

programs.

Reading programs most commonly implemented in secondary schools are classified as developmental or remedial. The two categories differ both in orientation and strategy. Developmental reading programs usually serve a heterogeneous group of students, moving them forward in general knowledge, skills, and attitudes; remedial programs are more commonly designed for homogeneous groups of students, providing them with intensive instruction in specific skills deemed necessary to increase reading performance to at least a minimal level. The question of which of these approaches is more appropriate for the problem reader in the junior and senior high schools has not been systematically investigated.

Description of the Reading Lab Programs

Within the somewhat confused milieu of theory and practice, one school district turned attention to improving the reading of its secondary students. With more than 100,000 students, Hillsborough County is the third largest school district in Florida. Until three years ago, both the developmental and remedial needs of students had been served primarily in the elementary program through the basal program and ESEA Title I. Decision-makers had long been concerned that systematic direct attention to reading should also occur at the secondary level. After researching potential instructional programs, decision-makers identified and began implementing a developmental and remedial reading program designed to serve seventh and eighth grade students in all 24 junior high schools.

The developmental component of the reading program was based on a model developed by the P.K. Yonge Laboratory School at the University of Florida. The model was based on the developmental tasks associated with adolescence (independence, commitment, and responsibility), and had been developed and tested over eight years with participating students showing substantial increases in reading scores (Guttinger & Hines, 1977). The major objective of this individualized diagnostic-prescriptive program was to improve the reading achievement of all students in a grade level within a heterogeneous environment by providing intensive skills building activities in vocabulary, comprehension, and rate. Students were encouraged to assume responsibility for improving their own reading skills by setting and working towards self-determined goals.

Students participated in the developmental reading program for nine weeks, one period (50 minutes) three times weekly, usually on Monday, Wednesday and Friday for a total of 27 hours. The first two/three weeks were devoted to pretesting and individual planning conferences. The next five/six weeks were spent with laboratory instructional experiences. The last week of the program was devoted to posttesting and final evaluation. At each school, the lab served approximately 150 students per nine weeks period or a total of 600 students per year.

In addition to the developmental component, the Hillsborough reading lab program also served remedial or Compensatory Education students. These students came to the developmental lab for the 27 hours over nine weeks with their content area teachers. In addition, they received 18 hours involvement with their Compensatory Education communications teacher for a total of 45 lab hours. Compensatory Education class size was limited to 15-17 students. The design of the Compensatory Education reading lab was more directive than the developmental lab, with increased diagnosis and prescription, some grouping in addition to individual work, and work on county and state minimum skills. Drill and practice was emphasized with attention to enabling skills. As in the developmental lab, the teacher worked directly with students.

Both product and process evaluation were an integral part of the program design, especially for the Compensatory Education students. For the product evaluation, Compensatory Education students were pretested before they began their lab ex-

A CASE STUDY OF THE SAME POOR READERS IN SECONDARY DEVELOPMENTAL AND REMEDIAL SETTINGS

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Secondary school reading programs have been drawn into the educational limelight in recent years because of a variety of factors: national surveys (e.g., National Assessment of Educational Progress), decline of *Scholastic Aptitude Test* scores, minimum competency testing, and a major shift in federal funding policies (Walmsley, 1981). Compared to elementary reading education, however, secondary reading education has a short history, spanning approximately 50 years (Hill, 1979). This relative lack of tradition coupled with current public scrutiny has led to close consideration of the purpose and content of secondary reading

perience, whether they came first with their developmental or with their remedial peers and were posttested at the completion of their lab experience, usually after a minimum of 45 hours lab involvement. Across the district these students showed positive gains on standardized reading tests.

Process evaluation primarily involved observation of the labs in operation and interviews with the directors and other involved persons. Findings led to program modifications in subsequent cycles of operation. One comment frequently made by lab directors was that Compensatory Education students responded differently in the two settings; that is, many of them believed that Compensatory Education students performed better with their developmental rather than remedial peers. In the third year of the reading lab program, it was decided to address this issue as part of the program evaluation.

