Summarized is a pilot study of 15 Oregon school district's work study programs for educable retarded young adults. Discussed are the study's two main objectives: the development of instruments to identify the characteristics and compile profiles of work study students, and the selection of variables and instruments to measure classroom procedures. Described are research efforts resulting in 13 evaluation instruments in three categories: input, daily process, and periodic process. Depicted are student profiles, including IQ score and length of time in special education. Methods of assessing daily classroom activities are said to include teacher reports of content, methods, and materials. Also reported are evaluations of student-teacher interactions, regular class participation, availability and utilization of special consultants, and work experience attitudes and performance. Future directions for the project are also considered. (CL)
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University of Oregon, Eugene
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"MEDICALIST", A REPORT ON SECONDARY
PUPILS IN WORK-STUDY PROGRAMS IN
OREGON

O. O'Connor, B. Scott, J. Edgerton
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These papers are intended primarily as informal communications to and among members of the Research and Testing Center staff. The materials contained herein are generally not at final stages of refinement and are not intended for public release.
INTRODUCTION

If educators are to achieve maximum results for their efforts and money, they need information about the relative success of their former pupils to aid them in providing service to their present pupils—the question of "what" helped "whom?" The question is especially acute with regard to SMR public secondary school pupils because their common handicap is an inability to cope with their environment and make their way in the economic and social worlds. Since current attempts to alleviate this handicap involve, at least in Oregon, the expenditure of additional educational funds, above the baseline for non-retarded pupils, there is a definite need identified by administrators and practitioners to answer the "what" for "whom" question.

The pilot study to be highlighted in this report is the first step in a continuing effort to obtain information about: 1) the characteristics of pupils enrolled in work-study classes in Oregon; 2) the educational process variables that can be identified in work-study programs, and can subsequently be utilized to characterize the students' experiences; 3) the short term objectives for graduates of work-study classes, and how can these objectives be instrumented; and 4) the long term outcomes for individuals who have been in work study programs.

The summary of the pilot study presented here is related to the first two objectives: 1) to develop instruments to identify the characteristics of work study pupils, and to provide an initial profile of these students; and 2) to select variables and develop instruments which would describe and differentiate classroom procedures.
Conceptual Framework

This project conceptualizes education as a special form of socialization, and the classroom as a particular kind of social environment. Socialization is defined as the internalization of norms, values, and rules of a society or of a sub-group in the society. While the most general goal of the secondary or high school classroom is to socialize the pupils to the adult world, and as intermediates (and perhaps necessary) goal is to socialize the pupils to the norms of the classroom. The social environment which is the classroom has numerous sources of influence, but most especially the teacher. The teacher is an agent of change. His task is to cause change in the pupils, and in so doing, he creates, maintains, or alters the social environment of the classroom.

Because the teacher is the primary agent of change, teachers' observations and evaluations of pupils are of central importance, in that they determine, to a large extent the social environment of the classroom. This project, therefore uses as its principle source of data the evaluations and observations of teachers.

Procedure

The study population was randomly chosen by the Oregon Board of Education PR program consultants to maximize the variability of characteristics to be measured. Fifteen school districts with established D/P programs were selected. These districts represented the following five organizational structures commonly found throughout the state: 1. High school districts (more than one school with one or more D/P teachers), 1 high school with their own D/P
teacher, and 3) high schools with more than one EMR teacher. Furthermore, six of the fifteen school districts selected had formal "cooperative agreements" with the Oregon Division of Vocational Rehabilitation. Finally, some consideration was given to the general type of community in which the class was located, which resulted in the following distribution: a) large city - 2 classes, b) small city - 3 classes, c) suburban/metropolitan - 6 classes, and d) rural - 4 classes.

During 1969, much of the literature dealing with the community adjustment of the EMR was searched for variables or attributes which had been investigated by others in the field. A rather large collection of these was amassed. The research team then judged these, informally but with definite criteria in mind, for inclusion in this project. Most important was the relationship of the variable to public school education. Also important was the timeliness, or relevance, of the variable to adolescents or young adults in the 1970's. A third desirable criterion was the agreement among other investigators about the importance of a given variable in the education of EMR pupils, but little such agreement exists.

