items are revised, and as students feel more or less comfortable. The error caused by these factors will randomly affect both men and women.

Kovar and Doty (1994), and other articles referenced, state that both boys and girls suffer because of gender bias in society and in the classroom. They examine the manifestations of gender bias in the classroom and their effects on learning and self-esteem for both boys and girls. Girls start out ahead of boys in speaking, reading, and counting skill evaluations, but girls' scores

decline while boys' scores rise. Strategies are suggested to minimize gender bias, especially in early childhood and primary education. It is recommended that schools give attention to alleviating gender bias for both boys and girls by offering equal career opportunities. Societal values play a significant role in the interpretation of the results of gender bias throughout society, and all people deserve a bias-free education. This seems to be a widely-accepted view and, in some cases, an assertion, but the evidence found throughout these papers, proven mostly with tests scores, makes it a legitimate one.

Research demonstrates how gender inequity is not only learned and accepted in the socialization process that starts at home, but is also present in the school environment from the very early years, consciously or unconsciously, reinforcing sex stereotypes (Olivares & Rosenthal, 1992). Their findings are examined in three areas: (a) interactions in the classroom that are both teacher-to-student and student-to-student, (b) instruction-related features involving relations between classroom activities and the gender of the students assigned to perform those activities, and (c) the perceptions of gender roles through teachers' modeling of sex stereotypes in the classroom and through teachers' and adults' perceptions of children's gender. Analyzing the findings of the use that students make of stereotyped gender cues reveals how students distinguish themselves from the other gender, how they see the role of the opposite gender, and how the students' overall perceptions of sex roles affect social interactions and individual performance.

The important contribution of science in solving social problems, which is rooted in real-world observations, has been described as an influential factor in the decision-making of girls who elect to study science (Harding, 1985). Specific steps can be taken to remove gender bias

and to include the thinking of scientists with diverse backgrounds, overtly directed toward retaining the interest of women in pursuing science-related careers. For example, undertaking investigations that are global in scope and use more interactive methods, increasing the time spent in the observation, and involving women in the construction and manipulation of equipment are recommended to maintain the participation of women in the scientific enterprise. Use of more cooperative learning strategies and both quantitative and qualitative data collection methods, accompanied by the development of hypotheses that are relational and multicausal rather than consistently employing strictly-controlled, reductionist studies are also recommended (Rosser, 1993).

One closely-related study investigated secondary science and mathematics teacher familiarity with research on gender equity in science and the variety of interventions consciously used by teachers to promote gender equity (Plucker, 1996). Results provided evidence that teachers, regardless of demographic characteristics, are concerned about gender inequity in their classrooms, although they are generally not aware of what causes it. The study found that respondents attempted a narrow range of interventions, if at all, and many equate interventions with a type of inverse discrimination (Plucker, 1996).

Data Collection and Results

The survey used in this study was designed to generate attitudinal information and measure how familiar teachers are with gender issues in the classroom. Twenty teachers were surveyed for this study. Ten that taught math or science and 10 from many other subject areas were grouped together. The teachers were from two different geographic locations in Chattanooga, Tennessee. One school is considered to be an inner city school with students from

generally low income families, and the other is a magnet school with average- to high-income families. For the purpose of this study, all of the survey responses were grouped as either math or science, or other. This was done in order to rate the results of the surveys of science and math versus all other subjects, while the test group is an attempt to be a "balanced" sample of all economic backgrounds in Chattanooga.

The survey consisted of 12 close-ended and 3 open-ended questions. This survey was distributed to all faculty members at both schools upon approval of the principals. After the period of 2 days, the researcher then collected all surveys. All surveys that were collected were used in this study. The majority of the survey consisted of a scaled response instrument (Likert scale) composed of a five-point rating scale in which the attitude of the respondent was measured on a continuum from strongly disagree (1) to strongly agree (5). These responses were then grouped together into two categories: math and science, or all other subjects.

Possible sources of error include both human error in recording data and teachers' influencing of answers. Math and science teachers are more aware of gender bias these days and may tend to answer based on what they perceive the correct response to be.

Study subjects for math and science -	s1	s2	s3	s4	s5	s6	s7	s8	s9	s10	Mean	Median	ST. Dev.
Up to date on current research.	4	3.5	1	4	2	4	4	3.5	4	2	3.2	3.75	1.11055
Interacts more with male students	1	1	2	1	2	1	1	1	1	2	1.3	1	0.48304
Aware of techniques for observing and documenting gender equity.	3	3.5	1	4	2	3	3	3.5	4	2	2.9	3	0.96609
Consulted literature on making the classroom more equitable.	2	2.5	1	4	2	2	2	2.5	4	2	2.4	2	0.93689
Proficient at methods used to examine gender bias in curricular materials.	2	2.5	1	4	2	2	2	2.5	4	2	2.4	2	0.93689
Aware of resources available to support equitable teaching.	2	3.5	1	2	1	2	2	3.5	2	1	2	2	0.91287
Knowledgeable of laws pertaining to gender bias.	4	3	2	2	1	2	2	2	2	1	2.1	2	0.87559

Knowledgeable of research that indicates how females learn	2	2.5	1	4	2	1	4	1	4	2	2.35	2	1.24833
Noticed male and female roles in class.	4	4	4	5	5	4	5	4	5	5	4.5	4.5	0.52704
Provide female role models in subject.	2	2.5	3	5	2	3	5	3	5	2	3.25	3	1.27475
Aware of studies that indicate under-representation in math and science.	4	3.5	4	2	5	4	2	4	2	5	3.55	4	1.16547
Acknowledge women contributions in my subject.	2	3.5	4	5	2	4	5	4	5	2	3.65	4	1.24833
Study subjects for all other subjects -	**o1**	**o2**	**o3**	**o4**	**o5**	**o6**	**o7**	**o8**	**o9**	**o10**	Mean	Median	ST. Dev.
Up to date on current research.	1	1	2	3	4	4	1	1	2	3	2.2	2	1.22927
Interacts more with male students.	1	2	1	3	1	1	1	2	1	3	1.6	1	0.84327
Aware of techniques for observing and documenting gender equity.	2	1	2	3	4	4	2	1	2	3	2.4	2	1.07496
Consulted literature on making the classroom more equitable.	1	1	2	4	4	4	1	1	2	4	2.4	2	1.42984
Proficient at methods used to examine gender bias in curricular materials.	1	1	2	2	4	4	1	1	2	2	2	2	1.15470
Aware of resources available to support equitable teaching.	1	1	2	2	2	2	1	1	2	2	1.6	2	0.51639
Knowledgeable of laws pertaining to gender bias.	5	2	3	4	2	2	5	2	3	4	3.2	3	1.22927
Knowledgeable of research that indicates how females learn	5	4	2	5	4	5	4	2	1	2	3.4	4	1.50554
Noticed male and female roles in class.	5	5	5	5	5	5	5	5	4	4	4.8	5	0.42163
Provide female role models in subject.	4	5	5	4	5	4	5	5	3	4	4.4	4.5	0.69920
Aware of studies that indicate under-representation in math and science.	4	2	2	4	2	4	2	2	4	5	3.1	3	1.19721
Acknowledge women contributions in my subject.	5	5	5	5	5	5	5	5	4	4	4.8	5	0.42163

Figure 1. This figure provides the number of actual responses for each attitudinal category per question for teachers that took part in the study.

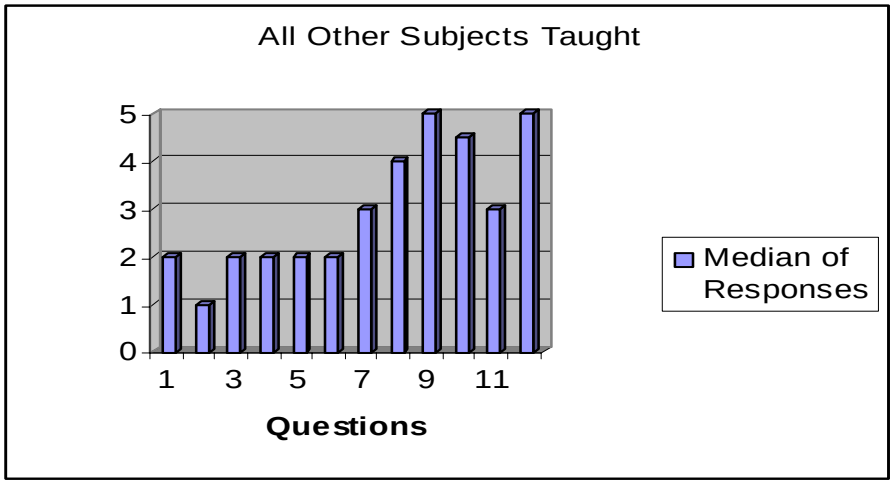

Figure 2. This table provides a comparison of the median of responses between the survey questions and subjects taught.

Summary

The results of the data for the attitudinal responses do offer some insight towards the attitudes and working knowledge of gender bias in the classroom. For the purpose of this study, any response above a 3 will be considered a positive response to the question, whereas, any

response lower than a 3 will be considered a negative indicator. Several questions do show an indication of a difference in the general attitude towards, and knowledge of, gender bias in the classroom. It is these differences and the written expressions by teachers that will be examined in further detail.

Question one: I consider myself up to date on current research findings related to gender equity in the classroom. Of the math and science participants, a mean score of 3.75 indicates a strong feeling towards being current on this matter. In contrast, a mean score of 2 for all other subject area teachers, suggests a lack of confidence concerning gender bias research findings. These results suggest that, where math and science are concerned, there may have been a push by the administration to bring math and science teachers up to date on this matter. Such a high mark for these teachers in comparison to teachers of all other subject areas suggests that gender equity is recognized as an area of concern for these subjects.

Question three: I am aware of various techniques for observing and documenting gender equity. A mean score of 2 for all other subject teachers versus a mean score of 3 for math and science teachers indicates a difference in attitudes for teachers of these subject areas. This result indicates a feeling of confidence towards recognizing and documenting gender bias for those teachers in math and science compared to teachers of all other subjects taught. A possible reason for this is the recognition and education of gender bias in math in science for administration and those involved in teacher continuing education programs.

Question eight: I am aware and knowledgeable about the research that indicates how females learn. This is one of the most interesting results, in the researcher's opinion. A median score of 2 for science and math teachers versus a 4 for teachers of all other subjects seems to be

opposed to the overall trend of the study. This result indicates that math and science teachers do not feel as confident about instructing females as do all other subject teachers.

A summary of the overall written expressions and concerns of teachers indicates a trend of being aware of gender bias in the classroom. Not a single teacher even bothered to oppose this idea. Most of the responses were geared more towards the idea of being aware of gender bias and how they "try" to even the playing field. The responses indicated that, in all subject areas, females are encouraged to take on leadership roles. The science teachers and math teachers recognize that these subject areas have been dominated by males in the past, but they are making a real effort to represent female role models in their subject areas.

"I may not be aware of all the research, but I am sure I am not based against women in the classroom. I focus on the subject of science and not the "old dead guys." In almost every class my biggest achievers are female."- 9th grade science teacher

Conclusions and Recommendations

The data gathered for this study does show implications for both the attitudes and working knowledge of teachers concerning gender bias in the classroom. Most of the questions posed yielded similar responses with the exception of those mentioned in this study. The trend for science and math teachers seems to be towards officially recognizing, documenting, and dealing with gender issues in the classroom. Interestingly enough, the results of this study seem to be revealing a gap where methods of teaching females are concerned for math and science. Perhaps a more in-depth study on how females learn in these subject areas should to be written, or even updated, for these teachers. Whatever the reason, these teachers do not hesitate to indicate a lack of working knowledge with this matter. Overall, teachers do recognize the issue

of gender bias in the classroom and do appear to be addressing the concern on a variety of levels in all classrooms, regardless of subject or socioeconomic background of the students.

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Lack of Vocabulary Skills
Affect Mathematics Learning

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November 23, 2003
EDUC 590

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-088.

Lack of Vocabulary Skills Affect Mathematics Learning

Introduction

Students' ability to apply mathematical solutions to real life applications relies on their ability to relate English sentences and words to mathematical symbols. I have noticed a resistance to using sentences and words in mathematics classes during my field visits to area middle and high schools, and students were upset when mathematics vocabulary terms were included on their tests (they shouted out, "is this English class?"). Frequently, students do not understand what problem statements are asking, and then are unable to start working on their mathematics assignments. Unfortunately, students do not want to take time to understand problem statements but want to start punching buttons on their calculators and magically produce numbers that are the answers. Students need to learn that the field of mathematics contains more than numbers, and contains a language that can be used to describe events in the world.

Review of Literature

Miller (1993) reviewed a study that involved 646 13-year-old students from nine schools. The students were asked to define 20 common mathematic terms. The selected terms were frequently used by teachers with the expectation that the students knew the definitions (the most frequently missed definition was quotient). The average number of definitions answered correctly was only four. This finding indicates a serious obstacle for students being able to read math word problems and understand what is being asked of them to complete.

Mathematics has a unique vocabulary compared to other disciplines. "Math lingo" may be considered a subset or dialect of the English language because math word definitions are often different from English dictionary definitions (Hersh, 1997). A simple example of this is the word or. In everyday English, tea or coffee means one or the other, not both. In mathematics, or may

include both choices, and needs to be specified as the exclusive or to match the everyday definition. Another example is the word product; the mathematics term means the answer to a multiplication problem but a dictionary definition is something that is made or manufactured. There are some mathematical words used only in a mathematical context, plus some words may have more than one mathematical meaning (Thompson & Rubenstein, 2000). Examples of terms found only in mathematics are quotient (answer to a division problem), and denominator (the bottom number of a fraction). An example of a word that has two mathematical meanings is square. In geometry, a square is a quadrilateral with 90-degree angles and congruent sides. In algebra, a square is a number multiplied by itself. The instructor must also be careful to write or spell words since some everyday English words sound similar to mathematics terms. For example, the word sum sounds similar to some, and sine sounds the same as sign. If the student is visualizing the wrong word during instruction, confusion will result. The instructor may feel that instructions or problem statements are easy to understand since they are familiar with, and regularly use, the mathematical meanings of the terms. Students, on the other hand, may use dictionary definitions of terms and obtain a different understanding of the instructions or problem statement. The result of this misunderstanding is students not completing problems in the appropriate manner and becoming frustrated. Instructors must remain sensitive to students having less familiarity with mathematical vocabulary and emphasize vocabulary skills in the curriculum. Mathematics vocabulary has a large impact on students' learning since first, mathematics is taught or communicated through the medium of language, secondly, students increase understanding as they process ideas through language, and finally, understanding is measured by oral and written communications (Thompson & Rubenstein, 2000). Teachers must ensure that students are aware of vocabulary used in instruction. In addition, teachers must model

the correct vocabulary terms in their lectures. Miller (1993) notes that teachers do not always used appropriate vocabulary in their instruction. In the schools involved in the vocabulary study, teachers admitted that they used the word answer, instead of quotient, during division instruction. In another situation, a teacher complained to Miller that his students did not use the words numerator and denominator in their writing. When this teacher was observed, he used top and bottom of fractions in his lecture and was surprised to learn he did not use proper mathematics terminology in his lectures. The students reflected the terminology their teacher used. Teachers need to make sure students can read and understand not only words but also mathematical symbols. Some students read $\log_2 8$ as "log of two to the eighth" instead of "the log base 2 of 8" (Thompson & Rubenstein, 2000). Students need to regularly "talk mathematics" since, if they can not properly read mathematical words and symbols, they will not be able to learn the material. Monroe (1998) summarized the need for graphic organizers to help teach definitions and relationships of mathematics vocabulary. As students use and help to develop graphic organizers, their understanding of terms and symbols should increase. The students can indicate on an organizer how the mathematical definitions compare to dictionary definitions. Another way to improve mathematics vocabulary is to study the origin of the words. When students know roots to words, it is easier for them to make connections to the new terms (Thompson & Rubenstein, 2000). For example, the root gram means to write or scratch, so a parallelogram is a written figure with parallel sides. The root pend means to hang and when a weight hangs on a string, it forms a perpendicular to the floor. Perpendicular is related to the regular English words pendant and pendulum. Miller (1993) suggested frequent checking of students' understanding during classroom discussions or lectures. She suggested periodically asking students, "What is a quotient?," or other terms from the unit being studied to reinforce the importance for students to

learn vocabulary. Another way to check vocabulary knowledge in an active way is to for students to have a contest. Students form teams and try to guess vocabulary words from charades style clues (Thompson & Rubenstein, 2000).

Writing in mathematics class forces students to construct their knowledge of mathematics and helps students to make sense of mathematics (Countryman, 1992). Writing and problem solving are similar in the thinking process required since they both are a recursive process; both the writer and problem solver reflect on and return to what has been completed. In addition, writing and problem solving involve explaining, organizing, interpreting, and communicating. One assignment to take advantage of the parallel skills is for students to write an essay about how they solved a problem (Countryman, 1992). Stonewater (2002) recommends that teachers develop a checklist of criteria that must be included in an essay. Students need to provide examples, use mathematics notation, and explain mathematical concepts. He also recommends that students be shown both high- and low- scoring examples on which they can model future essays. To improve the quality of the essays, cooperative learning may be used to brainstorm the approach to a problem and then students can analyze each other's writing. A variation of the problem-solving essay can be used to improve problem-solving skills during homework. The student folds the paper in half lengthwise before starting the assignment. On the left side of the fold, the mathematical manipulations are written. On the right side of the fold, English explanations of each step are written (Thompson & Rubenstein, 2000). The English section may be written in bullet form instead of complete sentences. Using this two-column approach, teachers verify students' understanding of math rules and term definitions.

Journal writing may be used to monitor students' level of understanding. Students in a Memphis classroom were asked to write in a journal three times per week (Stewart & Chance,

1995). The first two journal entries each week were a direct answer to the teacher's questions, but the third journal entry was free writing. The students usually wrote about either successes or frustrations that occurred during that week. The journal entry enabled the teacher to accurately assess the students' understanding and the teacher could adjust instruction plans, as required. Countryman (1992) recommended that the journal writing be considered a "rough draft" and that the instructor focus on the meaning of the writing, not grammatical mistakes. She found that students reduced their stress level and were more willing to write knowing the journals were not critically graded from an English class viewpoint. Many mathematics teachers Countryman worked with were not confident in their ability to grade papers as well as their composition teacher counterparts so this focus made mathematics teachers more willing to try this strategy. Countryman did caution mathematics teachers to still teach the importance of writing correctly and not undermine efforts in other classes, but to stress that the focus of learning in their mathematics classroom is content knowledge. Also, she stressed that teachers need to provide feedback as written comments in the journals to show students that their thoughts were taken seriously. The frequent interaction empowered students and helped them to feel in more control of their learning (Stewart & Chance, 1995). Some students are afraid to contact the teacher verbally but the journal provides a safe discussion format for teachers and students. If several students have the same misconception on a topic, the teacher can address the class as a whole and not embarrass individual students.

