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ABSTRACT

This paper describes the development of a program to teach reading and learning skills at the Kansas City, Kansas Community College, which was designed to decrease academic failure in vocational education programs. Primary goals of the program were to develop a screening test to identify students in need of assistance, before academic problems arose, and to implement a course designed to teach the specific skills needed for academic success. Performance on the screening test, which consisted of comprehension questions drawn from students' textbooks, correlated highly with the later success or failure of nursing-education students in their particular vocational program. Five replications of this study revealed similar correlations. In addition, over the six years of its implementation, the failure rate in the nursing program decreased from 45% to 15%.

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Learning Skills for Students in Vocational Education

A Paper Presented at the Fourth Plains Regional Conference
SIC/Community Colleges

Wichita, Kansas
March 5, 1976

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Last year Kansas City Kansas Community College received a grant from the State Board of Education, Department of Vocational Education. The grant was for us to develop a program in reading and learning skills in an attempt to decrease the amount of academic failures in Vocational Education Programs. We requested the grant because we had done a preliminary investigation and discovered the following conditions: (1) a tutorial program in content area materials was available and being used, (2) a readability on the text revealed that the range was from 12.0 to 16.0 grade levels, (3) an administration of the Nelson-Denny revealed that there was a student reading range from 4.0 to 10.0 grade levels, and interviews with students disclosed that they were becoming frustrated with their inability to handle their study load thus, they were giving up.

At this point it seemed as if we might need a reading program. However, we did offer Basic Skills, which is a combination of reading and writing. Some of the students who had failed in their vocational education programs had taken Basic Skills, so it didn't seem to be the solution to our problem. We decided, then, to develop a course in reading/learning skills. In other words, we decided to develop a course to teach these students how to read and learn from their textbooks.

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Two goals were established for the learning skills program. The first was to develop a screening test so that the students who needed such a program could be identified before they were in academical difficulty. Second, a course needed to be developed to teach the reading and learning skills necessary for academic success.

To accomplish the first goal, we took passages from the students textbooks (about 150 words in length) and constructed comprehension questions. We selected five passages and wrote five questions (2, literal level; 2, inference level; and 1, vocabulary) for each. All of the questions could be answered by reading the passages. Also, students were given plenty of time to complete the test and allowed to refer back to the passages to find the answer. Success or failure on the test was latter correlated with success or failure in the students vocational program. Preliminary results indicate a high correlation. (A 2½ year study has been completed with nursing education students and is the subject of the speakers dissertation.) In the nursing program a cut-off score of 84% was determined to be appropriate. All nursing students who score below 84% must take the reading/learning skills course.

In order to accomplish the second goal we decided to teach the following skills:

1. SQ3R (Robinson, 1961)
2. How to find the main idea
 - a. Topic Sentence
 - b. Forming concepts from details. (Bruner, Goodnow, and Austin; 1956)
 - c. Using the author's organization

3. Using signal words to determine relationships of ideas
 - a. Cause - effect (ie. because, thus)
 - b. Sequence (ie. first, most important)
 - c. Additional information (ie. and, also)
 - d. Comparison - contrast (ie. on the other hand)
 - e. Choice (ie. either - or)
4. Underlining
5. Notetaking (Cornell system)
 - a. from text
 - b. from lectures
6. Studying graphs and charts
7. Skimming for main ideas
8. Scanning for specific answers
9. Recall
 - a. associations
 - b. categorizing
10. Studying for and taking exams

All skills were taught and practiced in a class which met twice a week for one hour each session for on semester.

The method of instruction was to introduce a skill by lecture, to demonstrate the use of the skill, and then to provide opportunities to practice the skill with relevant content area materials. Each student had to demonstrate mastery of a skill before allowed to begin work on another. Also, instruction and practice was with content area materials.

Numbers 3, 4, 5, 6, 9, and 10 were adapted from the EDL McGraw-Hill MN series cassettes and workbooks. The students first listened to the tapes and did the exercises, then they practiced with their own texts and content area materials. Numbers 7 and 8 were taught with materials made from the specific content areas. Number 1 was taught as described by Robinson (1961) with application to the specific content area textbook. Number 2 was our own innovation.

Bruner's (Bruner, Et al.,1956) discussion of concept attainment seemed to have some application to our problem. We considered that concept attainment and finding the main idea might be one in the same. Therefore, we decided to teach some of the strategies discussed by Bruner as skills for finding main ideas. Thus, 2b consisted of teaching two strategies for finding main ideas. One was to list the details from a subsection of a chapter(from one sub-heading to another) and then form a statement which contains what the details had in common. The other strategy was to take the first sentence of a paragraph as the main idea then test it against the next one. If the next sentence was different or more general then a new concept was formed from the combination of the two. This process was continued for the next sentence, and the next until the end of the paragraph.

We approached number 2a in the traditional way that topic sentence is taught in English classes. However, rather than teach how to write, we taught how to identify topic sentences. We discussed how a topic sentence may be found at the beginning, middle, or end of a paragraph; or that it might be unstated. Then we practiced identifying topic sentences in the students own textbooks.

Finally, author's organization was taught as another way of finding main ideas. We showed students how to look for cues and patterns in the organization of their textbooks. Then, the students completed exercises, in their texts, finding

main ideas by using any of the strategies or any combination.

A controlled study was conducted with the nursing education student to determine the effects of the reading/learning skills program on the failure rate in nursing. The study was replicated five times and is the subject of a dissertation of the speaker. At this time, though, it might be interesting to note that the failure rate in nursing was decreased from 45% to 15% by the addition of the reading/learning skills program. Also, this past semester all nursing students were required to take the screening test a semester earlier, and those who did not pass the cut-off (84%) were then required to take the reading/learning skills course. No nursing students failed. This was the first time that no nursing students had failed in the six years that the program had been in existence.

References

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