These two initial steps (the search and the winning process) resulted in the identification of select variables to be included in the project. A total of 13 research instruments of three types were devised, and designated as Input, Daily Process and Periodic Process. Most decisions about the placements of items in these categories had an obvious logic. Relatively unchanging attributes, such as the background of pupils, were collected only once at the beginning of
the study (the first full school week of calendar year 1971). Because some pupil attitudes and behaviors as well as teacher activities are of an obviously more dynamic nature, daily collection of a minimal number of items was planned. These were obtained each day for two eight week periods in the Spring of 1971. Other items which could be expected to vary less rapidly were assessed at the end of each eight week period.

The contact of Oregon Board of Education program consultants with individual teachers also proved invaluable in involving the participating teachers. Most of the teachers selected felt that the project could, in the longer run, help them to improve their services to pupils. There were two other inducements to involvement: A promise to demand as little of teacher time as possible, and the availability of a small amount of college credit for the effort they spent participating in the project.
FINDINGS

I. Pupil Profile

A look at individual and family background characteristics provide a profile of EMR pupils enrolled in some work study programs throughout Oregon. Four such characteristics are reflected in Figure 1. As can be seen these pupils are predominantly 17 and 18 years of age and both sexes are nearly equally represented. Almost half have IQ's between 70 and 79, and have been in EMR classes for seven or more years. Furthermore, in approximately 80% of the cases, the referral which led to certification was for academic reasons, in some instances with concomitant behavior and family problems.

Their families appear relatively stable in that both parents reside in over 80% of the homes, and 86% of the families have lived in the same school district for at least three years. Teacher estimates of socio-economic factors in the family indicate that although two-thirds of the heads of household are regularly employed, and another 14% are irregularly employed, at least one-half were said to be on the lower one-third of occupational status in their communities. Apropos of this, over 40% of the parents who are the head of the household are high school dropouts; and, in addition, over one-third of these students have siblings who are also school dropouts.
II. Daily Classroom Activities—Content, Methods and Materials

In order to obtain a picture of the daily activities of teachers and methods or materials used, each teacher was requested to report:

1) whether or not they engaged in each specified activity during the day, and

2) whether or not they used each specified method or material during the day.

This information was reported each day for two eight week research periods (each containing 39 reporting days) for each of 15 teachers.

A profile of teacher activities is presented in Fig. 2. These graphs summarize daily recordings for both research periods combined, a total of 78 days, or nearly 16 full weeks. The distributions in these graphs are based on the percent of the total days reported during which each teacher engaged in a specified activity. For example, teachers varied in the percent of days they engaged in reading from 8% to 100%; the median was 90% which means that half of the teachers reported reading as an activity for at least 90% of the days. The same teacher could also vary from the first research period to the second. For instance, one teacher reported reading on 83% of the days in period 1 and 65% of the days in period 2.

All four basic skills constituted the most frequently reported activities according to the median rating or percentile midpoint of the distributions. Social competency was the most frequently reported social adjustment activity, followed closely by work attitudes in the area of occupational training. Two of the activities shown on the graphs need further definition: 1) Social-professional resources
*Percent of days teacher activities included specified content areas.

KEY: QUARTILE 1 & 4 ■■■ QUARTILE 2 & 3 ■■■■■ MEDIAN — ■
Figure 2-b: Teaching Activities

Percentage of Days

OCCUPATIONAL TRAINING

- Job Applications
- Work Attitudes
- Self-Presentation

KEY: Percent of days teacher activities included specified content areas.

QUARTILE 1 & 4
QUARTILE 2 & 3
MEDIAN - M

PERSONAL DEVELOPMENT

Percentage of Days

- Health
- Learning
- Habits
- Homemaking

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refers to knowledge about agencies and individuals which provide services (e.g. medical, legal, occupational assistance); 2) Personal Habits refers to idiosyncratic behaviors, such as nail biting, swearing, smoking, drinking and others.
The importance of special programs for the individual students and direct student-teacher interaction is indicated by the findings that individualized instruction occurred in over 70% of all teacher days combined. Further, both subgrouping within the class and group discussion occurred on 40% of these days. On the other hand, the lecture approach was utilized during only twenty percent of the teacher days, primarily due to the heavy use of this method by two of the fifteen teachers.

