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Relationships between reading habits and the development of study skills

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RELATIONSHIPS BETWEEN READING HABITS AND THE DEVELOPMENT OF STUDY SKILLS

by
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ABSTRACT

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The purpose of this study was to determine whether or not reading habits have an effect on the development of study habits in an undergraduate population (n=100). Students reported several aspects of both reading and study skills being elevated along with higher rates of reading habits. Correlational analysis of Text Preview, Perceived Difficulty, Understanding, Concentration, Listening & Taking Notes and Motivation with reported Reading Habits revealed significant correlations. Student implications for reading intervention and application are discussed.

ACKNOWLEDGEMENTS

I dedicate this work to my grandfather, Edward James Schaffer. Reading is our link to the past, forever reminding us of who we are and how we got here.

Thank you for all of your support.

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CHAPTER I

Introduction

Throughout the history of education, there have been countless theories trying to explain learning. From the simplest instances of memorization to the realization of true genius, learning has been a process that is still not fully understood to this day. This study aimed to discern whether reading habits (leisurely, educationally or otherwise) could be a factor in the process of learning, specifically in the development of positive study skills (Mills & Jackson, 1990).

In society today, there has been a steady decrease in the reading habits of school age children and young adults. Much of the content and entertainment that a student of this age group could desire is readily accessible either through television or the internet. The overall increase in technology, originally beginning with television and later advanced by the internet, is a likely cause to the downfall of written text. With this trend in mind, one could pose the question that the decreasing trend of reading as a hobby, professional or leisurely, could have a deleterious effect on the development of certain academic skills. The skills most likely to suffer from a lack of reading ability and frequency would be study skills.

The intention of this study is to determine if reading habits can lead to the development of healthy study skills relating to memory, concentration and motivation as well as overall reading ability. As avid readers regularly manage their time better, retain

information more easily and may be able to concentrate for longer periods of time, research suggests that they are more likely to develop more successful study habits over time.

Purpose

Ray Bradbury said it best, "You don't have to burn books to destroy a culture, just get people to stop reading them." The current trend in reading shows a decrease in the amount of time students spend reading. Their time is spent elsewhere, immersed in an ever-growing media focused primarily on entertainment. Our history and our literature has, quite literally, become a thing of the past. The purpose of this study is to examine the relationship between reading habits of undergraduate students to determine if reading habits have an effect on how and how effectively students study.

Hypothesis

Students in college that have above average reading habits are more likely to have better concentration, retention of information, time management and greater overall motivation in areas relating to academics.

Theory

In the current field of reading there is very limited application and generalizability of research to the development of study skills (Olson, 2006; Snowling, 2002). The field has had many past theories which have since individualized and evolved over the last 40 years (Lass, 1983; Gross, 2004). One of the stage theories that researches have relied on

in the past is Anbar's Stage Theory of Reading. Anbar goes on to show that there are seven, possibly eight stages to reading (Anbar, 1986). The first stage is the awareness of printed words as opposed to pictures. The next stage is the identification of individual letters and the recognition of words by sight alone. The third stage is the learning the sounds of individual letters of the alphabet by themselves and with others. The fourth stage is putting together words by the individual letters as opposed to sight memory of the word alone. The fifth stage is actively reading and the sixth stage is developing the ability to sound out unfamiliar words. The final stage is developing the ability to read unfamiliar books easily, but Anbar prophesized that there can be an eight stage where the student can develop reading for personal enjoyment and fulfillment, but was not formally added to the process. Similarly, another growing area of this field is the study of early reading and precociousness. Much research suggests that being a precocious reading has significant advantages (Mills & Jackson, 1990).

Very little research has attempted to correlate reading habits and ability to the research of study skill development (Griswald, 2006). Similar research has attempted to link reading habits to academic achievement. This has provided a similar end but by a different means compared to this study. Again, the final result is academic achievement, but the means by which reading leads to study skills has yet to be investigated.

Much akin to reading skills, study skills research is also very varied. A great deal of research in the field has many operationalized factors that differ in name but are more similar than they are different. The key points that are found in the literature that are to be measured in this study are concentration, retention, time management, study habit

strategies, ability to note take, perform on tests and to maintain motivation.

Definitions

Reading Habits- The set of behaviors relating to one's own reading style as well as reading tastes and habits. The term also accounts for the frequency of reading along with various topics and forms of written material (Newspapers, novels, religion, history, entertainment, etc.) This study aims to measure reading habits frequency as well as measures relating to the mental organization of reading. Specifically, the scales used in this study measures Purposefulness of the Reading, Previewing of the Reading, Techniques used to Decode Difficult Words, Perceived Difficulty of the reading, Drawing Meaning from the Reading and Sharing and Relating the readings to others. These measures give a good measure of an individual's capacity to understand reading by accounting for pre-reading, reading and post-reading factors that affect the reading behavior.

Study Skills- The adaptive skills and behaviors relating to how a student manages time, approaches novel situations, attends to detail, manages and retains information, and performs on assessments. The scales being used in this study will measure study skills by identifying and assessing dysfunction in Concentration, Memory, Time Management, Ability to Study a Chapter, Listening and Note-taking, Test-Taking and Motivation. These measures are useful because the study is aimed both at targeting individuals with superior study abilities as well as individuals who have study habits that have not been fully developed.

Assumptions and Limitations

For this study to be implemented, certain assumptions must be made for the design to be valid. First we must assume that our broad categories relating to the topics of reading will not have much variation between them. For example, we assume that there will not be a difference between an individual who reads Time magazine and another who reads Entertainment Weekly, because they will be reporting that they read magazines. Also, the researcher must assume that all reported data is truthful on account that all information is voluntarily offered and is self-reported.

In this study, there are several limitations due to the design. The study aims to measure correlations between reading habits and certain qualities that compose our construct of study skills. This study does not plan to prove any causal relationship between reading habits and the formation of superior study skills as a result of the reading. This study also must realize that the population being examined is predominantly white, middle class American. As a result, the sample may not be large enough to properly portray the norm of American educational standards.

