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Study methods for improving quality learning and performance in higher education

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Education is an investment to development and poor study methods should not compromise the mandate of higher education institutions to generate, preserve and disseminate knowledge and produce high quality graduates. Universities admit students with varying backgrounds in terms of learning/study styles, levels of preparedness and concepts of university education. Some were "drilled", spoon fed, taught for exams, or have wrong purposes/values of university learning. These negatively impact on their study skills and achievement. In complementing the role played by academic staff, students need to be conscious of their personality and study ethics as they influence studying. It is futile to teach well while students lack the fundamentals to conceptualize and internalize the new knowledge. This paper proposes a paradigm shift in study methods and suggests strategies for both the lecturers and the students in universities towards improved learning and performance. The paper is based on the "distributed learning approach" to adequately cater for individual differences that exist among the students. The model is significant for university students, most of whom begin serious studying on realization that examinations are around the corner. This causes stress, confusion and tendency to cheat in examinations. Distributed learning model will address the study space needs and the efficiency and effectiveness of study methods.

Key words: Study methods, achievement, learning performance, distributed learning.

INTRODUCTION

In the world an area that has seen heavy investment is education. In the ancient India, Vidya or knowledge or education was considered the "third eye" of man which gives him an insight into all affairs. Scores of people of all age groups spend a lot of their time, money and efforts in pursuing education in various institutions of learning. Years spent in primary, secondary schools, colleges and university are almost half a lifetime in this case therefore returns from such an investment should be high enough to warrant such effort. The high returns can be seen directly or indirectly in form of achievement, progression and placement. Many times, college students have not had to manage their time efficiently prior to college because they are bright and rarely challenged in high school. So some students who had 'A's and 'B's start receiving supplementary exams and score C's and D's in college.

According to the National Commission on Excellence in Education (1984), many students are unsuccessful in school because they lack effective study skills. To counter this, the commission recommends that study skills be introduced to students very early in the schooling process and continue throughout a student's educational career. In a now classic study of study skills, Entwistle (1960) reported that students who voluntarily took a study skills course were more successful academically than similar students who did not voluntarily take the course. Butcofsky (1991) reported that students who have difficulty in college frequently have inadequate study habits that affect their academic achievement. A central problem, he noted, was that many of these students had not learned how to take effective notes and manage time for studying.

According to Elliot and Wendling (1996), 75% of students who are academic underachievers have poor study habits and examination techniques. Haynes (1993) reports

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that improving study skills techniques can enhance academic achievement for students with poor study skills habits. It has been argued that study skills should be taught at the high school level because many high school students are deficient in reading, thinking, and study skills (Tonjes and Zintz, 1981). Study skills are competency skills that students need to master the content of their texts (Tonjes and Zintz, 1981). Mastery of study skills in reading, writing, and mathematics helps enhance students' academic abilities (Bragstad and Stumpf, 1982; Devine, 1981). The lack of these skills can negatively impact academic achievement.

In 1987, recognizing widespread underachievement of public school students in Louisiana, educators and political leaders in the state launched several statewide initiatives designed to improve the educational performance of the state's students. One such initiative was launched by the Louisiana State Board of Elementary and Secondary Education (BESE). This initiative, "The Dynamics of Effective Study," was intended to help students succeed in high school (Louisiana Department of Education, 1987) by providing them with essential study skills. According to documents produced by BESE, the "Dynamics of Effective Study" course was designed to help students "learn how to learn" so that they can become effective, well-organized, and self-directed learners (Louisiana Department of Education, 1987).

FACTORS RELATED TO THE STUDY ACHIEVEMENT AND RETENTION

Research indicates that many determinants affect the academic achievement of high school students. These factors can be categorized into three areas: family background, student traits, and school factors (Shujaa, 1996).

Family background

Family socioeconomic status, family expectations (Conley, 1999), and parents' academic involvement (Tucker, 1999; Yan, 1999) impact the academic achievement of African American high school students. Students of high socioeconomic status generally perform better academically than students of low socioeconomic status (Tucker, 1999). The greater the socioeconomic resources of students, the better the level of academic performance when all else is constant (Luster and McAdoo, 1994). Students of high socioeconomic status are eight times more likely to graduate from college than students of low socioeconomic status (Newman et al., 2000). However, many students come from impoverished communities. Of those that do come from low income households, many are underachievers.

The expectations from families can enhance or discourage students from achieving in school. Many students perform better academically when their parents expect

them to do well in school (Irvine, 1990; Tucker, 1999). As noted in a student essay for Louisiana State University High School in Baton Rouge, Louisiana (Ekeler, 1997), education was important to this student because of his family expectations: Throughout the history of my family, it has been taught that education is a necessary tool for success in life. Therefore, education has never been viewed as optional but mandatory. The unspoken rule is that after high school, you enroll in college (p. 62).