Mathematics has been viewed as a series of symbols and rules for students to memorize. Students need to improve understanding and applications of mathematics. Literature indicates that integrating mathematics with writing improves vocabulary and mathematics understanding from elementary to college level mathematics. This approach is supported by the Hamilton

County Department of Education (2002). All mathematics courses in grades 6 through 12 require students to communicate mathematically, which includes being able to write and speak about the concepts and strategies used to solve mathematics problems, and being able to formulate definitions. The National Council of Teachers of Mathematics Communication Standard states:

> Instructional programs from prekindergarten through grade 12 should enable all students to: organize and consolidate their mathematical thinking through communication; communicate their mathematical thinking coherently and clearly to peers, teachers, and others; analyze and evaluate the mathematical thinking and strategies of others; use the language of mathematics to express mathematical ideas precisely. (p. 268)

Since local and national standards encourage writing and speaking mathematics as part of instruction, it should be included as a regular component of mathematics instruction. Students demonstrate a lack of mathematical vocabulary knowledge, as observed in my personal experience, as well as in the literature. An improvement in vocabulary understanding should improve mathematical problem solving ability.

Center Data Collection and Results

Method

My first placement was at a suburban high school in the Chattanooga area. The 70 students were enrolled in three sections of standard precalculus. All of the students had passed Algebra 2 the previous year. One student had a reading handicap, one student required extra time on exams, and one student was an exchange student with English as his second language. The other students were standard students and required no modifications for class. During my student teaching, mathematics instruction was modified by an increased emphasis on learning

vocabulary words. Vocabulary was discussed during lectures and definitions were assigned on the chapter review sheets. I encouraged students that learning the vocabulary words was as important as learning the problem solving skills. Students complained that some of the words and formal mathematics definitions were too difficult for them to understand and wanted to use only "slang" definitions. My cooperating teacher supported me in teaching the formal definitions to the students, stressing that students would not be able to understand mathematics books without learning the formal definitions. On exams, both vocabulary skills and problem solving skills were evaluated.

Safeguards

The project was submitted and approved by the University's Institutional Review Board for the Protection of Human Research Subjects to make sure there would be no harm to students. The procedures involved regular classroom instruction and homework. There was no physical interaction with the students that could cause injury.

Results

Data was collected from the Chapter 2 exam and first 3 sections of Chapter 3 post-test (see appendix A and Appendix B). The tests were written in two sections. The first section covered vocabulary terms and the second section covered problem solving. Students received a percent score for each section. The scores indicated a wide range in vocabulary knowledge and problem solving skills (see Table 1). The class had a mix of students that were strong in problem skills, as well as students weak in problem solving skills. The mean scores of both parts of the exam were higher on the Chapter 2 test than the Chapter 3 post-test. When I administered the post-test, several students mentioned they were having trouble completing this test since they did not complete homework assignments until the night before the chapter test. We were at the

halfway point in Chapter 3 so many students had not started their homework before taking the post-test which may explain why students' problem solving scores were significantly lower on the post-test than the Chapter 2 test.

Table 1
Chapter 2 Test and Chapter 3 Post-test Results

	Chapter 2	Chapter 3
Mean Vocabulary Score	74	66
Mean Problem Score	59	27
Maximum Vocabulary Score	100	100
Maximum Problem Score	94	92
Minimum Vocabulary Score	17	0
Minimum Problem Score	4	0

The data was plotted on a scatter plot with the vocabulary score as the X-axis and problem solving score as the Y-axis. The data was analyzed to see if a trend was observed (see Figure 1 & Figure 2). Both test scores indicated that higher vocabulary scores correlated with better problem solving scores. The correlation coefficient (R^2) for the Chapter 2 test was .3638 compared to the Chapter 3 post-test correlation coefficient of .2792. The lower correlation coefficient for Chapter 3 scores may be due to lower student preparation for that test. Students that had not completed any homework problems had trouble completing the problem solving section but may have been able to learn vocabulary from classroom lectures.

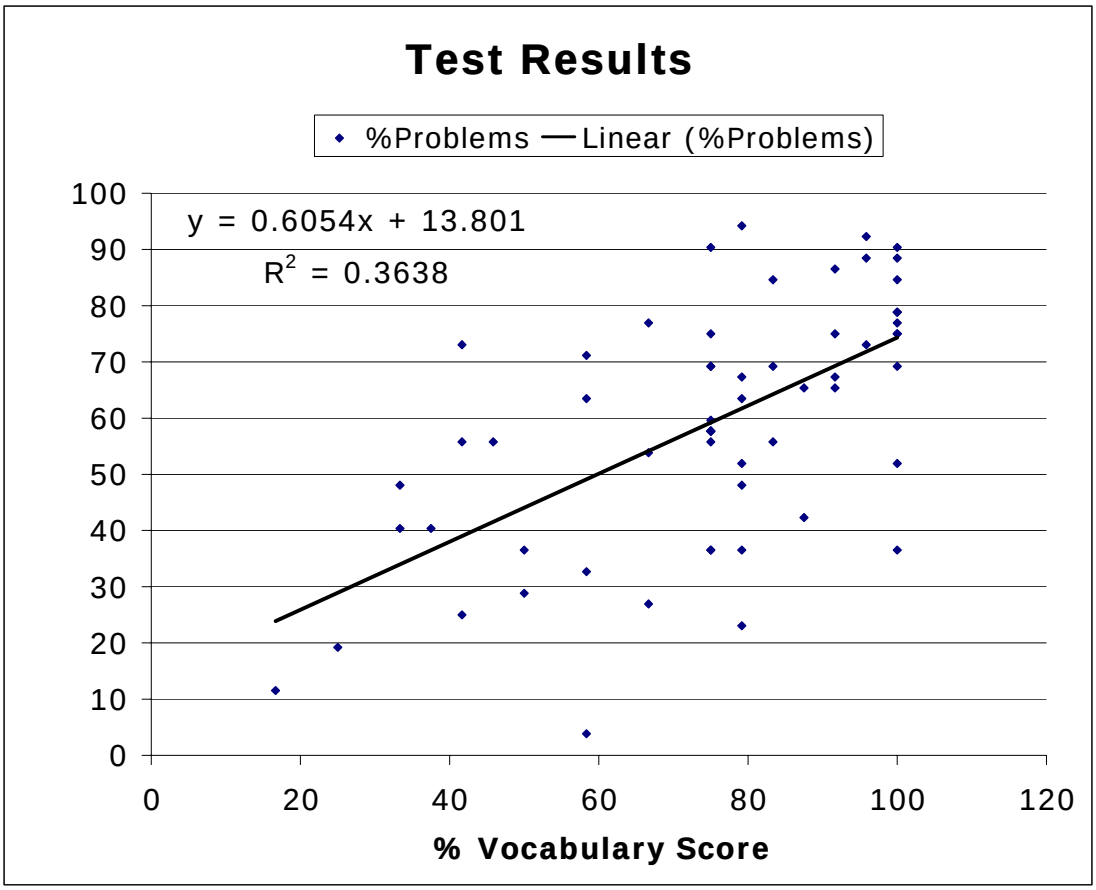

Figure 1. Chapter 2 test results.

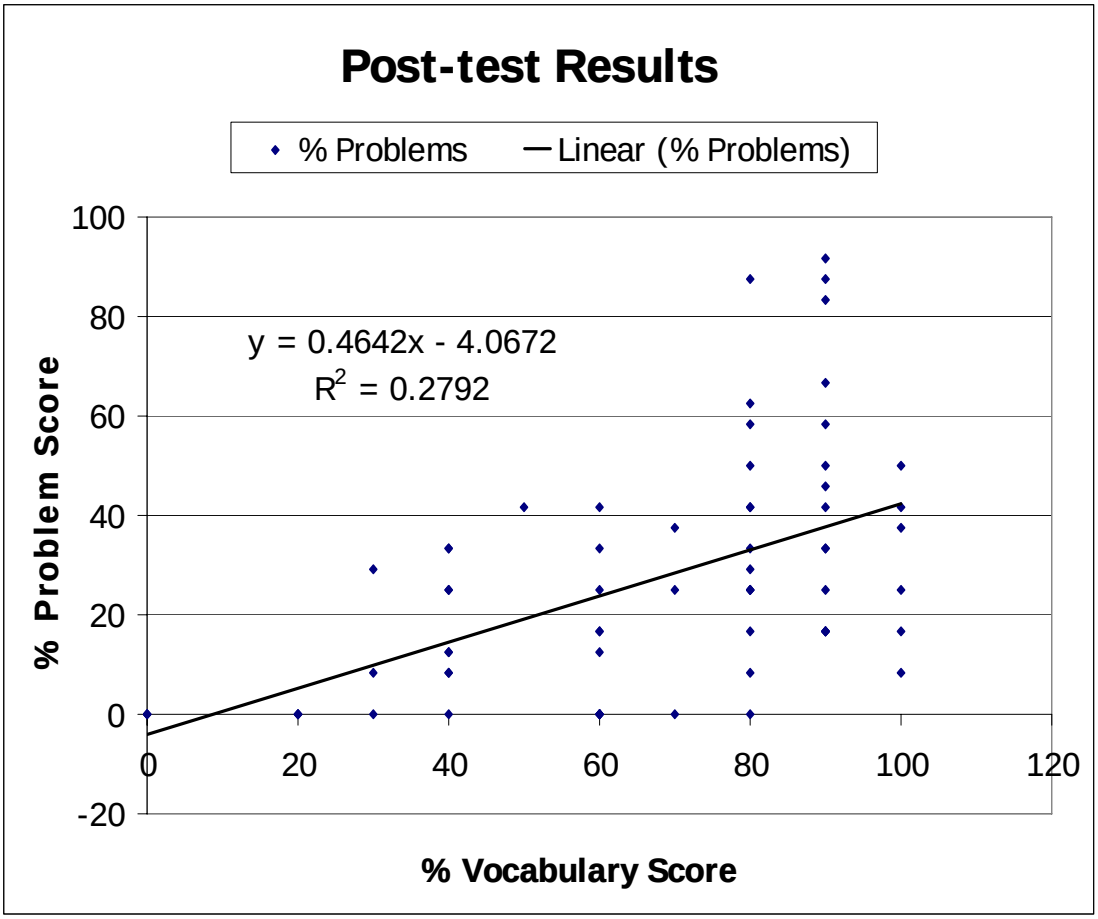

Figure 2. Chapter 3 post-test results.

Conclusions and Recommendations

The results indicated a correlation between vocabulary knowledge and problem solving skills. The research was conducted during a period of 4 weeks; a longer study of the relationship between vocabulary knowledge and problem-solving skills is needed to provide data for a stronger correlation. Students may need a year or two of vocabulary learning before there is a large impact on their understanding of mathematics. The students involved in my study were uncomfortable about using words in a mathematics class, but I plan to continue stressing vocabulary learning in my teaching career. I will include writing in mathematics class to reinforce the vocabulary learning. I plan to use both the journal writing as well as the T chart

method of problem solving recommended in the literature review for this project. If students are able to write procedures for solving problems, it will force them to learn both vocabulary words, and problem solving skills. National and local standards for the teaching of mathematics include written and oral communications skills as part of the mathematics curriculum and support my teaching recommendations.

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Appendix A: Chapter 2 – Test - Precalculus
Name_____

Define the following terms:

Relation

Domain

Even Function

Transformation

Intercept

Vertical Line Test

1. Beth has 3,000 feet of fencing available to enclose a rectangular field. One side of the field lies along a river, so only three sides require fencing. Express the area A of the rectangle as a function of x, where x is the length of the side parallel to the river.

2. The strength of a rectangular wooden beam is proportional to the product of the width and the cube of its depth (see the figure). If the beam is to be cut from a log in the shape of a cylinder of radius 3 feet, express the strength S of the beam as a function of the width x.

3. Graph the following function and find the domain, intercepts, and predict the range from the graph.

$f(x) = x^2 - 9$

4. Predict if the following function is even, odd, or neither without graphing.

$y = 2x^3$

5. Sketch the graph for the following equations. Show the steps.

$y = 2(x - 1)^2 + 3$

6. Use the completing the square technique to put the function into graphing format.

$f(x) = x^2 + 12x$

7. Find (f + g) for the following functions. Find the domain of each function.

$f(x) = x + 8$, $g(x) = x^2 + 3x$

8. Find the composite function (f o g) using the following functions. State the domain.

$f(x) = x^2 + 8$, $g(x) = 2x + 5$

9. Find functions f and g so that f o g = H.

$H(x) = (4x + 1)^5$

Appendix B: Chapter 3 Pre-test & Post-test

Vocabulary Section:

Parabola

Vertex

Axis of symmetry

Multiplicity

What is a Turning Point?

Problem Solving Section:

Given $f(x) = 2x^2 – x + 2$, find the vertex, axis of symmetry, y-intercept, and x-intercepts, if any. Solve algebraically.

Given $f(x) = 3(x - 7)(x + 3)^2$, find each real zero and its multiplicity. Determine whether the graph crosses or touches the x-axis at each x-intercept.

Make up a polynomial that has the following characteristics: crosses the x-axis at –1 and 4, touches the x-axis at 0 and 2.

Absenteeism: A Predictor and Prevention for High School Dropouts,

Analyzing Student Engagement through Extracurricular Activities

Ella Porter Ivey

Absenteeism: A Predictor and Prevention for High School Dropouts,

Analyzing Student Engagement through Extracurricular Activities

Introduction and Review of Literature

The average high school dropout rate for Tennessee from 1998 – 2000 was 11% (High School dropout rates, 2002). For 1996-1997, per capita, Tennessee ranked 50th in education spending (Brown, Delk, Petty, Wynn, & O'Neal, 2001). Tennessee also ranks 41st in the number of adults 25+ years of age who have a college degree and 46th in the nation of adults with a high school diploma (Brown et al., 2001). While Tennessee does not have the highest dropout rate, the dropout rate is still a problem in light of the fact that the average high school dropout limits his future earning potential through a lack of education (Martin, Tobin & Sugai, 2002). The literature identifies many aspects that place a student at risk for dropping out from high school and offers suggestions to reduce the dropout rate. The primary theme throughout much of this prevention literature emphasizes the need for students to be engaged in their studies and school life (Oddone, 2002) by having a positive relationship with a teacher or other school professional (Ferguson, 1995). In addition, Brown et al. note that "children with closer teacher-child relationships…….had better classroom social and thinking skills, language ability, and math skills (2001, p. 21). The literature suggests that this relationship can overcome the reasons why students drop out such as not having parental support, working more than 15 hours outside of school, discipline problems, not "fitting in," issues with home life, substance abuse, and becoming a teenage parent (Oregon Department of Education, 2000).

While educators have access to some aspects of their students' lives, they are not able to read their students' minds to determine what problems students face that could influence whether or not they stay in school. However, educators can review a student's absenteeism rate to predict

and prevent that student from dropping out. Martin et al. (2002) suggest that "dropping out of school is a cumulative process, not an impulsive action" (p. 3). To illustrate this fact, the New York City Board of Education instituted a High School Attendance Improvement Dropout Prevention (AIDP) program to track the attendance rate of 9th and 10th graders (Mei, 1990). The New York City Board of Education used these truancy rates as an indicator for future high school dropouts as the greatest majority of students who eventually drop out of high school have an increased rate of absenteeism (Mei, 1990). For this program, at-risk students were identified by their absenteeism rates, and programs were developed within their individual school to address the reasons for absenteeism such as lack of engagement and self-esteem issues. As Kee (2001, p. 22) notes, "repeated failures in school is related to school absenteeism."

While the definition of absenteeism may seem self-evident, it merits a clear definition. In education circles, absenteeism and truancy are terms that are often used interchangeably. Absenteeism, in the simplest definition, is simply not being "physically present" at school (Dougherty, 1999). Truancy is defined more in legal terms, according to local and state guidelines, and refers primarily to unexcused or unexplained absences. In Tennessee, a student is considered to be truant if they "have been absent five (5) days (this means an aggregate of five (5) days) during the school year" (TnHomeEd, 2002) without an excuse. With the advent of compulsory education, truancy has always been a problem that educators face (Dougherty, 1999). Since the 1970's, the national average of students absent from school is 8% (Dougherty 1999). This rate is even higher for inner city schools, which have an average 12% absenteeism rate (Dougherty, 1999). Interestingly, most high school students have anywhere from 20 – 90 absences within a school year (Dougherty, 1999). Studies have also shown that Monday, Friday, and Tuesday are popular days for students to be absent (Dougherty, 1999). The reasons for

absenteeism are varied. One of the primary causes for absenteeism centers around the student's home life (Dougherty, 1999). The secondary reason for absenteeism is the student's feeling of alienation or isolation within the school itself (Dougherty, 1999). Parents and educators alike often hear the oft repeated phrase from teenagers "Nobody likes me. I just don't belong." While it is easy to make light of adolescent angst, this statement is quite telling. Any student, whether primary or secondary, is more prone to absenteeism if he does not have "mainstream friends" (Dougherty, 1999). These "mainstream friends," who do not skip school, are important. Dougherty cites one study that found that 84% of truants were more likely to have friends who also skipped school (1999). This alienation from the mainstream has three characteristics: "1) personal incapacity, a feeling of incompetence in dealing with the social world; 2) guidelessness, a feeling that rules of conduct have collapsed; and 3) cultural estrangement, a rejection of the predominant criteria for success" (Dougherty, 1999, p.28). As these students feel that they have been alienated by the school, they then separate themselves from this community (Dougherty, 1999). The solution for educators is to create an environment which fosters a student's self-esteem and makes the school environment a more positive one (Dougherty, 1999). The results of one truancy program found that students perform better when an adult with whom they share a close relationship with is interested in their education (Munoz, 2001). Another method for educators to use to combat the problem of truancy and absenteeism is to create a truancy response team (Kreps, 1999). This model is a peer group facilitated by an educator that meets with truant students to discuss the reasons for absenteeism and to allow time for homework and study skills instruction (Kreps, 1999). The success of this group in engaging students and, thereby, defeating alienation is best expressed at the conclusion of the school year by the students who stated that they would miss the group (Kreps, 1999). One student described

the truancy response team as “it was like family” (Kreps, 1999). The number of unexcused absences dropped four per week to zero (Kreps, 1999).