Overview

The topic of proper study habits has always been an issue for students as well as parents. Parents often hear research that it is beneficial for them to read to their children as well as to have children read for themselves, but how often is this put to practice? There is no research explaining exactly why reading is no longer a socially popular activity, but we can assume that the extreme leaps in technology have rendered printed

type nearly obsolete.

Regardless of the reasons for the change, researchers must discern what the effects of such a change in the modes of information have on students in this new age. Students now are much less likely to read printed type for any reason. For this reason, this study aims to measure if students who retain an above average reading routine are more likely to develop superior study skills. In this study, the reader will be shown data that will either support or deny the presence of a shift in study habits as a result of reported reading habits.

The information following will be presented in the following method. Chapter two will be a review of current literature pertaining to reading and study habits. The section will begin with a description of how the research is organized. There will also be a historical perspective relating the trends in reading. Following that section will be a review of the topic in relation to academic achievement. Chapter three will be an explanation of how the research design is implemented as well as an description of the sample, measures used, analysis and summary. Chapter four will contain an analysis of the data. Chapter five will conclude with a final report as well as a discussion of the findings.

CHAPTER II

Literature Review

In this study, the researcher plans to examine the relationship between the reading habits of college-level students and the relationship to the development of effective study habits. In this study, certain trends in the field of reading development and study skill theory will be discussed. To truly get a good view on the effects of reading on development, one must start at the beginning. This review will focus on the presence of reading in early childhood as well the development of early reading through interventions by parents and educators. From there the literature will examine various factors and theories to development. After reviewing psychosocial and study skill factors, several theories of self-regulated monitoring will be reviewed. After reviewing metacognitive monitoring, theory relating to the zone of proximal development and the development of achievement goals, the writing will review the correlations of persistence and academic-relevant outcomes. The last sections will review the impact of levels of processing theory and will present an overview of researched study strategies.

To first get an idea of how reading is important in the development of study skills, we must first look at how reading is important towards the development of healthy school habits. One example that provides promising research is the investigation of precocious readers. A "Precocious Reader" is defined in most research as a child who exhibits

Donaldson & Cleland, 1988). Many researchers have investigated the potential for children who possess this ability as well as attempted to determine the possible proponents of a child's reading habits developing so quickly. Researchers have found that children who have this ability to read before they are typically expected to have a significant advantage over their peers in their early educational years (Mills & Jackson, 1990).

This distinct reading advantage over the student's peers places him in a situation where he will stand out among others intellectually. This form of "schoolhouse giftedness" is a large predictor of a student's likelihood to become enrolled in an accelerated or gifted educational program in their school. This particular form of giftedness is trait that is often demonstrated on standardized tests (Mills et al., 1990). For example, high scores in reading and comprehension are items that students with precocious reading habits typically demonstrate on standardized tests. This powerful gift is a trait that develops continuously throughout childhood and young adulthood through various forms of extended practice (Jackson, 1988). Research investigated by Jackson has hypothesized that "the progress that children might make might be influenced by their everyday reading experiences" and that this continually developing ability often develops through the development of reading as an intrinsically meaningful activity.

The theoretical structure of precocious reading as defined by Jackson consists of two separate but related dimensions. The two poles of precocious reading consist of conceptual reading skill and analytic reading skills. The Conceptual processes of precocious reading are more related to accurate recognition of words while analytic

processes are more related to mentally breaking down and understanding of word structure (Jackson et al., 1988).

Conceptual reading skills consist of various skills and abilities relating to the recognition and decoding of words during reading. For example, the speed at which you can recognize words within a sentence and recognize the context of the arrangement is related to your ability to create concepts from the text. Conceptual reading ability also has an affect on a person's ability to recognize and determine exceptions to orally irregular words. For example, good conceptual reading would be the ability to recognize the word "island" as a whole. If one was to analytically derive the word by each syllable, the resulting oral representation would be incorrect. This form of recognition is represented by recognition of the word as a whole rather than being able to get "sounded out" analytically (Jackson et al., 1988). Research into this topic has found that conceptual readers are children who rely heavily on contextual clues to produce fluent sounding language (Baron, 1979; Olson, 1985).

The other reading skill defined by Jackson as Analytical consists of various abilities concerned with oral precision. Some of the criteria that make up analytical skill is the low frequency of omission and insertion errors, the extent to which the student can constrain oral errors and the degree to which they master the rules of phonological decoding. The overall purpose of the analytical ability is the skill to read pseudo-words and make use of the phonological rules to word decoding. Children that excel in this ability make very few oral errors when reading out loud (Jackson et al., 1988). Analytical readers are children who have a profound mastery of the rules concerning

phonological decoding. This relates both to pseudo-words where rules do not always apply as well as where words follow these rules normally (Baron, 1979; Olson, 1985).

Children who have precocious reading habits are students who are endowed with abilities that make them stand out from their peers. Efforts are being made by schools and parents alike to foster reading habits while children are still young (Allen, Cipielewski & Stanovich, 1992). This movement is being fueled by a continuing expansion on the conception of positive educational outcomes being seen in the domain of reading (Stanovich & Cunningham, 1992). Most of the benefits that have been seen to be as a result of precocious reading are in the areas of cognition, mostly related to comprehension, concentration and retention (Krashen, 1989; Snow, Barnes, Chandler, Goodman, & Hemphill 1991).

It is important to recognize that precocious reading must not be confused with hyperlexic reading. Hyperlexic reading is a condition where a student can read and recite words with great ease but does not have much or any actual retention of the knowledge they read. Individuals with hyperlexia and certain instances of autism are often mistaken for being precocious readers at a young age, but do not truly qualify because they do not retain the information they can decode (Healy, 1982).

Some research has suggested that parental influence on reading can have a significant effect on the child's potential to develop precocious and above-average reading abilities (Pellegrini, Brody & Sigel, 1985). One particular instance of parental involvement concerning reading is the actual act of a parent reading to a child. Based on Vygotsky's theory of the Zone of Proximal Development, children can develop with

assistance from the parent until they can complete the task of reading independently (Vygotsky, 1978). As children develop their reading abilities, the adult scaffolding of the children's behavior decreases and the children themselves will assume greater responsibility in the reading task (Brown, Bransford, Ferrara, & Campione, 1983).

