Resource teacher systems serving learning disabled children are discussed in terms of the varying dimensions of type of service (direct versus indirect), diagnostic/prescriptive orientation (ability versus skill), and delivery (resident versus itinerant). Individual resource programs are thought to vary on the dimensions due to intransient factors such as incidence of handicapped children or rural locale. Standard minimal attributes of any resource system are given to be the clear specification of objectives, regular and public progress measures, a commitment to and management of individualized instruction, and optimism. (Author/DB)
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Abstract

Resource teacher systems appear to vary on three important dimensions: type of service, diagnostic/prescriptive orientation, and delivery. The forces are examined that determine how an individual resource program will vary along these dimensions. Standard and minimal attributes that resource teacher systems ought to share are also examined.
Dimensions & Attributes of Resource Teacher Systems
Serving Handicapped Learners

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With the growing trend toward maintaining handicapped learners in the educational mainstream, the development of resource teacher support systems has been rapid. While non-classroom specialists are not novel especially in such areas as music, reading, physical education, speech and hearing, there have appeared a number of distinctly new resource programs bearing such staffing titles as methods and materials specialists, strateticians, counsulting teachers and resource teachers. These new programs are less categorical with respect to the type of child served and tend to extend beyond one subject specialization as music or reading (Deno, 1973). Although not all of these developing programs look alike they share the common goal of providing educational service to those children who, for one reason or another, have failed to progress independently in the educational mainstream.

There appear to be at least three important dimensions upon which resource systems differ. These dimensions are:

- **Type of Service:** direct vs. indirect
- **Diagnostic/Prescriptive Orientation:** ability vs. skill
- **Delivery:** resident vs. itinerant

Along with the dimensions upon which resource systems legitimately vary there go a set of Standard Attributes that resource systems ought to share. These minimal or standard characteristics are:
- Educational goals cast in terms of clearly specified human performance
- Regular and public monitoring of achievement
- Commitment to individual instruction
- Management of Individualized Instruction
- Optimism that successful interventions will be located.

What is the basis for the decision to classify certain characteristics under the category of **Varying Dimensions** while placing others under the category of **Standard Minimal Attributes**? The three dimensions upon which resource systems vary are so identified because the factors governing the selection of attributes on these dimensions are highly intransigent. For example, factors such as incidence of handicapped children, financial solvency, and rural locale can determine whether resource delivery will occur through an itinerant teacher or through one who is in residence. Likewise, biases regarding the benefits of differential (Psychological) diagnostic/prescriptive approaches are often so firmly fixed that a program necessarily leans either toward ability or toward skill building, depending upon the view of the most powerful administrator, (Mann, 1971). On the other hand, the attributes viewed as standard and minimal are those that we have come to understand as essential to good educational practice. Hardly anyone still argues against expressing educational goals in terms of human performance, or basing instructional decisions along with the evaluation of methodology and materials on the progress that the student is exhibiting.

First, let us examine more carefully the dimensions of difference, and then the minimal characteristics of resource systems.
Dimensions of Resource Systems

Direct vs. Indirect Service

This dimension merely describes the relationship of the resource teacher to the children who are served, whether these children receive instruction directly from the resource teacher (direct service) or from the classroom teacher or classroom aide (indirect service). Resource personnel providing direct service, not only identify instructional targets and prescribe methods, materials, and monitoring systems, but also serve as tutors, explainers and demonstrators. Under a direct service system referred children are usually (but not necessarily) removed from the classroom for a time period ranging from 30 to 60 minutes. The resource teacher provides direct instruction during that time period, after which a youngster returns to his classroom teacher who provides instruction for the remainder of the day.

Resource personnel operating under a framework of indirect service act through an intermediary, and serve as "consultant teachers" (McKenzie, 1972) or "methods and materials consultants," the M & M, (Adamson, 1972). In no instance do they take it upon themselves to teach or manage referred children. The notion is that the referring classroom teacher is as much the referral as is her problem student. As a consultant, the resource teacher may observe classroom practice, a child's classroom behavior, assist the regular teacher in educational or differential diagnosis, and recommend modifications in the child's educational program. Occasionally, the nature of the child's asset or deficit determines whether service will be direct or indirect. More often than not, even in programs which were developed to provide direct service, the
resource teacher adopts an indirect role when referral is based upon social or attentional behaviors. Whereas, at one time, the inclination was to remove the child to the “resource” room for a cooling down or a counseling period there has been recently a growing recognition and adoption of behavior management technology for modifying problematic social and attentional behaviors.