Purpose

The purpose of this study is to determine those students who may be at risk for dropping out of high school by examining their absenteeism rates. Specifically, this study will analyze the absenteeism rate of a vocational school located in the southwestern area of Virginia. This vocational school requires all of its students to be involved in an extra-curricular club that is based on their particular area of study. The school is part of a suburban school system. This study will explore the effectiveness of a school policy which requires mandatory participation in an extracurricular activity as a means to reduce the absenteeism rate. Based upon the literature, this study will also examine the student’s level of involvement by using extracurricular activities as an indicator for school engagement. This study will address the following questions:

1. Do students at high schools that do not require extra-curricular participation have a higher absenteeism rate than students who attend a high school that makes extra-curricular activities mandatory?
2. Does a smaller student to teacher ratio allow the student to develop a positive relationship with an adult at school who cares about that student’s education?

In traditional high schools, not every student has the time, talent, or resources to participate in extracurricular activities. In other words, the football coach cannot allow all the students to make the team. While extracurricular activities are a part of the high school experience, there may be some instances when a school does not offer any activities that interest an individual student or the student does not have time for such activities as he/she may have to work to support family members. By analyzing the absenteeism rate of this vocational school, it stands to reason that students have made a conscious effort to pursue a course of study which interests them. By taking the second step of presenting the student to teacher ratio, the study will also see if there is an additional correlation between absenteeism rates and the student to teacher ratio.

The number of teachers to students is significant as the smaller ratio allows an educator to develop a meaningful relationship with the student. In larger classes, this relationship is more difficult to develop as anyone who has taught an introductory college course can attest to the difficulty of fostering a meaningful relationship with each student in a class when the size of it is such that an auditorium is needed to accommodate the number of students. While high school teachers do not teach classes that could fill the school's auditorium, the typical high school teacher has approximately 20 to 25 students in each class that they teach. If the average high school teacher on a block schedule teaches four classes, so the number of students the teacher is in contact with ranges from 80 to 100 students during one semester. Extracurricular activities can work to reduce the class size, thus allowing for more interaction time between the student and teacher outside of class and in a smaller setting.

Data Collection and Results

Methods

Students at this vocational school are bussed from their original high schools and receive instruction in their area of interest for a half day, everyday. The students receive their academic instruction at their original high schools. The entire school population of all the original "feeder" schools and the entire population of the vocational school were used for this study. Data was obtained during the first part of the 2003-2004 school year. In addition, the student to teacher ratio for each school was also obtained.

Variables

The absenteeism rate, which is defined as both unexcused and excused absences for each school, was measured during the first part of the 2003-2004 school year. The rate for each

feeder school was compared with the absenteeism rate for students who attend the vocational school. In addition, the student to teacher ratio was analyzed to account for any advantages that the feeder schools may have if the ratio is lower than the vocational school.

Procedures

To obtain data for this study, a partnership was established with the special education coordinator at the vocational school who supplied the information regarding the absenteeism rates at the vocational school. In turn, contact was made with a member of the administrative staff from each feeder school who supplied their schools' absenteeism rates. The instrument for data collection consisted of a simple request for current absenteeism numbers for the 2003 school year with the request for information being sent via electronic mail. Data was received from four out of the five feeder schools. Given that data could not be obtained from one of the feeder schools, the results of the study do make it difficult to compare the overall absenteeism rate of the feeder schools with the absenteeism rate of the vocational school. However, it is still possible to analyze the data. With the collection of historical data, the strictest degree of student confidentiality was met as the attendance records were only viewed by the attendance officer of each school.

For the most part, the attendance data from each school should be valid and reliable. However, there could be an element of human error when attendance roles are taken with a student accidentally being marked absent or present when just the opposite may be true. While the possibility for this human error is present, it should not pose a significant problem or skew the results of the study. By analyzing both unexcused and excused absences, the study is taking into account the possibility that a parent or guardian could "cover" for their child by writing an excuse note for an absence that should not be excused, such as spending the day shopping,

vacationing at the beach, or simply sleeping in that day. While these reasons for covering for a child are not intentionally flippant, these reasons are used to illustrate some of the more frivolous reasons students may be absent. Unfortunately, these reasons cannot be as easily identified, even if the new clothes give it away. In other words, the students may find loopholes to the school's absentee policy.

Results

The findings for this study note that the results do not match the expected outcome or the current literature on this subject. As presented in Table 1, the absenteeism rate for the vocational school is 8.13%. While this absenteeism rate is in line with the national average of suburban schools, it does not appear that the policy of requiring each student in the vocational school to participate in an extracurricular club reduces the absenteeism rate. Upon further review of the data obtained from the attendance officer at the vocational school, it was noted that the number of absent students increased dramatically from the daily average of 29 students absent to 99, 70, and 129 students absent on the 3 days that the entire school system was only in class for a half day. As the attendance officer explained, it is very common for the vocational students to skip classes on those days as they would only be at the vocational school for only 30 minutes. While every minute of instruction time is precious, it is easy to understand why a high school student would not make the effort to come to school on a day when he would only be in class for 30 minutes. Once these days were factored out of the data, the absenteeism rate for the vocational school dropped to 6.06%, as noted in Table 2. This revised absenteeism rate falls below the national average of 8%. However, it does not fall below the absenteeism rate of three out of the four feeder schools.

Does the student to teacher ratio in these three feeder schools play a factor in the lower absenteeism rate? Table 1 shows that the vocational school has a student to teacher ratio of 18:1 while the feeder school with the lowest absenteeism rate of 3.54% has a student teacher ratio of 16:1. While the ratio is lower at Feeder School D, the school with the highest absenteeism rate, Feeder School B, has the lowest student to teacher ratio. Interestingly, Feeder School B is situated in one of the more affluent areas of this school system.

Conclusions and Recommendations

Conclusion

While the vocational school's policy to make students participate in an extracurricular club does show an absenteeism rate that falls below the national average, other schools in the same school district are also below the national average and have lower absenteeism rates. It is safe to say that other factors are involved in these figures. However, the fact that there is a 1.94% difference between the vocational school's absenteeism rate and the national average is worthy of note. By giving students as many opportunities to participate in clubs or activities that interest them, the more opportunities educators will have to develop the type of positive relationship with the student. To present a more accurate portrayal of the role of extracurricular activities in helping to reduce the absenteeism rate, it is necessary to analyze an entire school year, rather than part of a semester, in order to obtain a more accurate picture of the absenteeism rate.

Recommendations

The rationale for requiring vocational students to participate in extracurricular activities related to their area of study is that these activities are another educational venue for furthering job skills. While this school policy is certainly valid, it would pose some problems in a

traditional high school where the number of enrolled students is higher. It would be difficult to develop extracurricular activities and clubs that meet the interests of all students. On the other hand, it might prove more beneficial to have programs in place to identify at risk students and offer other ways to establish meaningful relationships with these students in order to increase their engagement. One method would be to use a peer counseling group for students who are disengaged and in danger of dropping out due to their absenteeism. One such option could be the MAPPS program. This particular program utilizes resources that the school may already have in place, with an emphasis on developing a relationship between the student and teacher to guide the student toward recognition of an internal locus of control (Wolicki, 2002).

Table 1

Original Comparison of Absenteeism Rates between the Vocational School and the Four Feeder Schools

School	Number of Students Enrolled	Absenteeism Rate	Attendance Rate	Student to Teacher Ratio
Vocational School	363	8.13%	93.94%	18:1
Feeder School A	534	5.07%	94.39%	10:1
Feeder School B	798	9.09%	90.91%	8:1
Feeder School C	1090	4.41%	95.59%	11:1
Feeder School D	1024	3.64%	96.36%	16:1

Table 2

Revised Comparison of Absenteeism Rates between the Vocational School and the Four Feeder Schools

School	Number of Students Enrolled	Absenteeism Rate	Attendance Rate	Student to Teacher Ratio
Vocational School	363	6.06%	93.94%	18:1
Feeder School A	534	5.07%	94.39%	10:1
Feeder School B	798	9.09%	90.91%	8:1
Feeder School C	1090	4.41%	95.59%	11:1
Feeder School D	1024	3.64%	96.36%	16:1

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The Use of Literature Circles in Hamilton County's Targeted Schools

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The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-117.

The Use of Literature Circles in Hamilton County's Targeted Schools

Introduction

On January 8, 2002 President George W. Bush signed the No Child Left Behind act to tackle the many problems that face our public schools. One such problem is the low literacy level of students. According to the "results of the most recent National Assessment of Educational Progress on reading… only 32 percent of the nation's fourth –graders performed at or above proficient achievement level…" and the scores of "America's lowest performing students have declined" U. S. Department of Education, 2003, ¶ 2. In Hamilton County, Tennessee, the State Report Card Tennessee Department of Education, 2003 shows that although "all students" (the school district as a whole) passed the federal benchmark for the category of Reading, Language Arts, and Writing, the African-American population did not. Students in the category Economically Disadvantaged did not pass, either. Of the 13 schools in Hamilton County who have not met the federal benchmarks in Reading, Language Arts, and Writing, under the No Child Left Behind act, all 13 are predominately African-American and are Title I schools. Therefore, these schools' students are shown as failing under both categories (Tennessee Department of Education, 2003). In order to increase test scores and enable students to "read well by the end of third grade," the NCLB act is encouraging schools to use "scientifically based reading instruction programs" (U. S. Department of Education, 2003, ¶ 2, proven methods). In October 2002, at the Student Achievement and School Accountability Conference, one aspect such instructional programs should include is "text comprehension" defined as "the reason for reading" (U. S. Department of Education, 2003, ¶ research-based instruction). The conference also yielded methods by which comprehension should be taught, one of which is "make use of cooperative learning (U. S. Department of Education, 2003, ¶

research-based instruction). Literature circles are a cooperative learning strategy scientifically proven to increase reading comprehension. The purpose of this study is to secure three main findings: (a) if the schools in Hamilton County that did not meet the Reading, Language Arts, and Writing, federal benchmark are using literature circles in their reading programs; (b) if they are, what, if any, benefits they have seen from using them, and (c) if they are not using literature circles, why are they not being used.

Review of Literature

What are Literature Circles?

"Literature circles are small, temporary discussion groups who have chosen to read the same story, poem, article, or book" (Daniels, 1994, p. 13). Although teachers may model discussion questions in the beginning stages of a literature circle, true literature circles are student led. Students choose the books, take on rotating task responsibilities within the group, decide reading assignment schedules, and devise their own discussion topics.

Literature circles are formed through book choice. After perusing teacher-selected options, students who wish to read the same books form a literature circle. The groups usually consist of four to six students who meet for 20-30 minutes per session (Au, Carroll, & Scheu, 2001). Each group then decides who will take on which job for the next session. Jobs include "discussion director, literary luminary, vocabulary enricher, and process checker," (Daniels, 1994, p. 12), although classrooms may name those jobs according to their preferences. Jobs rotate from session to session so each student has a chance to have at least one job. Length of literature circle groups depends on the length of the book.

One of the many benefits of literature circles is their combination of independent reading and cooperative group learning- elements of most balanced literacy programs. In preparation for

session discussions, students read their group assigned book pages and take notes, either in journals for, or by drawing pictures of, key parts they want to remember or topics or issues they want to point out. The method of note taking depends on the literary ability of the student. On discussion day, students bring their notes and the conversations begin.

The teacher has five main roles in relation to literature circles: book selector, book selection advisor, model, facilitator, and evaluator. Good discussion begins with good books. Teachers must be good readers, themselves, and have an ability to select quality literature that provides thought-provoking questions. Teachers using literature circles in their classrooms also need to give students book genre choices. Fiction should not be the only choice. Others genres such as non-fiction and biography will lead to meaningful discussions, as well. Teachers should also look for books approximately the same length for each literature cycle so each group will end within a day or two of each other.

A primary characteristic of literature circles is student self-selected books. (Daniels, 1994). However, there are times when a student may want to choose a book by its subject when the book is too difficult for him. The teacher should advise the student to read a few pages first to see if he can comprehend the text. If the student feels he can, he should be encouraged to read the book. However, students who frequently select books at too high of a level of difficulty should be monitored and an individual conference may be necessary to discover the student's motives.

Strong literature circle discussions do not usually begin naturally. More often, deep, evaluative, and analytical discussions questions must be modeled by the teacher in a circle's infant stages. Focusing the students' topics primarily happens in one of two ways: either the teacher springboards the discussions in the first few meetings, or first literature circle cycle; or

the teacher provides the students with a set of questions for discussion (Morrow, 1997). As the students gain confidence in their inquiring abilities, teachers merge in to the role of facilitator, sitting in on groups periodically and interceding if problems arise.

The teacher also serves as the evaluator of the literature groups. Teachers can devise check sheets and anecdotal records to record student comprehension and aesthetic responses. Other assessment techniques will be discussed in the Assessment section of this paper.

How Did Literature Circles Start?

Book clubs were not the brainchild of an education researcher, professor of education, or even of a primary, intermediate, or high school teacher. Rather, the roots of what we know today as literature circles began with a group of fifth grade students in Phoenix, Arizona. Their teacher, Karen Smith, had inherited a large box of multiple-copy books, which she had placed in the back of her classroom and forgotten about. Several months later, a group of students found the box while looking for some independent reading. Finding multiple copies of titles they liked, the students, themselves, decided to read the same book. They assigned each other pages to read nightly and began meeting regularly (with the casual approval of Ms. Smith) to discuss what they had read. When observing the groups, Ms. Smith was "dazzled by the quality, depth, range and energy of the talk she hears" (Daniels, 1994, p. 1). After inviting colleagues from Arizona State University to observe the students, the equally impressed guests began to spread the word about literature circles. Teachers now had a cooperative learning strategy following Louise Rosenblatt's acclaimed "reader response" theory, but one that obviously led students not only to respond to literature through evaluation, analysis, and critique at high levels, but one that encouraged students to take ownership of their education (Jewell & Pratt, 1999).

The Scientific Data

Literature circles are proven to increase:

- A greater degree of inferential thinking.
- Use of supporting evidence from the text.
- Overall increase in student motivation (Jewell & Pratt, 1999).
- Vocabulary growth.
- Comprehension strategies (Kong & Fitch, 2002).
- Empathy.
- Desire to read.
- Ownership in education (Daniels, 1994).
- Comprehension.
- Multicultural awareness (LiteratureCircles.com, n.d., ¶ research).
- Critical thinking (Samway & Whang, 1996)

Assessment

Assessment of literature circles, as well as any cooperative group-learning environment, may seem daunting to some teachers. However, those teachers experienced in literature circles have provided guidelines for various kinds of assessment including checklists, anecdotal records, student-prepared mini-lessons, response journals, self-evaluation, and peer-evaluation. Literature circle discussions also organically create the desire in students to complete some form of performance task related to the book they are studying, such as creating models of the book's settings. Such performance tasks can be assessed and included with the above-mentioned assessments to create a student's literature circle portfolio (Hill, Johnson, & Noe, 1995).

Literature Circles and the Multi-Cultural Student

In *Literature Study Circles in a Multicultural Classroom,* Samway and Whang (1996) describe the success of literature circles in Gail's Hawthorne Year-Round Elementary School. Hawthorn is located in a low-income, multi-ethnic neighborhood in the inner city of Oakland, California. Gail's fifth-grade class is comprised primarily of African-Americans, Hispanics and Asian-Americans. Almost two thirds of her class are ESL students, as well. After implementing literature circles in her classroom, Gail observed the same increases found by scientific researchers as listed above.

What about Primary Grade Children?

But what about primary grade children who cannot read or are emergent readers; or intermediate grade students who are poor readers? How can literature circles help them read by the end of third grade, or by the end of the higher intermediate elementary grade they may be in? Literature circles are not just for proficient readers. They have been used in kindergarten, first-grade and second-grade classrooms with much success (Short & Pierce, 1990; Daniels, 1994; Hill 1995). Students who cannot read are given books to take home to have their parents read and discuss with them prior to discussion times. Students with little parental involvement can be read the books by their teachers, the day of, and/or day before, the discussion group meets. Students take notes on points they wish to discuss by drawing pictures to help remind them during discussions (Short & Pierce, 1990).

What Literature Circles Mean for Low Performing Schools in Hamilton County

As the evidence shows, the literature circle is a highly valuable instructional strategy for literacy development, even in the primary grades. The NCLB act states the well known fact that, "research shows…children who read well in the early grades are far more successful in later

years" (U. S. Department of Education, 2003, ¶ methods/reading). The use of literature circles in low-income, multi-cultural classrooms has been proven (Samway & Whang, 1996; LiteratureCircles.com, n.d., ¶ research). Literature circles are easy to assess with traditional methods, and provide the real-life meaningful experience of a book club, "giv(ing) students the chance to engage in natural conversations about books, just as adults do" (Au et al., 2001, p. 136).

Data Collection and Results

Methodology

Data for this study was collected by means of a 15-question survey of eight pages in length (see Appendix A). The number of pages of the survey was due to the need for several successive blanks for the information of teachers who teach more than one section of reading or language arts. The survey is designed to provide the study with some demographic information on the teachers, their use of literature circles, their feelings towards reading circles, and professional development regarding literature circles, as well as a very general look at their current reading program. There is also a place at the end of the survey for additional comments.

The option to fill out the survey was extended to all 13 of Hamilton County's schools who are failing in Reading, Language Arts, and Writing, according to the federal benchmarks under the NCLB act. Of the 13, only 7 schools were willing to participate in the survey, or 54% of the total population. Of the 175 surveys dropped-off only 27 were collected in the survey collection boxes. Such a result is only 13% of the sample. In order to record the total number survey answers, the survey questions were renumbered and all possible answers for each respondent were entered into a data chart.

Results

The survey results yield a high confidence interval (+/- 17.3% at the 95% confidence level) due to the low sample size and respondents within that sample. Therefore, the information gained from this survey can only be used to make wide generalizations regarding the population of the 13 Hamilton County's schools who are failing the Reading, Language Arts, and Writing benchmarks.

However, the results the survey found are worth noting: of the 27 respondents, 10 teachers do use literature circles, 3 use them for some sections, 13 do not use them and 1 respondent did not answer. Of the 10 teachers who use literature circles, 9 are self-contained classroom teachers, and 1 is a language arts teacher. The three respondents who use literature circles in some sections are all self-contained classroom teachers. The respondents who do not use literature circles consist of nine self-contained classroom teachers, one inclusion assistant, and three special education teachers.

