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IMPLEMENTING A STUDY SKILLS PROGRAM IN SECONDARY SCHOOL:
WHAT NEEDS TO BE DONE?

By
Margaret R. Ritson

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
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Abstract

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IMPLEMENTING A STUDY SKILLS PROGRAM IN SECONDARY SCHOOL:
WHAT NEEDS TO BE DONE?
2003/04
Dr. Dennis Hurley
Master of Arts in Educational Administration

The purpose of this exploratory investigation was to ascertain if a study-skills program implemented during a study hall in a Southern New Jersey high school might improve the study skills of students who voluntarily participate. At the outset of the study, students were surveyed in order to gauge their perceptions of their own academic study skills. The same survey was administered at the conclusion of the study in order to determine if study-skills growth and improvement had occurred. Information derived from the survey was used to assess the overall effectiveness of the study-skills program. The survey consisted of twenty-five questions related to study skills and a written narrative. The actual survey itself is included in Appendix B.

Initial survey results showed that students rated themselves lowest in the areas of study habits, self regulation, and test anxiety. Time management, motivation, and homework were also areas of concern. Initial survey results indicated that providing students with instruction in study skills and strategies for self-organization, specifically reading strategies and note-taking skills, proved to be most fruitful areas for improvement. Implications for the feasibility and effectiveness of future study-skills programs are also discussed.

Mini-Abstract

Margaret R. Ritson

IMPLEMENTING A STUDY SKILLS PROGRAM IN SECONDARY SCHOOL: WHAT NEEDS TO BE DONE?

2003/04

Dr. Dennis Hurley

Master of Arts in Educational Administration

The purpose of this study was to ascertain if a voluntary study-skills program would improve the self-reported study skills of students who participated.

Survey results indicated that providing students with instruction in study skills and strategies for self-organization, specifically reading strategies and note-taking skills, proved fruitful.

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Table of Contents

Acknowledgments.....	iii
Chapter 1 Introduction.....	1
Chapter 2 Review of Literature.....	11
Chapter 3 Design of the Study.....	37
Chapter 4 Presentation of the Research Findings	42
Chapter 5 Conclusions, Implications and Further Study.....	49
References.....	56
Appendix A.....	58
Appendix B.....	61
Biographical Data.....	64

Chapter 1

Introduction

Focus of the Study

The focus of this study was to examine and to improve the study skills of Buena Regional High School students using a case study research plan involving action research. Students were failing courses at Buena Regional High School (“BRHS”), and test scores on the High School Proficiency Assessment declined steadily from 1996-April 2000, after which there was a slight increase. This paper addresses how a study skills program alleviated some ongoing concerns about academic performance. Teachers, administrators, parents, and students themselves were interested in improving student study skills.

The effect of a Study Skills/mentoring Program on BRHS students’ academic progress was explored. If academic achievement was enhanced, this study would benefit students, teachers, and administrators. A review of current literature provided a focus for implementing an effective study-skills program at the high school. At the time of the study, study skills were not the subject of direct instruction at the high school. For most of the high school students who participated, the activity of studying was limited to passive reading of the text involved.

Advanced education offers little more refinement; in college, for example, students define studying as reading and then rereading a book or text book. The effectiveness of a study skills/mentoring program on academic achievement in students in grades nine through twelve was researched using a survey, direct instruction, and other interventions such as cross-age tutoring and mentoring.

Purpose of the Study

Legislation like “No Child Left Behind” and the “Goals 2000 Educate America Act” sought to increase high school graduation rates across the country. The purpose of this study was to implement a study skills program, and then describe and evaluate the effectiveness of that study-skills program on academic progress in high school students using a case-study action research approach. Poor academic performance leads to attrition, and when students drop out of high school, their ability to actualize their potential is most often diminished.

This trend was reflected in academic literature. For example, in “High School Graduation Rates in the United States: Implications for the Counseling Profession,” Stanard (2003), the author explained that fewer students are graduating from high school in the United States than is reported. She contended that fewer Latino and Black students are graduating than White students. The problem of low graduation rates for minorities, however, may be an urban problem, as rural areas demonstrate better graduation rates for

minority students. Rural areas with high graduation rates may have smaller minority and urban populations. For purposes of the instant study, BRHS fits into the rural category.

Most educators and parents are aware of negative outcomes when students quit school. Relying on data from the Occupational Outlook Quarterly, Stanard (2003) found that “fifty Six percent of high school dropouts were unemployed or were not enrolled in college as opposed to 16 % of high school graduates” (p. 219). She added that those who drop out of high school earn less money, earn fewer degrees, and have poorer mental and physical health than those who graduate from high school. Moreover, high-school dropouts contribute to the high cost of social services. As Stanard explains, they comprise over half of the welfare recipients and significantly more than half of the prison population and juvenile justice cases. In addition, high school dropouts have a high incidence of drug abuse.

Stanard notes that student retention, even in the early grades, increased the incidence of their dropping out of high school. She also discovered that traditional school policies like student retention, suspension, and expulsion foster the idea that success is nearly impossible for some students. Managing at-risk students and promoting their success should be the focus of professionals dealing with at-risk students. Too often, however, the educators’ focus is on policies that drive at-risk students from the school setting. Stanard, citing Jordan & Lara’s 1996 research, conveys the idea that male

African-American students are most affected because they are more likely to be suspended or expelled from school than students in other groups (p. 220).

Obviously, early intervention to prevent problems is a better approach than trying later to resolve those that occur. Students who fail often demonstrate anti-social behaviors. Developing a study-skills program to assist not only students experiencing difficulties, but all students, may prevent students from ultimately dropping out of high school. If students become positively involved in the school environment, and utilize study methods to become engaged in the process of learning, a more positive school experience may result. Success breeds success; if students are more versed in methods of study, they may earn higher grades, and have a more positive experience. Ultimately, improved study skills could lead to higher graduation rates and perhaps even improved report card grades and test scores.

Definitions

Academic Enablers--attitudes and behaviors that allow a student to participate in, and ultimately benefit from academic instruction in the classroom (DiPerna, Volpe, Elliott, 298).

Study Hall--40 minute period in which students are free to study.

District Factor Group--a relative indicator of the socioeconomic status of the citizens who reside in a district. It is based on information from the United States Bureau of the Census.

Abbott District—an urban district in district factor groups A and B specifically identified as a special needs district under the Quality Education Act of 1990.

Limitations of the Study

The selection procedures used for the study were determined randomly by student schedule. The sample of 15 students enrolled in a study hall at BRHS was small and ethnically diverse. This study cannot be replicated because it was unique to the district. The time factor was limiting. The socioeconomic background of the students was also distinctive. At the time of the study, BRHS District was designated a District Factor “A” school located in a rural area. As such, there were no monies available for after school programs to supplement education; no SAT preparation or study skills programs were being offered. This study cost the Buena Regional School District nothing. Although BRHS was not an Abbott district, District Factor “A” is the lowest socioeconomic status. Due to its rural setting, BRHS did not qualify for Abbott funds.

Setting of the Study

During 2003-2004, The Buena Regional School District serviced students from pre-school to grade twelve. The district was comprised of four elementary schools, one middle school, and one high school. Students from Weymouth Township and Estell Manor joined students from Buena Vista Borough, Buena Vista Township, and Newfield in the high school.

BRHS is located in a rural setting. It is set in a wooded area of Buena Borough which includes the towns of Newtonville and Collings Lakes located off Route 54 to the north and the towns of Richland, East Vineland and Milmay to the southeast. The area of Buena Vista Township is 55 square miles. The small community of Newfield, to the west of Buena Borough, lies within Gloucester County and is now part of the regional district. At the southernmost tip of Buena Vista Township lie the sending districts of Estell Manor and Weymouth Township. Vineland is the closest city to the south and Hammonton is the closest city to the north. BRHS is the only public high school serving the community. In 2003-2004, slightly over 900 students attended BRHS, and the majority come from the J.P. Cleary Middle School, within the district, and two sending districts (Estell Manor and Weymouth Township).