Purpose of the Study

The purpose of the study of Compensatory Education students in the developmental and remedial lab was to determine if there were significant differences in the structure of the labs and/or in the way students responded in the two settings. Specific questions to be answered included the following:

1. Are experiences of the Compensatory Education students qualitatively different in the developmental than in the remedial lab (i.e., assignments, grouping, teacher direction, etc.)?
2. Do Compensatory Education students' behaviors differ in the developmental and remedial lab as measured by such indicators as time-on-task, discipline, independence in work, etc.?
3. Do students prefer one mode of lab operation to the other? If so, what are their reasons for this preference?

Methodology

In developing a methodological approach through which to begin to answer the questions above, the concept of a field study, as defined by Kerlinger (1973) was a useful framework; field studies are "ex post facto scientific inquiries aimed at discovering the relations and interactions among sociological, psychological, and educational variables in real social structures" (p. 405). More specifically, a clinical or case study approach appeared to be an appropriate means to use in this component of the evaluation of the reading lab program.

To identify the three schools from which the sample of students would be selected, reading lab directors who would have the same students attending the lab in both the developmental and remedial modes during the third and fourth quarters of 1981-82 were asked to volunteer. From those volunteers, three reading lab directors were selected who were in their third year operating a lab and for whom previous process data indicated that they had successfully implemented the program within county guidelines.

These reading lab directors were asked to provide a list of students who would fit the criteria of attending the lab in both modes within the specified timeframe. In general, all Compensatory Education students were scheduled into the program on the basis of locally-developed criterion referenced tests administered each spring; cut-off scores were set to correspond to roughly the first quartile on a standardized achievement test. Six eighth grade students were selected at each school.

Data collection forms to gather information on the variables identified in the evaluation questions were modified from locally-developed forms used in previous evaluations. Each student was to be observed six times, three each in the developmental and remedial labs.

An anecdotal record of events involving the targeted students was kept for each lab session. In addition, work involvement was coded as on-task related to instruction, on-task related to management (obtaining materials, setting up equipment, etc.),

off-task, or waiting. The number of interactions between the targeted students and the lab director, teacher, or student assistant was recorded.

Originally, the plan was to code each interaction in terms of feedback (positive, negative, corrective, none) and follow-up (probes, gives answer, asks other, rephrase, or clue). As the observations progressed, however, it became clear that only a small percentage of interactions involved content-related interchanges. Interaction categories were modified to reflect more accurately the nature of the interchanges. Interchanges appeared to be related to the following activities: assignments, teacher assistance, teacher management, discipline, and content questioning.

The same observer recorded all observation data. Usually several students were observed in a lab session. The observer would select a vantage point from which all targeted students could be seen. Students were told that the visitor was observing the labs in operation. In most cases, students were not aware that they specifically were being observed. If the content of an interaction was not clear to the observer she would question the lab director or teacher following the exchange.

A task sheet was completed for each student at each observation session, indicating the number of tasks, objectives, materials, group size, and whether or not the activity was teacher-directed. Student folders were examined prior to or following lab sessions to gain relevant information.

After all observations had been completed, the lab directors were interviewed to obtain information about differences in the developmental and remedial labs with respect to objectives, materials used, choice allowed, number of assignments, teacher direction, group work, and role of the content area teacher.

Some students were interviewed to gain information about their perceptions of the developmental and remedial labs and which they preferred. Because these interviews were conducted during the summer, approximately half the students were contacted.

FINDINGS

Observation Data

In the following section, findings will be generally reported as an aggregate of observations at the three schools. However, in some areas data varied greatly from school to school because of particular instructional patterns and those variations will be discussed when appropriate. Since the roles of the director and the teacher were similar, they will be referred to interchangeably.

In both the developmental and remedial labs, Compensatory Education students almost always worked individually rather than in pairs or with the whole class. The only variations resulted from specific instructional strategies used by reading lab directors in individual labs. For instance, the director of the developmental lab at School 1 paired good and poor readers on some activities, accounting for 36% of the tasks for observed students. He also permitted students to play games in the developmental but not the remedial lab, accounting for 7% of the tasks. At School 2, the reading lab director began each remedial lab with a whole class activity, followed by individual work; this approach accounted for 44% of the tasks students undertook in this lab.