Another factor that impacts the academic achievement of students is family support (Lamborn et al., 1992; Kunjufu, 1988). Regardless of the socioeconomic status of the family, students improve academically when their parents continue the learning process at home (Ianni, 1987; Clark, 1983; Luneburg and Irby, 1999). The parents become supervisors of their children's curriculum (Irvine, 1990). Parents that inspire, support, care for, and sustain their children in education, help them succeed academically (Comer, 1980; Ford et al., 1995; Hale, 2001). When they transmit consistency and hope, are complimentary, and are the primary educators of their children, children perform well in school (Clark, 1983; Irvine, 1990).

Student traits

High school students who are motivated by achievement, have coping skills, and have high educational and occupational expectations perform better in school (Pollard, 1989; Tucker, 1999). Adams and Singh (1998) contend that females are more motivated to achieve academically than males. Females take more courses in mathematics, English, science, and foreign language and spend more time on homework than males (Adams and Singh; 1998). Haynes (1993) recommends that the use of good study skills can enhance the academic achievement of high school students. French (1986) suggests that students should use the SQ3R formula (Survey, Question, Read and underline, Recite and write, and Review) for reading assignments, implement problem solving for writing research papers, and develop strategies for taking tests. Tucker (1999) found that poor study skills can contribute to academic failure; therefore, schools and parents should implement study skills throughout the children's education. Haynes (1993) contends that controlling anxiety during testing is important to the academic success of African American students. Overall, students consistently enroll in general courses rather than academic courses (Irvine, 1990). Students who take academic and advanced courses performed academically better than students who did not take these courses (Adams and Singh, 1998).

School factors

High expectations (Edmonds, 1979), curriculum (Adams

and Singh, 1998; Irvine, 1990), tracking (Franklin, 1989), disciplinary practices (Irvine, 1990), and teachers' cultural characteristics (Ladson-Billings, 1994) impact the academic achievement and retention rate of high school students. Schools that have high expectations and high standards of achievement for high school students affect the academic achievement of students (Edmonds, 1979). Hale (2001) found that students had high academic achievement when they attended schools that held high standards for academics and were not easy schools. The instruction was vigorous, captivating, and variable.

The use of multimedia and multimodal teaching strategies can enhance the academic achievement of high school students (Hale, 2001). When teachers perceive students as low achievers, the students are likely to underachieve (Franklin, 1989).

One of the most detrimental practices that have miseducated students is tracking (Chunn, 1989; Franklin, 1989). The homogeneous ability grouping has resulted in maintenance stratification (Irvine, 1990). Students with similar abilities are easy to maintain and teach (Chunn, 1989). Students with high abilities perform better academically than students with low abilities. Less experienced teachers generally teach students in low-ability groups (Braddock II, 1995). The lower-ability tracks negatively affect the academic achievement of high school students (Franklin, 1989). Combined with race and class, low socioeconomic students are placed in the lowest ability groups (Metz, 1978). Mickelson (1999) suggests that detracting can create intellectual and equitable learning opportunities for high school students.

The cultural characteristics of teachers and students can have a profound affect on the study habits of students (Hale, 1982; Newmann, 1992). Cultural misunderstandings between teachers and students can result in distrust, conflict, hostility, suspensions, and possible school failure for students (Irvine, 1990). The small ratio of teachers also contributes to the lack of synchronization between teachers and students (Ford and Harris, III, 1999). White teachers have more negative perceptions and expectations of African American students than do teachers and relate to students less (Irvine, 1990). The higher the percentage of teachers in a school, the higher the academic achievement of students (Polite and Davis, 1999).

STRATEGIES

The development of study skills occurred in the late 1950s and early 1960s (Irving, 1985). Research on student-centered and individualized learning for secondary students became serious areas for research through the works of Gagne and other psychologists (Irving, 1985). Secondary study skills courses were modeled from student counseling services in universities and polytechnics to teach students how to learn (Irving, 1985). According to the National Commission on

Excellence in Education (1983), study skills should be introduced in the early years of education and continue throughout the student's educational experience. Many of the study skills learned in middle school should be reinforced in high school to ensure students' academic success (Ford, 1996). In addition to those skills, new study skills should be introduced in high school to help students succeed in school.