Certain patterns of reading habits with children have been present in many studies. Interactions between child and parent are often affected by the intelligence level of the child (Pellegrini, 1981 & 1984). As a result, parents adapt how they read stories to their children based on this fact. For example, for the youngest and least able to read, parents are often mostly directive. Parents are more likely to explain they story as children passively listen and learn. As children become older and more aware, the parents are less directive and less likely to just explain the story to them. The children are given an active role in the story telling as the parent asks questions about the story and the child often offers labels and their own expressions on the story. When children are growing to the age where they do not need directive storytelling, children begin to relate aspects of the story to their own lives and create their own connections between reality and the literature (Brown et al., 1983).

Parent and child reading is a great example of how reading can be offered to a young student but the student must eventually develop their own independent interests free from the parent. Research pioneered by Teale hypothesized that there are three categories of literary experience where children can develop reading behaviors. The three categories are composed of activities where children interact with adults in reading or writing activities, experiences where children can observe adults and model their

literate behavior and activities where children are able to explore printed materials independently (Teale & Sulzby, 1986). Family literacy activities are a good promoter of reading habits that is more conducive to independent reading than prescribed parental readings. Some examples of activities where independent reading can be encouraged are regular or irregular library visits, daily papers or subscriptions, regular or irregular reading of fiction or non-fiction, the use of computer for work and leisure, regular activities relating to writing and playing games with literary themes like scrabble and crosswords (Stainthorpe & Hughes, 2000). Reading history and ability are factors that influence a number of learning processes. Reading has various connections to learning, studying, and the rate of development of study skills as well as the basis for past learned material.

Reading habits can be encouraged in a variety of ways and can affect each of the stages of development of learning. One can assume that improving reading at a single stage will encourage additional progress at the next corresponding age, and with this assumption, we can presume encouraging reading habits at an earlier age will result in more positive outcomes. With this in mind, the literature will now review stages of learning as researched by Anbar.

Anbar's theory of Early Reading Acquisition consists of seven, possibly sequential stages. The first stage that begins the sequence is the ability to recognize and become aware of print. After the learner can recognize print, the second stage focuses on the identification of individual letters and recognition of vocabulary based on sight. During the third stage, the learner is faced with the challenge of learning the sounds of

the individual letters. The fourth stage is focused on the ability for the reader to put together words based on their knowledge of the individual letters and their characteristics. After the reader is able to construct and recognize words based on their letters, the fifth stage involves active reading, where the reader can exercise reading based on the development of their decoding skills. The last stages that Anbar found were the ability to sound out unfamiliar words, stage six, and the ability to read and understand difficult or unfamiliar books, stage seven. The final stage proposed by Anbar was added, but is not necessarily the end stage for all individuals. The eight possible stage proposed was the development of reading habits for recreational and leisurely means. This last stage would be the development of reading as a process that is intrinsically rewarding (Anbar, 1986).

As we plan to investigate the relationship between reading habits, learning and study skills, we have to recognize that the end result of what we plan to investigate results in college outcomes. Research has concluded that various predictors, such as reading habits, study skills and strategies to learning have positive correlations with positive college outcomes (Weissburg & Owen, 2005).

Among the various predictors that correlate with positive college outcomes, race, gender and the overall preparedness of the student are also very influential. Two very important factors that are widely researched and found to be influential are high school GPA and persistence, an item that will be explained later (Robbins, Lauver, Davis, Langely & Carlstrom, 2004). Robbins' found a .413 correlation between high school and college GPA's, which is consistent with other similar studies (Young, 2001; Bridgeman,

McCamley-Jenkins & Ervin, 2000). Young's research found a .42 correlation with high school and college GPA by keeping measures of high school and college exit GPA's since the 1980's. Young's research was also interesting because it showed an instance where traditional standardized measures of intelligence and achievement testing were not very accurate. Young noticed a correlation discrepancy between the correlation of black and white student high school and college SAT's and GPA's.

Robbins' research also established two very important findings. This research further proved that psychosocial and study skill factors, situations surrounding the student as well as the student's characteristics, exhibit positive correlations with both college retention and college GPA. Robbins' also found that both retention and college GPA show that psychosocial and study skill factors account for many correlations that were not addressed by traditional predictors of success such as high school GPA and ACT/SAT measures. Race became a factor that created a discrepancy in the accurate assessment and prediction of student potential. Many psychological and sociological studies later followed and concluded that student potential is invariably influenced by economics, eventually leading to the support for the development of psychosocial factors (Weissberg, Owen, Jenkins & Harburg, 2003).

Several factors noted by Robbins' research in psychosocial factors of undergraduate study have been identified. Robbins found there are three significant factors relating to college and university outcomes. Robbins identified financial support, selectivity of student body and size of the institution as being influential on college retention and GPA. Financial support and selectivity were identified as having positive

correlations with retention and GPA while the size of the institution was negative correlated with retention and GPA (Robbins et al., 2004). It is interesting to notice that financial support is positively correlated with retention and GPA, supporting the hypothesis that psychosocial and economic factors are strong determinants of college outcomes.

Further research by Robbins determined more specific, individual characteristics of the student that were correlated to either retention or GPA. The research identified social involvement and academic self-efficacy as being significantly correlated with college retention. Several factors that were positively correlated with GPA were academic motivation, achievement goals, institutional commitment academic self-efficacy and academic related skills (Robbins, Le, Lauver, 2005). Robbins' research is important because it identified both global/institutional and individual constructs that correlated GPA and retention. It is important to notice Robbins' change from the institutional factors correlated to college outcomes to focusing on the individual's personal factors correlated to college outcome. This provides an interesting transition where the individual is more determinant of their outcome than the economic, social or institutional environment that they are in.

Research into the personal factors regulating individual study habits has been very varied and has a variety of competing theories. One very influential framework that has been identified as being the individual's ability to monitor themselves and their abilities is the theory of Metacognitive Monitoring (Thiede, Anderson & Therriault, 2003).