The respondents who do use literature circles primarily cited the following benefits, to question 14, "If literature circles are part of your reading curriculum, what benefits to your students have you observed?"

- 75% stated "increase in students'critical thinking abilities."
- 83% stated "better communication between students during literature discussions."
- 75% stated "better social relationships among students."
- 67% stated "students are more motivated to talk about books."
- 58% stated "students are more motivated to read books."
- 58% stated an "increase in students' ability to handle responsibility."
- 50% stated an "increase in student reflection."

One respondent who used literature circles "for some sections," did not respond to question 14, and was therefore not included in the above results.

Of the respondents who did not use literature circles, they primarily cited the following reasons:

- 62% stated "not enough time."
- 62% stated "did not know enough about them."
- 54% stated "students cannot handle them."

Of the respondents who stated, "students cannot handle them," 71% stated in their added notes under "other" that their students were either "too young," "just learning to read," or "too young…not socially mature to discuss literature." Figures are presented in Appendix B.

Discussion

The findings of this survey surprised me. I did not think even 13 teachers were using literature circles, as I have been in several schools throughout the county and have yet to come in contact with a teacher who does. The beliefs in increases in critical thinking, discussion abilities, desire to read, social relationships, and responsibility are all encouraging for the proponents of literature circles. Certainly this information would be of interest to the teachers' colleagues who are not using literature circles.

I was not surprised to see that some teachers "did not know enough about" literature circles. Although they have been around for more almost a decade, they are not widely talked about, not nearly as evidence shows they should be. I also was not surprised to have several respondents note they did not use literature circles because they felt their students were too young to handle them, or did not have the literacy level to participate in them. As research has shown, even emergent readers benefit from literature circles.

Conclusions and Recommendations

Due to the low level of respondents, the results of this study cannot carry much weight in the world of scientifically proven research. However, several points can be made:

- Teachers in Hamilton County's lowest performing schools are using literature circles and are seeing benefits.
- Despite the research, some teachers do not believe emergent readers can participate in literature circles.
- Some teachers do not use literature circles because they do not have the time.
- Some teachers do not use literature circles because they do not know enough about them.

Further study needs to be done on the use of literature circles use in this population. A larger sample size and a larger number of respondents needs to be surveyed to provide more scientific results. However, if one studies the research on literature circles, one can see they work for all types of readers. With the issue of not enough time, Daniels suggests taking out part of a literacy program for just a few times each week and bringing in literature circles slowly (Daniels, 1994). However, schools "on target," such as the 13 in the survey's population, might be afraid to risk trying a "new" literacy technique, preferring to stay with more traditional teaching methods of reading circles and word work.

Teacher should be aware that there are a variety of sources of information available to them to study literature circles and the benefits they provide. Many books and journal articles have been written on them. Several websites such as literaturecircle.com and the Literature Circles Resources Center (2003) can start teachers off in their study of inclusion of literature circles in their schools. Various grants through the federal government (http://www.ed.gov/fund/landing.jhtml?src=rt) and the International Reading Association (2003) are available for study in the language arts.

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Appendix A

SURVEY

Directions: Please check all answers that apply. Please write in any information you wish to be included in the survey, or answers that apply to you and are not covered by the survey answers.

DEMOGRAPHIC INFORMATION:

1. What type of teacher or specialist are you employed as?

a. ___ Self-contained Classroom Teacher
b. ___ Language Arts, Reading or other Literacy teacher
c. ___ Reading Specialist
d. ___ Special Education Teacher
e. ___ Other _____

2. What subjects are you employed to teach other than reading?

a. ___ Language Arts
b. ___ Math (any type)
c. ___ Science
d. ___ Social Studies
e. ___ Physical Education
f. ___ Library
g. Writing
h. Music
i. Art
j. Foreign Language _____
k. Computer
l. Other(s)_____

3. What grade(s) do you teach?

a. ___ Kindergarten
b. ___ 1st Grade
c. ___ 2nd Grade
d. ___ 3rd Grade
e. ___ 4th Grade
f. ___ 5th Grade
g. ___ 6th Grade

4. Do any of your classes combine grades?

a. ___ Yes **b.** ___ No

If "Yes," which grades? _____

5. ***If you are a Self-contained Classroom Teacher, skip to question 6.***

If you are not a Self-contained Classroom Teacher, how many different sections (i.e., classes with different students) of reading do you teach?
Please record the number of sections and the grade(s) name(s) taught in those sections.

1st Section_____	Grade(s) in section_____
2nd Section_____	Grade(s) in section_____
3rd Section_____	***Grade(s) in section_____***
4th Section_____	Grade(s) in section_____
5th Section_____	Grade(s) in section_____
6th Section_____	Grade(s) in section_____
7th Section_____	Grade(s) in section_____
8th Section_____	Grade(s) in section_____
9th Section_____	Grade(s) in section_____
10th Section_____	Grade(s) in section_____

6. **Record the number of students you have for each race category:**
Self-contained Classroom Teachers only need to answer for "Section 1"

AA-African-American **H** – Hispanic **W**- White
AS-Asian American **O**- Other

1st Section	___AA	___AS	___H	___O	___W
2nd Section	___AA	___AS	___H	___O	___W
3rd Section	***___AA***	***___AS***	***___H***	***___O***	***___W***
4th Section	___AA	___AS	___H	___O	___W
5th Section	___AA	___AS	___H	___O	___W
6th Section	___AA	___AS	___H	___O	___W
7th Section	___AA	___AS	___H	___O	___W
8th Section	___AA	___AS	___H	___O	___W
9th Section	___AA	___AS	___H	___O	___W
10th Section	___AA	___AS	___H	___O	___W

7. **Record the number of English as a Second Language students in each section you teach. Also, list the language(s) of the ESL students in each section. Self-contained Classroom Teachers only need to answer for "Section 1"**

1st Section ___	Language (s) _____
2nd Section___	Language (s) _____
3rd Section	***___ Language (s) _____***
4th Section ___	Language (s) _____
5th Section___	Language (s) _____

6th Section___ Language (s) _____
7th Section___ Language (s) _____
8th Section___ Language (s) _____
9th Section___ Language (s) _____
10th Section___ Language (s) _____

LITERATURE CIRCLE INFORMATION SECTION

For the purposes of this survey a literature circle is defined as groups of 6 or fewer students getting together on a regular basis to discuss the same book.

8. Are literature circles part of the reading curriculum in your class?

a. ___ Yes **b.** ___ For some sections **c.** ___No

9. If you answered "Yes" to question 8, please go to question 14.
If you answered "For some sections" or "no" to question 8, check the reason(s) literature circles are not part of the reading curriculum in your class:

a. ___ not allowed
b. ___ not enough time
c. ___ do not think they are effective
d. ___ have not heard of them
e. ___ do not know enough about them
f. ___ not part of school curriculum
g. ___ students cannot handle them
h. ___ not enough book copies
i. ___ do not help prepare for standardized tests
j. ___ assessment is difficult
k. ___ too much of a hassle
l. ___ do not accommodate those with disabilities
m. ___ Other_____

10. If you answered, "c" for question 9, please answer the following question. If you did not answer "c" for question 9, proceed to question 11.

Do you think literature circles are ineffective because:

a. ____ students of mixed abilities are unable to communicate and therefore the groups do not encourage higher thinking.
b. ____ students only read pre-written responses and do not participate in organic conversations
c. ____ students will only discuss with teacher, not with other students
d. ____ students do not gain a deeper understanding of the text
e. ____ discussions are not consistently meaningful
f. ____ Other _____

11. If you answered "d," or "e" to question 9, please answer the following question. If not, go to question 12.

If you have not heard of literature circles or do not know enough about them how would you wish to learn about them? Check all that apply.

a. ____ I do not wish to learn more about them.
b. ____ I wish to learn more through the Internet
c. ____ I wish to learn more through books
d. ____ I wish to learn more through in-service training
e. ____ Other _____

12. If you answered "g" to question 9, please answer the following question. If not, go to question 13.

Students cannot handle literature circles because:

a. ____ They have too much social conversation
b. ____ Certain ones dominate, while others say little or nothing
c. ____ Certain ones intentionally ignore other students in the group
d. ____ They are not intellectually able to handle higher thinking discussion groups
e. ____ They are not respectful of others' opinions
f. ____ Their discussions do not promote critical thinking
g. ____ Other _____

13. If you answered "l" to question 9, please answer the following question. If not, go to question 15.

Why are literature circles too much of a hassle?

a. ____ Training the students to communicate effectively in small groups takes too much time.
b. ____ Teachers constantly have to monitor discussions to make sure they are on task.
c. ____ Teachers have to lead groups in discussion
d. ____ Students cannot pick books on their level
e. ____ Students not in the discussion groups have to be kept occupied.
f. ____ Other _____

14. If literature circles are part of your reading curriculum, what benefits to your students have you observed?

a. _____increase in students' critical thinking abilities
b. _____better communication between students during literature discussions
c. _____better communication between students during other class discussions
d. _____better social relationships among students.
e. _____students are more motivated to talk about books
f. _____students are more motivated to read books
g. _____higher test scores on literature tests
h. _____higher test scores in other subjects
i. _____increase in students' abilities to handle responsibility
j. _____increase in students' self-evaluation
k. _____increase in students' reflection
l. _____other _____
m. _____other _____

15. What elements are included in your reading program? Check all that apply and write the approximate amount of time spent on each in one day:

a.	____	guided reading	**Time**_____
b.	____	self-selected reading	**Time**_____
c.	____	read aloud	**Time**_____
d.	____	shared reading	**Time**_____
e.	____	independent reading	**Time**_____
f.	____	word work	**Time**_____
g.	____	Writer's Workshop	**Time**_____
h.	____	shared writing	**Time**_____
i.	____	guided writing	**Time**_____
j.	____	interactive reading	**Time**_____
h.	____	interactive writing	**Time**_____
i.	____	write aloud	**Time**_____
j.	____	other_____	**Time**_____
k.	____	other_____	**Time**_____

Please use this space to add any additional comments concerning this survey and or its subject matter:

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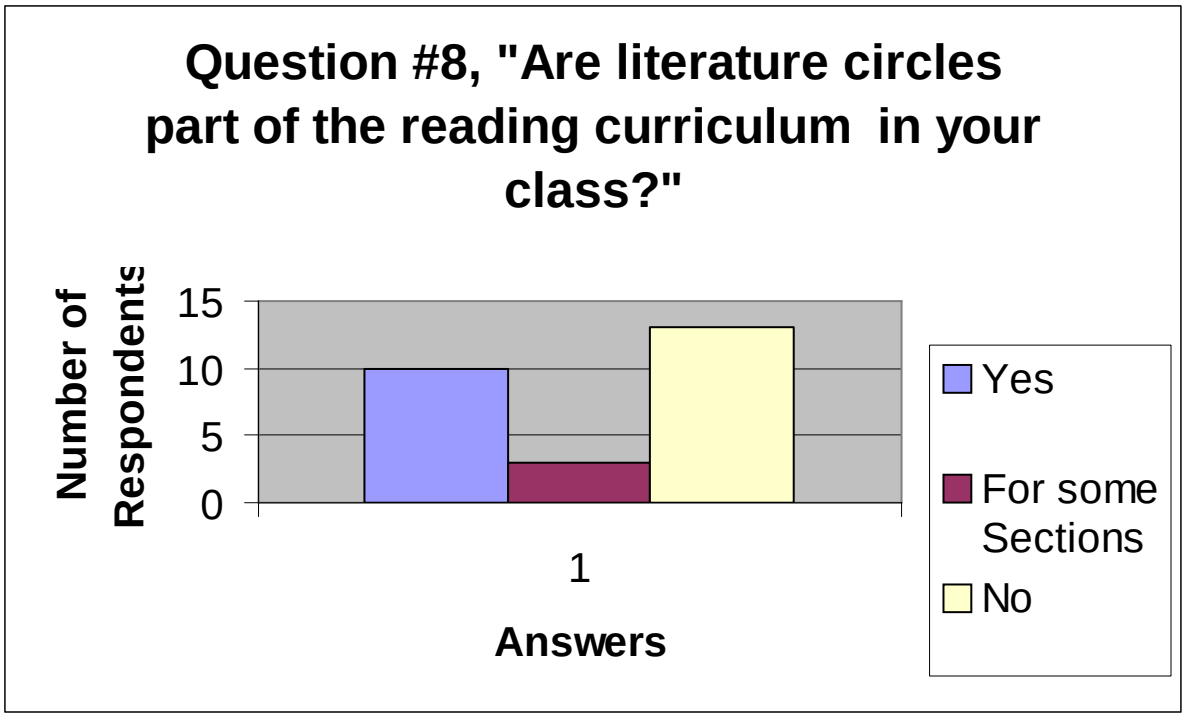
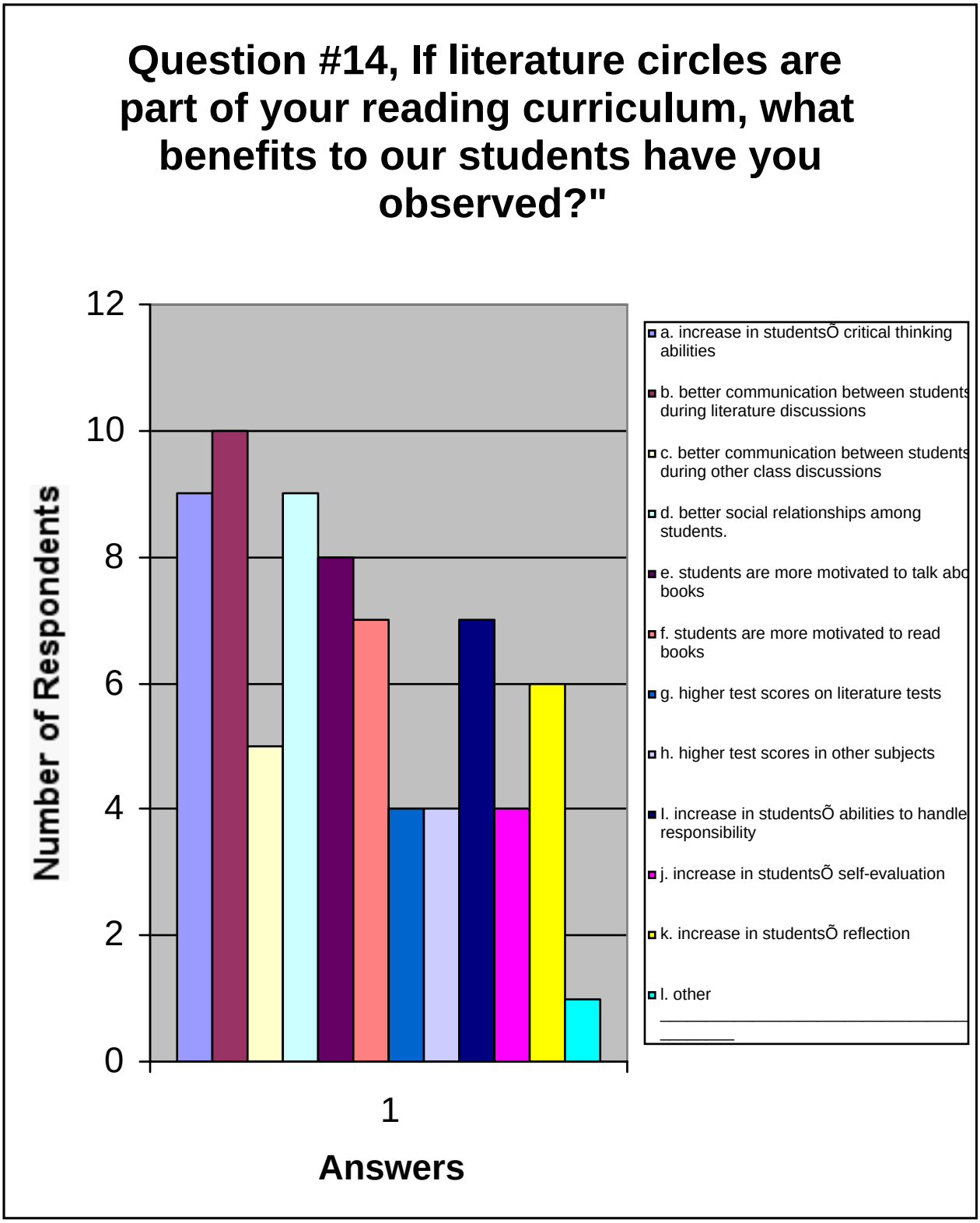
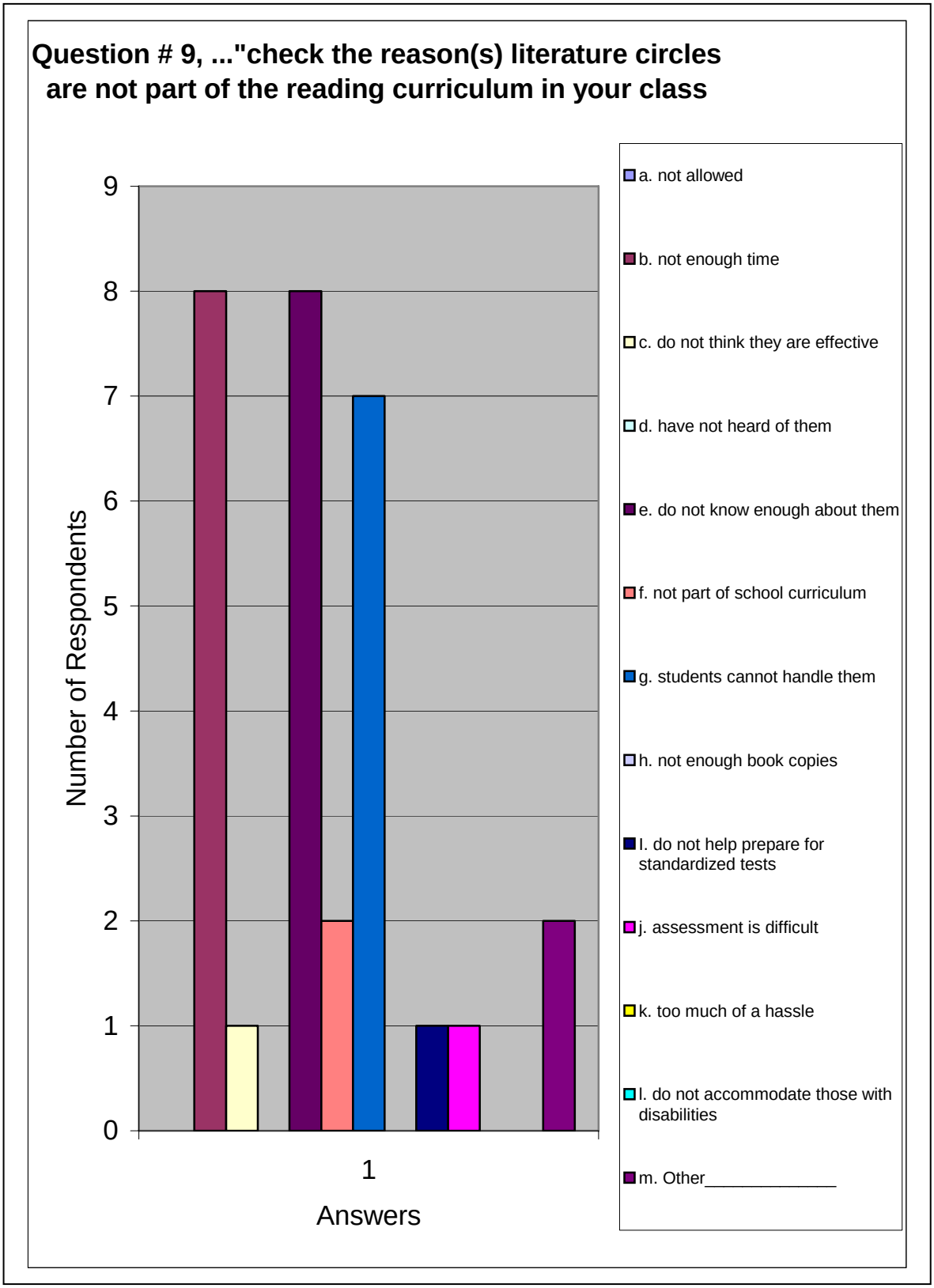
PLEASE MAKE SURE ALL YOUR SURVEY PAGES ARE ATTACHED, AND DROP IT INTO THE PROVIDED COLLECTION BOX.