According to the 2002 census, the median household income for the district was \$38,434, which is slightly higher than the national average. The median age of district residents was 35.20 years. The number of single and married households was about

equal; 49.11% single and 50.89% married. The percentage of households with children was 69.87% with an average household size of 2.61 people. A large percentage of the work force was employed in white-collar jobs, 44.06%, and 16.85% of the population have four-year degrees or better (U.S. Census Bureau, Census, 2003).

BRHS District was one of the 35 DFG (District Factor Group) “A” districts in New Jersey. District factor grouping is a system of identifying school district by the socioeconomic status of their communities. An “A” district possessed the indicators associated with low-socioeconomic status and demonstrated economic need. High unemployment rates and Pinelands restrictions on new housing have hampered economic growth in the district.

In October and April of 2000 and 2001, 87.1% of students tested passed all three sections, the mathematics, reading, and writing sections of the High School Proficiency Assessment (“HSPA”). In 1999-2000, the average Scholastic Aptitude Test (SAT I) scores at BRHS were 458 on the Mathematics Section, 452 on the Verbal Section, and 946 overall. The District Factor Group average on the SAT I in the same year was 411 on the Mathematics Section, 395 on the Verbal Section, and 806 overall.

No post-secondary institutions are within the immediate community. There was, however, one institute of technology, 3 two-year community colleges, and 2 four- year schools within a 25 mile radius. Atlantic County Vocational School is located 15.5 miles distant; Atlantic Cape Community College, 17.5 miles; Cumberland County College, 11

miles; Gloucester County College, 21 miles; Richard Stockton College, 23 miles, and Rowan University, 19.5 miles (Middle States Evaluation. 2002).

According to informal data from the Attendance Officer and the Student Personnel Services Department of BRHS, as of September 8, 2003, 908 students were enrolled. Of these, approximately 130 were classified under the Special Education Code. 731 were designated White, 91 were designated Hispanic, 83 were designated African-American, two were Asian or Pacific Islanders, and one is classified ethnically as American Indian. Roughly translated, at the time of the study, the student population was 80.5 % White, 10.02 % Hispanic, and 9.14% Black (Middle States Evaluation, Enrollment Section, 2002).

During a personal interview with the Principal of BRHS on September 5, 2003, certain salient material was revealed. First, over the last decade, 30% of the school budgets had been defeated. He projected that continuity of the existing Board of Education suggested similar prospective budget defeats; most often, candidates run unopposed for positions on the Board of Education. It was also reported that 20% of the student population was receiving free or reduced-cost lunch, and some of those students participated in a subsidized breakfast program at the school as well. Up to 40% of the students at district elementary schools received free or reduced-cost lunch at that time.

Organization of the Study

The site for the study was BRHS. The Vice-Principal had long been a proponent of implementing a study skills program. The program was implemented during a study-hall period. The population selection was simple random; those ninth, tenth, eleventh, and twelfth-grade students who had sixth period study hall were asked if they wanted to participate on a voluntary basis. It was planned that if too many students expressed an interest, there would be a random selection of every third or fourth student. The upper-grade level students were included so that perhaps a comparison could be made to first-semester grades of the year prior. In addition, research demonstrated that tenth, eleventh, and twelfth-graders employed more comprehensive note-taking procedures than ninth graders, but that they, too, could benefit from employing more active study skills strategies.

Data was gathered through action-research case studies via a survey administered at the onset and at the end of the study. Teachers who instructed the participants were asked to provide comments and input. Progress reports and interviews took place periodically at mid-marking period and at the end of first- and second-marking period. Data was gathered in the first months of the school year, from September to February.

Data was analyzed on an ongoing basis employing a structured case-study method. Data analysis was open-ended and the data compiled was used to adapt the program as it was in effect. In order to assess any emergent themes or patterns, it was

assumed that student semester grades from the prior year could be compared to the current year, but recent privacy legislation curtailed that activity.

Chapter 2

Review of Literature

Legislation concerning education abounds. The “Goals 2000 Educate America Act” and the “No Child Left Behind” legislation are motivating educators to increase secondary school graduation rates and to ensure a quality education for all. These reforms focus on maintaining high standards for our students. Educators and students alike are held accountable. Teachers must be “highly qualified” and students must pass rigorous standardized assessments. These standardized assessments are broadening in scope; for example, the Preliminary Scholastic Achievement Test (“PSAT”) has already added a Writing Section and the SAT I is following suit in 2005. Under the NCLB Act, beginning in the 2007-08 school year, science achievement will be added to the subject areas in which students must demonstrate proficiency. As the NCLB Act has proven to be one of the most extensive changes to the Elementary and Secondary Education Act since the latter Act was first enacted in 1965, teaching and reviewing study skills with students at the secondary school level became even more essential.

In Edward Humes’ book, *School of Dreams*, he reported on competitive American students in a top public school in Cerritas, California. He described them as “kids whose waking hours can start before 6 a.m. and end somewhere around two or three the (next) morning—virtually all of that time devoted to schoolwork” (xix).

Students are stressed as competition for acceptance at top institutions of higher learning increases. Such stress has negative consequences; Hume alluded to the rampant cheating that students engage in to ensure high marks. With young people facing this kind of pressure, is there enough attention focused on the academic skills these students require for success?

Research bears out that students of all ages and abilities can benefit from study-skills programs. Students with identified disabilities and high achievers all stand to benefit from direct instruction and the application and practice of study skills. Stanley, Slate, and Jones (1999), discovered that students in College Preparatory and Honors classes benefit from study skills instruction as much as at-risk students do. The following review of current literature regarding study skills programs provided an outline for the development of an effective study-skills program. It formed the basis for the study-skills instruction that was implemented during fall semester at BRHS.

It appears that much of educators' attention is paid to "accountability and assessment" in high school and little, if any, attention is paid to the ever-increasing need to foster development of the academic skills that are required to succeed in today's schools. Students begin ninth grade with very little help in managing many new and different subject areas and very little assistance in accommodating the requirements of the increased number of teachers they must satisfy. Social promotion that may occur in elementary or middle school does not occur in the secondary school. Suddenly, students

must meet mandated state-course requirements, earn credits, and pass exit exams in order to graduate. Ninth grade is a difficult transition for most students, and more failures of classes are reported in ninth grade at BRHS than in subsequent grades.

The transition to ninth grade can be difficult for many reasons. Such reasons may include the increased size of the student body with which students must compete for class standing, and for their diminished standing in the high school setting relative to upperclassmen. In eighth grade, for example, students have been perceived as senior relative to those in the other grades in their schools. In elementary and middle school, students who were at-risk may have advanced with special programs including smaller class size, or alternate settings that may not exist in a larger, secondary school. Suddenly, students must earn credits in core-subject areas like English, Mathematics, Science and Social Studies. In addition, in a regional district, students confront a host of new competing students from different and perhaps alien communities. At BRHS for example, students from two sending districts are predominantly white. Secondary school may be the first time they are integrated with Blacks and Latinos in a classroom setting. The difficulties inherent to this transition cannot be underestimated; year after year at BRHS, more ninth graders fail more subjects and are retained in their grade than any other grade level.

As ninth graders try to balance the new and enhanced demands of having to satisfy as many different classroom teachers, they are also faced with increased

movement and freedom in the hallways, and they are given more homework and independent assignments. Study skills become more important in order to achieve success as students advance through grade levels. Faced with failure at fourteen years of age, with another four years ahead of them if retained, many ninth graders question their ability to successfully compete and to graduate with their class. They feel frustration and they often contemplate quitting when they turn sixteen. They dislike school, may begin or continue to act out, and fail their classes. These students often have demonstrated problems in middle school, but these problems are exacerbated by the increased demands and increased freedoms that accompany a secondary school schedule and setting.