While Compensatory Education students used approximately the same number of different materials in the developmental and remedial labs, the types of materials used in each varied considerably. In the developmental lab, workbooks and/or textbooks were used for a third of the tasks done by Compensatory Education students followed by audio-visual materials (26%) and the controlled reader and accompanying materials (18%); kits, games, and other materials were used in 10% or less of the tasks. In contrast, while attending the remedial lab students used audio-visual materials in more than half the tasks they

undertook, followed by the controlled reader (29%); workbooks and/or texts and kits were each used less than 10% of the time and no games were used at all in the remedial lab.

Students worked on approximately the same number of tasks per session in the developmental (1.3 tasks) and the remedial (1.6 tasks) labs. School 2 showed a slightly different pattern with an average of almost two tasks in the remedial lab compared to one in the developmental setting. This difference resulted from the reading lab director beginning each remedial lab with a whole class lesson before proceeding to individual work.

In both the developmental and remedial labs, teacher direction consisted almost entirely of indirect supervision of students as they worked independently. Only at School 2, at which each remedial session began with a group lesson, did direct instruction occur.

One additional finding of interest about the structure of the two labs emerged when the data were analyzed: Compensatory Education students were more likely to be absent from the reading lab in the remedial than in the developmental setting. While absenteeism from school should have been equally distributed across the two settings, Compensatory Education students were actually out of class 9% of the time in the developmental lab compared to 20% in the remedial lab. It appeared that students were more likely to be pulled from the remedial lab for a variety of reasons including the following: special classes such as EH and SLD, disciplinary trips to the Dean's office, and make-up testing relating to Compensatory Education.

On the average, reading lab directors and/or content area teachers interacted with each observed student in each of the lab environments approximately three times per session. More than twice as many of these interactions were initiated by the reading lab director than by the student. However, the Compensatory Education student was more likely to initiate an interaction with the teacher in the developmental than in the remedial setting.

In terms of percentages, in the developmental lab 27% of the interactions were initiated by the student while 73% were initiated by the director. An even more marked difference was observed in the remedial lab where 14% of the interactions were student-initiated and 85%, director-initiated. These differences reflected a more directive role for the reading lab director in the remedial lab; he or she seemed to be more attuned to the fewer students in the remedial lab and was able to circulate around the room offering assistance more frequently.

In addition to the number of interactions and percentages of interactions initiated by reading lab directors and students in the two lab settings, the types of interactions were analyzed. The rank order of percentages of type of interaction from highest to lowest in the developmental and the remedial lab was roughly the same: giving instruction and assistance with equipment and materials, checking progress and encouraging students' work, providing discipline, making and clarifying assignments, and asking questions related to content. tions related to content.

While the rank orderings were similar, there were some differences in the percentages of interactions in the two labs. Almost half (47%) of the interactions in the remedial lab were spent on instructions and assistance while slightly more than a third (35%) of the interactions in the developmental lab were of this type. Relatively more interactions dealt with checking work and giving encouragement in the remedial lab (27% vs. 20%) while less time was spent on discipline (11% vs. 15%). School 2 reversed the trend in the area of discipline.

A clear difference was seen between the two labs in the area of content questioning; while 11% of the interactions in the developmental lab were devoted to questioning students directly on the content of their reading materials, this occurred only in 2% of the interactions in the remedial lab. The relatively small

percentage of interactions involving direct questioning on the content of the materials being used in both sessions was quite possibly a function of the role of the director as a manager of the lab as well as of the self-contained nature of most of the materials which have built-in questioning and feedback mechanisms. Perhaps the reason more such questioning occurred for Compensatory Education students in the developmental lab was that in that setting they frequently used workbooks and texts which required the director/teacher to question and assess student's understanding more often.