This theory of self-regulated learning is typically classified as a model of

discrepancy-reduction. This means that metacognitive monitoring influences a person's ability to regulate their studying by being able to discriminate better learned material from less learned material. This distinction between material allows a student to determine which areas of study to spend more time on and which areas do not require as much (Thiede et al., 2003). This research developed an idea that students who could study less-learned material instead of more-learned material would score better by accurately studying areas that required extra effort to master (Thiede, 1999). This ability to monitor forms the basis for making decisions on what to study and judgments on how much studying would be required (Thiede et al., 2003). The theory of self-regulation is also compatible with the theory of back-propagation. This theory states that learning proceeds by first correcting the largest errors and then, on repeated revisions, correcting the remaining smaller errors until the process meets criterion (Rumelhard & McClelland, 1986).

The research supporting metacognitive monitoring and its relation to positive study habits and college outcomes has been applied to individuals in college. The model proposed by Maki is a process where positive metacognitive monitoring leads to regulation of study which leads to positive test performance (Maki, 1998; Nelson, Dunlosky, Graf & Narens, 1994). Research investigated by Maki has found that most people typically have low levels of metacognitive monitoring (Dunlosky & Hertzog, 1998). One finding that Maki found very interesting was that most people monitor themselves poorest during reading. These people are not able to distinguish between what they truly understand and what they are just reading. These people have poor

monitoring, and as a result, they cannot study accurately because they can't tell what they've effectively learned (Maki, 1998).

Further research into the area of metacognitive monitoring has found that most college age adults are not good at self-regulation. More recent research has found that self-regulation is a skill that develops slowly over time and that only some undergraduate and graduate-level students commonly demonstrate adequate self-regulation (Peverly, Brobst, Graham & Shaw, 2003; Brown, Smiley & Lawton, 1978).

Despite a great deal of research into the discrepancy-reduction model, there are other popular theories that capitalize on where self-regulation falls short. For example, although self-regulating theories sound reasonable and well grounded, there are several inherent flaws. One of the areas where self-regulation loses focus is the fact that there is no data about the relationship between people's metacognitions and their appropriate allocation of study time. For example, a person can determine which area needs work, but their actual application of that knowledge is never truly assured. Another flaw of self-regulation is that there isn't even a true definition of what an optimal allocation of study time is or which study strategy applies best (Metcalfe & Kornell, 2003). Additional research into the flaws of self-regulation has found that spending most time on the hardest material can be detrimental in the long run. Nelson's research into time constraints and self-regulation has found that allocating too much time to the hardest areas can create a situation where the student is actually wasting time, trying to master an area where they can't completely comprehend yet. Nelson called this phenomenon the "labor-in-vain effect" (Nelson & Leonesio, 1988).

Other research into the effects of a firm time restraint on self-regulation relating to test-taking has found that the time has several effects. For example, when a student takes a test where they are given free choice and given a short time limit, they often choose to answer the easiest questions over the medium and difficult ones (Son & Metcalfe, 2000). Further research on the subject found that when the time limit is slightly extended, students began to work on the medium and then easy exercises as opposed to the most difficult (Metcalfe, 2002). Additional research by Metcalf has proposed that a theory incorporating a Region of Proximal Development Framework instead of a Discrepancy-Reduction model. Metcalfe's theory makes references to Vygotsky's theory of Proximal Development (Vygotsky, 1978). Based on Vygotsky's notion that the target of learning is based on ideas slightly beyond the current grasp of the learner, Metcalfe bases the ability of the individual to learn by promoting the learner's studying of material that is current within the region of proximal development. Anything outside of that region of proximal development is seen to be currently unattainable and currently a waste of time (Metcalfe, 2002). Recounting the previous finding on the effect of time, Metcalfe found that the focus on easy or medium difficulty questions when on a time constraint, the individuals will choose to complete those exercises that are in their zone of proximal development.

Research outside of the discrepancy-reduction and zone or proximal development has shown powerful findings as well. Prominent research focusing on the ideas of achievement goals, study strategies and exam performance has identified that the individual learning characteristics are focused on affect, cognition and behavior (Elliot,

McGregor & Gable, 1999). From these characteristics, individuals compose and follow through with achievement goals, which are defined as the purpose or dynamic focus of task engagement (Elliot & Church, 1997; Maehr, 1989). From the positive and purposeful use of these goals, research has shown that they are positive predictors of a number of achievement-relevant processes and outcomes (Harackiewicz, 1998; Urdan, 1997).

Most of the research developed for achievement goals has been developed by Elliot. Elliot's research defines two types of goals that make up academic achievement. They are divided into performance and mastery goals. Performance goals are also referred to as ego involvement ability or goals. These goals are mainly focused on the need to demonstrate competency to others and are a more extrinsic form of mastery based on our comparison to others (Harackiewicz et al., 1998). These types of goals are consistently unrelated to systems of deep processing and positively correlated to surface-level processing, which will be introduced shortly (Miller, Greene, Montalvo, Ravindran & Nichols, 1996).

The theory of achievement goals was later revised by Elliot to further specialize performance goals. Elliot revised the dual goal theory into a triarchic theory. Research found a need to divide performance goals into two opposing groups. Based on the need to show competency to others, the goal could either be the performance/approach or performance/avoidance group. The performance/approach group is the side of the continuum where the individual sets and accomplishes goals to encourage a positive view of their competency to others. The performance/avoidance group is the other side of the

continuum where the focus of goal-setting is to avoid the chance to be seen as incompetent by avoiding situations where incompetence is a possibility (Elliot et al., 1997).

The final aspect of achievement goal theory is the use of mastery goals. These goals are also referred to as task involvement and learning goals. These goals are focused on the development of mastery of certain tasks. These tasks are more intrinsically defined than performance goals, focusing on the need to have personal mastery of the task. The purpose of mastery goals are grounded in the need for achievement and the eventually mastery of tasks (Elliot et al., 1997). These goals are positive predictors of deep processing as well as persistence and effort expenditure (Harackiewicz, Barron, Carter, Tauer & Elliot, 1999; Miller, Behrens, Greene & Newman, 1993).