When teachers were asked about the materials used in the classroom, special reading materials (40% of days), audio-visual materials (29% of days) and concrete materials, for example Cuisenaire rods for teaching abstract ideas (29% of days) were the most popular. It is of interest to note, however, that individual teachers varied drastically in their use of these materials. For instance, one teacher reported using special reading material only two days during the study, whereas another teacher reported using them every day except one.
III. Student/Teacher Interactions

Teachers were asked to report the most important kind of interaction they had each day with each pupil. As can be seen in Fig. 3, general acceptance was designated over half the time. Once again, there was wide variation among teachers. For example, one teacher reported the most important daily interaction was praise, for most days with most pupils; whereas another teacher reported consistently general acceptance instead of praise. In most cases, although one particular type of interaction tended to predominated, there was also some variability among responses.

Figure 3
Most Important Type of Daily Student/Teacher Interactions

- Neutral 19%
- Punitiveness 3%
- Rejection 1%
- Praise 25%
- General Acceptance 53%
IV Regular Class Participation

Participation in regular classes was used to estimate the integration of work study students with the rest of the school. As can be seen in Table 1 physical education programs were by far the most likely regular class for these students to be attending. Homemaking classes for girls, and either woodshop or metal shop for boys were also popular. The regular classes listed under the "other" category range from auto mechanics to typing. Differences do occur between school districts. Some schools show a large proportion of their students in a variety of classes; whereas other schools have few students participating in regular classes (and these are usually in physical education).

TABLE 1

<table>
<thead>
<tr>
<th>Work-Study Students Participating in Regular Classes</th>
<th>Percent of Students In Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>45%</td>
</tr>
<tr>
<td>Homemaking</td>
<td>20%</td>
</tr>
<tr>
<td>Woodshop</td>
<td>18%</td>
</tr>
<tr>
<td>Metal Shop</td>
<td>14%</td>
</tr>
<tr>
<td>Art</td>
<td>12%</td>
</tr>
<tr>
<td>Crafts</td>
<td>13%</td>
</tr>
<tr>
<td>Music</td>
<td>9%</td>
</tr>
<tr>
<td>General Science</td>
<td>4%</td>
</tr>
<tr>
<td>All other regular classes</td>
<td>54%</td>
</tr>
<tr>
<td>No regular classes attended</td>
<td>15%</td>
</tr>
</tbody>
</table>
V. Availability and Utilization of Special Consultants

Concern is frequently expressed over the availability and utilization of consultant services. Therefore, teachers were asked about the services received by their students, and also whether or not each type of consultant was available to their students during the time of the study.

As can be seen in Table 2 school counselors were available in all the districts and over half the students were served during the sixteen week period. Of particular interest is those involved in a work study program is the utilization of DVR counselor services. Although formal agreements did not exist in all cases, two-thirds of the school districts had DVR counselors available to them. Further, 70% of the DVR students in these 10 districts were reported to have received services from the DVR counselor.

Although not all consultants listed were available to all school districts during the course of this study, over 85% if all students received the services of at least one consultant.
Table 2
Availability and Utilization of Consultant Services by the Fifteen School Districts

<table>
<thead>
<tr>
<th>Type of Consultant</th>
<th>Number of Students Served</th>
<th>Percent of Students Served</th>
<th>Number of Districts Service Reported Not Available</th>
<th>Percent of Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>School counselor</td>
<td>106</td>
<td>55</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DVR counselor</td>
<td>82</td>
<td>43</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td>Testing specialist</td>
<td>33</td>
<td>17</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>School nurse</td>
<td>32</td>
<td>17</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Social worker</td>
<td>22</td>
<td>12</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Psychologist</td>
<td>13</td>
<td>07</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>Speech therapist</td>
<td>9</td>
<td>05</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td>Hearing therapist</td>
<td>4</td>
<td>02</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>All other specialists\a</td>
<td>17</td>
<td>09</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>No consultant seen</td>
<td>27</td>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

\a Includes sheltered workshop supervisor, Braille specialist, juvenile officer, work evaluation center, etc.
Students actually placed in work experience ranged from 73% in the first research period to 69% in the second. Four districts had all of their students in work experience, which may have been related to the fact that most of their students were 17 years of age or older. Conversely, those districts with one-half to two-thirds of their students not in work experience also had a large number of students 17 years of age or younger.

