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ABSTRACT

The effect of four Occupational Work Adjustment (OWA) programs on risk factors leading to students dropping out of high school was assessed. Data were gathered from four OWA teachers in high schools in Northwest Ohio; information was provided for 27 individual students and 2 groups of 28 students each for the 1992-93 school year. The following factors were studied and compared to the previous school year to see if any changes occurred: (1) student absences; (2) the number of suspensions and the number of days students were suspended; and (3) the number of class failures. Mathematics and reading achievement were also measured using the Wide Range Achievement Test as a pretest (September) and a posttest (May). Results generally supported the hypotheses that the dropout factors would be reduced. There was no statistically significant reduction in absences, although a 33 percent reduction in mean absences in one group and 23 percent reduction in mean absences in another group were observed. Suspensions were significantly reduced, but there were conflicting results concerning the days students were suspended. One group showed a slight increase in the days suspended whereas another group showed a reduction in the number of days suspended. Class failures were significantly reduced. Achievement in reading and mathematics was improved. Further research was suggested to see if students from the OWA programs actually graduated from high school. (Contains 15 references.) (KC)

The Effects of Occupational Work Adjustment on Factors Leading to High School Drop Out in Rural Northwest Ohio

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RUNNING HEAD: OWA AND DROP OUT FACTORS

Abstract

The effect of four Occupational Work Adjustment programs on risk factors leading to drop-out was assesed. The following factors were studied and compared to the previous school year (1991/1992) to see if any changes occured: 1.) student absences 2.) the number of suspensions and the number of days students were suspended 3.) the number of class failures . Mathematical and reading achievement were also measured using the Wide Range Achievement Test as a pre (Sept.) and a post (May) test. Results generally supported the hypotheses that the drop out factors would be reduced. There was not a statistically significant reduction in absences. although a 33% reduction in mean absences in one group and 23% reduction in mean absences in another group was observed. Suspensions were significantly reduced ($p < .05$ one tailed). while there were conflicting results concerning the days suspended. One group showed a slight increase in the days suspended while another group showed a reduction in the number of days suspended. Class failures were significantly reduced ($p < .05$ one tailed). Achievement in reading ($p < .005$ one tailed) and mathematics ($p < .005$ one tailed) was improved.

THE EFFECT OF OCCUPATIONAL WORK ADJUSTMENT ON FACTORS THAT LEAD TO HIGH SCHOOL DROP OUT

Background

Approximately one fourth of all students will drop out of school (Catterall.1989). Several characteristics have been shown to be indicators of students who are likely to drop out of school. Among the most common factors found in the reasearch are the following: a. poverty b. low language and mathematical skills c. frequent absenteeism d. frequent suspension and/or expulsion from school e. low self esteem f. parents with limited education g. past academic retention (Gastwright. 1989: Blyth. 1991: Catterall.1989).

There are varing opinions as to what approaches are effective in preventing school drop out. One researcher even questioned whether all students should be forced to stay in school when most traditional teaching and learning methods are not effective for them (Barone. 1989). Some students may believe that one acceptable alternative to completing thier high school education is to leave school and enter a General Equivalency Diploma (GED) program. However. Cameron

and Heckman found that students with a GED as compared to a High School diploma fall behind in further education and also in later earnings (Cameron and Heckman. 1989). Most researchers do agree that it is in the best interest of the students and society in general to encourage students to stay in school.

Vocational education is believed by many to reduce the likelyhood of high school drop out (Weber and Sechler. 1988: Hagen 1989). While there are several different types of vocational programs. this research is concerned with the cooperative work study programs. There is some research to support the theory that involvement in a work study program can help to encourage at risk youth to remain in school (Hagen. 1989: Catterall. 1989: Deridder. 1991: Blyth. 1991). Other research strongly suggests that such programs do not work and may actually encourage students to leave school (Coyle-Williams. 1989). Some researchers reported mixed results. stating that a work study program was able to improve some factors such as academic preformance. but was ineffective with other factors that lead to drop out such as frequent absenteeism and self esteem.

Occupational Work Adjustment is a work study program designed for 14 and 15 year olds who are considered at risk of dropping out of school at some time in the future. Characteristics of these students may include any of the following: a. sudents from an economically disadvantaged background. such as family income at or below national poverty level. unemployed parents. or receiving public assistance. b. students at an academic disadvaantage due to language or mathematical skill deficiencies. or below grade-level performance. c. students who have failed a grade or achieve below grade level on standardized tests. d. behavior such as ambivalent attitude toward authority. aggressive or deliquent behavior resulting in frequent disciplinary action. e. irregular school attendance and little participation in extra curricular activities. f. poor self image. g. inadequate problem solving skills. Students are placed in the Occupational Work Adjustment program through the recommendation of guidance counselors. teachers. principals. and the Occupational Work Adjustment coordinator. Placement in the program

is dependent upon an agreement of the student, parents or guardians and the Occupational Work Adjustment coordinator.