Persistence and effort are constructs that have been researched within achievement goal theory. Persistence is often referred to as effort management or effort regulation, and refers to the individual's regulation of effort and continued desire to complete or master a task (Pintrich, Smith, Garcia & McKeachie, 1993; Elliot & Dweck, 1988). Effort is defined as the "continued investment in learning where obstacles such as comprehension difficulty are encountered" (Zimmerman & Risemberg, 1997). Effort can be illustrated by the continued desire to finish goals that have been set or accomplish goals that have been met with high levels of difficulty. Both persistence and effort, possibly the combining of the two, are factors that are very powerful predictors of study strategies and strong academic performance (Miller et al., 1996).

The theory of levels of processing has been a theory that has great application to

learning and study theories. Entwistle proposed that there is deep and surface-level processing. Surface-level processing is the use of quick, short-term memory storage to perform tasks quickly. Surface processing works by use rote-repetition and quick strategies aimed to quickly process and use information, rather than permanently store information for later use (Entwistle, 1998). Although surface-level processing has been linked to mediocre success by "cramming", there are no positive or negative correlations to college outcomes measured (Miller, Greene, Montalvo, Ravindran & Nichols, 1996). Surface-level processing has also had null correlations to study strategies and academic performance (Miller et al., 1996)

The deep level of processing is the use of elaborative and critical thinking to store memory long-term. This style of processing is the combination of newly acquired information with past information to develop new concepts and relationships. This level of processing has the most conceptual and predictive validity of the model, having the most correlations to achievement goals and positive college outcomes (Entwistle, 1998; Miller et al., 1996).

The last section of the level of processing model is a category named disorganization. Disorganization is a situation encountered where the individual has difficulty establishing or maintaining a structural or organized approach to studying. This situation presents a problem where the learner cannot process any new information, either deep or surface-level, because they cannot maintain structure in their thinking (Entwistle, 1998). The last section that will be addressed will consider the individual's ability to organize and structure their studying.

As children develop, their specific strengths and weaknesses relating to study change as they slowly incorporate new information and new skills. For example, young children tend to remember more when they are given explicit strategy instruction on how to study and given explicit task requirements of what is expected. These strengths and weaknesses are variable across the academic experiences, the specific learning tasks and the individual's own learning characteristics (Wood, Willoughby, McDermott, Motz, Kaspar & Ducharme, 1999).

Over time, students come to realize their own strengths and weaknesses, and develop their own study strategies. Some examples of various study strategies are, from most complex to rudimentary, are elaboration, imagery, lower-level verbal elaborations, cumulative rehearsal and basic repetition. Basic repetition is the most simple of the common strategies. Much like learning the alphabet, the content learned is mastered in a ranked order, not individually mastered at first. Cumulative rehearsal is a more complex form of repetition. Focusing on more complex material, cumulative rehearsal is the continued and graduated practice of information though continued practice. Lower-level strategies are forms of elaboration that use simple verbal elaborations to help retention and recall. Imagery is a system of visual mnemonics and associations that are tied to memory to help retain information visually. Lastly, elaboration is the highest level of study strategies. Elaboration is the combination of old and new information that is remembered by creating analogies and comparisons between the two (Wood et al., 1999).

Elaboration has been shown to be one of the most powerful study strategies. Also referred to as elaborate interrogation (EI), this strategy is a system of questioning that

focuses on asking the reason "why". This process has shown a great deal of promise when learning text material and focuses on the ability of the learner to make associations between prior knowledge and the material and hand (Wood et al., 1999).

Research into EI has shown that students are more successful when they study topics with areas they have a strong knowledge base. The research behind this fact is the theory that since EI is more successful when studying topics where they have a strong knowledge base is because the theory relies on the presence of past knowledge to relate to new information. Therefore, the more you have to relate with new information, the more associations you can create. The research has shown that higher achievers use EI more because they have a larger knowledge base and that lower achievers rely on strategies such as imagery and mnemonic devices because they lack that knowledge base (Wood et al., 1999).

The experiment performed by Wood showed that EI is a powerful habit that can be taught to students across various grades. Wood involved students from 4-6th grade, high school and freshman and seniors in college. The research showed a gain across all ages, and a larger improvement with children in the lower grades and younger children. The researcher hypothesized that these finding indicated natural study skills develop with age. Reasoning for this theory was the notion that reading ability improves with age and that the capability for extraction and analysis develops with age. For example, college students used higher level learning strategies more often.

CHAPTER III

Methodology

Sample

The sample population that was investigated in this study was Undergraduate College students who were gathered for testing from a pool of Psychology majors who were participating for research credit as well as classrooms that permitted surveys to be administered. The participants who participated were from a southern New Jersey university. The students had a fairly large age range, as young as 18 and as old as 34. The sample was composed of 100 students, with 64 males and 36 females. The sample was predominantly Caucasian with only several Latino and African American participants. The students who were measured were given both scales and the findings were analyzed for correlations. All students were informed of the voluntary nature of their participation and remained anonymous. The student collection pool organized by the university protects confidentiality and the researcher did not ask for names when administering the surveys to participating classrooms. The data collection consisted of 2 weeks of online availability to students in the pool and two participating classrooms. The dates of collection were from March 24th of 2008 to April 2nd of 2008.

Measures

The scales used for this investigation are the Scales and Rhee "Adult Reading

Habits and Patterns Questionnaire". The scale was developed to assess reading habits, demographics and the specific types of reading material individuals prefer. Aside from screening for leisure preference, the scale measured different aspects of the individuals reading style. The scale focused on several areas relating to pre-reading, during reading and after reading characteristics. The scales composing the "Before Reading" category were related to Purposefulness of the Reading and Previewing of the Reading. The category of "During Reading" was composed of measures relating to Techniques used to Decode Difficult Words, Perceived Difficulty of the reading and Drawing Meaning from the Reading. Lastly, the "After Reading" category was related to Sharing and relating the readings to others. Gender, age, race and employment were measured as well but were not the focus of the study. All 34 answers in the scale were ranked using a Likert-scale, and were scored cumulatively according to the respective measure.