The Use of Study Skills: General Observations

The challenge presented for educators is to promote academic success, and to provide students of all levels with the academic skills they need to succeed. Students need to learn how to learn, and to take responsibility for learning. Even basic skills such as reading, writing, and note-taking need to be taught. In addition, students can benefit from learning to manage their time effectively, to self-monitor their learning, and to know which learning strategies to use when encountering different learning challenges. In addition, certain interpersonal skills, such as learning to engage in pro-social behaviors in the classroom environment, or learning how to contribute to classroom dialogue, may help students achieve their educational goals.

A review of the current literature on study skills revealed that attendance in class is the single most important component of academic success. In addition, active reading and quality note-taking are essential for most secondary school students. Students need to learn that identifying the main idea while reading and while listening to lectures is a necessary skill, as is cultivating a method for acquiring new vocabulary. Science and mathematics texts and courses may require different strategies for learning than do language arts texts and English and social studies classes. Time management, adhering to deadlines, and staying motivated also are contributory factors in achieving academic success. Students need to learn how to learn, especially in an information society in which classroom teachers cannot be expected to provide all the material that students need to know.

Barbara Stanley, John R. Slate, and Craig H. Jones conducted research on study skills, and their 1999 article, "Study Behaviors of College Preparatory and Honors Students in the Ninth Grade," revealed that the most significant study-skill strength was regular class attendance, a skill reported by over 90% of the students. In addition, the researchers found that students who kept their notes in a notebook, and who were typically able to discriminate important from trivial material when keeping notes, were likely to succeed. Finally, they found that successful students were those who generally had completed their reports on time.

The researchers observed that the greatest study-skill weakness was students' failure to recopy lecture notes soon after class. The second most profound study-skills weakness the researchers observed was students' failure to develop or maintain a special system for learning new terminology. Not surprisingly, the authors observed that many weaker students waited until the last minute before studying for a test. Unsuccessful students also did not develop advanced organizers before reading and frequently read several pages of text without comprehending what they had just reviewed. Finally, unsuccessful students seldom used charts and diagrams to help them discover relationships among the various facts (p. 167).

Study Skills—Taking Notes

Stanley, Slate, and Craig (1999), like many researchers, discovered that students have difficulty remembering what they've just read. In addition to just taking notes, the authors recommend the use of advance organizers and tying new material to other ideas or with previous knowledge. They also advocated that students learn a method for learning new vocabulary. The authors believe that "students who do not understand the terminology of a discipline are essentially trying to learn material being taught in an unknown language" (p. 169). Moreover, one of the major differences between successful and unsuccessful students is the amount of time they devote to learning new terms. Successful students devote considerable time to learning new terms whereas unsuccessful students spend little or no time in this activity.

College Preparatory students, on the other hand, reported better note-taking behavior than did Honors students. That is, College Preparatory students were more likely to follow an organized format when taking notes, and were more likely to keep the notes from all their courses in the same notebook—a strategy that prevents appearing for class with the wrong notebook (p.168). The authors also noted that students in College Preparatory and Honors classes benefited from study-skills instruction as much as at-risk students did.

Jean E. Faber, John D. Morris, and Mary G. Lieberman (2000), in “The Effect of Note-Taking on Ninth Grade Students’ Comprehension,” also discovered that instruction in note-taking benefited students of all levels. Integrating study skills into the classroom experience is made easier in this regard because heterogeneous grouping or even multi-grade level groups benefited from learning study techniques.

Learning to read actively is even more important when students are faced with what they consider to be a low interest passage. Faber, Morris, and Lieberman began their study observing the importance of note-taking as a method to increase understanding and store material. Notes are stored in a place other than the learner’s head and they are there to be referred to later. The authors reported that student note-taking was most effective when they related what they were reading to other information they already had. The authors opined that “[t]his facet of note-taking, the encoding function, is the process by which a learner abstracts and assimilates material in order to

make it personally understandable. When the material is integrated with prior knowledge and is internalized, encoding is said to have occurred” (pp. 257-258).

Faber, Morris, & Lieberman (2000) listed three note-taking functions: “encoding, external storage, and encoding plus external storage” (p. 258). These researchers reported that taking notes while reading increases understanding and aids the reader in analyzing material.

Students may be encouraged to self-question during note-taking. They can then be responsible for deciding if they understand the material, or if further analysis is necessary. Self-questioning and note-taking during reading helped students organize information in a meaningful way.

In addition, writing summaries of written material has been found to assist students in remembering material. According to Faber, Morris, and Lieberman (2000) this activity helped students “to reprocess material just encoded” and involved ‘both review and deeper encoding and thus resulted in a more durable retention of the material’ (p. 258). Once students were required to make or generate a summary from the material, greater comprehension and retention occurred. Merely reading or listening to notes involved encoding only. Formulating a summary forced the student to create material on his or her own.

Identifying the main idea and the supporting details of a passage has long been known to be a key study habit. Research bears out that the process of merely taking notes

to have a method of external storage changes between elementary school and secondary school. Sometime between seventh and twelfth grades, students begin to encode material when taking notes. They fit it into what they already know, and raise questions about the reading and their own comprehension of the concepts buried in the text.

BRHS does not explicitly teach note-taking skills. Many students refrain completely from note-taking. Faber, Morris, and Lieberman's research demonstrated a disparity in how different grade-level students take notes. While students in grade nine may simply use note-taking as a method of external storage, students in grades ten, eleven, and twelve "were able to take the first step in the shift to encoding, learning about top level structure in a textbook, and using it to organize free recall responses. Ninth grade students showed few signs of encoding, taking verbatim notes for external storage purposes" (p. 259).

In "The Effect of Note-Taking on Ninth Grade Students' Comprehension," Faber, Morris, and Lieberman (2000), instructed students in note-taking with three primary goals in mind:

- (a) to prepare them for reading by tying their prior knowledge to major topics in the passage and by helping them determine the organizational patterns being used;
 - (b) to teach them to record details and main ideas while reading; and
 - (c) to teach them to self-check their understanding of what they have read.
- (p. 260.)

The Use of Study Strategies for Reading

Jacobs, (2002), in “Reading, Writing, and Understanding,” views reading across the curriculum as a meaning-making process for students. She discussed how content-area teachers are reluctant to teach reading skills. She urged content-area teachers to see that instilling reading and writing skills in their classrooms can support their instructional goals.

The author’s focus is on reading to learn and writing to learn as meaning-making processes. Specifically, she discusses how, until the fourth grade, students are charged with learning the art of reading itself. In subsequent grades, however, students are required to use their acquired reading skills to learn new subject matter. The challenge presented to teachers is how to impart a three-stage process—Pre-Reading, Guided Reading, and Post-reading, in order to foster student reading skills that enhance actual content-area learning.

During Pre-reading activities, teachers help students set the background for the reading. What background will students need to understand the text? Will they need to know cultural history? Will they need to know Key words? How will this information fit in to what the student already knows? Do we need a mind map?

Guided reading helps students integrate the text into what they already know. This may be through journal writing, or activities that help the reader determine how their

method of study helps inform the substantive problem that they are trying to address through their reading.

During Guided Reading, students were asked to keep a log of how and where they got lost. In such cases they were less likely to say “I can’t remember a thing that I read last night,” but were able to put a finer point on where they needed assistance.

In Post-Reading, students may discuss text in order to test the validity of their understanding. Here they revise and strengthen their understanding and they try to understand other points of view and interpretations of text.