In the latter instance, behavior management procedures are recommended by the resource teacher and are implemented by the classroom teacher.

Perhaps the major factor that determines whether a resource program will offer direct or indirect service concerns one's bias regarding the responsibilities of classroom teachers. Those who hold that classroom teachers must learn to deal effectively with handicapped learners (Lilly, 1971) automatically preclude direct service resource systems.

**Ability vs. Skill Orientation**

In general, we use the term skill to refer to common school activities such as reading, arithmetic, writing and spelling. Each of these skills can be analysed into smaller components or subskills as sound blending, sounding letters, one column addition, and so on. Beneath the level of skill there are hypothesized to be a number of basic abilities. The strength of these abilities is thought to determine the development of educational skills. Tests used for differential diagnosis such as the ITPA, the Marianne Frostig Developmental Test of Visual Perception, the Purdue Perceptual Motor Inventory and Wepman's Test of Auditory Discrimination were designed to assess the strengths and weaknesses of many of those basic abilities that are presumed important for school learning.
The emphasis in ability oriented programs is on differential psychological diagnosis with subsequent remediation of weak abilities and skill instruction through the stronger modalities. In contrast, the resource teacher in skill oriented programs views the results obtained from psychological instruments as unessential, while relying heavily on a variety of educational diagnostic tools.

Whether a resource program emphasizes diagnosis and remediation of basic skills, or of basic abilities, is largely determined by the biases of the resource personnel and of the program administrator. At one extreme, we see the resource teacher who would not recognize visual-sequential memory if she fell over it; at the other, we see the resource teacher who gasps in horror at the idea of undertaking reading remediation without first taking into account psycholinguistic and perceptual-motor abilities.

Resident vs. Itinerant Delivery

In schools whose populations of handicapped learners are sufficiently large and whose budgets can accommodate special or resource personnel, full-time, resident resource teacher programs are developing. Itinerant resource programs tend to develop where the population of handicapped learners is small or where budget restrictions prevent resident staffing.

There is, quite likely, an important interaction between this dimension and the direct-indirect service dimension. The hypothesized interaction relates to the efficiency of educational programs that fail to provide regular and frequent service to handicapped learners. These youngsters, by the time that they are referred for resource help, are lagging significantly behind the
instructional level of the classroom. When a resource teacher providing direct service does not work with the learner on a concentrated daily basis, program continuity suffers as does the youngster's rate of growth. Itinerant Resource Teachers who provide direct service can maintain daily contact without significant loss in efficiency when serving two but certainly no more than three schools, provided that travel time between schools is brief and the number of children requiring service is small. In contract, within resource systems employing indirect or consultant approaches, itinerant demands produce less stress and smaller efficiency losses. This occurs because a handicapped learner continues to receive direct instruction whether or not the resource teacher is present. Assuming that the classroom teacher has faithfully implemented the recommended program, then the daily physical presence of the resource teacher is, at least in theory, less essential.

Staffing resource systems with part-time resource teachers may overcome the problems associated with itinerant programs. A classroom teacher with training in resource teaching may serve in each role for a portion of the school day, thus reducing the necessity for itinerant staff.

Classifying Resource Systems

Resource systems can be classified according to the dimensions that we have examined. Table 1 depicts the three dimensions of resource systems and their attributes.

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Insert Table 1 About Here
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Given an individual resource system such as the Seward School/University of Minnesota program directed by Stanley Deno, it can be described according to these dimensions. The Seward program would be classified as a Direct Service, Skill Oriented, Residential resource system and would be placed accordingly in Table 1. A resource system will occasionally mix the direct-indirect service dimension as in cases where social behavior projects are mediated through the classroom teacher while academic projects receive direct service. A single program may, in such instances, receive a dual classification.