The rank ordering of student's use of class time from highest to lowest percentages was the same in both the developmental and remedial labs: on-task related to instruction, on-task related to management (changing tasks, getting, returning materials), off-task in a disruptive manner, and waiting for assistance from the teacher. Overall, students were on-task a relatively high percentage of the time, 83% and 88%, respectively, for the developmental and remedial labs.

Although the order of students' use of class time was the same in both modes of lab operation, some differences in magnitude did exist. In the remedial lab, students spent more of their on-task time actually doing instructional activities, while relatively more time was spent on management activities in the developmental lab. Students were obviously off-task and disruptive a greater percentage of the class time in the developmental than they were in the remedial lab; this pattern was exhibited at two of the three schools. As for other variables in the study, the more directive role of the director in the remedial lab seemed to be related to the observed student behavior; that is, the director was able in the smaller class to provide students with materials for a new task as soon as the previous assignment was completed. Thus students were able to devote their time to the instructional activity and had less idle time in which to be disruptive in the remedial lab.

Student Interview Data

Nine of the fifteen Compensatory Education students observed (three from each school) were interviewed on an individual basis after completion of the lab experience. Students were aware of differences in the operation of the remedial and developmental lab in terms of assignments and student independence.

All students interviewed in two of the schools reported that different materials were used in the developmental and remedial labs; all three students in the third school indicated they used some of the same materials in both lab settings. Five students reported that students were given more opportunities to select materials in the developmental lab than the remedial lab. Three students said that choice was comparable; one student commented that more choice occurred in the remedial lab. Several students said that assignments in the remedial lab were based on skill deficiencies revealed in the pretest.

Three students reported doing some group work in the developmental lab, one student reported doing group work in the remedial lab, and four students participated in group work in both lab settings. One student reported that students were assigned to groups and rotated through sets of materials in the remedial lab.

Students were questioned about whether they worked harder in one lab than the other, which lab they enjoyed more, and which lab they would recommend to friends. Five of nine Compensatory Education students responded that they worked harder in the remedial reading lab. Among the reasons stated were the following: quiet setting, fewer friends present as distractions, self-pacing, awareness of being in a low-level English class, and preference for the subject area of English. Three students reported that they worked harder in the developmental lab, one because of the influence of the content area teacher and two because of the materials used in that setting. One student stated that his effort was equal in the two labs.

Four students found the remedial lab more enjoyable, four students enjoyed the developmental lab more, and one student expressed no preference. Reasons given for the choice of the developmental lab included types of assignments, choice of materials, presence of friends, and influence of content area teacher. The most common reason given by students who preferred the remedial lab was that assignments were easier.

Four students said they would recommend the remedial lab to a friend because they worked harder and learned more in that setting or that they preferred the subject area of English over social studies. Two students said they would recommend the developmental lab because the assignments were more interesting. Three students found reasons to recommend both of the lab settings. One of these observed that students got help with skills in the remedial lab but were allowed to select their own materials in the developmental lab.

Lab Director Interview Data

In individual interviews lab directors in all three schools described the remedial lab as more structured for the Compensatory Education student than the developmental lab. In two schools teachers set aside for use in the remedial lab materials directly related to skill deficiencies revealed by the testing procedures used with Compensatory Education students; in the third school, the lab director used similar skill-related materials for the Compensatory Education students in both lab settings. All three lab directors made specific assignments for Compensatory Education students in the remedial labs; in contrast, the same students in the developmental lab were directly involved in the process of selecting materials.

Teacher-directed skill lessons occurred in two of three remedial labs: one lab director began each session with a class lesson to settle students and to present skills needed by the whole class; the other lab director used *ad hoc* groups to present a lesson on a skill needed by several students. In contrast, the third lab director used small group instruction in the developmental lab only; students played skill games together or a good and poor reader were paired to work on social studies units.

Restriction of students' movement was another management technique used to provide structure in the remedial lab. In two remedial labs students were handed new materials as they completed an assignment. In contrast, in the developmental lab students usually moved around the room.

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