THANK YOU FOR YOUR COOPERATION!!!


Question #8, "Are literature circles part of the reading curriculum in your class?"
Number of Respondents
15
10
5
0
1
Answers
Yes
For some Sections
No


Question #14, If literature circles are part of your reading curriculum, what benefits to our students have you observed?"
Number of Respondents
12
10
8
6
4
2
0
1
Answers
a. increase in studentsÕ critical thinking abilities
b. better communication between students during literature discussions
c. better communication between students during other class discussions
d. better social relationships among students.
e. students are more motivated to talk abo books
f. students are more motivated to read books
g. higher test scores on literature tests
h. higher test scores in other subjects
I. increase in studentsÕ abilities to handle responsibility
j. increase in studentsÕ self-evaluation
k. increase in studentsÕ reflection
l. other


Question # 9, ..."check the reason(s) literature circles are not part of the reading curriculum in your class
Number of Respondents
0
1
2
3
4
5
6
7
8
9
1
Answers
a. not allowed
b. not enough time
c. do not think they are effective
d. have not heard of them
e. do not know enough about them
f. not part of school curriculum
g. students cannot handle them
h. not enough book copies
I. do not help prepare for standardized tests
j. assessment is difficult
k. too much of a hassle
l. do not accommodate those with disabilities
m. Other_____

Impact of Parental Involvement on Elementary Students' Reading Skills

Margaret E. Travers

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-090.

Introduction

As a prospective elementary education teacher and a mother of two children less than 4 years old, I am interested in the national concern regarding students' reading levels. Recently, I attended the 13th Annual Mid-South Reading and Writing Institute where they discussed various techniques to interest students in books and to instill in them a love to read. While they presented wonderful strategies for teachers in the classroom, I noticed they did not include involving the parents. I believe that there is no better way to teach children how to read than to present the material and techniques to them at school and then again at home to reinforce the lessons. By teachers and parents modeling reading, and the love of reading, students will more quickly learn how to read.

There have been numerous studies that demonstrate increasing parental involvement in reading to their child is possible. Some of these studies define parental involvement as family conversations, joint writing, playing with letters, watching educational television (Aram & Levin, 2002), reading environmental print, and rhyming words and word families (Aram & Levin, 2002; Ortega & Ramirez, 2002). Others define it as trips to the local public library (Ortega & Ramirez, 2002; Literacy: A Family Affair, 2001), bringing parents into the schools (Morrow & Young, 1997), and using home literacy bags with activities (Barbour, 1998). However, in all of these studies, the focus was on increasing parental involvement and not on the effect that this increase had on the students' reading skills.

The only study found that assessed reading skills was a 5-year longitudinal study by Senechal and Lefevre (2002), in which they defined reading skills as word reading skills, reading comprehension, vocabulary, listening comprehension, and phonological awareness. However,

this study only includes middle and upper-middle class students in Canada and is not generalizable to the whole population.

Therefore, the lack of research concerning effects of parental involvement on reading skills demonstrates the need further exploration on this topic. The goal of this study is to determine if increasing parental involvement, as measured by questionnaires reporting book reading and completion of activities with their student-child from the home literacy bags provided, leads to an increase in students' reading skills, in terms of accumulation rate of reading vocabulary, as measured by the Ohio Word Test (Clay, 2002, p. 166).

Review of Literature

There is growing alarm concerning the reading abilities of children today, and this problem has become of national interest. Parental involvement has become a focal point in resolving this problem, since researchers and teachers have realized its importance. "Parents are children's first, and continue to be their most important, teachers. Therefore, they play a crucial role in their children's school performance" (Vukelich, 1993, p. 224A). With this enlightenment, parents are increasingly urged to become active in their child's learning. Some researchers have suggested that "young children who… are read to regularly, have books in their home, and develop print awareness have a head start on reading and literacy skills when they enter school" (Literacy: A Family Affair, 2001, p. 28). Similarly, other researchers have suggested that parental involvement in the home is central to the development of early literacy skills (Aram & Levin, 2002, p. 223; Senechal & Lefevre, 2002, p. 445). In light of this research, teachers are advised to "involve parents in the literacy process in various ways, such as inviting parents to the classroom" (Baker, Sonnenschein, Serpell, & Scher, 1996, p. 70). With this suggestion is the idea that "parents can contribute to their wards' growth by providing an insight into their

children's literacy development to the teachers" (Lazar & Weisberg, 1996, p. 228). Consequently, the level "of parental involvement in a reading intervention for children in grades 1 through 4 who were nonreaders or were behind by one or two grade levels predicted children's reading growth" (Senechal & Lefevre, 2002, p. 446). Since parental involvement is so crucial to literacy development, it is important to examine its various types.

There are many different ways for parents to be actively involved with their child's literacy development, and there is no real consensus among researchers in defining this concept. For example, Aram and Levin suggest that "children share with their parents a variety of literacy-related activities that may enhance the children's literacy skills: family conversations, rhyming games, reading environmental print, storybook reading, joint writing, playing with letters, and watching educational television programs" (Aram & Levin, 2002, p. 225). However, some researchers define parental involvement as rhyming words and word families, discussing the importance of the public library, taking trips to the local public library (Ortega & Ramirez, 2002), teaching reading and writing words (Morrow & Young, 1997), and visiting the local bookstore (Literacy: A Family Affair, 2001). Based on their interpretation of this concept, researchers have developed programs to examine how to increase, and the effect of, parental involvement. Despite these various definitions, success seems to follow those programs that "involved them (parents) in curriculum planning, family-based activities, ongoing assessment, integration of support services and career development" (Neuman, Caperelli, & Kee, 1998, p. 244).

An underlying supposition of these programs is that "since reading is a developmental task, the more children read, the more efficient they become at this task" (McMackin, 1993, p. 145). Many of these programs aim at involving the family in the child's literacy acquisition with

added benefits. "Family literacy programs offer needy families educational and other services to meet the requirements of parents and children" (Darling, 1996, p. 21). One support of this type of program "pairs independent booksellers with pediatricians…who distribute 'prescription' coupons to their patients, redeemable at the participating bookstore for a promotional paperback copy" of a picture book illustrating "the importance of reading to children at least 20 minutes each day" (Lodge, 2001, p. 25). These bookstores also provide suggested, developmentally appropriate, reading lists for children. There are several difficulties with this type of program, including lack of general public availability, bookstores using this program as free advertising, and no assessment of success.

Another program is the "1,000 Days literacy program in California, where teachers sign a warranty promising that all children entering a participating school will know how to read by the end of second grade" (Wheaton & Kay, 1999, p. 52). Although this sounds like a wonderful goal, it only requires teachers to make a commitment to the success of the child and excludes the child and parents from sharing that responsibility, thereby negating any long-lasting success achieved by this program. On the other hand, some programs trying to involve parents bring them to school for monthly meetings with their children and teachers to "enhance children's achievement and interest in literacy" (Morrow & Young, 1997, p. 736). Even though this program requests parents' involvement, the obstacles here are not monitoring if reading is occurring in the home, whether or not books are available in the home, and how success is measured.

Bearing in mind these obstacles, Ortega and Ramirez developed the Parent Program whose primary goal "was to constructively involve parents in their children's learning process…and to get more children's books in the homes" (Ortega & Ramirez, 2002, p. 726).

This program offered bimonthly workshops for parents; homework packs that included scissors, glue, crayons, and a six-inch ruler; and a paperback book to each child each time their parent attended the program. Ortega and Ramirez used these to motivate the children and hoped that they would encourage the adults to attend. Their intent "was to provide the knowledge and skills that parents would need to use this again at home while they were reading and writing with their children" (Ortega & Ramirez, 2002, p. 726). Success of the program was judged by the amount of parent participation and the feedback from the parents' evaluation forms that were completed at the end of each session's workshop. By these measures, they were successful. Nevertheless, the children's success in attaining higher reading levels was not measured, and those parents whose circumstances did not allow them to participate in the program, possibly due to transportation or language barriers, did not benefit from the free supplies or information.

A similar program was implemented by Barbour where the "teachers created home literacy bags containing different books and activities that prekindergarten and kindergarten students could take home and enjoy with their parents" (Barbour, 1998, p. 71). These bags also contained audiotaped readings of one or two of the books for parents who could not read to enjoy with their child. Also, by not requiring parents to attend workshops or meetings at school, "families that lack transportation and/or child care, or whose members do not speak English or do not understand the school system, still can profit from home literacy bags" (Barbour, 1998, p. 72). In this case, success was measured by feedback from parents, which showed that these bags encouraged them to read to their children and helped them recognize the importance of their role in their children's literacy development. This program was more easily accessible to parents and increased parental involvement; however, as with Ortega and Ramirez, this program did not measure the effect of the parent involvement on the students' reading levels.

The success of the studies mentioned above and others, such as the Read with Me (1996) program, demonstrate the ability to increase parental involvement in reading, regardless of the specific concept definition, but lack definable measures of success in regards to student reading level achievement. In this area, more research is needed.

Data Collection and Results

Population

The participants will include a classroom within a school in the Hamilton County school district (Chattanooga, TN). The sample school will consist of an opportunity sample, in which the researcher will be placed to student teach. The teachers, parents, and students will be the participants. The whole class and other classrooms within the Hamilton County school system of the same grade level will be the population.

Measurement

Parental involvement will be measured in terms of book reading, including reading all genres of children's books. Parents will be given questionnaires to complete requesting information on how many books they read per week to their child, how many minutes per day they read to their child, whether or not they read with their child the week's home literacy bag books with their child, and whether or not they completed the accompanying activities together.

Reading skills will be measured using the Ohio Word Test, in which a child reads 20 high frequency words in an isolation/list format. This test allows the researcher to observe accumulation rate of reading vocabulary, the student's visual patterns, how the student breaks words into sequences of sounds, and how the student attempts unknown words. The University of Kentucky and the Central Kentucky Education Cooperative, which examined the test, ascertained reliability and validity through an independent study of the Ohio Word Test. In this study conducted in 1998-1999, they administered the test to 956 elementary students in 88

Kentucky schools. These students were the in bottom 20-25% in reading skills for the second-year primary population, and the students in the control group to which they were compared were randomly-selected to represent the average second-year primary population. Of the 956 students, 72% finished the program at the average or above average level, with an 18.9 mean gain compared to the 10.5 mean gain of the random sample.

In this study, reliability will be checked through comparing these test results to students' instructional reading lesson tests.

Procedure

First, the researcher will seek approval from the selected classroom's teacher. Informed consent forms (see Appendix A) will then be sent out to parents/guardians of the selected students. These consent forms will thoroughly instruct parents on using the home literacy bags with their student-child: reading the books together, completing the various activities together, discussing the story, and completing the parents' questionnaires (see Appendix B). The first interaction in the school will be an introductory meeting with the teacher involved. The purpose of this meeting will be to discuss the purpose and procedures of the study and to brainstorm on the specific tasks needed to implement the study.

The first interaction with the students will be through classroom observations to determine how the classroom regularly runs. The students will be randomly assigned to group 1 and group 2. Group 1 will be the control group, given the placebo; and group 2 will be the experimental group, given the treatment. These groups will check out bags daily to take home on rotation, so that all students will have an opportunity to take home several different bags. The control group will check out bags that contain simple games and activities, such as connect-the-dots, coloring pages, and tic-tac-toe. The experimental group will check out home literacy bags that contain age-appropriate books and activities related to those particular books, such as word

find, write a silly sentence, and draw-a-picture based on that book. The books contained in the bags will not correspond with class activities, so this will not minimize differences between group 1 and group 2.

Each day, the students from both groups will bring the previous day's bags back to the classroom and will check out another bag. The researcher will then check out different bags to the groups to take home. At the end of the study, the researcher will apply the Ohio Word Test (see Appendix C) to both groups to determine vocabulary accumulation and participation. The word bags will be used for 2 weeks, due to the limited time frame of the study.

Time Schedule

Week 1	Meet with the teacher; introduce study; brainstorm on specific tasks needed to implement study; verify schedule and change, if necessary.
Week 2	Begin observations of regular classroom settings, behaviors, and schedules.
Week 3	Prepare home bags for both groups.
Week 4	Send home parent consent forms and information sheet. Test both groups with the Ohio Word Test.
Week 5	Begin checking out bags to both groups daily.
Week 6	Continue and finish checking out bags daily.
Week 7	Test both groups with Ohio Word Test.

Week 8	End of placement.
Week 9	Data analysis.
Week 10	Complete paper.

Results

At the beginning of this study, parents from both groups completed questionnaires (see Appendix B), whose results demonstrated that each student's parents read to their child at least three times per week and helped the student with homework. At the end of the study, parents wrote whether or not they helped the student with the word bag. Parents from both groups reported that they correctly helped or did not help the student based on the directions given on each bag. There was not a note worthy difference in the amount of time parents spent reading to their student or whether or not they helped their student with homework between the two groups.

Based on the pre-test scores from both groups, there was not a noteworthy difference between the groups. The average pre-test score of group 1 was 14 words, and the average pre-test score of group 2 was 13.167 words. Furthermore, there was not a significant difference between the two groups' post-test scores. The average post-test score of group 1 was 16.5 words with an average gain of 2.5 words from the pre-test scores; and the average post-test score of group 2 was 15.67 words with an average gain of 2.33 words from the pretest scores. However, almost all students made a gain in their scores. These scores are analyzed based on group number (see Figure 1 and Figure 2).

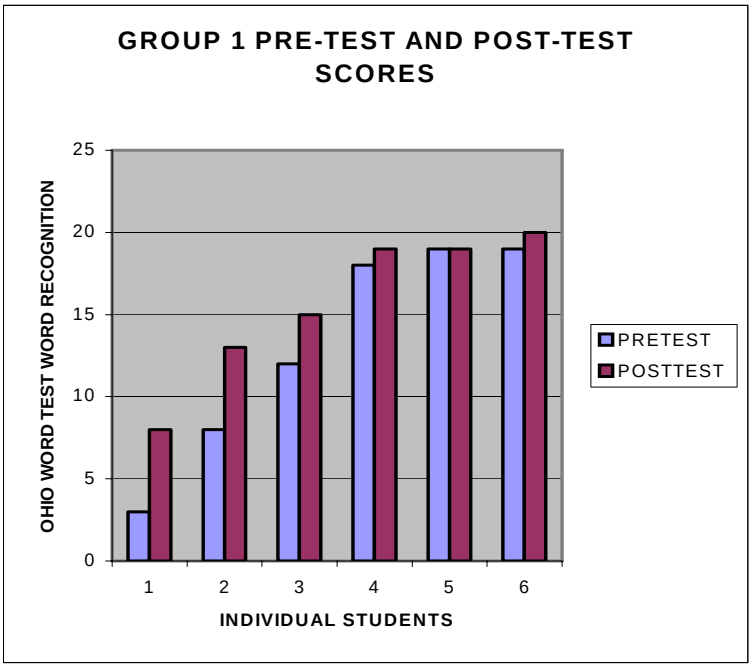


Figure 1. Group 1 pre-test and post-test scores.

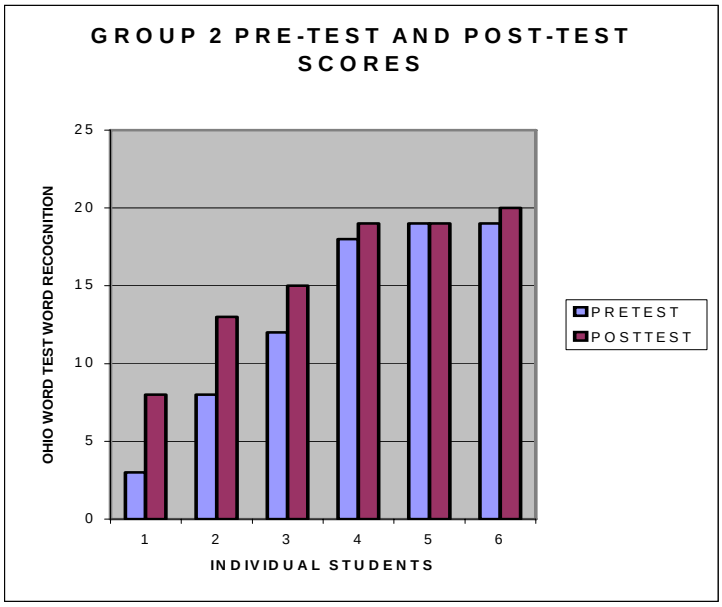


Figure 2. Group 2 pre-test and post-test scores.