Several researchers have found that study skills can enhance the academic achievement of students. In 1960, Entwistle reported that study skills improved the student's achievement level particularly when a student volunteered to participate in a study skills course. Entwistle's findings were supported by Butcofsky (1971) and Rowher (1984), who recommended studying as a vital part of the learning process. They found that good students could improve their academic achievement levels by improving their study habits. Several study skills techniques that affect student learning in secondary schools will be discussed: motivation, outlining/mapping, time management, test taking skills, SQ3R, PQ5R, note-taking skills, library skills, retention/memory, listening skills, comprehension, and studying.

Motivation

Academic success or failure can generate the feelings of competence or incompetence in students. These feelings can affect students' performances by their willingness to continue to learn or give up. It is believed that students who have high achievement expectations attribute success to internal and external causes (Haynes, 1993). There are several strategies that can be used to motivate students to learn: (1) identify students' interests (Tonjes and Zintz, 1981); (2) identify attitudes of students in reading (Lewis and Teal, 1980); (3) choose materials that meet the interests, abilities, and attitudes of the students (Tonjes and Zintz, 1981); (4) give clear objectives of the lessons and assignments (Tonjes and Zintz, 1981); (5) allow students to choose the task and materials to complete the task and (6) allow students to set their own goals for achievement.

Outlining/mapping

Outlining and mapping are systems of organizing information for learning. In outlining, information can be logically organized or categorically organized (Tonjes and Zintz, 1981). There are basically two types of notations used for outlining information: (1) a system of indentation using Roman numerals, Arabic numbers, and capitals; and (2) a numbering system (Tonjes and Zintz, 1981). Mapping is a word picture of ideas. It helps students organize information. It is an alternative method of conventional notes and outlines (Bragstad and Stumpf, 1982).

Test taking skills

Researchers suggest that there are several strategies that teachers can use to help students perform well on tests and reduce test anxiety: (1) provide examples of the types of questions that will be asked (Roe et al., 1983); (2) teach students how to manage time during testing and how to use inductive and deductive reasoning to answer questions (McPhail, 1981); (3) teach students how to analyze questions (Gordon, 1982); (4) teach students how to eliminate multiple choice answers (Parrish, 1982); (5) teach students how to use a metacognitive script during testing. The student would use the metacognitive script to correctly interpret directions, questions, words, and the expected answers (Gordon, 1982); and (6) give practice tests to eliminate anxiety (Parrish, 1982). Haynes (1993) contends that fear of failure is often correlated with test anxiety for students, and that self-confidence is important for students when taking tests. Seventy-five percent of students who perform poorly do so because of poor study habits and ineffective examination techniques (Elliott and Wendling, 1996).

Perspectives on study habits can be behavioral, cognitive, or motivational (Haynes, 1993). The behavioral perspective of study skills addresses the environment, external conditions, and observable behaviors of students. Time management, note taking skills, and the time and place of study are factors that can affect learning. Haynes suggests that students need support and guidance from teachers and mentors to teach them these behaviors to enhance their academic achievement levels. The cognitive perspective of study skills examines the process by which students acquire, store, and recall information from memory. From this perspective, students' methods of processing information are recognized for their uniqueness, and because each student processes information differently, academic results are varied for student participants. Students are active learners in this process. They use imagery, verbalization, the grouping of concepts, and the organization of subject matter in the learning process (Haynes, 1993).

Note-taking

Getting accurate information to study is important in learning facts. Different classes require varied methods in note-taking. Recording information accurately and interpreting information correctly help students learn what they need to learn. The Louisiana State Department of Elementary and Secondary Education recommend the Cornell method for note-taking (1987). The Cornell method requires the student to divide the notepaper into two columns to take notes with the line 1/3 of the way from the left side of the paper. Notes are placed in the larger column of the paper. Students review the notes and place key words or phrases in the narrower column.

Entries are dated. Students number information from their textbooks for references. This system allows students to rewrite notes in their own words with their own understanding.

Time management

Learning how to complete assignments on time will help students succeed academically. In the "Dynamics of Effective Study" students are taught how to organize and manage time wisely. Students are taught how to schedule tasks weekly and monthly to assure success. To enhance the academic achievement of students, a study skills course was implemented in the curriculum to help students attain the GPA criteria. Freshmen have enrolled in this course since it was implemented in 1994. This study will examine the effectiveness of the course, "Dynamics of Effective Study," on the academic achievement of freshmen at this school. This can be summed up in the diagrammatic representation shown in Figure 1.

Conclusion

How much an individual student achieves is in part dependent on the study methods that s/he applies. There is no one study method that works better for all persons. The secret lies in being able to identify personal study methods that work for each individual in given environments, conditions and circumstances. This requires knowing oneself in order to make good decisions about how to study and make time, as well as know the various strategies that can be applied.

