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ABSTRACT

As more and more students arrive at colleges increasingly unprepared, the issue of how to teach effective study skills becomes more important. Yet, research on study skills is far from conclusive. Study skills may be defined as any activity or behavior which enhances the learning and recall of new academic material, and includes such activities as note taking, underlining, and use of mnemonic devices. It has been suggested that in some cases academic problems are not a result of poor study skills per se but other factors or variables. These include: (1) poor organizational skills; (2) emotional disturbance; (3) poor coping skills; (4) unresolved identity crisis; (5) use of inappropriate study skill strategies; (6) inappropriate major or career choice; (7) inability to determine a major or minor; and (8) poor or nonexistent academic advising. Educators must address these issues in a vigorous forthright manner. In summary, many variables in the world of "study skills" still need to be examined. Personality traits may play a larger role than previously believed. Future research is imperatively needed. (Twenty-two references are attached.) (ARH)

The Assessment of Study Skill Behavior: Current Status; Needed Research

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Abstract

Study skills have become an increasingly important part of developmental/remedial education. This paper examines some issues and addresses some needed concerns in evaluation and measurement.

As more and more students arrive at colleges increasingly unprepared, one issue is becoming extremely apparent. In or er to help students succeed in college and universities. four-year campuses are increasingly offering "developmental" and "remedial" classes. Often, a central component of these classes is a unit on study skills. Other colleges simply offer a number of workshops or seminars on "study skills". Some students take advantage of these workshops. Others either are not aware of the need to know how to underline and other techniques or simply already possess good study skills. Many colleges, however, are requiring students to take "study skills" classes whether they need them or not. This mandatory requirement may insure that all students receive some training, while it may also waste much valuable time in other cases. Further, students who are required to take an overview of such study skill techniques may not obtain assistance in one specific area of weakness. As can be seen, there are many issues involved in the "study skills" realm. This paper will address some of these issues.

What Are Study Skills?

An initial issue is that of defining "study skills". These skills have included everything from underlining, to note-taking, to time management. Reading, comprehension, SQ3R and test taking skills have also been labeled "study skills". Paper writing, goal setting and "intimacy" have been found in said curricula. Every university or college probably emphasizes different skills or abilities. Said skills are almost universally recognized as

important, yet very little empirical research exists on the enhancement of said skills and the assessment of these skills. Obviously we cannot empirically study a student's ability to prioritize his/her course work assignments. We do tend to generalize from various study-skill workshops to increases in g.p.a. (grade point averages). Mnemonic training is thought to enhance one's ability to learn in general.

To date, however, no one has really defined "study skills" and, further, we do not possess a comprehensive theory of "study skills", and if they work and why. Many critical issues must be resolved.

Study skills can be defined as any activity or behavior which enhances the learning and recall of new academic material. This "behavior" can involve pencil and paper activities or could be cognitive in nature, i.e. using mnemonics, imagery, and associations. Said behaviors may be both long term and/or short term in nature. Emotional and motivational concerns may be present and operative. Study-skill behavior may be intentional in nature (using SQ3R) or simply unconscious (reading chapter objectives) or assimilated over many years.

Study-skills training also has been either a hodge-podge of selected strategies thought to be important by the trainer or a highly specific set of tactics, often in book form (Ellis, 1985).

Note-taking as a Study Skill

Note taking is probably the single most engaged in behavior utilized by college and high school students. However, there still is no clear-cut consensus as to what note taking is and

when it is helpful. DiVesta and Gray (1972) postulate that note taking functions in an either/or fashion in terms of encoding and retrieval. The encoding stance suggests that simply taking notes enhances performance. Retrieval, on the other hand, facilitates review, organization, reconstruction and later, test taking. Most researches agree that the primary benefit in note-taking is the external storage function. Perhaps good students take good notes and their later periodic review enhances their learning. Peper and Mayer (1978) view note taking differently. They suggest that note taking is really an "assimilative encoding process". This process subsumes three aspects - first, material must be received; second, an important or relevant set of prior experiences/knowledge is available; and third, that learners actively process those prior experiences during learning. Thus, good note taking presumes 1) a good vocabulary or word knowledge; 2) good, general information or world knowledge; and finally, the ability to actively integrate the aforementioned variables. Research by Shaughnessy and Evans (1986) and Shaughnessy (1986) has shown the importance of word/world knowledge in both the prediction of college g.p.a. and in note-taking success.