Comparison of Ohio Word Test scores and students' instructional reading tests did not render noteworthy differences. Those students who tested high on the Ohio Word Test also scored high on the classroom's instructional reading tests. Comparing all students' pre-test and

post-test scores presents interesting results. The pre-test median score was 14.5 and the post-test median was 16.08. In addition, the pre-test mode was 19 and the post-test mode was also 19.

Based on all of these findings, this particular study did not produce noteworthy results to support its hypothesis.

Conclusions and Recommendations

There are many factors that skewed the findings of this research. First, the length of the study was only 2 weeks, in which students took home folders each day. Given more time, for example over several weeks or months, and the study may have found significant results. Second, this study was completed during the second month of a new school year. This is significant because first graders have a lot of adjustments to make at the beginning of the year coming from kindergarten, and the classroom teacher had not addressed significant content yet. If the study was completed later in the year, significant results may have been found. Third, this study was completed in a predominately white, middle-class, suburban elementary school. According to the results of the parent questionnaires, the parents were involved in their student's learning and reading. If the study had occurred in an elementary school of lower socio-economic status, more diversity, or inner-city setting, the results probably would have been different. Finally, there could be other extraneous variables not accounted for that skewed the results.

There are many ways that teachers can try to encourage parental involvement, and the literacy bags are one of those ways. It is important for teachers and parents to continue to be involved with students and to foster good communication between each other. In my research, I did not find specific grants available for this study, but grants are available for those interested in further studying this subject. Technology could also be used in conjunction with this subject by looking at whether or not students use computers at home and the use of computers in relation to

literacy rates. Teachers can also use technology to organize, analyze, and monitor student progress and participation in literacy-based research. Based on this study and others, it is clear that more research is still needed to determine which methods may be the most successful.

APPENDIX A: PARENT INFORMATION LETTER AND CONSENT FORM

Dear Parent/s,

I am Maggie Travers, and I am a UTC Graduate student teacher in your child's classroom with [teacher]. During this time, I will be conducting my Graduate class project, and I am asking for your help! Students who agree to participate, along with their parents, will bring home an activity bag each day. Some of the bags will have a book and activities to complete and some of the bags will just have activities. I will give you specific instructions on whether you are to help your child complete these activities or read these books when the bags are sent home. Each day, students will bring back the activity bags and will check out a new bag. These activities do not require a lot of time, and I anticipate only sending the bags home for about 1 1/2 weeks. Participation is completely voluntary and all information will be kept confidential. If you are interested in participating, please fill out the enclosed consent form and questionnaire. I will also need your child to sign the Student Consent form. These three forms should be sent back to [teacher's] classroom as soon as possible. Thank you for your time!

Sincerely,

APPENDIX B: PARENT QUESTIONNAIRE

Parent Questionnaire

*For the purposes of this class project, please fill out this survey as far as you are comfortable. All answers will remain confidential and will only be available to the researcher, research advisor, and cooperating teacher. All answers are to be an approximation.

Name of student_____

How many people are in your household regularly?_____

How many older siblings does the student have?_____

How many younger siblings does the student have?_____

How many books do you or your spouse read to the student each week?_____

How many minutes per day do you generally read to the student?_____

How many minutes would you suppose that the student reads alone each day?_____

How many books would you suppose that the student reads alone each day?_____

Do you like to read?_____

What types of print do you have at home? (Check all that apply)

newspaper magazines books comic books pamphlets

What is the native language spoken at home?_____

How many minutes per day do you read for pleasure?_____

Do you help the student complete his/her homework?_____

Do you discuss schoolwork the student completes and brings home?_____

Do you think it is important for students to review at home what they have learned in school?
_____

APPENDIX C: OHIO WORD TEST

Test score /20

Stanine Group:

Ohio Word Test Score Sheet

Date:_____

Name:_____ **School:_____**

Recorder:_____ **Classroom Teacher:_____**

Record incorrect responses.
Choose appropriate list of words. **√ Correct response** • No response

LIST A	LIST B	LIST C
and	ran	big
the	it	to
pretty	said	ride
has	her	him
down	find	for
where	we	you
after	they	this
let	live	may
here	away	in
am	are	at
there	no	with
over	put	some
little	look	make
did	do	eat
what	who	an
them	then	walk
one	play	red
like	again	now
could	give	from
yes	saw	have

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REDUCING HIGH SCHOOL DROPOUT USING ACCELERATED READING PROGRAMS AND TEACHER-STUDENT MENTORING

Joanne Veatch

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project 03-.

Introduction

Dropout prevention has been a hot topic in education for 50 years, though it has been a serious problem for far longer. The high school dropout rate in 1900 was 90% (Tompkins & Deloney, 1994) and in 1950 it was 47% (Snyder & Shafer, 1996). In 1995, the nationwide high school completion rate was only about 57% (Snyder & Shafer). Yet, by 2014, according to the No Child Left Behind Act, all schools are supposed to have 100% of their students complete high school in 4 years and a summer, including those in special education and CDC classes, no matter how severely they are challenged. Congress and education experts agree that American youth need to complete their high school education in order to have a positive economic and social impact on the community in which they live. "Earning power and educational attainment are highly correlated" (Tompkins & Deloney, 1994, p. 27). A strongly-structured, two-pronged approach to the dropout problem in Sequatchie County should probably include both teacher-student mentoring and accelerated reading programs.

Noncompletion of high school fuels multigenerational poverty. Adults who do not have a high school diploma cannot expect to earn more than minimum wage or to advance significantly in a profession. High school dropouts face limited possibilities in life because they have not learned some very basic skills they need to compete in the job market. Noncompleters consistently show a skill deficit in reading comprehension (Tompkins & Deloney, 1994, p. 41).

There is also general agreement regarding the myriad causes of student disconnection from school. Theories and programs abound regarding ways to reconnect students with schools. In the past 20 years, many "quick fix" or fad programs have been touted with various levels of success, both real and fabricated. Improving reading comprehension has been, consistently, one of the surest ways to help the most people help themselves to a better life.

The written word is powerful. Teaching people to read and to understand what they are reading empowers them. Throughout history, the ruling classes have reserved education for the aristocracy in order to control the ignorant masses. During the middle ages, clerics kept reading to themselves to keep the "power" for themselves. In many cultures, the citizenry have been forbidden to learn to read. In America's history, it was forbidden and illegal to teach a slave to read. Frederick Douglass tells what happened when his master, Mr. Auld, learned that his wife had been teaching Mr. Douglass how to read. His account is, at once, sad and valuable (Douglass, 1993):

> Just at this point of my progress, Mr. Auld found out what was going on, and at once forbade Mrs. Auld to instruct me further, telling her, among other things, that it was unlawful, as well as unsafe, to teach a slave to read. To use his own words, further, he said, "If you give a nigger an inch, he will take an ell. A nigger should know nothing but to obey his master—to do as he is told to do. Learning would *spoil* the best nigger in the world. Now," said he, "if you teach that nigger (speaking of myself) how to read, there would be no keeping him. It would forever unfit him to be a slave. He would at once become unmanageable, and of no value to his master. As to himself, it could do him no good, but a great deal of harm. It would make him discontented and unhappy." (p. 57)
>
> I now understood what had been to me a most perplexing difficulty—to wit, the white man's power to enslave the black man. It was a grand achievement, and I prized it highly. From that moment, I understood the pathway from slavery to freedom. (p. 58)

Reading is such a powerful tool that it is the main route to higher education. If one can read well, one may educate himself on virtually any subject. Anything that may be imagined may be written down to be read by anyone else who is interested. This single tool opens unending possibilities for a skilled reader, while shutting the door of opportunity in the face of poor readers.

Poor readers are left out of the most important of life's activities. Imagine someone living without the ability to do more than sound out words. This person will probably not feel comfortable traveling outside of his community. He won't be able to read street signs or restaurant names. Reading a map will be quite a chore. He will probably stay in the small community he already knows. He will work in a minimum wage factory job if he doesn't work for a relative or friend. Because he isn't able or comfortable reading training manuals, he isn't likely to advance far in his position. He might look for a better job opportunity in the newspaper want ads, but it is unlikely. He will wait until he hears about a better opportunity from one of his friends.

At home, our imaginary friend will not be reading for entertainment. He will rely on the television for most of his information about the world. At work and at home, this individual is boxed in by his own poor reading skills. He may have the same rights as every other American, but, if he can't read, he cannot access those rights. A person who cannot read will never truly know what "free speech" really means because so much of our free speech is written!

A person who cannot read is in severe danger of becoming a dropout, especially if he is plagued with other socioeconomic or social deficiencies. Providing reading-strategies classes, along with a teacher mentor, might improve a struggling student's chances of graduating.

Relevance

Rural Appalachian counties, like Sequatchie County, Tennessee, are afflicted with multigenerational poverty (Tompkins & Deloney, 1994). It is depressing to see hordes of young people give up on education before their adult lives have even begun. Yet, every year, teenagers drop out of high school in this area. A few of these teenagers eventually will realize they need at least a high school education, and those few will enroll in a General Equivalency Degree (GED)

program. The majority of high school dropouts will never go back to school. Most dropouts never realize that they could achieve more than their parents or grandparents. They accept that they will eke out an impoverished existence because the generations before them have lived in poverty.

The only way to break the cycle of multigenerational poverty is to keep our students from giving up on themselves and throwing away a high school education. Almost all of our dropouts have difficulty in reading comprehension. There is a correlation between eighth grade reading comprehension tests and cohort-group dropout rates 3 years later. In general, classes that test poorly in eighth grade reading comprehension and vocabulary skills also have a higher dropout rate 3 years later. Reading comprehension appears to be one of the root causes of student dropout.

Review of Literature

The causes of school dropout are as individual as the students themselves, but in poor, rural areas, there are some consistent themes: low socioeconomic status (SES), transiency, student behavior (drug use, participation in school), low achievement, work, sexually-related behavior (sexually-transmitted diseases, pregnancy, lack of sexual knowledge), etc. All schools attempt to compensate in different ways for these problems. In rural school districts, like Sequatchie County in Tennessee, one of the leading predictors of dropout is a high rate of behavioral problems, including discipline problems and truancy (Bhaerman & Kopp, 1988). The State of Tennessee states in their Annual Reports every year from 1996 to 2003 that "attendance rates are important because they may affect students' achievement." Some other indicators of struggling students are poor reading comprehension skills, discipline problems, non-participation

in extracurricular activities, and association with friends who are not in school. These behaviors begin long before the student reaches high school.

Most studies show that seventh grade is a turning point in a student's educational career. Ninety percent of dropouts or freshman failures had significant difficulty in the seventh grade (Freeman, Gum, & Blackbourn, 1999). There are many reasons cited for this. The seventh grade is a time when students are introduced to an increased load of new concepts to master. The school structure changes from the routine closeness of elementary school where they have the same teacher and classmates in the same classroom all day every day. The middle school or junior high school is a more fragmented structure where students change classes up to seven times a day, are exposed to many more peers, go to different rooms, and have different teachers for each class.

Students may have been able to bluff their way through or get promoted along until the eighth grade. By the eighth grade, students are beginning to have to read and comprehend vastly different subjects on their own and at a much faster pace than before. Students who show reading and vocabulary difficulties on the Tennessee Comprehensive Assessment Program (TCAP) or TerraNova at the end of the eighth grade have a higher risk of retention in the ninth grade (See Data Collection and Results). Students who fail one or more classes in the ninth grade are at risk of dropping out of school (Miller, 2000). In fact, many freshmen are absent so frequently that they have essentially dropped out of school, at this point.

According to Tennessee state law, all students must attend school until they either graduate or turn 18 years of age. Most freshmen are 14 years old, so those who have begun dropping out as freshmen have four years of "hard time" to serve before they are "paroled" (can legally dropout). These students are often disruptive in the classroom because they are usually

failing their classes. Teachers have a class full of students to teach and disruptive students make it hard to teach the rest of the class. When troublemakers don't show up for school, it is usually a relief to their teachers.

Truancy is a hard battle for the school to fight. If the court pursues a truant teen, the judge has few options. An unruly, truant teen can be "sent off" to the Cookeville Juvenile Detention Center. This action costs the county $150 per day. That cost is an expensive solution which may not be much of a deterrent. The judge can order the parent to sit in jail for every day their teen misses a day of school. That is an incentive to parents to make sure that their child does attend school. In either case, the parents are usually unsupportive of the school system. When parents don't believe in and don't support the idea of education, then neither do the students.

Most students know how to juggle the truancy issue. The teen skips enough to fail his classes on attendance rules violations, but he comes to school just often enough to keep from going to court. If they can keep dodging the truancy officer until age 17, the student becomes eligible for the work—study program or obtaining a GED, which is not the same as earning a regular high school diploma. GED is a band-aid approach to education: patch up the weak spots, test, then send them into the work force.

High school dropouts know that they are the dregs of the class and that they are being minimally prepared to join the work force. Most of our dropouts grow up in poverty. Their homes are often dilapidated; they have insufficient healthcare and they are often victims of crime. Unemployment of their primary caregiver is a constant threat. As poverty kids, they are used to doing without and having low expectations themselves. They do not seem to question the low expectations others have for them. Many of our students are just trying to survive.

Often, many of our poverty kids have never seen a dentist. They "live for months with pain that grown-ups would find unendurable. The gradual attrition of accepted pain erodes their energy and aspiration" (Kozol, 1991, 21). This is true all over the country. Jonathan Kozol wrote about it in *Savage Inequalities*, while describing the ghettos of East St. Louis, Chicago, and New York City. Last year, a student of mine was getting fitted for dentures because all of her teeth were falling out. At age 18, she had beaten the odds and survived to graduate high school, but her mother's methamphetamine lab had taken her teeth. The red phosphorus used in making the methamphetamine replaces the calcium in the bones of the face, so her teeth were falling out. Despite her horrible home-life, she had stayed in school and fought through to the finish line; she earned her regular education high school diploma. This momentous accomplishment was not celebrated by her family. Her father was in jail and her mother was too drunk to attend the graduation ceremony.

This student's story is unfortunate, but it is not unusual. For our poverty kids who read well, another critical specter haunts them: lack of parenting or mentoring. High schools have specialized classes in order to provide better academic classes and higher student achievement. This system works well for most students, but studies show that dropouts are unable to cope with the high school system alone. Psychologically, dropouts have at least these things in common (Bhaerman & Kopp, 1988):

- They feel rejected by the school.
- They do not identify with school life.
- They cannot relate to authority figures.
- They have a poor self-concept and lack a clear sense of identity.
- They are socially isolated.
- They are attracted to outside jobs, wages and experiences. (p. 11)

These feelings, coupled with other factors such as low SES, lack of parental guidance, etc., often lead to strong feelings of alienation. As the student approaches high school, the stress builds.

By the end of the freshman year, a seriously-alienated student will have "disengaged" from school.

This dramatic change comes at an important developmental time in the life of a child when their bodies, thoughts, and feelings are undergoing dramatic, sometimes traumatic, changes, as well. During this stressful time, the loss of the personalized setting they experienced in elementary school may lead to student alienation. Changes in the school setting, coupled with difficulties reading and other stressors, like poverty or low self-esteem, significantly increase the probability of student disengagement. An alienated, disengaged student is much more likely to drop out of school than a well-adjusted, engaged, and involved student.

There are two types of disengagement: active and passive. Active disengagement includes misbehavior, delinquency, and criminal behavior. Passive disengagement is inattentiveness, truancy, and absenteeism. Students who are either actively or passively disengaging from school are in the process of dropping out. Both types of disengagement can be helped with accelerated reading-strategies programs and teacher-student mentoring.

Accelerated Reading Strategies

After more than a decade of "reading wars" in which reading experts competed to display whatever strategy they believed to be "the best," a loud voice is now calling out from the wilderness of educational journal publications: The U.S. National Reading Panel. The NRP was formed at the request of the U.S. Congress in 1997 to "decide what works in reading education on the basis of a formal review of research" (Shanahan, cited in International Reading Association, 2000, p. 1). This panel is arguably one of the foremost authorities on reading in American public schools. In April 2000, the NRP issued a report concluding the following, based on empirical evidence (Shanahan, cited in International Reading Association, 2000):

- No single method of vocabulary instruction is most effective; instead, using a variety of methods leads to increased vocabulary learning.
- There is a high correlation between vocabulary instruction and reading comprehension.
- Readers who are instructed in a variety of cognitive strategies make significant gains in reading comprehension.
- Some comprehension strategies are more effective than others. Teachers who are trained in these strategies can help their students achieve increased levels of comprehension. (p. 2-3)

Each of the concluding points of the NRP sounds like conclusions that would be easily reached. However, there is such a huge sprawl of print available on the subject of reading education, that it is difficult to sift out the opinions based on empirical data collection from opinions based on less tangible information. In short, discerning what is based on good science and putting aside the vast print based on anecdotal evidence is a huge task! The four points of the NRP report coincide with several large educational experiments that support the panel's findings. One of the most prominent of those reading programs took place in Austin, Texas.

In 2000, Austin Independent School District issued an Executive Summary evaluating their Summer Opportunity to Accelerate Reading (SOAR). Their program is a 21-day, elementary, summer school program that "served 2,406 children grade 1—3 who were below grade level in reading and/or at risk of retention" (SOAR, 2000, p. 3). The district funded the program with federal Title I funds, a state of Texas "*Student Success* Initiative grant, and local dropout prevention monies" (SOAR, 3). This study was particularly relevant because instructors attended professional development programs to improve their skills in teaching reading strategies. On the whole, students improved an average of 2.1 reading levels during this program, according to Developmental Reading Assessment (DRA) pre- and post-test scores. That is such a phenomenal gain that it warrants consideration in our school district. The students

in the SOAR program were elementary age, but there are some programs available for high school that could really help our students improve their reading comprehension.

Much has been written about the importance of reading comprehension and how to improve it, but one of the most impressive works on the subject is *I Read It, But I Don't Get It,* by Cris Tovani. A high school reading teacher, Ms. Tovani explains in detail how to teach each reading strategy. Her book is filled with real life examples of hands-on teaching. She includes stories and dialogues with her students as they struggle to get meaning out of the words on the paper in front of them. All of the sass and frustration of real teenagers come alive for the reader. It is a slim book that takes you through the joy and frustration of trying to help kids who have already given up on themselves. One can sense the impending disaster of a lesson gone awry in her classroom observations, then see how a gifted teacher can turn the class into a valuable lesson.