The other scale was developed by faculty of the College of the Redwoods Institute of Eureka, California. This scale was developed to assess the strengths and weaknesses of a student's study habits. This scale is designed to rank concentration, memory, time management, ability to study a chapter, ability to listen and take notes, test taking ability and motivation along. This scale was composed of 50 True/False questions and the measures were scored to respective measures. The measures were judged with areas of difficulty have higher counts and areas of difficulty with less or no counts.

Hypotheses

The hypothesis was that students who have more frequent and long-standing

reading habits will show greater measures of the following factors than those without frequent and long-standing reading habits. Students with frequent reading habits will have improved proficiency in terms of purposefulness of the reading, previewing of the reading, techniques used to decode difficult words, perceived difficulty of the reading, drawing meaning from the reading and sharing and relating the readings to others and will also demonstrate higher proficiencies of concentration, memory, time management, ability to study a chapter, abilities to listen and take notes, test taking and overall motivation.

The null hypothesis was that students who have more frequent and long-standing reading habits will not show greater measures of the following factors than those without frequent and long-standing reading habits. Students with frequent reading habits will show no difference in proficiency in terms of purposefulness of the reading, previewing of the reading, techniques used to decode difficult words, perceived difficulty of the reading, drawing meaning from the reading and sharing and relating the readings to others and will also demonstrate higher proficiencies of concentration, memory, time management, ability to study a chapter, abilities to listen and take notes, test taking and overall motivation.

Analysis

The data collected for these scales was scored according to the design of the individual scales and then was correlated. The scales consisted of self-report of reading habits and factors related to reading along with evaluations of concentration,

remembering, time organization, ability to study a chapter, listening and taking notes, taking tests and overall motivation. These data were computed and analyzed to determine correlation between factors.

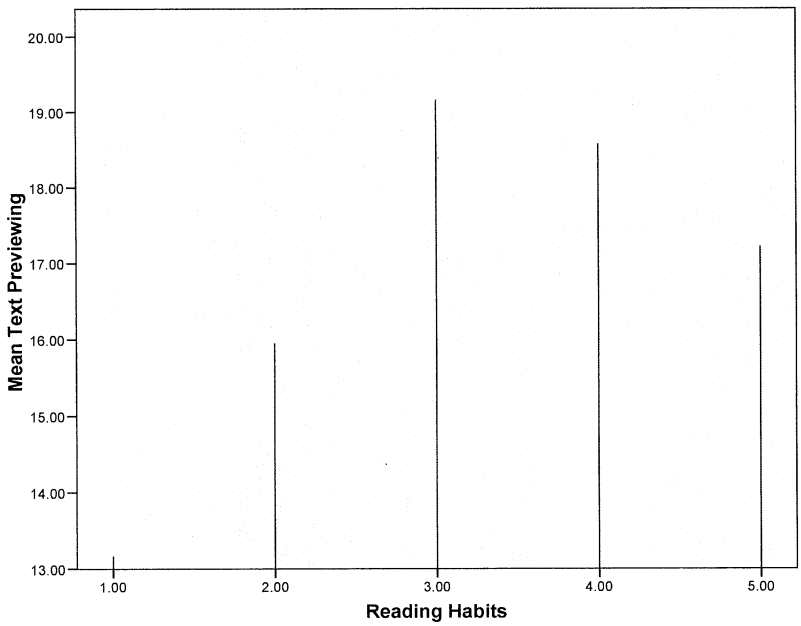
CHAPTER IV

Results

Over the course of this investigation, the researcher accumulated data that supported various aspects of the hypothesis. As measures of reading habits increased, several aspects of both reading performance and study skills improved. This supports the hypothesis that improved reading habits leads to superior study skill development over specific areas. It is important to note that reading habits are measured on a Likert Scale (Infrequent being 1 to Very Frequent being 5)

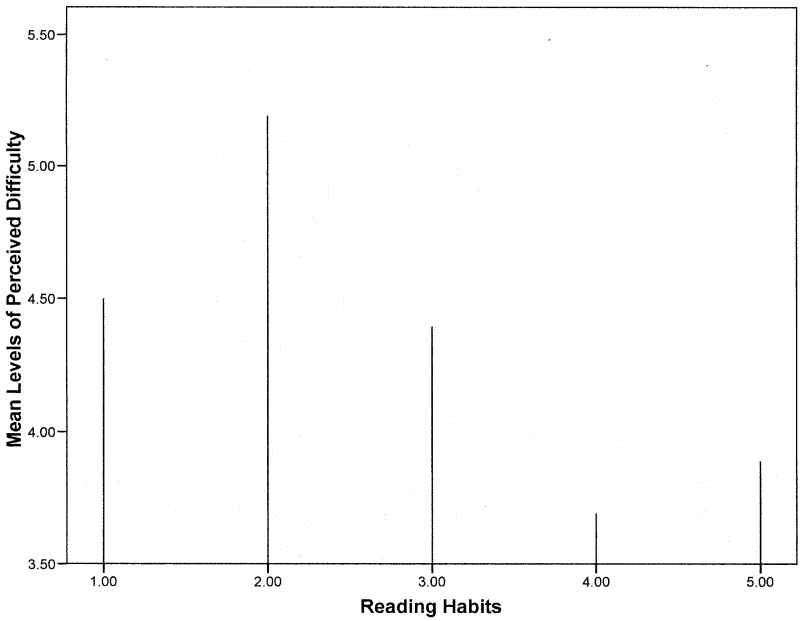
Various aspects of reading habits reported significant Pearson correlations at both the 0.05 and 0.01 level. As reading habits increased, measures of more frequent previewing of text were found. Text Previewing showed a r=.254 correlation with Reading Habits and was significant at the 0.05 level.