Manzo, Manzo & Albee (2002), discussed the importance of an aspect of technology used for improving reading comprehension. In “iREAP: Improving Reading, Writing, and Thinking in the Wired Classroom,” the authors discussed the iREAP system (Read, Encode, Annotate and Ponder), and the educational value of “unstructured interactions” available through asynchronous and synchronous internet “chat.” This system is not merely software that can be used to enhance study skills; there are useful software programs available for developing reading comprehension and the necessary mathematics and thinking skills that students need to succeed. While this software may be incorporated into overall study-skills training, the iREAP program focuses more on students’ developing reading comprehension.

The authors found the iREAP system effective in improving reading comprehension. iREAP is a cognitive enrichment approach that teaches students to think

more precisely about what they read through a four-step strategy: read to get the writer's basic message; encode the message into your own words while reading; annotate your analysis of the message by writing responses from several perspectives; and ponder what you have read and written, through self- and peer-review.

The authors suggested use of assignments that require students to create different types of annotations to supplement a reading, and then had students share and discuss each other's creations. They suggested that such exercises help students internalize "spectrum thinking," or thinking from different perspectives. This strategy is useful in everyday life and also independent study. "Spectrum thinking" is a flexible learning strategy. Its first element is to encourage student to "reflect at a higher level of social-emotional maturity" to perceive further meaning from a reading. The second value of "spectrum thinking" is in trying to instill in the student the skill of "parsimonious writing"-- how to write using fewer words to express one's message (p. 42).

iREAP aids in this process by encouraging "divergent creative thinkers" to pay attention to form, sequence and detail. Conversely, it helps "concrete thinkers" to make more personal connections to the facts. It helps with core language and thinking systems for students with learning disabilities, and evokes pointed "instructional conversation" that "rouses the mind." The online nature of the program lends itself to use on web pages, e-tutoring, e-book clubs, and e-advertising.

The authors reported that clinical and empirical data show that REAP interaction or “architecture” improves basic and higher order literacy, cognitive skills, and social and emotional maturity by fostering non-egocentric thinking and reflecting. Garber’s 1995 and Albee’s 2000 studies demonstrated that their respective students’ mastery of more complex cognitive forms improved when engaged in the iREAP annotation process. The authors also suggested that iREAP strategy, through encouraging exchange of viewpoints, perspectives, and ideas, has international diplomatic purposes: “cultural integration sometimes raises tensions, but cultural isolation almost always escalates into hostilities” (p.46).

The authors examine the “reconstructive annotation” form through use of the shade-tree fable. In this exercise, the student’s task was to rewrite/reconstruct the tale in telegram form and then heuristic form. The authors then examined the “constructive annotation” demonstrated by having students recast the same fable from other viewpoints: the personal view, humorous view, contrary view, motivational view, discovery view, and creative view. Certainly, by reading, encoding, annotating, and pondering texts, students acquire richer meaning from their reading.

How students approach the skill of reading varies. Stanley, Slate, and Craig (1999) found that the two qualities that most distinguish Honors from College Preparatory students deal with the completion of reading assignments. Honors students were more likely than were College Preparatory students to read assignments ahead of

time, and were less likely than were College Preparatory students to read too slowly to complete assignments on time. Honors students also had less difficulty concentrating, and were less likely to report doodling or daydreaming while studying. The authors suggest that beginning reading with an advanced organizer or system may help all students improve their reading.

The Use of Study Skills in Writing

In secondary school, writing is more often used as a method of demonstrating content-knowledge, rather than as a method of learning. Jacobs explains that writing can also be used as a meaning-making process.

Jacobs (2002), citing Hillock's "Research on Written Composition: New Directions for Teaching" (1986) examines the use of the inquiry process as a means of improving composition. In the inquiry process, instructional strategies are employed to: (1) find and state specific, relevant details from personal experience; (2) analyze and generalize about the text or pose assertions about it; and (3) test the validity of their generalizations, arguments, or assertions by predicting and developing counter arguments. The inquiry process is thus a way to discover something worth writing about from a content standpoint. (p. 60).

The Bard College Institute for Writing and Thinking (as cited in Jacobs, 2002), suggests strategies to assist in composition-based inquiry. These include drafting or pre-writing, "free writing, focused free writing, narrative writing, response logs, starters or

dialectic notebooks, loop writing (writing on an idea from different perspectives), and dialogue writing, for example, with an author or a character (p. 61).

Language-arts literacy and learning mathematics are two of the most important skills students will acquire before they leave secondary school. Currently in New Jersey, reading, writing, and mathematics are the only skills tested on the HSPA. Most educators and students dub themselves as either “math” people or “English” people. However, in contrast to their own self-perceptions, students’ actual demonstrated aptitudes in these areas are often equal.

Study Skills Unique to Math

Teaching literacy is not something most mathematics teachers feel comfortable with or feel compelled to do. “Writing” to learn math is not something that most teachers experienced when they were students. However, teachers and students can utilize reading and writing activities in the mathematics classroom. The study “Interactive Writing in the Mathematics Class: Getting Started,” promotes the theory that when teachers and students develop interest in each other’s views, writing becomes an aspect of the interactive teacher-student relationship, and not just a task.

According to the study’s authors, Mason and McFeeters (2002), if a teacher provides a prompt for a writing assignment, the student’s essay may reveal the reasons why he or she did not fare as well as hoped for. The student might reveal, for example, that he or she was distracted or had other poor study habits. There are four reasons

students write—to respond—because they were assigned; to report—to let the teacher know something; to reflect—to verbalize an implicitly nonverbal idea; and to relate—to affect the student-with-teacher relationship.

The teacher's prompts need to be understood by the student and not be daunting. It is often easier to get students to write about what they do rather than what they believe. Asking a student to compare the methods used to study for one test versus another test where different scores were attained might be useful and doable.

What outcomes may be expected through this interactive method? This method can help the teacher mold study approaches. For example, if the substantive problem is difficulty mastering a certain concept, such as factoring, having the student express his or her precise understanding through writing may help the teacher determine student weaknesses, and thus when and how to “build more advanced content” into the student's knowledge. How does a teacher respond to student writing? By advising, correcting, judging and encouraging—in a respectful manner.

What other practical considerations are there to consider? The authors suggested that requiring students to write two well-written paragraphs took about ten minutes time. Another suggestion was to have them translate a mathematics formula learned the day before into words.

The teacher's attitude is also thought to be very important. Mason and McFeetors integrated their ideas into a tenth-grade academic mathematics program and discovered

that when students perceive the teacher as “an authentic and interested audience, what [the students] write is more likely to be worth reading” (p. 537).

Deitte and Howe (2003), in “Motivating Students to Study Mathematics” recommend that teachers employ various mathematically-related activities, aimed at improving student attitudes toward the subject and thus improving motivation toward learning. The authors suggest further integration of writing activities into the classroom by suggesting assignments such as internet research and interesting careers in mathematics. For example, teachers might ask students to write about mathematicians reported in the news or media (example--John Nash). What motivated that person to become interested? What was that person's contribution to the field?

It is also important to arouse students' self-interest. For example, have them visit job fairs that array income-potential of those who develop mathematical expertise. (Actuaries, for instance, earn good salaries.) Also, teachers may present students with information on the diversity of endeavors that require mathematics knowledge--fields as diverse as photography, engineering, construction, economics, and law are all activities that require refined deductive reasoning skills that are learned and practiced in mathematics classes. Deitte and Howe suggest that such activities should account for 20% of the student's grade based on "holistic scoring" or "primary-traits scoring." The success of such motivational adjuncts may be evaluated by the use of student questionnaires at end of course.