The assessment of note-taking skill is still in its infancy. Assessing and measuring such skills has been extremely problematic. Glover and Shaughnessy (1983) attempted to predict course performance via an analysis of note-taking ability. They found it extremely difficult to obtain high inter-rater reliability as to what constituted "good" notes. It was felt that different students bring a wide variety of word knowledge

and previous world knowledge or general information to the classroom situation. Further, students vary in their ability to discriminate between important information to be learned and other non-essential, supportive data. Perhaps other variables (short-term memory, attention span) are also of importance, yet have not as yet been explored. The relationship of reading rate and comprehension to note taking has only been minimally examined (Shaughnessy, 1986) and bears closer examination.

Further, there appears to be different types of notes. Taking word for word notes brings out encoding of verbatim data and amounts to little more than rehearsal (Dembo, 1988). On the other hand, summary notes enhance reorganization and integration (Doctorow, Wittrock, and Marks, 1978). Lectures should allow time for reorganization, summarization and integration to enhance learning (Aiken, Thomas & Shennum, 1975). These short pauses further integration into existing knowledge structures (Peper and Meyer, 1978).

Reviewing notes may also be a critical part of the learning process. Research by Fisher and Harris (1973), suggests that students who review their own notes do better than those who do not, and better than students who review notes taken by a peer.

Weinstein (in press) offers some useful suggestions about note taking that you can discuss with the students in your class.

1. Get a written record of each class.
2. Read you textbook in ADVANCE.
3. Use a note-taking system.
4. Use a modified outline format.

5. Watch for signals of importance.
6. Write down examples.
7. Write down connections between ideas.
8. Leave blank spaces for what you miss.
9. Don't stop taking notes toward the end of the class.
10. Review as soon as possible after class.

Unfortunately, not everyone may benefit from taking notes. For students of lower ability it may act as an information overload factor or as interference (Berliner, 1971). Good note takers may have a better developed, well organized body of knowledge in long-term memory than poor note takers. Working memory may also be more efficient (Einstein, Morris & Smith, 1985). Thus, note-taking training without information processing training or memory training may be less than helpful. Also, students who have difficulty processing aural information may have problems and perhaps should use a cassette tape recorder.

Organization as a Study Skill

New academic information can be more readily learned if presented in a well organized manner, and if the material is hierarchically arranged. Glynn and DiVesta (1977) provided outlines for students prior to lectures and readings, while control students received no outlines. More specific information was recalled by those who had the hierarchical outline.

In the real world of academia students must organize their time, their notes, their index cards, their term papers and budget their time for tests, college activities and part time

jobs and dates. Procrastination can be tantamount to failure. Time management skills are critical for success. However, we have yet to develop a scale to assess this domain, nor have we devised global programs to teach these organizational skills. Some students rely on a highly structured schedule - in fact they parade around campus with a written index card schedule for the first month of classes. Other students are able to hold their schedules in working memory but often have an information overload as the semester draws to a close.

Under this organizational heading may also come "people skills". Some freshmen seek out and find the good instructors and the best advisors. They "find" upperclassmen who act as surrogate mentors and who advise them as to the "ins and outs" of the university. These "intuitive life skills" may have been developed in grade school or may be a vestige of abilities formed in high school. These students quickly learn "the lay of the land" and "tap" good tutors/graduate assistants for aid or assistance. Secretaries are befriended and good part-time jobs and financial aids found readily.

Library organizational skills can make or break students. The freshman who is able to quickly access and procure the salient information from the stacks will fare much better than the student who can't differentiate the card catalog from the men's room, and the Dewey Decimal System from John Dewey. Indeed, one hapless work-study assigned to this writer could not find the library, much less a specific book/journal one afternoon.

Underlining as a Study Skill

As students read, many of them engage in the process of underlining. Some underline words, others, concepts. Other students "highlight" entire sentences while still others color entire paragraphs green, yellow and red. Often entire pages are highlighted or underlined and it is obvious that very little "discrimination" between what is important and what is not, is occurring. Some students underline key terms and phrases in a judicious manner while others link the professor's teaching style to their underlining style. If a professor emphasizes dates, words and concepts, many students will carefully underline these things. Other students lacking those meta-cognitive skills underline in a haphazard fashion.