Ms. Tovani has not created new reading strategies. She explains in a practical way how average teachers can teach these same strategies to their students. What is unique about her book is that she admits how hard it is to get defeated kids to want to try again. For students who have been lost in class for years, and who have accepted that they are the dregs of their class, this change is miraculous. As a teacher herself, she has experienced the pitfalls of lesson plans that have bombed. She tells exactly where the mistakes occurred and how to recover. Her genius is that she can admit to herself and her students when something isn't working and yet go on. The students show by their actions and dialogue that they see hope in her perseverance to teach them.

Ms. Tovani shows teachers how to give students chances to be successful in reading. And they begin to try to help themselves again. One small step towards understanding what they read leads to another. Breaking down reading strategies into digestible bites helps teachers learn

how to successfully teach their students to understand what they are reading. Without patronizing either teachers or students, Ms. Tovani gives clear examples of what an effective high school reading class goes through in a typical semester. In just 140 pages, a teacher can hear and read what can be accomplished and learn exactly how to do it.

Each section of *I Read It, But I Don't Get It* includes a description of one reading comprehension strategy. There is substantial dialogue of typical classroom discussion about the strategy and the material the students are reading. Ms. Tovani tells how she developed a lesson plan for the strategy and how the students responded to it. At the end of the section is a bulleted synopsis of the most important points in teaching that particular reading strategy. The appendix includes actual worksheets she calls "comprehension constructors." An English teacher could take the book, as it is, and develop a complete class in remedial reading. This is because the book describes the remedial reading classes that Cris Tovani has developed and taught for Smoky Hill High School in Aurora, Colorado.

Does suburban Colorado have students, social problems, and schools similar to rural Tennessee? Any veteran teacher can read about the classes and students in Aurora and hear and see their own classes and students in the text. A fellow teacher of Tovani, Ellin Oliver Keene, gives the following advice and encouragement of the forward (Tovani, 2000):

> Cris (Tovani) teaches us that kids of any age and background who are treated with respect, trusted to be brilliant, and shown how to be more proficient readers and writers, will dramatically surpass our highest expectations. (p. ix)

Teacher—Student Mentoring

Studies regarding student alienation and disengagement agree that students need to be part of a small core group of peers in order to have their emotional and intellectual needs met. Each student needs to have at least one adult on whom he/she can rely and who will be

consistently available to him/her. Faculty advocates and mentors can get to know each student individually and help him/her with a variety of problems without crossing the line into psychological counseling. Just having an adult role model who is available to hear a student's story and intervene on his behalf can lessen a child's stress and make him feel accepted, important, and cared for in the school setting. Mentors also provide a good source of communication with parents by following the student's academic career and following up on attendance and health issues. Most important of all is that mentoring provides an opportunity to strengthen teacher—student relationships.

While high school students are busy growing up and pulling away from adults in order to seek their independence, these same students still depend on and need strong adult relationships. Countless studies have cited negative teacher—student relationships as a reason for student dropout. These same studies cite students who stay in school because of a "good teacher" (Wells, 1989, p. 4). Obviously, creating a positive school environment begins at the classroom level with the teachers, so it makes sense that creating positive school experiences could spring from teacher—student "bonding."

Students are more likely to stay in school when teachers create a flexible, people-oriented environment (Wells, 1989, p. 4). In addition to more reading instruction for struggling students, various government advisory boards and associations, like the National Association of Secondary School Principals (NASSP), have suggested that schools promote bonding between students and teacher-mentors (Miller, 2000). Teacher-student mentoring can help students in many ways, and can often lead to "bonding," which can encourage students to "reconnect" or "re-engage" with their school. Keeping or getting students actively engaged in school activities is vital to discouraging school dropout.

The dropout situation in America has been studied for generations by educators, sociologists, psychologists, and politicians. Their work has identified many causes and underlying factors. It is imperative that the knowledge gained by these studies is turned into actions which result in the improvement of the high school completion rate. Both accelerated reading and teacher-student mentoring show great promise, if they can be implemented.

Data Collection and Results

Sequatchie County School District is a long, narrow geographic area that includes two mountain ridges and the valley between them. Unemployment in Sequatchie County has remained at about 5% for the last 2 years. The school district encompasses the entire country and has one elementary, one middle, and one high school. Both the elementary and middle schools have qualified for 100% Title 1 funds since the 1996-97 school year. The high school has been short just three or four students in order to qualify for full Title 1 funding for the last several years.

For the last 3 years, the average high school population has remained at about 540 students from the 9^{th} through the 12^{th} grades (Swafford, Personal communication, March 9 and 26, 2004). Sequatchie county is a small, interrelated, farming community. There is not significant ingress or egress of people moving into or out of the valley. Students who enter or leave the district are usually just coming or going up or down the valley to neighboring Bledsoe or Marion counties. While the majority of our students stay in Sequatchie County School District from beginning to end, we do have problems with transience. There are two main types of transient students: "county bouncers" and "homeless, bed-for-a-night seekers."

The "county bouncers" are students who habitually move back and forth across the county line to either Bledsoe or Marion counties. These students bounce back and forth between

two homes in two different districts. They generally end up losing course credits while changing schools mid-semester. This type of transient student quickly falls behind their cohort group.

The beleaguered "homeless, bed-for-a-night seekers" carry their clothes to school every day and look for a friend that will let them spend the night. This poor soul moves from one friend's house to the next, but never leaves the district. Every year that I have taught at this school, I have had at least one student who stored their duffle bag in my class for this purpose. These students usually fail classes due to nonattendance. There was a rare exception to that generality in the class of 2000. A male student who had fought his way all the way through school finally ran out of places to spend the night. A member of the faculty discovered the young man had been sleeping in the baseball dugout for the 2 months prior to graduation!

Another sign of Sequatchie County's poverty is that it is part of a small cluster of counties in Tennessee that has the vast majority of methamphetamine labs in the state. Tennessee leads the nation in methamphetamine production. My sister has worked for several years in the Eastern Tennessee Drug Task Force, which is headquartered in Dunlap. As a paralegal/legal researcher for the U.S. Attorney General, she helps prosecute "meth cooks" and tracks drug abuse facts for the state. Though much smaller in size than California, Tennessee, another hot-bed of methamphetamine production, has many times more numbers of "meth" related arrests, convictions, and investigations!

Clearly, Sequatchie County is a socioeconomically disadvantaged area. Many students want to work, and many students have to work to help support their families. These students often have only one parent in their home, though we also have students who live alone, without any parents. Sometimes, they take turns living with different friends if their home-life is a nightmare or if they have been kicked out. Some students are orphaned and live with an older

brother or sister. A sophomore currently enrolled at the school is living in a trailer in the country with her 18-year-old brother. Their mother abandoned them when she was an infant and their father died last year. Her only transportation is a school bus or a bicycle. Poverty is cruel. People who live in poverty seem to live harder and die younger than people who don't live in poverty. Of the last 10 Sequatchie County students who died while enrolled in the high school, 8 were poverty kids (G. Anchors, Personal communication, December 7, 2003).

Students with really unstable family situations tend to move around the community a lot. But because they live day to day and place to place, these students are isolated and do not feel like they are truly a part of the community. Students with such a load of family problems suffer physically and mentally. Many of our students do not get regular health care, never see a dentist, and seem always to be sick. They do not eat regularly or well. It is sad, but common, to hear students say that they come to school to get a meal and because it is safer than being at home. No wonder these teenagers have poor self-concepts and feel socially isolated! Of course, they lack a clear sense of identity and cannot identify with school life. Some of the students are just trying to survive every day. Doing homework and participating in class is difficult for these students. Most of the students at risk of dropping out have been barely scraping by for years. The jump from eighth to ninth grade is insurmountable for these kids. Eighth-grade reading test scores are predictors of who will not be able to survive high school. In our school system, all eighth graders are promoted, regardless of failures, resulting in a ninth grade class with a significant group of students who are not academically or socially prepared for the rigors of high school life. The growing group of freshmen who do not earn enough credits to become sophomores have begun calling themselves "freshmores." Statistically, this group represents the bottom half of the school's Gateway and TCAP assessments. The "freshmore" or "red-shirt

freshman" group has a unique culture, generally built around low expectations, low achievement, and socioeconomic disadvantage. Since state law requires them to remain in school until they can enter a work program at age 17, these students are basically hanging out, waiting to drop out of school. This group is at the center of the school's dropout group. Finding out how this group has formed is central to developing a preventative strategy. A lot of data is available that shows in what assessment areas these students struggle. Careful study shows what some of the predictors of dropout at the school are.

Dropout Indicators and Predictors at SCHS

Each graduating class in high school has its own unique style, feel, and attitude. That is why teachers tend to talk about classes as a composite group. For example, the teachers generally agree that this year's freshman (class of 2007) are emotionally immature and difficult to teach. There are students who do not fit that description, but they are a part of that group and they know it. The quirky personalities and habits of the majority of the group tend to flavor the entire group with a unique personality. In a small school district like Sequatchie County, all of the students in a class know each other, and, usually they have grown up together. The students tend to think of themselves as large, dysfunctional families. The students think of themselves as part of the particular class in which they plan on graduating. The teachers group the students in the same way, but the state records statistics and test results for these students somewhat differently. Instead of following the progress of these students as a cohort group, data is reported by year and grade level. For example, the percent of students scored as "competent" on the TCAP writing assessment in seventh grade in 1999-2000 is 57.4%. That sounds perfectly rational until you try to look at the progress of a certain high school class from the beginning of school through graduation! Exactly which year's cohort graduating class is the seventh grade in

school year 1999-2000? It is the class of 2005, or this year's juniors. The data is available, but it is confusing. The point of showing what three consecutive fourth grade classes scored on the TCAP writing competency is to see if the fourth-grade teachers are improving their teaching methods and if the schools are on a similar level with other regional schools at that exact moment. That is valuable information for administrators and politicians, but teachers want a different view.

High school teachers want to see what the profile of our graduating groups is. The class of 2003 is a good example. As a group, last year's seniors were very bright. They sailed through school with a minimum of trouble. With few exceptions, they were a polite, well-behaved group. How many of them dropped out? What were there test scores like throughout school? How do those statistics compare with the freshmen group we currently have terrorizing the school? We want classes like the seniors we graduated last year. We want to help the classes like the freshman group we have now. It is as valuable for us to see how cohort classes compare within our system as it is to see how our students compare nationally and state-wide.

This project was designed to ascertain any significant correlations between individual cohort groups and factors such as TCAP language, writing and reading assessments, cohort dropout rates, Title 1 eligibility, and attendance rates in Sequatchie County School District. Since there are so few students in each cohort class, teachers get to know every student in each class and get a general feeling for its uniqueness, but that is merely anecdotal evidence, and empirical data is needed to prove or disprove the teacher's lounge conclusions drawn so far. Obtaining and digesting this publicly available data is really difficult. The biggest obstacle appears to be that the state of Tennessee has not followed one set testing type or regimen for longer than 5 years at a time! The data is rarely reported in the same breakdown 3 years in a

row, and often the data is so general or combined with so many other groups that it is not reliable to assign to any one cohort class. All of the data in the tables and charts and graphs which follow was gleaned from the hundreds of thousands of pages of demographic and test data archived on line by the State of Tennessee Department of Education (1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003).

Keep in mind the specific meanings and exact nature of the terminology used in educational research. The "cohort dropout rate" is defined in the introductory paragraph of the dropout statistics page of the State of Tennessee Report Cards 1995 through 2003 as "the percentage of an entering ninth grade class that has dropped out by the end of twelfth grade." "Attendance rates" are "average daily attendance" recorded each day for the school year, added together, and divided by the annual number of school days. "Free/reduced-price meal program participation" refers to the number of students whose parents filled out the eligibility form used to determine economic need, divided by the school population (V. Wheeler, personal communication, February 5 and March 26, 2004). "Title 1 participation" refers to the percentage of students, district-wide, that participate in the free/reduced-price meal program. However, that is not a straight percentage of participating students! Once a school has 60% Free/reduced-price meal program participation, the school becomes designated as 100% Title 1 eligible. That means that, even though some percentage between 39% and 0% of nonparticipation exists in the free/reduced-price meal program at 100% Title 1 eligible schools, 100% of their students are classified as participating Title 1 students. Figure 1 presents an example of how 100% Title 1 participation eligibility in small number of schools can change the true average of Title 1 participation.

	Free/Reduced-Price Meal Participation	Title 1 Participation
Elementary School	70%	100%
Middle School	67%	100%
High School	58%	58%
District Average	**56%**	**86%**

Figure 1. Participation percentages for free/reduced-price meal participation and Title 1.

Despite the fact that there are many published journal articles that insist that attendance rates and cohort dropout rates are correlated, I found no evidence of that in this district or state statistics. Figure 2. shows that the attendance rate varied very little in both the state and in Sequatchie County from 1994 to 2001, yet the cohort dropout rate, has been quite variable during that time period. Since the attendance rate for each year includes all other classes at the school during that school year, it may be that there is a correlation between attendance and dropout rates. It's possible that averaging the noncohort classes with the cohort classes skews the attendance rate somewhat. Until the state starts breaking out attendance rate into cohort graduation classes, there is no way to show a true comparison between the two.

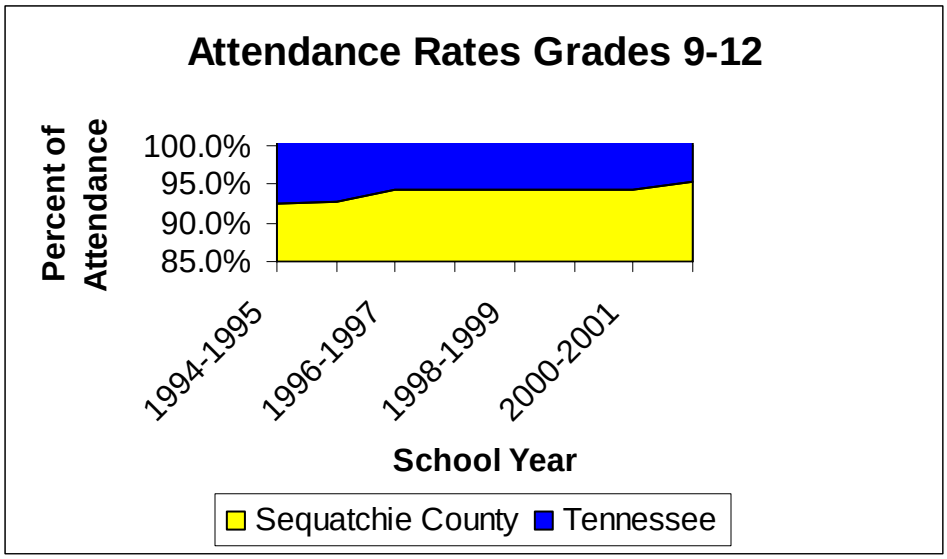

Figure 2. Attendance rates for Sequatchie county and Tennessee

The 11th -grade writing assessment shows minimal correlation between competency results and cohort dropout rates. The higher the group competency percentage is on seventh and eighth Grade TCAP language and reading tests, the lower the cohort dropout rate appears to be for the correlating cohort class. However, the 11th -grade writing assessment is not a good predictor for cohort dropout. Usually the students have already dropped out by the spring of their junior year, so the assessment does not measure both the completers and noncompleters. In fact, very few students who drop out have advanced to 11th -grade language arts classes with their cohort group, so their scores are not included in the 11th -grade writing assessment results.

> Figure 3 compares the cohort dropout rates of both Tennessee and Sequatchie County. Students at this school scored well above the state mean in the school years represented in the table. There is a spike in both the state and county scores for 1996-97 and 1997-98. When I asked the veteran teachers at the high school what might have caused those spikes, I was told that the assessment test those 2 years had great prompts. These teachers even looked up what the prompts were from those years and told me the comments that their students made about how easy the test was!

	Cohort Graduation Year				
	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001
Sequatchie County					
11th-grade Assessment	86.6%	94.7%	60.0%	76.9%	70.5%
Cohort dropout rate	12.4%	7.9%	12.5%	9.2%	14.1%
State of Tennessee					
11th Grade Assessment	81.1%	88.3%	54.6%	59.5%	62.1%
Cohort dropout rate	16.4%	15.6%	15.2%	14.4%	13.9%

Figure 3. County and state 11th-grade writing proficiency percentages and cohort drop out rates.

	Sequatchie County Average					State of Tennessee Average				
Graduating Cohort Class Year	7th Grade TCAP Reading	7th Grade TCAP Language	8th Grade TCAP Reading	8th Grade TCAP Language	Cohort dropout rate	7th Grade TCAP Reading	7th Grade TCAP Language	8th Grade TCAP Reading	8th Grade TCAP Language	Cohort dropout rate
1999-2000			61.0%	60.0%	9.2%			56.0%	60.0%	14.4%
2000-2001	40.0%	40.0%	49.0%	44.0%	14.1%	54.0%	59.0%	56.0%	63.0%	13.9%
2001-2002	51.0%	40.0%	52.0%	64.0%	15.8%	55.0%	56.0%	55.0%	59.0%	13.9%
2002-2003	**58.0%**	**55.0%**	**55.0%**	**57.0%**	**7.9%**	51.0%	54.0%	58.0%	59.0%	12.5%
2003-2004	38.0%	39.0%	48.0%	48.0%		51.0%	58.0%	54.0%	54.0%	
2004-2005	45.0%	54.0%				46.0%	53.0%			

Figure 4. Average county and sate TCAP scores for seventh-grade and eighth-grade reading and language arts.

During the 2002-2003 academic year, experienced a significant increase in seventh-grade TCAP language arts and reading scores and a significant decrease (approximately 50%) in the cohort dropout rate (see Figure 4). The State of Tennessee, as a whole, experienced some decrease in the cohort dropout rate with an increase in seventh-grade TCAP language arts scores, but the change in the dropout rate is not as drastic as that illustrated by the rural county. There are several possible reasons for the huge decrease in the cohort dropout rate during 2002-2003. The biggest reason Sequatchie County has such large fluctuations in the TCAP scores from year

to year is most likely because the cohort group population is very small. The average cohort group for all the years depicted in all of these charts and graphs is only between 120 and 130 students. That means that every student being assessed represents approximately 0.85% of the entire assessment. If 10 students are having personal problems, don't feel well, are tired, etc. and don't do well on the test, then the whole grade level's assessment results could be altered. Keeping that in mind, it stands out when a cohort group tests consistently and then suddenly has a spike or drop in their assessment scores. That is especially true if that cohort group resumes their average assessment scores in subsequent test years. When a fairly consistent cohort group has a dip or spike in their scores one year, there are three main things to consider. First, was there something going on in the school community that encouraged or discouraged the group at the time of the test? Second, was something going on with one of the cohort group's teachers? If consecutive cohort groups tend to do much better or much worse at the same point in their language arts education, is there any connection to any one of that grade level's teacher? Third, were most of the cohort group's members present on the day of the test? If the top 10 or the lowest 10 students in a cohort group are ill on the day of the test, it would have a huge impact on the school's small cohort groups.