The goal of the Occupational Work Adjustment program is to help students gain the necessary skills to complete school in either a vocational or academic program. The schedule for O.W.A. allows the teacher/coordinator to work with the students in class for a minimum of 80 minutes a day. During this time, students receive work related instruction from the coordinator as well as instruction in an academic area. Remedial instruction in other academic areas may also be given to students at this time. Students are scheduled into a paid work experience for a minimum of 80 minutes a day. It is hoped that the individualization of instruction and the work experience will reduce factors which lead to drop out such as excessive absenteeism, suspension, and class failures. Improvement in mathematics and reading, as demonstrated in pre and post standardized tests, should also help to prevent high school drop out.

Hypotheses

In agreement with the goals of the Occupational Work Adjustment program, the hypotheses for this research includes the following. Upon completion of the Occupational Work Adjustment program. 1.) student absences will be reduced. 2.) student suspensions and days suspended will be reduced. 3.) class failures will be reduced. 4.) achievement in mathematics and reading as measured by the Wide Range Achievement Test will be increased.

Method

Subjects

Subjects were students from rural Northwest Ohio. who completed an Occupational Work Adjustment program during the 1992/1993 school year. Students were considered to have completed the program if they were enrolled in the program for at least 120 days.

Procedure

Data was collected from four OWA coordinators in rural Northwest Ohio. Data collected included the number of school absences in 1991/1992 school year and 1992/1993 school year, the number of suspensions and

number of days suspended in 1991/1992 school year and the 1992/1993 school year. the number of classes failed in 1991/1992 and 1992/1993 and the pre and post Wide Range Achievement Test (WRAT) for both reading and mathematics (not all teachers used this instrument).

When available. individual scores were collected and used to run t-tests to see if there was any significant change in the measured factors after participation in the Occupational Work Adjustment program. If individual data was not available. group data was collected for the entire class. Mean scores for the individuals in the group were then figured in order to analyze the data to obtain the needed information. Data for each factor from the 1991/1992 school year was compared with data from the 1992/1993 school year during which the student was enrolled in Occupational Work Adjustment. The initial WRAT test was given early in September 1992. and the second WRAT test was given late in May 1993. Data was then analyzed to determine whether there was a significant change in any of the factors measured after completing a year in Occupational Work Adjustment.

Results

As stated previously, data from four Occupational Work Adjustment programs was used. Information had been requested from 7 Occupational Work Adjustment teachers in rural areas of Northwest Ohio, but of the six teachers who responded with student data, two had some errors that prevented use of the data in the study. Not all teachers (two) were able to provide the information on individual students as requested, but sent data with group totals. The number of students completing the Occupational Work Adjustment program in each class from which data was obtained and utilized ranged from 11 to 16 ($\bar{x}$ = 13.75, SD = 2.63). Data for 27 individual students and two groups of students (n = 28 for the students in groups) was used. Wide Range Achievement Test data was received for 29 individual students.

Student absences were generally reduced throughout completion of the Occupational Work Adjustment program. Where individual scores are available, a reduction of 33% in mean absences (n = 27) as compared to the previous school year was noted. However, this reduction was not statistically significant at the .05

level. one tailed. (n = 27. x 1991/1992 = 17.296. x 1992/1993 = 11.667. SD 1991/1992 = 31.195. SD 1992/1993 = 10.587. t = -1.122. P = 0.1358). Where individual student scores were not available. a 23% reduction in mean absences was observed (n = 28. x 1991/1992 = 13.31. x 1992/1993 = 10.23).

The number of student suspensions was significantly reduced as evidenced through the differences in individual suspensions (n = 27, x 19' /1992 = .89. x 1992/1993 = .44. SD 1991/1992 = .89. SD 1992/1993 = .44. T = -2.00. P < .05 one-tailed). The group statistics also showed a strong reduction (70%) in the number of student suspensions (n = 28. x 1991/1992 = 1.375. x 1992/1993 = .406).

There were conflicting results in the change in the number of days students were suspended. The individual scores showed a slight increase in the number of days suspended (7%) during the year students were enrolled in Occupational Work Adjustment (1992/1993) as compared to the previous year (1991/1992). This increase was not statistically significant (n = 27. x 1991/1992 = 2.52. x 1992/1993 =

2.70. SD 1991/1992 = 4.83. SD 1992/1993 = 6.36. t =.24). However. days suspended in the group data showed a 74% decrease during the year students were enrolled on Occupational Work Adjustment (n = 28. x 1991/1992 = 4.775. x 1992/1993 = 1.241).