Studying mathematics is an even more difficult task for students with learning disabilities and for those students with math anxiety. Furner and Duffy (2002), in "Equity for All Students in the New Millennium: Disabling Math Anxiety," reported that only seven percent of Americans have positive experiences with mathematics from kindergarten through college. Research reveals decline in mathematics scores from Grades 4-12. Students with LD (learning disabilities) fare even worse. Such anxieties are generally defined as "inconceivable dread of mathematics." Some of these anxieties, however, are actually teacher-induced. For example, negative covert and overt behaviors of mathematics instructors include hostility, gender bias, insensitivity, anger, unrealistic expectations, and embarrassing students in front of peers. "Math anxiety" may also be socioeconomic or parentally induced. It is exacerbated by testing anxiety, which is most often due to poor preparation and test-taking strategies, psychological pressures, and poor health habits.

Preventing math anxiety involves teachers employing creative forms of instruction--making the subject "concrete," using cooperative study, employing discussion, and utilizing computers, and calculators. In these activities, the teacher stands as a facilitator, not a lecturer. Deitte and Howe (2003) suggest that mathematics instructors remove the "importance of ego" from classroom practice, and instead take on the stance that "everyone makes mistakes"--and then focus on the relevance of math.

Thus, reducing math anxiety involves "systematic desensitization" and "relaxation training." The activity of journal-writing, or the interactive writing that authors Mason and McFeeters (2002) promoted, may help to reduce anxiety in those students who already suffer from it. In those with language learning disabilities, group discussions may prove more successful. In dealing with math anxiety, the use of "bibliotherapy" is also recommended. It is even suggested that teachers use children's literature to express trauma and prompt discussion. In the mathematics classroom, students with disabilities may need special accommodations to meet higher expectations.

Study Skills Unique to Science

The text encountered by students in mathematics and science courses differs vastly from text encountered in the language arts classes. In their article "Children Working with Text in Science: Disparities with 'Literacy Hour' Practice," Peacock & Weedon (2002) discussed difficulties encountered by young students in the use and interpretation of the visual elements of science text. For students, aged 9-10, the advancement to higher grades required them for the first time to master the linguistic complexities of non-fiction science text, and they confronted numerous challenges: vocabulary, logical connectives and other syntactical strategies, the ability to interpret charts, diagrams and illustrations; and the combining of text and visual elements in complex formats. The authors study what problems these students faced with non-fiction text in science and how such challenges could be lessened or eliminated. (p. 186).

The authors conducted a study aimed at determining how students acquired information from images and text. The study found that students failed to use the index of a book, and only half of students scanned a page of text by first looking at the title or heading. A quarter of the students relied on illustrations alone to gather information about what was contained on a page. Where the illustrations were large, most students looked at them first. However, the students gleaned only vague information from illustrations, for various reasons. The main source of this problem was that connectives between illustrations and accompanying text were often unclear because of poor page layout or format. This problem of “visual literacy” is rarely addressed by educators.

The authors conclude that the visual elements of non-fiction science text are looked at but not well comprehended, and that note-taking strategies employed by students in different educational contexts have limited usefulness regarding non-fiction science texts. Any particular study strategy employed—from skimming a page to reading it thoroughly, had its own drawbacks (skimming provided less comprehension; reading word for word was time consuming).

The authors suggest that teachers need to spend more time training students on the subject of “visual literacy” and that science texts that better employ the linking of visuals and text need to be developed. Thus, book design is important in non-fiction text, and should be pursued by publishers over the current practice of making books attractive and thus marketable. Making texts more “visual literacy” friendly is important because

“cognitive load theory” establishes that “where concepts make intrinsically complex processing demands, those of the text itself should be kept to a minimum” (p.196).

Study Skills Problems Common to Math and Science

Common challenges are presented in mathematics and science classrooms.

Students still seem to think that mathematics is a male domain. Research shows that science and math teachers employ fewer techniques to assist students in mastering text. Many teachers inadvertently hinder students from developing literacy skills by providing worksheets that enable students to obtain material without having to actually read the text.

Maureen Lewis and David Wray, in their 1999 article, “Secondary Teachers’ Views and Actions Concerning Literacy and Literacy Teaching, compared secondary school teachers’ strategies and found that teachers of “mathematics and science were less likely to use non-text books within their classrooms, to have dictionaries in their rooms, to encourage the use of drafting, to show how to scan or skim or to model how to write or take notes in their subject” (p. 277).

To improve literacy, Lewis and Wray advocate better communication between primary/middle school teachers and secondary school teachers. Literacy development does not end when students enter secondary school. In fact, their research supports that in secondary school, different literacies need to be learned by students according to subject areas. “Secondary teachers have to plan for this as part of the learning of their

students and as recognition of the role of subject-specific literacies [that] should be an important element of any whole school literacy policy” (p 276).

Certainly, ninth graders need to be given the opportunity to learn how to employ strategies to help them overcome and master the challenges that secondary school subjects, including mathematics and science, will present. In addition, by the time that these students are eleventh graders, they will be challenged by the HSPA, or another exit-type exam as required by the state in which they reside.

Study Skills in Foreign Language Courses

What factors lead to success in the study of a foreign language? Bailey and Onwuegbuzie (2002), discuss study-habit factors leading to success or failure in learning a foreign language. In “The Role of Study Habits in Foreign Language Courses,” the authors found that the best predictor among college students was overall GPA; that those students who had demonstrated proficiency in mastering diverse material through an organized study approach were more likely to overcome the difficulties in mastering the study of a foreign language. The use of effective study habits explains approximately 15% of the variance in undergraduate grades. The authors opine that learning strategies optimal for “second language acquisition” are far more successful in this endeavor than the “overemphasis on metacognitive and cognitive strategies” often employed by educators. In other words, the instruction of second languages cannot be effectively approached based on memorization and other content-based techniques typically utilized.

The authors discussed the survey and testing methods employed in gathering data. They concluded that study-skill strengths include note-taking; time management; and study techniques. Successful students tended to take notes, using notebooks, as they read material, rather than using loose paper and waiting to jot notes until after they had completed their reading. When taking notes in class, these students were apt to use abbreviations and phrases to trigger memory.

Regarding time-management, successful students were likely to complete work on time. Regarding study techniques, successful students have necessary materials on hand; and when studying, avoided the consumption of alcoholic beverages. Successful students tried to avoid rote memorization, relating material to other courses and everyday life. They did not try to accept or grasp everything new, and were able to distinguish the important from trivial aspects of what they had learned.

Unsuccessful students tended not to use notebooks, and did not recopy lecture notes. They also tended to attempt the bulk of their study the night before exams, and did not preview or outline work. They often “read” pages without comprehending what was contained thereon.

Lower achievers typically included irrelevant info in their notes, did not seek help from their instructors, failed to consult lecture notes after a test, had a tendency to doodle or daydream during class, and did not consult a dictionary for meanings of words they did not understand. The authors suggest that educators develop and implement “study skills

interventions” with their foreign language students. They also suggest that educators take proactive steps in the case of weaker students to encourage extra help and tutoring opportunities.

The authors encourage educators to develop and implement “study skills interventions” with their foreign language students. They also suggest that educators take proactive steps in the case of weaker students to encourage extra help and tutoring opportunities.

Academic Enablers

James Clyde DiPerna and Stephen N. Elliott (2002) have identified academic skills and enablers that help students succeed. The academics include the ability to read and write well, skills in mathematics, and critical thinking skills. Interpersonal skills, motivation, study skills, and engagement, they argue, are skills that contribute to academic success. An example of engagement would be participating in classroom discussions. DiPerna and Elliot posit that academic enablers are not merely the attitudes and beliefs of the learner.

As they note, prior achievement is a strong predictor of current achievement; current achievement is a strong predictor of future achievement. Academic skills are, and should be, the primary focus of instruction in schools; however, there are perhaps some skills and attitudes that can optimize students’ learning. Study skills become more

important as students advance through graduate levels. As students begin to acquire homework assignments, there is a gradual shift to independent learning activities.