The students in work experience were rated as to both their attitude toward the job and their performance on the job. Three-fourths of these students were considered to have a positive attitude toward their job, another 17% were indifferent, and under 10% were actually negative. In the end of the study, 45% of these students were considered to be functioning at a high level of performance, about the same number were showing a medium performance level, and under 10% were considered to be performing at a low level. The distributions of these responses were most similar across school districts.

Further information was collected regarding the students' work behaviors see Table 1. The most prevalent behaviors were to follow directions and to assist in and (81% of the students did both). Getting along with others and being attentive at work (38%), and obeying rules but with little common behavior. On the other hand, only a little over 50% of the students are self-starters, and about one-third could be rated as lonely.
Interestingly enough, when many of the same behaviors were considered in the classroom setting, the frequencies that emerged were similar to those that were measured in a work situation, but fewer students exhibited them. For instance 78% follow directions, 79% get along well with others, and 63% attend to their studies. Once again only about 40% are self-starters.

<table>
<thead>
<tr>
<th>Type of behavior</th>
<th>Percent of students</th>
<th>Percent of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follows directions</td>
<td>92%</td>
<td>78%</td>
</tr>
<tr>
<td>Asks for and accepts help</td>
<td>92%</td>
<td>69%</td>
</tr>
<tr>
<td>Gets along well with others</td>
<td>89%</td>
<td>79%</td>
</tr>
<tr>
<td>Attentive at work/to studies</td>
<td>88%</td>
<td>63%</td>
</tr>
<tr>
<td>Self Starters</td>
<td>62%</td>
<td>41%</td>
</tr>
<tr>
<td>Obey work rules</td>
<td>56%</td>
<td>-- a</td>
</tr>
</tbody>
</table>

* a not asked in relation to school rules*
FUTURE DIRECTIONS

The results of this pilot study have dealt primarily with two of the four overall project objectives: (1) the identification and measurement of pupil characteristics, and (2) the identification and measurement of program procedures. The additional objectives of defining and measuring both short and long term outcomes have just begun to be explored.

During August, 1971, a one week workshop was conducted for participating teachers on the University of Oregon campus in Eugene. During this workshop the teachers defined the short and long term outcomes to which they are personally committed. Eight categories of general objectives were generated, followed by the subsequent development of more specific objectives within each category. A total of 54 objectives were produced by the teachers.

Two months later, at a meeting in Portland, the teachers prioritized the objectives which they had generated. The most desired pupil outcomes in terms of general categories turned out to be employability, economic self-sufficiency, family living skills, good personal habits and a healthy self-concept. Also important, but of less relative desirability, were communication skills, citizenship, and the effective use of leisure time. The following are examples of specific objectives that were rated very highly by the teachers:

Demonstrates a knowledge of behaviors leading to marriage: e.g., dating, going steady, becoming engaged, getting married, birth control.

Demonstrates a range of job skills.

Demonstrates positive work habits; e.g., punctuality, good attendance, and acceptable level of productivity.
Between January and May of 1972, a second pilot study will be conducted involving 27 secondary level EMR teachers throughout Oregon. For the most part, these will be the same teachers who participated in the summer workshop. The purpose of this pilot study will be two-fold: (1) to refine and revise the input and process instruments that were developed and tested during the first pilot study; and (2) to develop and test instruments measuring short-term pupil outcomes, in accordance with the prioritized objectives that have been generated by the teachers.

The ultimate goal of this project is to develop a method for evaluating and rationally modifying secondary level EMR programs in Oregon. Furthermore, the methodology is being developed in such a way that, ultimately, the project can be administered continuously by the Oregon Board of Education and the public school districts with only minimal assistance from the Research and Training Center in Mental Retardation at the University of Oregon.