Standard Attributes of Resource Systems

As we have noted, there are strong and intransigent forces which determine how attributes will vary along certain dimensions as type of service, diagnostic-prescriptive orientation, and delivery system. At present, we can do little more than recognize that resource systems will vary on these dimensions, and attempt to describe these variations. There are other attributes that will differ among resource systems but we suspect that these differences can, for the most part, be attributed to the dimensions that we have listed. For example, the equipment required and employed in different resource approaches may vary but these variations will be highly correlated with the diagnostic/prescriptive dimension. That is, if a resource approach requires balance beams, trampolines, and perception kits, the resource approach is oriented toward ability building on the diagnostic/prescriptive dimension.
In contrast, certain attributes which have come to be considered indicators of good educational practices should be standard in any resource system. Let us now examine these attributes.

**Clear Specification of Objectives**

The prescriptions made by resource teachers are chosen because they are expected to influence a child's performance, whether the performance was selected as an indicant of a skill or of an ability. Specification of objectives implies more than a statement of observable human performance—it also implies identification of goals. The resource teacher, unlike the classroom teacher, must consider a child's continued eligibility for instruction, especially when the number of referrals exceeds the service capacity of the resource system. Identification of (1) the level of performance that is necessary for satisfactory growth in the classroom (2) the current level of the child's performance, and (3) the discrepancy between these two performances, permits the resource teacher to determine when her services are no longer required for a given child. To obtain this kind of information clearly specified performances, both current and expected, are essential.

**Regular and Public Progress Measures**

Regular, even daily assessment of a child's progress is possible in the resource setting. Because the resource teacher is released from many of the non-instructional and group management duties of the classroom teacher, she can keep complete records of her effectiveness in promoting growth. The records and measurements provide her with information that is essential in instructional decision making, and allow her to obtain quick feedback on her
A Commitment to Individualized Instruction

If regular classroom instruction produced satisfactory progress for handicapped learners, then resource assistance would not be necessary. However, it usually does not. Further, there is little reason to expect that resource teacher assistance will improve matters much if the resource teacher is forced to operate under the same constraints as the classroom teacher. Resource Systems permit highly individualized programming and this probably accounts for their effectiveness. The differential effectiveness of individual instruction is well illustrated in the data displayed in figure 1.

In the study (Moody, Bausell & Jenkins, 1972) from which these data were obtained, 4th grade children were randomly assigned to conditions wherein instruction occurred on teacher-student ratios of 1:1, 1:2, 1:5, or 1:23. Instructional time and content were controlled. Children who received 1:1 instruction learned significantly more than children in any other condition. The rapid loss of efficiency is reflected by the steepness of the drop in learning that occurs between 1:1 and 1:2 instruction. Data such as these demonstrate the importance of highly individualized instruction in resource rooms for academically retarded handicapped learners.

Management of Individual Instruction

The commitment to individualized instruction sharply conflicts with the rising demand for services from resource teachers. No sooner is a direct
service resource system implemented than the flood of referrals exceeds the
capacity of the resource teacher to provide individual instruction. The resource
system is forced to explore and incorporate alternative means that allow expanded
service while maintaining quality instruction.

One instructional reservoir that is being tapped with increasing frequency
is the cross-age and the peer tutor. A number of studies demonstrating the
efficacy of student tutors have been reported (Harris, Sherman & Henderson,
1972; Jenkins, Mayhall and Peschka 1972; Willis & Crowder, 1972; and Davis,
1972). Resource teachers, by managing and supervising tutorial projects,
have doubled and tripled their capabilities to provide individual instruction.

Unrelinquishable Optimism

A statement by Sidney Bijou, although he was not, at that time, discussing
resource systems, expressed the optimism that should infect the attitude of
resource personnel.

"If you believe the principles of the behavioral approach, then an
optimistic approach is the only one with which you can function. You
believe that this child can learn and that you can arrange the environ-
ment to help him learn. You cannot indulge yourself in the luxury of
saying: 'he's too stupid', 'he must be brain injured'."

Given that under no other existing administrative arrangement can
diagnosis be performed as thoroughly, can remediation be as individualized
and intensive, can program changes be more flexible, --- given these observa-
tion resource teachers recognize that they have at their disposal unprecedented
opportunities for improving the growth of handicapped learners.


30 MINUTES INSTRUCTION
MEAN CORRECT AFTER

NUMBER OF STUDENTS PER TEACHER

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Figure Captions

1. Amount learned as a function of student-teacher ratio.