DiPerna, Volpe, and Elliott (2002) posit that students' psychological environments influence their learning. They identify nine variables that influence academic achievement. Those variables are "student ability/prior achievement, motivation, age/developmental level, quantity of instruction, quality of instruction, classroom climate, home environment, peer group, and exposure to mass media outside of school" (p. 299). The first three--student ability, prior achievement, and motivation--are aspects of student aptitude. The fourth and fifth variables are elements of instruction, quantity, and quality. The final four compose the psychological environment for learning. These include the classroom and home environment, the peer group, and the exposure to mass media. The impact of these psychological variables should not be underestimated. DiPerna, Volpe, and Elliott (2002) also claim that these psychological, instructional, and home environment characteristics "have a more significant impact on achievement than 'distal' variables such as state-, district-, or school-level policy or demographics" (p.299).

Conclusion

Study skills (homework completion, motivation for challenging tasks, development of interpersonal skills, following classroom rules, engagement in class activities, and participation in discussions) and prior achievement are key indicators of

student success and are, thus, academic enablers. Motivation influences the student's development and use of study skills. DiPerna, Volpe, and Elliott (2002) also purport that pro-social behavior is a significant independent predictor of standardized achievement test scores. Academic Enablers, along with organized study skills, may improve academic achievement and may increase graduation rates.

Chapter 3

The Design of the Study

Description of the Research Design

This study was based on qualitative, experimental research, and examined the effectiveness of a study-skills program implemented at Buena Regional High School. As qualitative research usually takes place in naturally occurring situations, a study hall was randomly selected. By the study's end, would students who had voluntarily participated in a study skills program come to know more about their learning styles, learning habits, note-taking procedures, time management strategies and test-taking techniques?

After the project was approved, a volunteer teacher of special education assisted me in selecting and providing materials to the students. One or two forty-minute study hall periods per week were devoted to the study-skills program. Fridays proved to be the preferred days for students because they reported less assigned homework on that day. Teachers alternated teaching the sessions and presented material with which they felt most familiar. The special education teacher devoted her free period to the study-skills program.

Students in the sixth-period study hall were asked to volunteer in the program. After the nature of the project was explained to them, student interest was high. Students were informed that participation was strictly voluntary, and that if they had other

obligations, such as homework assignments or guidance appointments, they were to devote their time to those priorities first. The sessions were characterized by their relaxed and easy atmosphere. The study hall was scheduled in the auditorium, so that students who needed quiet could find a place to study independently. Students were assured that teachers would not be informed that they were participating in the program.

Confidentiality and anonymity were essential, and letters outlining the terms and purposes of the program were provided to all invitees and to their parents. Those parents who approved their child's participation were invited to ask follow-up questions, and given the name and telephone number of a contact person. Faculty members involved in the study were identified to the parents.

Development and Design of the Research Instrumentation

The primary data-gathering technique involved was a twenty-five item questionnaire. The questionnaire surveyed all the topics included in the study-skills program. It was assumed that fewer negative responses to survey items at the conclusion of the study-skills program would indicate that the program had, indeed, been effective. A narrative section at the end of the questionnaire was included so that students could self-assess by explaining what their responses to the statements revealed about their study habits.

Material utilized in the study-skills program was assembled from a variety of sources, and at no expense to the district. Teachers contributed study-skills materials, and

a course outline was drafted during my meeting with the volunteer instructor in early September. We determined that a learning inventory should be utilized, and we obtained a free learning/career inventory from the armed-services recruiters for the district. The volunteer instructor administered and explained the learning/career inventory, and also presented lessons in time management and memory techniques. In addition, students were exposed to reading strategies such as the SQ3R Method, the Cornell Method of note-taking, various test-taking techniques, and critical-thinking tips. One session was devoted to learning foreign languages, and another focused on using the internet to locate supplemental resources for science and mathematics classes.

An October session of the study-skills program was devoted to school policies and procedures relating to grade-point averages, class rank, and student transcripts. The importance of regular attendance was emphasized. In November, an in-house field trip to the computer lab in the library exposed students to math-related websites.

Description of the Sample

Eighteen students volunteered to be part of the study skills program. There were seven females and eleven males. Fourteen participants were White, two were African-American, and two were Hispanic. The students ranged from grades 9 through 12. All students attended Buena Regional High School from September 2003 through April 2004. The students all voluntarily participated, and expressed interest in both the program and in improving their study skills.

Data-Collection Approach

Direct instruction of study skills occurred at least once weekly between September 2003 and February 2004. After their approval by the Rowan University Review Board, questionnaires were administered both at the outset and the conclusion of the program. Significantly, the same questionnaires were administered each time. At the outset, it was hypothesized that a reduction in the number of negative responses to survey items at the conclusion of the study-skills program would indicate that the program was indeed effective, and that students had acquired enhanced understanding of both their learning styles and of various study skills. Written self-assessments at the end of the questionnaire were compared to the earlier survey to determine if student learning and skills-growth had, in fact, occurred.

In listening to and observing students during the study-skills sessions conducted, it was evident that students were committed to the program. On days that students had too much assigned homework, they opted to listen passively to the study-skills lesson, or refrain from the activities entirely by relocating to a quiet section of the auditorium. Students who were scheduled for other study-hall periods expressed an interest in attending, and their parents have attempted to enroll them in the study-skills program. The academic climate was positive, and students discovered that Fridays were often the best day for the program, as there was a less copious amount of assigned homework on that day.

Data Analysis Plan

As indicated earlier, data was collected by way of a questionnaire given to students before and after the implementation of the study-skills program. The working hypothesis was that fewer negative responses would indicate actual improvement in study skills. Narratives developed from the students' own written self-assessments of study habits will be included and presented in the final research findings. During informal interviews, students were asked to evaluate which study skills lessons proved to be the most beneficial.

Chapter 4

Presentation of the Research Findings

Introduction

This study was conducted to investigate whether a study skills program implemented during a study hall in a South Jersey high school would effectively improve the study strategies of the students who voluntarily elected to participate. There were thirteen students who returned permission slips and completed pre-survey materials. Twelve students completed post-survey materials. Conducted within the setting of a larger study hall held in an expansive auditorium, the study skills group often varied in size. During the course of the study skills activities, the number of participants varied; for example, when the group visited the computer lab, twenty-six students joined in the activity. In other activities, such as speech presentations, as few as three students volunteered to participate. The data obtained from the twelve students who returned permission slips, were pre-surveyed, and were post-surveyed, was the only data included in this report. Would these students who had voluntarily participated in a study skills program come to know more about their learning styles, learning habits, note-taking procedures, time management strategies and test-taking techniques? Would they employ these strategies to master their academic subjects?

The instrument used to measure results for this study was two-fold. The first and most important component was the pre-survey and the post-survey that consisted of twenty-five questions related to all the topics included in the study-skills program. Fewer negative responses to survey items at the conclusion of the study skills program indicated that the study skills program had been effective and that students were increasingly aware of their learning styles and study habits. The survey inquired about whether or not students employed cognitive interventions and task-related skills such as the reading strategies, note-taking procedures, and test-taking strategies suggested in the course. The second measure was an open-ended written narrative component of the survey. This was included so that students could self-assess by explaining what their responses to the statements revealed about their study habits and so that conclusions could be drawn about the validity of the study skills program. The intent of this research was to reflect, as accurately as possible, the subjective responses of participants to a newly incorporated study skills elective.

While there was no control group with which to compare the overall effectiveness of the study skills program, it was noted that more students expressed a desire to participate than could be accommodated by the staff. Many parents also expressed an interest in enrolling their children in the program.

Findings

Students responded with more affirmative responses on the post-survey that was administered in February than they did on the pre-survey that was administered in September. Affirmative responses indicated that students had begun studying well before test time, were reading assigned material more than once, etc. The total number of “yes” responses in September was 92; the February total was 118. The number of “sometimes” responses also increased from 127 to 132. The “no” responses decreased from 77 to 47; negative responses indicated that study skills had not been put to use. This data indicated that students were more aware of their study habits and were applying study strategies as a result of the voluntary study skills group.