Figure 4.1 - Mean levels of Text Previewing



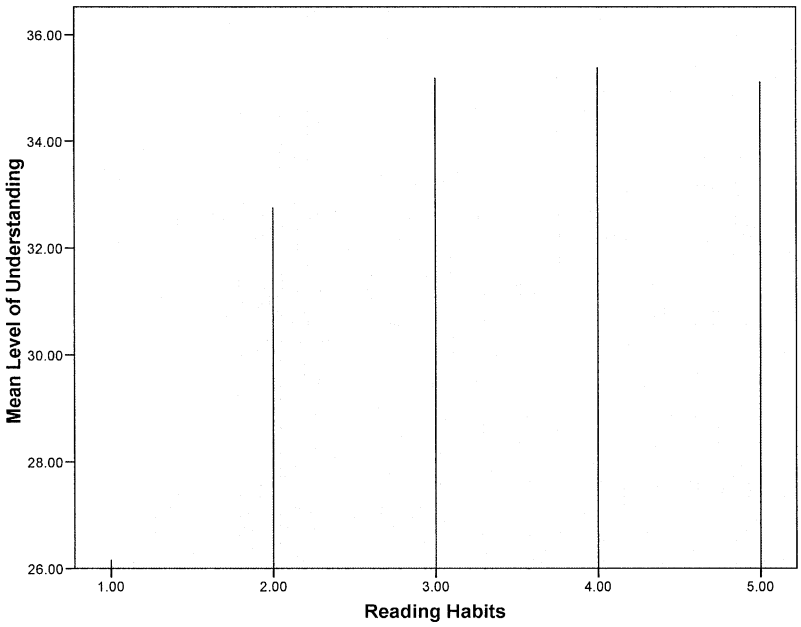
Along with measures of Text Previewing, the data also showed decreased levels of Perceived Levels of Difficulty. It is important to note that the correlation was anticipated to be negative, showing that there is a decrease in the overall level of perceived difficulty with frequent reading habits. This measure showed a r=-.292 correlation which was significant at the 0.05 level.

Figure 4.2 – Mean levels of Perceived Difficulty



The last factor of reading that reached significant levels was increased levels of understanding during reading. As reading habits increased, levels of understanding showed a r=.259 correlation, reaching significance at the 0.01 level.

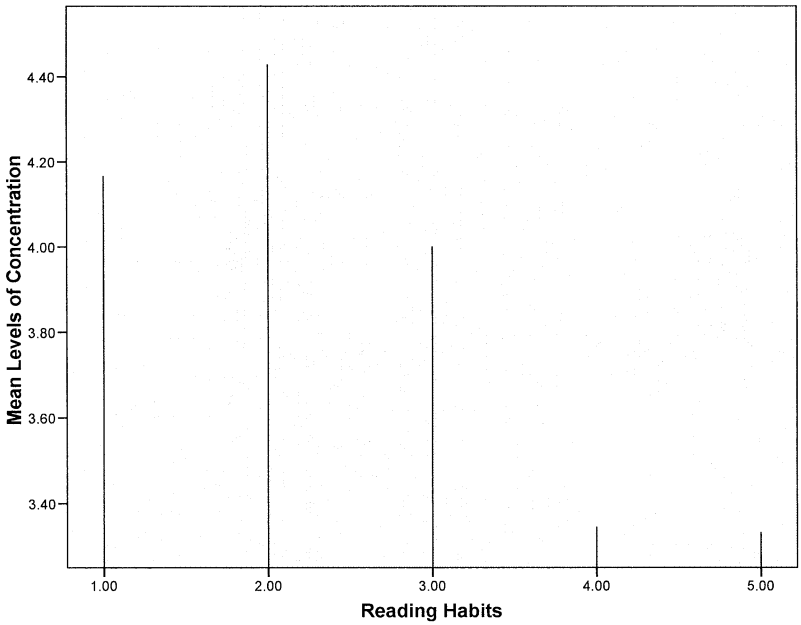
Figure 4.3 – Mean levels of Understanding



The remaining measures of reading patterns were correlated with reading habits, but did not reach significant levels. Measures of Previewing for Purpose showed a .131 correlation, Word Identification showed a .191 correlation and levels of Sharing and Relating written materials had a .174 correlation. Aside from reading patterns and measures, various aspects of study skills showed significant correlations as well. Specifically, measures of Concentration, Listening and Note-taking and Motivation reached significant levels. The researcher informs the reader that negative correlations in these areas show a lack of difficulty, and thus strength, in that specific measure.

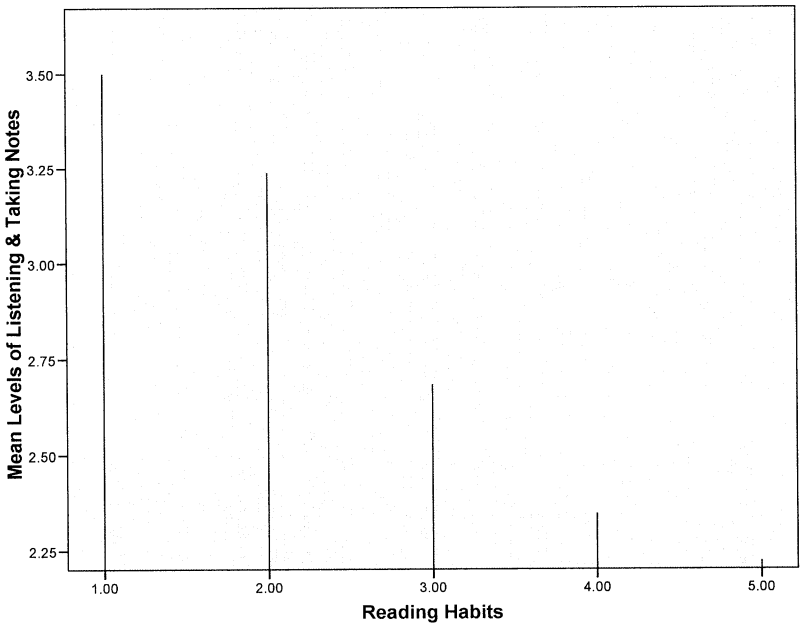
As reading habits increased, levels of concentration showed increases as well. Concentration levels showed a r=-.216 correlation and was significant at the 0.05 level.