Minimal underlining may reflect a broad prior knowledge base regarding vocabulary and general information. Or an inability to discriminate between the salient and mundane. Excessive highlighting may reflect a panic type of attempt to "overkill" with a specific technique.

Glover, Zimmer, Filbeck and Plake (1980) attempted to train students to underline correctly and to identify the semantic base of prose materials. While some comparative studies have not shown underlining to be consistently superior to other forms of study skills, the popular practice provides a study set (encoding and storage) that is simple, convenient, and efficient (Blanchard, 1985).

Needed Research

With the recent concerns regarding student retention, colleges and universities have begun to pay much more attention to the study skills of poorly prepared or marginal students. Improving reading rate and comprehension has become imperative for entering freshmen and for older adults returning to education. Helping older students learn has been the focus of recent research (Shaughnessy and Reif, 1987), yet few comprehensive programs are available.

The "learning disabled" college student is another concern for study skill administrators. Research is sorely lacking in this area also. Although much has been written about "learning styles" (Shaughnessy, Wiley, and Baker, 1987) there have been no empirical experimental studies conducted with this group. Differentiation between "learning styles" and learning strategies is still needed. Also, good screening devices are needed to determine what specific study skills are lacking in students and how best to ameliorate those skills.

Finally, it has been suggested that it is not study skills per se that are lacking but other factors or variables may be operative. Sternberg (1986) has indicated the following reasons why good students do not do well:

1. Lack of motivation
2. Lack of impulse control
3. Lack of perseverance and perseveration
4. Using the wrong abilities
5. Inability to translate thought into action

6. Lack of product orientation

7. Inability to complete tasks and follow through

8. Failure to initiate

9. Fear of failure

10. Procrastination

11. Misattribution of blame

12. Excessive dependency

14. Wallowing in personal difficulties

15. Distractibility and lack of concentration

16. Spreading oneself too thin or too thick

17. Inability to delay gratification

18. Inability or unwillingness to see the forest for the trees

19. Lack of balance between critical analytic thinking and creative synthetic thinking

20. Too little or too much self confidence. (pp. 339-346)

There are undoubtedly many other reasons why students perform poorly in school. Educators must address these issues in a vigorous forthright manner. These reasons include:

1. Poor organizational skills.

2. Emotional disturbance. This writer has counseled college students with suicidal tendencies, fear of failure, fear of success, fear of being a homosexual, fear of graduation and anorexia nervosa.

3. Poor coping skills. Many college students simply do not have the vast array of skills to juggle college, a part-time job, a social life and intramural sports. They may be away from home, parents and friends and may simply have difficulty coping.

4. Unresolved identity crisis. Many adolescents simply have not resolved their identity issues and continue to dwell on these concerns in college.

5. Use of inappropriate study skill strategies. What may have been effective in high school (e.g. cramming) is now ineffective when faced with the large amount of reading and writing required of college students.

6. Inappropriate major or career choice. Some students have been "pushed" into pre-law or pre-med by interfering parents. Other students have "floated" into stereotypic job choices, i.e., women into elementary teaching and men into physical education/coaching positions.

7. Students who continually change majors/minors or who procrastinate in this area until their senior year when it is "too late" because of pre-requisite courses and scheduling difficulties.

8. Poor academic advising/no academic advising or repeated academic advising "turn-over". Some students never see an advisor or are often re-assigned when faculty members leave. The quality of academic advising must be empirically examined as a crucial variable in college success. On almost all campuses, students and faculty alike know who the good advisors are. The students who have the "good advisors" tend to complete college in less time. with less "hassle and aggravation". Other students who may have had several advisors due to academic turn-over or major/minor change may take 5 or even 6 years to complete the requirements for a degree. An advisor who suggests summer school

may save a student much time waiting for one course. which has a "pre-req" which is taught every other year. Other advisors know the correct forms for course substitutions and of course the best qualified instructor for certain courses.

In summary, many variables in the world of "study skills" still need to be examined. Personality traits may play a larger role than previously believed. Future research in these two realms is imperatively needed.

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