Students responses to the narrative component indicated that 4 areas of study skills review had been most effective. These were (1) becoming aware of learning style/studying techniques, (2) time management, (3) defraying test anxiety, and (4) employing specific study strategies.

Awareness of Learning Style/Studying Techniques

On the survey conducted prior to the study skills instruction, students wrote vague and general comments about their study skills, such as “I need to change some of my study skills.” On the post survey, the same student penned “I need to study longer and more thoroughly for tests and quizzes. During the study skills group I received peer-tutoring for my chemistry class, and this really helped me to learn.” Another student

wrote “Sometimes I find it hard to study” on the pre-survey. In the post-assessment the same student wrote “My study habits are good for the most part. I try to use different ways to help me on a test until I find the right one for me. I feel that I did learn some new and good helpful ways by doing the program.” All students could write more specific information about their own study techniques after the program. One student’s pre-survey written comment read “that I’m not a good studier. And I’m not that smart.” His post-survey comment indicated a specific awareness of what was difficult for him, reading, and that in addition, he now sometimes dedicated the necessary time to studying. “I have trouble reading and don’t really do a lot of work or take time to do work. Sometimes though I do take time to do work.”

Time Management

Time management was one of the most important factors in improving study skills. Most students expressed that they need to devote more time and effort to the activities involved in studying and to those that were outlined in the sessions. There were a great number of admissions from students that they are guilty of not putting in enough time studying before tests. It was clear from the onset of the study, from listening to students, and from the findings of the current peer-reviewed literature on the topic of study skills that time management was a difficult task for high school students. At times, it was more revealing to note what students left off of the post-assessment; some of the negative comments about studying were notably absent on the post-survey. One student

wrote “If I study, it’s usually all the wrong things and I’ll do worse than if I never studied in the first place” on the pre-survey. Her post-survey narrative read “I study about a half an hour before my tests and I find that is the way I remember things easily.” It must be noted that five months into the study program she made no mention of wasting time studying irrelevant material.

Another student wrote “I don’t study until late” on her pre-survey. Nearly every student indicated that more time needed to be devoted to studying. They also noted that just turning assignments in on time helped them to earn better grades. “I know that even just handing in homework on time will help raise my grades.” Another student added “I should always turn assignments in on time and study before tests.” The importance of turning in assignments on time and of reviewing notes in a timely fashion was stressed during the study skills group meetings, and post-survey narrative comments indicated student awareness of the importance of time management and of adhering to deadlines.

Test Anxiety

Students who reported test-anxiety in the pre-survey still reported it in the narrative component of the post-survey, but not as repetitively or as vehemently. During the pre-survey, students wrote about their anxiety about taking tests. One student commented that “at times when I study I feel like I know the material for test-taking and am calm taking the test. But there are some times when I do get nervous about test-taking and that alone could affect how calm I am.” Another wrote “I need to just be more calm

and not worry and just do the work and get it over with.” On the post survey, students indicated that they more often utilized tactics to defray test anxiety. The same student added to her post-survey that she needs to “think before I write anything for a test.” Her awareness of the importance of taking a moment to organize her thoughts before plunging into the writing of the response indicated that strategies outlined to help students organize their thoughts before writing were being employed by at least one of the students in the group.

Employing specific study strategies

In the post-survey written narratives, it was noted that there was no mention of studying irrelevant material. It may be surmised that the focus on the strategies for reading for the main idea and on distinguishing between relevant and irrelevant material while note-taking were effective. One student wrote in his post-survey that “my memory is very good when I carefully read over assigned material and take notes.” Another student’s post-survey comment reads “knowing that in math I need to do problems and in English I may have to read the text more than once helps me to study. I use test skills such as eliminating answers in multiple choice tests and skipping questions that I do not know and going back later.” These comments indicated that the thrust of the study skills course, which was employing effective reading strategies, employing a note-taking method, approaching science and math texts differently than history and literature texts,

and employing test-taking strategies proved to have a positive effect on students' study strategies.

Chapter 5

Conclusions, Implications and Further Study

Conclusions

This project collected student self-report data only, and as such, it was subject to concern regarding the reliability of self-reported measures. This data represented students' self-reported perceptions of their study skills. No attempt was made to compare students' self-reports to actual academic progress as measured by course grades or grade point averages. Regardless of these limitations, insights can be drawn.

The first interesting trend noted was that students are very interested in learning more about their particular learning styles. In addition, they need assistance in getting motivated to study, and time management continues to be a very difficult task for high school students. They need to learn to study well before test time and to review lecture notes in a timely fashion. Reading strategies such as reading assigned material more than once can be learned in a study-skills course.

Perhaps the most interesting finding was that if given the opportunity to receive instruction and assistance in study skills, most students will take it, and most will benefit from it. With the advent of exit exams such as the High School Proficiency Assessment and the rising importance of Scholastic Aptitude Test scores, it was not surprising that many students are very concerned about their test-taking ability. Students were hungry to

learn test-taking strategies and techniques to defray test anxiety. They expressed an interest in adjusting their reading strategies when reading material from science and math texts. It was relatively easy for them to grasp the importance of turning assignments in on time, and all students seemed to benefit from a more structured study program than a mere 40 minute free period in the auditorium.

Students seemed to enjoy immensely the extra attention reaped from the faculty involved in the program. They relished the period spent in the computer lab, and this was evident when students who were not participants in the study-skills program clamored to attend. The enthusiasm about the study skills group was contagious; the more involved participants became, the more students wanted to belong to the study-skills group. Students continued to seek out peer-tutoring after the study-skills group had ended.

Limitations

Some of the data gathered lacked significance because it assumed that participants all were subjected to the same instruction and the same quality of instruction. There were two different instructors, and thus two different teaching styles, employed; consequently, the climate and the focus of the study skills group could vary from session to session. One instructor actually assigned that a speech be written and delivered or delivered extemporaneously, while the other instructor felt that no demanding, anxiety-producing, outside assignments should be assigned as part of the program. Another problematic factor was that students volunteered to participate on a session-to-session basis. All

students did not complete the entirety of the lessons and the activities presented. Students who had pressing assignments to do or labs to make up were often in and out of the study skills group. In short, all of the participants did not receive the same quality or quantity of experience in examining their study skills.

As indicated in the “Conclusions” segment of this chapter, results were self-reported by the students. The reliability of this data was subject to speculation. Actual course grades and grade point averages were not assessed for improvement. It should be noted, however, that all students involved thought the program was beneficial in some way—as the post-survey indicated. Recent privacy concerns called into question the legitimacy of accessing each students’ personal academic record for the purpose of this research.

Implications for Further Research

The data clearly indicated that there was a need for a study skills program at Buena Regional High School. The study skills program was popular with the students, parents, faculty, and administration. Further research would be needed to see whether the program be one that involved additional assignments and evaluations or whether a simple pass/fail option based on attendance would be satisfactory. As with most courses in public high schools, the group leader was a very important factor. The study hall was a duty period for the teacher; the study hall teacher cannot be required to actively teach academic content during this time. While many teachers encouraged a quiet study hall in

which students engaged in reading and/or studying, some teachers viewed the time as a “free period” and in the auditorium, many distractions occurred. It would be interesting to know if faculty members would be open to leading the study skills group if they were apportioned a percentage of their pay that was less than teaching an additional period of their subject, but more than they currently receive for a “duty period.” Further research on the implications of this would need to be investigated with the Board of Education and the teacher’s union.