Figure 4.4 – Mean levels of Concentration



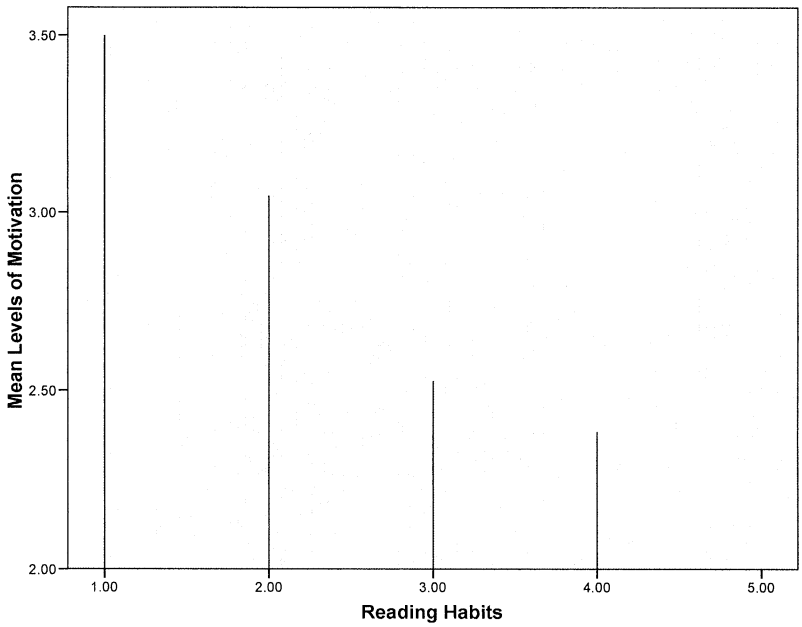
Along with Concentration, Listening and Taking Notes showed similar results. Listening and Taking Notes showed a r=-.299 correlation which was significant at that 0.01 level.

Figure 4.5 – Mean levels of Listening & Taking Notes



The final measure of study skills that reached significant levels was Motivation. As reading habits increased, Motivation showed a -.232 correlation which was significant at the 0.05 level.

Figure 4.6 – Mean levels of Motivation



The remaining measures were slightly correlated with reading habits but did not reach significant levels. Measures of Memory had a -.073 correlation, Management of Time showed a -.029 correlation and Test Taking ability showed a -.062 correlation.

CHAPTER V

Conclusions

Over the course of this study, the researcher found evidence to support the hypothesis. The hypothesis was that student with more frequent reading habits will have more developed skills relating to studying. The reason for this study was the continuing downward trend in the amount of leisurely reading seen in young students today. The investigator chose to research undergraduate college students because of their expected levels of studying ability and because of the likelihood that they would have established a fairly regular reading habit by time for college. Overall, the researcher did find evidence to support the hypothesis that increased reading habits have a positive effect on study skills. Though not all factors reached significance, all factors followed the expected correlation in some magnitude. To this extent, this study supports the literature already present in current and accepted research into reading habits and study skills. The areas that best represent the finding of this study are Metacognitive Monitoring, Zone of Proximal Development, Achievement Goals, Persistence and Effort. The Levels of Processing theory and research into Study Strategies has similarities as well.

The theory of Metacognitive Monitoring takes into account a great deal of variables that this study investigated. This theory takes into account our definitions of Previewing of Text for difficulty and for content, overall Memory, Perceived Levels of Difficulty for developing expectations and setting goals, Note Taking and Listening skills

for noting what is important/relevant and overall Understanding pertaining to the topic. It is very relevant to have a good ability to discern which things are more difficult to learn than others. The researcher feels that being able to decide which tasks deserve the most practice is a vital component of this theory and that the Perceived Level of Difficulty factor was a good measure of this ability. It is by no surprise that this factor was significantly correlated when paired with reading habits. Another factor that applied to this theory was Previewing Text. Likewise with the previous factor, previewing the text allows the reader to gain exposure to aspects of the reading and from which the reader can tell which sections of the text require more attention than others. This was also a factor that gained significance in this study. One other consideration that the research had was that Note Taking and Listening is generalizable factor to Metacognitive Monitoring. When a student takes notes, they typically listen more closely to areas in which they suspect or experience difficulty and likewise they record notes more frequently on topics which they perceive to be more difficult. The next measure is one of multiple interpretations.

The measure of Understanding is a factor that can play a role in a number of theories. The researcher found Metacognitive Monitoring and the Zone of Proximal Development as theories where Understanding could be linked. Metacognitive Monitoring uses understanding as a reference point to concepts which they do not understand and the Zone of Proximal Development builds from areas of current understanding using supports to help bridge the gap between the understood and the

misunderstood. Understanding is a construct that is very important and applicable to both of these theories and it is by no surprise that it reached the significance level when paired with reading habits.

The researcher found that three of the significant factors relate to achievement goals. Previewing for Purpose, Time Management and Motivation are constructs that relate to a persons goal setting ability. These factors relate to a students ability to discover purpose, set aside time and resources as well as maintain sufficient effort to complete those goals. The measure of motivation is a very powerful predictor of success, being that it is related to achievement goals as well as persistence and effort. Persistence and effort are measures that predict the level of effort continued through the completion of a difficult task.

Among the many relationships that can extrapolated from these results, the reader can see that many of the significant factors are well represented in the review of past literature. As the hypothesis was significant across many measures, we find that the findings support the findings of similar studies in the past. While many of these theories apply to various aspects of reading, language and goal directed behavior, it is safe to say that powerful study skills are based on the development of many of these aspects. And if we connect reading habits as a factor, we see that as individuals develop their reading ability, they report higher levels of strengths and lower levels of dysfunction when asked about their studying abilities. With these possibilities in mind, there are applications to these findings throughout education. Encouragement of leisurely reading, along with the

option to study preferred readings, could help to encourage reading habits at an earlier age under the premise that they will benefit from the development of these habits.

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