A consistent reduction in the number of classes students failed during the 1992/1993 as compared to the previous school year was shown. The individual scores reflected a significant reduction (22%) in the number of classes failed (n = 27. x 1991/1992 = 3.59. x 1992/1993 = 2.78. SD 1991/1992 = 2.98. SD 1992/1993 = 2.03. t = 1.97. P < .05 one-tailed). The group scores also showed a strong reduction (53%) in the number of class failures during the year students were enrolled in Occupational Work Adjustment. (n = 28. x 1991/1992 =1.96. x 1992/1993 =.92)

Both the reading and the mathematics portions of the Wide Range Achievement Test showed significant improvement after completing a year of the Occupational Work Adjustment program. The reading portion of the Wide Range Achievenment Test showed the most dramatic improvement (n = 29. x Sept.= 42.14. x May = 46.52. SD

Sept = 12.57. SD May = 15.23. t = 5.14. P < .005 one-tailed): however. the mathematics portion of the Wide Range Achievement Test also showed increases in student achievement (n = 29. x Sept. = 36.21. x May = 38.86. SD Sept. = 13.54. SD May = 15.01. t = 3.87. P < .005 one-tailed).

Discussion

The above results demonstrate some success in reducing drop out factors through the completion of the Occupational Work Adjustment program in rural Northwest Ohio. These results are supported by the testimony given by Jon R. Blyth before the US house Committee on Education and Labor Subcommittee on Elementary. Secondary and Vocational Education Hearing on Adult Literacy and Dropout Prevention. Blyth stressed the importance of job-training programs in reducing drop-out for high-risk students (Blyth. 1991).

While the reduction in absences was not statistically significant. most teachers would agree that any reduction in student absenteeism is important. It would be interesting to note the past pattern of absenteeism for the induvidual subjects in the sample.

Have they been increasing their absences in the past two or three school years or has absenteeism become a problem recently in their school career? While most subjects reduced their absences during the year they were enrolled in Occupational Work Adjustment, some of the subjects actually increased their absences dramatically during the year in Occupational Work Adjustment.

The results for the number of suspensions and the number of days students were suspended were contradictory. Although the students were suspended less often. the data for the individual students showed that the actual days suspended increased. Group results did show a 74% reduction in days suspended. Questions arise as to the cause of the inconsistencies in days suspended. Clearly. each school has a different policy on suspendable offenses and the severity of the suspension. Were the offenses more severe or was the policy of the school more severe than in the past? The group data showed a strong reduction in both the number of days suspended and the actual number of suspensions students received. Again. one must question why these groups of students were more

successful in reducing their suspensions and days of suspension. Influences may have included the teacher. the administrative policy, student attitude and parental attitude. Current research shows that the reduction of suspensions and days suspended is vital to helping prevent school drop-out (Deridder. 1991: Blyth 1991).

The reduction in the number of classes students failed as compared to the previous year is encouraging. The individual help students can receive in smaller classes may explain some of the reduction in class failures. Another explaination could be the emphasis on the link between school and work (Catterall. 1989).

The connection between drop-out and low mathematical and/or reading ability is well documented in research (Hagen. 1989: Gastright. 1987: Deridder.1991). The improvement in reading and mathematical achievement as evidenced by the pre and post Wide Range Achievement Test is a step toward encouraging students to stay in school. Teacher reports mention the positive effect the increases in scores on the Wide Range Achievement Test had on

students when they were told of their improvement. Students were very pleased with the improvement in scores. possibly leading to the desire to put forth more effort in the future. With demonstrated improvement students may also realize they can learn and carry some new confidence into future years in High School.

Cautions

Although this research found generally positive results in the reduction of factors leading to drop-out through the completion of the Occupational Work Adjustment program. there are still those who feel a work/study program is not the correct approach to preventing drop-out. Some researchers feel such programs are ineffective and may actually induce students to leave school (Roditi. 1992: Annonymous. 1990: Coyle-Williams. 1989). Most researchers agree that the impact of programs such as Occupational Work Adjustment is dependent upon the connections between school and work. The work place must provide relevant experience to the student and reinforce the link between school and work.

Regaurdless of the various opinions of work/study programs such as Occupational Work Adjustment, it is important to note that this research was conducted in rural Northwest Ohio. Most of the subjects were from middle to low socioeconomic status background. all of the subjects were from either small cities or towns. The communities and schools in this area are supportive of the Occupational Work Adjustment program and its goals. Similar results may not be found in larger cities or in areas where there is not community and school support for programs such as Occupational Work Adjustment.

Many factors that influence school drop out were not explored in this research. Many researchers point to the importance of improving student self-esteem when attempting to prevent drop-out (Cuban, 1989: Gastright, 1987: Annoymous, 1990). Further research could be conducted on the affective factors such as self-esteem and student perceptions of school in general as well as student perceptions of the Occupational Work Adjustment program. Other factors that may influence the effectiveness of such programs include the attitudes of administrators, employers, teachers, students (those

students enrolled in the OWA program and also students in "regular" classes). and parents as well as the amount of cooperation among these groups. Correlating some of these affective factors with school achievement could also provide some valuable insight into preventing drop-out. A follow-up study could also be completed to determine exactly how many students were able to graduate from high school after completing the Occupational Work Adjustment program. The follow-up study would be especially improtant since the goal of Occupational Work Adjustment is to help students complete their high school education.

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