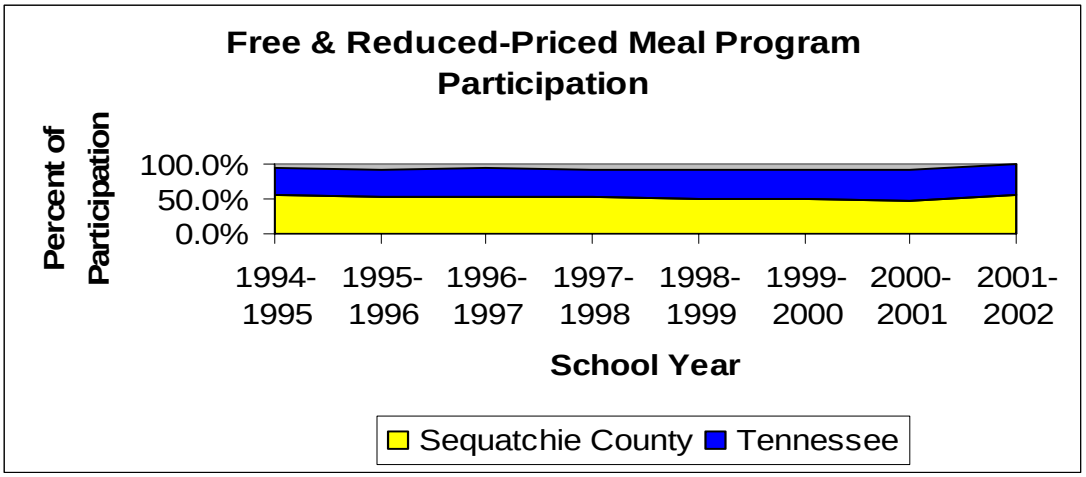

Figure 6. Free and reduced-price meal program participation.

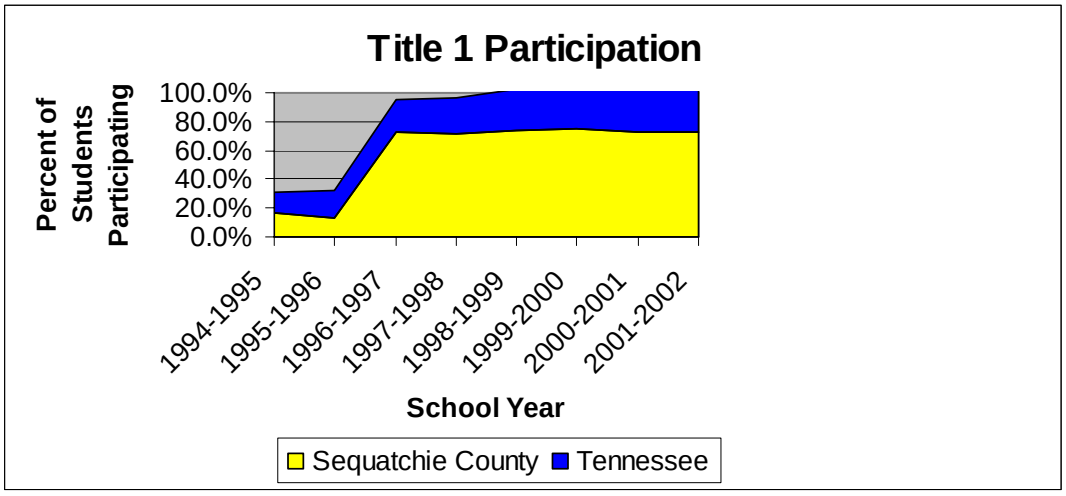

Figure 5. Title 1 participation.

There is little point in contrasting Title 1 participation and the free/reduced-Price meal participation since they are virtually the same thing. The one obvious difference between the graphs is the huge dip that occurs during 1995-1996 on the Title 1 graph. That portion of the graph shows dramatically what happened the year that two of our three schools were declared 100% Title 1 participatory. Looking at the data from those two sources of demographic information does show how much poorer our district is in relation to the state of Tennessee. What will eventually become more important is the study of socioeconomically-disadvantaged students' state test results versus test results of students who are not socioeconomicaly disadvantaged. That data has only been broken out in the last two State of Tennessee Reports. Figure 7, Reading Scores of Economically Disadvantaged vs. Not Economically Disadvantaged Students, and Figure 8, Language Scores of Economically Disadvantaged vs. Not Economically Disadvantaged Students, dramatically show the gulf between the "haves" and the "have-nots." That there is a wide divide between economically-disadvantaged and noneconomically-disadvantaged student assessment scores is not a surprise. Educators, parents, and lawmakers

have known about that wide divide for decades. What is surprising is that, prior to 2001, those assessment results were not disaggregated by economically-disadvantaged and noneconomically-disadvantaged student groupings.

Reading Scores of Economically Disadvantaged vs. Not Economically Disadvantaged Students

	Cohort Graduating Class							
	2004 - 2005	**2005 - 2006**	**2006 - 2007**	**2007 - 2008**	**2008 - 2009**	**2009 - 2010**	**2010-2011**	**2011-2012**
3rd Grade Economically Disadvantaged						**55.0 %**	**52.0 %**	**56.0 %**
3rd Grade Not Economically. Disadvantaged						67.0 %	68.0 %	67.0 %
4th Grade Economically Disadvantaged					**49.0 %**	**43.0 %**	**60.0 %**	
4th Grade Not Economically. Disadvantaged					72.0 %	66.0 %	58.0 %	
5th Grade Economically Disadvantaged				**45.0 %**	**55.0 %**	**40.0 %**		
5th Grade Not Economically. Disadvantaged				59.0 %	79.0 %	56.0 %		
6th Grade Economically Disadvantaged			**44.0 %**	**41.0 %**	**49.0 %**			
6th Grade Not Economically. Disadvantaged			59.0 %	30.0 %	65.0 %			
7th Grade Economically Disadvantaged			**42.0 %**	**40.0 %**	**53.0 %**			
7th Grade Not Economically. Disadvantaged			65.0 %	56.0 %	56.0 %			
8th Grade Economically Disadvantaged	**50.0 %**	**55.0 %**	**46.0 %**					
8th Grade Not Economically. Disadvantaged	65.0 %	61.0 %	71.0 %					

Figure 7. Reading scores of economically disadvantaged vs. noneconomically disadvantaged students.

Language Scores of Economically Disadvantaged vs. Noneconomically Disadvantaged Students

	Cohort Graduating Class							
	2004-2005	**2005-2006**	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**	**2010-2011**	**2011-2012**
3rd Grade Economically Disadvantaged						**52.0%**	**52.0%**	**53.0%**
3rd Grade Not Economically Disadvantaged						68.0%	71.0%	74.0%
4th Grade Economically Disadvantaged					**54.0%**	**41.0%**	**54.0%**	
4th Grade Not Economically Disadvantaged					79.0%	61.0%	59.0%	
5th Grade Economically Disadvantaged				**40.0%**	**48.0%**	**50.0%**		
5th Grade Not Economically Disadvantaged				58.0%	80.0%	60.0%		
6th Grade Economically Disadvantaged			**46.0%**	**49.0%**	**56.0%**			
6th Grade Not Economically Disadvantaged			64.0%	65.0%	75.0%			
7th Grade Economically Disadvantaged		**45.0%**	**48.0%**	**35.0%**				
7th Grade Not Economically Disadvantaged		59.0%	64.0%	52.0%				
8th Grade Economically Disadvantaged	**52.0%**	**55.0%**	**53.0%**					
8th Grade Not Economically Disadvantaged	71.0%	74.0%	73.0%					

Figure 8. Language scores of economically disadvantaged vs. noneconomically disadvantaged students

Reading, vocabulary, language, and language mechanics are measured in the third through eighth grades annually in Tennessee by the TerraNova test. Studying each year's TerraNova test report analysis of group objectives shows an interesting correlation with cohort dropout rates just 3 years later. Figure 9 specifically shows the progress of cohort groups through many years of school and assessments. One can see how the last 4 years of graduating

classes have performed and how that correlates to the cohort dropout rates. The graduating classes of 2000 and 2002 provide some really interesting proficiency percentages. The cohort dropout rate for the class of 2000 was only 9.2% and that class performed very well on their eighth-grade TCAP reading (61%) and TCAP language arts (69%) assessments. Unfortunately, we cannot see how that group performed from the 5th through 7th grades because the TCAP scores were not broken out into discrete "language" and "reading" categories until 1996-1997, well after that group had would have taken those tests. The same is true of the class of 2001. The only available relevant TCAP scores for that class were from the seventh and eighth grades. The class of 2001 scored very poorly both years on both the TCAP reading (40% and 49%) and TCAP language arts (40% and 44%) assessments. The corresponding cohort dropout rate for the class of 2001 was 14.1%.

The Class of 2002 actually tested better in both the TCAP Reading and Language tests, but their cohort dropout rate was 15.8%. Historically, the Class of 2003 did not test quite as well as the Class of 2001, yet that group's cohort dropout rate was only 7.9%. These statistics indicate a strong correlation between TCAP reading and language scores and cohort dropout rates, but it is not a completely accurate representation of the entire cohort dropout picture. There are other pieces of the dropout puzzle in Sequatchie County and in the state of Tennessee that are not statistically represented in the empirical data gathered by and available from the state of Tennessee. Without more statistically relevant data, it will be impossible to accurately predict cohort dropout rates. The inability to narrowly predict dropout rates is a good indication that educators still do not have a complete understanding of all of the causes of student dropout.

Reading and language arts performance indicators show strong correlation between test scores and student dropout. This leads to at least two conclusions:

c. Student dropout can be somewhat predicted by historical reading and language arts scores.

d. Improving students' reading comprehension and writing skills seem to be fundamental to reducing student dropout.

As a side note, it looks like the cohort dropout rates for 2004 and 2005 are going to be higher than they have been the last 2 years because those classes have relatively low TCAP scores!

Graduating Cohort Class Year	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Cohort dropout rates — Sequatchie	**9.2%**	**14.1 %**	**15.8 %**	**7.9%**				
Cohort dropout rates — Tennessee	**14.4%**	**13.9%**	**13.9%**	**12.5%**				
TCAP Reading in 5th grade— Sequatchie				**49.0%**	**39.0 %**	**56.0 %**	**56.0%**	**54.0%**
" " Tennessee				53.0%	54.0%	56.0%	55.0%	56.0%
" " USA				53.0%	54.0%	56.0%	55.0%	56.0%
TCAP Language Arts in 5th grade—Sequatchie					**47.0 %**	**59.0 %**	**63.0%**	**54.0%**
" " Tennessee					62.0%	54.0%	54.0%	53.0%
" " USA					62.0%	54.0%	54.0%	56.0%
TCAP Reading in 6th grade— Sequatchie		**49.0%**	**53.0%**	**50.0%**	**37.0 %**	**37.0 %**	**55.0%**	
" " Tennessee		51.0%	55.0%	51.0%	54.0%	48.0%	55.0%	
" " USA		51.0%	51.0%	51.0%	50.0%	48.0%	51.0%	
TCAP Language Arts in 6th grade—Sequatchie			**51.0%**	**55.0%**	**37.0 %**	**47.0 %**	**60.0%**	**60.0%**
" " Tennessee			55.0%	55.0%	59.0%	58.0%	56.0%	56.0%
" " USA			55.0%	55.0%	59.0%	55.0%	56.0%	
TCAP Reading in 7th grade— Sequatchie		**40.0%**	**51.0%**	**58.0%**	**38.0 %**	**45.0 %**		
" " Tennessee		54.0%	55.0%	51.0%	51.0%	46.0%		
" " USA		54.0%	55.0%	51.0%	51.0%	46.0%		
TCAP Language Arts in 7th grade—Sequatchie		**40.0%**	**40.0%**	**55.0%**	**39.0 %**	**54.0 %**	**45.0%**	
" " Tennessee		59.0%	56.0%	54.0%	58.0%	53.0%	56.0%	
" " USA		59.0%	56.0%	54.0%	59.0%	56.0%		
TCAP Reading in 8th grade-- Sequatchie	**61.0%**	**49.0%**	**52.0%**	**55.0%**	**48.0 %**			
" " Tennessee	56.0%	56.0%	55.0%	58.0%	54.0%			
" " USA	56.0%	56.0%	51.0%	51%	54.0%			
TCAP Language Arts in 8th grade--Sequatchie	**69.0%**	**44%**	**64.0%**	**57.0%**	**48.0 %**	**49.0 %**		
" " Tennessee	60.0%	63.0%	59.0%	59.0%	54.0%	58.0%		
" " USA	60.0%	63.0%	59.0%	59.0%	58.0%			

Figure 9. Cohort group progress.

Now that reading and language assessments are being disaggregated by economically-disadvantaged and noneconomically-disadvantaged student groups, educators will want to look at other demographics and student and school statistics in the same way. We could get a much more specific overall picture of students who dropout if categories such as student attendance, cohort dropout rates, and the 11th - grade writing assessment were similarly reported. That would make the data much more specific and definitively prove or disprove so many theories regarding causes of student dropout. Realistically, educators don't look at the percent of competency of group assessments—we look at the percent that are not testing in the competent range! Those students who are doing well are getting what they need from the current school setting. Educators want these students to excel and they are showing, through the assessment tests, that they are excelling. Those about whom we can never get enough feedback is the group that is not excelling and who are not flourishing in the current school setting.

That does not mean that educators need to teach to the bottom half of their classes, but keeping the top half of the class interested and learning is relatively easy compared to trying to reach/teach the bottom half of the class. There are many reasons why it is harder to reach/teach the lower students, and the sheer variety and number of those reasons is in itself a reason! The top students have many more personal, social, psychological, and economic resources than the lower students. Continuing to encourage and challenge students who are already experiencing success in school is much less challenging than trying to encourage and engage students who have not been experiencing success in school for years.

It would be interesting to trace the progress of each student who drops out of high school all the way back to their grade school years. But it is very difficult to do that, even in a small district like Sequatchie County. Tracking individual students who drop out of school involves

following the trail of their education to the point of withdrawal from school. Dropouts often move from home to home, parent to parent, and school district to school district. Sometimes, students are absent for long periods of time before they decide to come back to school for a time. Students who are truant and forced back to school by the court usually drift back out of the school after a short time in class again. These students may never come back to officially withdraw from school. To know exactly why our students drop out, one would need to have exit interviews with them. This is possible with very few dropouts. At best, we will only have snapshots of their lives: test scores, Title 1 status, eligibility for free/reduced-price meal programs, and bits of conversation between the dropout and their friends or teachers who have talked with them. By looking at dropouts as part of a cohort group, we can gauge how the entire group performs on standardized tests. We can see what the attendance and cohort dropout rates are and compare them with the reading and language arts scores, but without interviewing the students who have dropped out, we can only guess why they have given up on their education.

Conclusions and Recommendations

The dropout problem is real and present. Whether it is worse now than it was 100 years ago is irrelevant. One child who drops out of school is a crisis. Anecdotally, freshmen who can't read on grade level when they complete their first year of high school tend to dropout of school. The reading tests show a correlation between poor reading comprehension and increased cohort group dropout rates later. All educators want their students to succeed and Congress wants "no child left behind." The school is trying to meet the physical and psychological needs of every one of our 500 students. It seems apparent that a course on reading strategies should be added to our curriculum. Unfortunately, there seems to be no easy way to add an accelerated reading strategies class without canceling some other class that we also need. Due to budget

constraints, we always operate with fewer teachers than we optimally need. Therefore, searching for grant money to fund an accelerated reading strategies course for struggling freshmen appears to be the only plausible solution to budgetary shortcomings.

Sequatchie County teachers are truly committed to providing the best education possible to our students. We worry about our students who drop out. We have committees and focus groups to study the problems of student disconnection. The Freshmen Committee has worked on teacher-student mentoring for the last 3 years. That program has helped in a handful of cases. The school offers incentive programs for good grades and attendance. The school has on-site, state funded work-study and GED program personnel. A school psychologist is always available to talk with students who have personal problems and refer them to the appropriate social service agency. The Guidance Department knows the students personally and helps all students with scheduling classes, career planning, and college preparation and application. What the school needs, but does not yet have, are semester-long reading strategies classes for regular education students to help build reading comprehension skills in this vulnerable population in order to alleviate dropout. At present, the school offers English 9, 10, 11, and 12, Journalism, and College English. There are special education English and reading classes. The majority of Sequatchie County dropouts are not in special education, but they do struggle in regular education English classes. Teaching reading strategies to students enrolled in regular education classes would help these dropout-prone students understand what they read and enable them to reap the benefits that follow. Helping students learn to read better can unlock the box of poverty in which dropouts live. Since research shows that an increase in reading comprehension results in a decrease in dropouts, this program could probably help reduce the overall dropout rate at the

school, which must ever improve to meet the *No Child Left Behind* goal of zero dropouts by school year 2014.

There are many models for teacher-student mentoring. However, there is a lack of information regarding eighth-graders fears and hopes for their crucial freshman year. Will they have the same friends in the same classes? Will they like their teachers? Will the course work be much harder? These are a few likely questions. Can high schools do anything in the eighth-grade to increase the likelihood of freshman success? Perhaps teacher-student mentors could be used to provide comfort, stability, and resources for incoming freshmen.

There has not been much mention of preparing eighth-graders for the high school transition. Currently, there is no program for these rising freshmen to visit to the high school. It may be very helpful to introduce eighth-graders to the high school at the end of the eighth-grade. Perhaps, by polling them to find out what their concerns are prior to a high school visitation day one could find out key concerns to address. During such a visitation day, each eighth-grader could meet an upper classman and be assigned a teacher-mentor. What would the impact of these events be? Perhaps a post-visit poll could provide even more information for high school educators. By meeting their teacher-mentors, students may feel more welcome and unafraid to come to school the next fall. What effect would having a personal teacher-student bond have on incoming freshmen? Could such a relationship help increase high school completion? These are issues that have not been specifically and widely studied.

It would be valuable to find out what students think about these potential relationships. Teachers need information about the needs of their students in order to prioritize their time. If teacher-student mentoring were found to be vital in reducing the student dropout rate, then more

time might be spent fostering relationships with students. Perhaps reducing the dropout rate is as easy as caring about students individually and providing them with improved reading skills.

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