RECOMMENDATIONS

Based on the discussion, this paper recommends that:

1. Institutions of higher learning make effort in putting in place structures that can facilitate the application of the distributed learning approach to studying.

2. Institutions be encouraged to infuse and initiate within first year, first semester orientation, tuition, and advisory services the aspect of effective and efficient study methods for a university student.
3. Establish, enhance and encourage academic advisory services by faculty in a manageable student: staff ratio to enable diagnosis and guidance of students in academic/ study related issues.

4. Put in place mechanisms to encourage, enhance and develop academic staff's study and advisory skills. This can be done through staff induction seminars, workshops, peer mentoring, and much more.
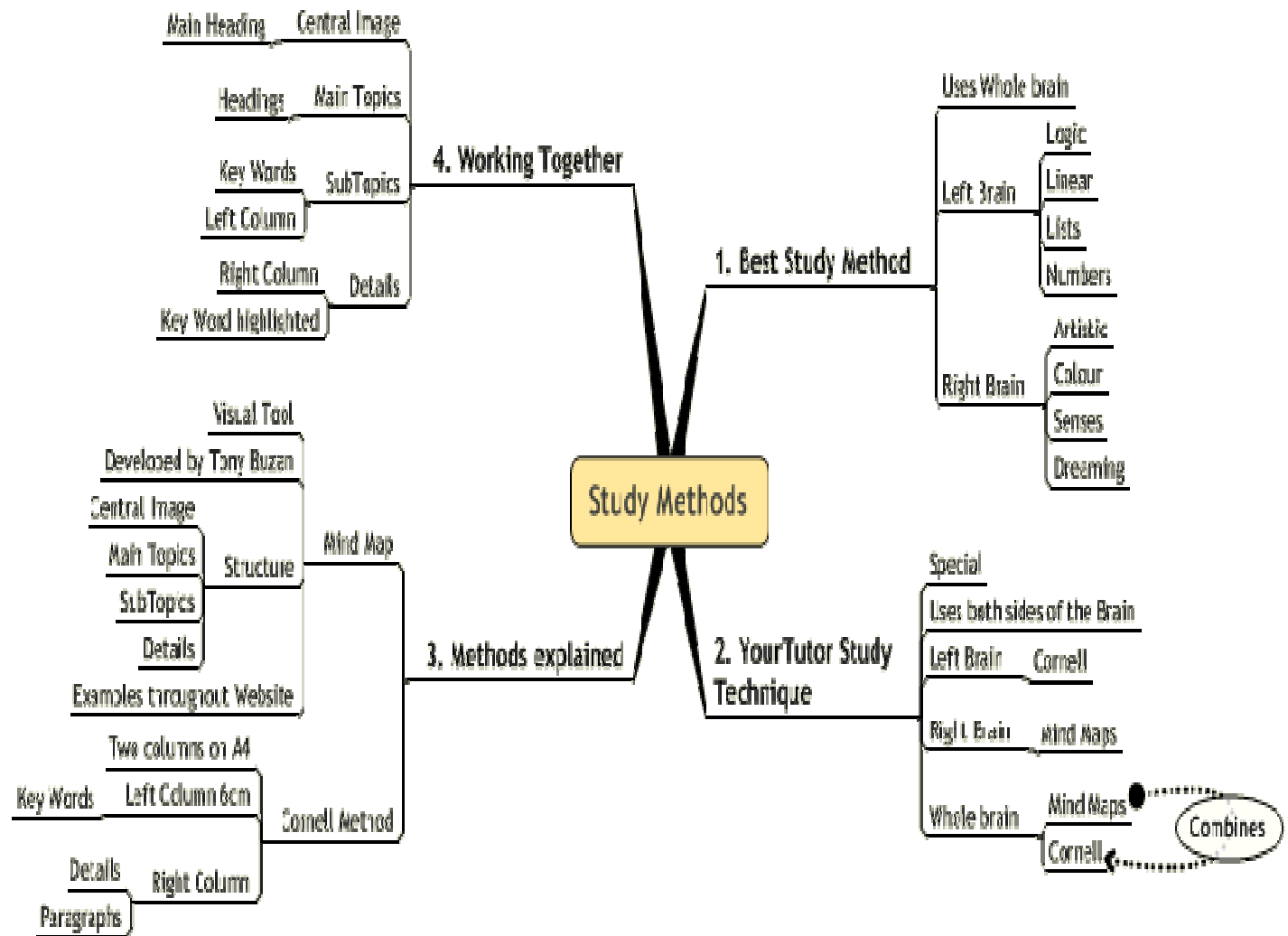
Figure 1. Dynamics of effective study. Adopted from: www.yourtutor.co.za/Articles/Study%20Methods.htm.

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