How the Organization Changed as a Result of the Study

This study skills group gave students the opportunity to explore additional options for obtaining help in academics. Students were exposed to two faculty members that they may not ever have met. In addition, they were exposed to websites that assisted in mathematics and chemistry study on the world-wide web during the computer lab session and during a subsequent session. With the help of the randomly assigned study hall teacher, students recruited a grade twelve peer-tutor to assist with difficulties they were having with the material from their chemistry class. She visited with them weekly, and she voluntarily provided supplemental tutoring in that subject. Students learned the benefits of studying in a small group on their own. Forming study groups assisted students in passing more difficult subjects. Parents made inquiries as to why there was not a better tutoring/study skills program in place for all students. Guidance counselors

reported that students continued to seek out peer tutoring after the study skills session concluded.

Need for further study

It would be beneficial to have a special education teacher as part of a study skills program. Students who were already fairly academic seemed to grasp the study skills strategies more readily than the students who were part of the special education program or who were otherwise at-risk. The curriculum and the materials used in the supplemental study skills class for special education students should be reviewed and the curriculum should be updated to include the most recent materials on study skills. A mandatory 10th grade study skills class for 9th graders who fail one or more subjects would be an excellent outgrowth of this action research project and a feasibility study should be done. Another alternative would be to add a study skills component to an already state-mandated Computer Applications/Careers class for ninth graders.

Students who were in the Alternative Learning Lab (in-school suspension) frequently missed their regular classroom instruction as well as the study skills group. Students who were suspended out of school also missed their regular curriculum and the study skills sessions. It would require further study to ascertain if the voluntary study skills sessions could benefit these students who are already experiencing difficulties remaining in an educational setting.

The pass/fail option for grading or the idea of a study skills group that was strictly voluntary should also be explored. This study was truly unique in that it was totally voluntary on the part of the students and on the part of the faculty who participated. The study hall teacher herself joined in and arranged for the peer tutor for chemistry on her own, unsolicited by the researcher or the other volunteer faculty member. Further research would be necessary to reveal whether a program like this could run on a strictly voluntary basis, and if not, if that would change the tenor or the positive outcomes of such a program. It was revealed that instruction in study skills benefited high school students in various ways, and that further study and continued research and effort in this area would only improve an already sound idea.

Some possible methods of continuing and expanding research in this area would be for faculty to visit other high schools to observe what successful support programs are in place and to evaluate what programs could be adapted to the Buena Regional School District. In addition, collaborating with middle school personnel to identify students who may need additional assistance to succeed academically and to assist at-risk students warrants further exploration. Secondary and middle school personnel could meet to share concerns and to explore beneficial instructional strategies. Teachers could be in-serviced with a focus on emphasizing academic achievement. Expanding ninth grade orientation to include peer leaders who promote time management techniques and the use of an agenda could benefit students. Peer leaders could assist freshmen their entire 9th grade year.

Finally, the concept of a summer orientation program for rising freshmen not unlike The Educational Opportunity Funding programs for potential college students could facilitate the transition from middle school to secondary school, with its more rigid state-mandated requirements for graduation.

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Appendix A

Student Permission Slip

Student Participation Slip

BUENA REGIONAL SCHOOL DISTRICT

STUDENT PERMISSION SLIP

September 23, 2003

Dear Parent or Legal Guardian,

My name is Margaret Ritson, and I am the eleventh grade counselor at Buena Regional High School. I am interested in piloting a study skills improvement program. I would like permission to work with your son or daughter, who currently is enrolled in Mrs. Langley's sixth period study hall.

Sixth period was chosen at random because teacher Karen Lindner is available to assist me. Students will self assess their progress. I will be conducting a survey as to how best to implement and improve a study skills program for all students. You are welcome to view all materials utilized, and students' participation is completely voluntary.

Please give your consent below if you would like your son or daughter to be able to participate.

Thank you for your support in this endeavor to improve academic success.

Margaret R. Ritson

**I give permission for my child, _____ to
participate in a voluntary study skills program during 6th period study hall during
the 2003-2004 school year.**

DATE _____

**_____
Signature of Parent/Guardian**

BUENA REGIONAL SCHOOL DISTRICT

STUDENT PARTICIPATION SLIP

October 28, 2003

Dear BRHS Student,

My name is Margaret Ritson, and I am the eleventh grade counselor at Buena Regional High School. I am interested in piloting a study skills improvement program. I would like permission to work with you while you are enrolled in Mrs. Langley's sixth period study hall.

Sixth period study hall was chosen at random because teacher Karen Lindner is available to assist me. You will self-assess your own progress. I will be conducting a survey to assess your study skills at the beginning of the program and at the end of my research early in 2004. Your participation is completely voluntary. Your anonymity and confidentiality will be respected and strictly observed.

Please sign below if you would like to be able to participate. Your parents will also have to give their signed consent on a separate permission slip.

Thank you for your support in this endeavor to improve academic success. If you have any questions, please call me at 697-2400 x (8204), or come to the Student Personnel Services Office to schedule an appointment.

Margaret R. Ritson

I, _____ would like to participate in a voluntary study skills program during 6th period study hall during the 2003-2004 school year.

DATE _____

Signature of Parent/Guardian

Appendix B
Research Instrument

Study Skills Project

Date _____

Pre/Post Questionnaire

Grade _____

Think about your study habits. Respond to the statements below, and then analyze your responses. There are no right or wrong answers, and you need not respond to all statements. Your responses are confidential. Thank you for your participation in this questionnaire.

Yes No Sometimes

- | | | | |
|-------|-------|-------|---|
| _____ | _____ | _____ | 1. I know my learning style. |
| _____ | _____ | _____ | 2. When it's time to study, I get started quickly. |
| _____ | _____ | _____ | 3. I find it easy to keep my mind on what I am studying. |
| _____ | _____ | _____ | 4. I study well before test time. |
| _____ | _____ | _____ | 5. I use mnemonic devices. |
| _____ | _____ | _____ | 6. I read assignments before class. |
| _____ | _____ | _____ | 7. I remember what I read. |
| _____ | _____ | _____ | 8. I read assigned material more than once. |
| _____ | _____ | _____ | 9. I read with a dictionary. |
| _____ | _____ | _____ | 10. I review my notes after class. |
| _____ | _____ | _____ | 11. I use a note-taking process (outlining, Cornell Method) |
| _____ | _____ | _____ | 12. I take notes while I read. |
| _____ | _____ | _____ | 13. During a lecture, I know what to take notes on. |
| _____ | _____ | _____ | 14. I review material before tests. |
| _____ | _____ | _____ | 15. I use different types of test-taking strategies. |

Yes No Sometimes

- | | | | |
|-------|-------|-------|--|
| _____ | _____ | _____ | 16. I study with other people. |
| _____ | _____ | _____ | 17. I use methods to predict what will be on a test. |
| _____ | _____ | _____ | 18. At test time, I am calm. |
| _____ | _____ | _____ | 19. I employ techniques to defray test anxiety. |
| _____ | _____ | _____ | 20. I calmly solve problems in math and science classes. |
| _____ | _____ | _____ | 21. I read my science text differently than my English text. |
| _____ | _____ | _____ | 22. I like to participate in classroom discussions. |
| _____ | _____ | _____ | 23. I usually do the most challenging assignments first. |
| _____ | _____ | _____ | 24. I complete assignments on time. |
| _____ | _____ | _____ | 25. I am interested in developing critical thinking skills. |

Explain what your answers to these statements reveal about your study habits.

Biographical Data

Name	Margaret R. Ritson
High School	Absegami High School Galloway Township, NJ
Undergraduate	Bachelor of Arts Teacher of English Monmouth University West Long Branch, NJ Summa Cum Laude English Merit Award Academic Writing Prize Student Teacher of the Year
Graduate	Master of Arts Student Personnel Services Rowan University Glassboro, NJ Master of Arts School Administration Rowan University Glassboro, NJ
Present Occupation	Guidance Counselor Buena Regional High School Buena, NJ

