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LA THÈSE A ÉTÉ  
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A VALIDATION OF THE HURDER MODEL  
IN RURAL RESOURCE TEACHER  
SERVICE DELIVERY

BY

Campbell McBurney

Thesis submitted to the School of Graduate Studies  
of the University of Ottawa in partial  
fulfillment for the degree of  
Doctor of Philosophy

Ottawa, Ontario, 1983

## ACKNOWLEDGEMENTS

I acknowledge with sincere appreciation the untiring efforts and support of my major advisor, Dr. Robert O'Reilly, whose quiet patience and understanding have helped to make this work a reality. I wish to thank Dr. Pierre Michaud for his assistance in the time consuming tasks of computer programming and statistical analysis. I am indebted to Dr. Ian Dow and Dr. Ruth Whitehead for their valuable comments and criticisms as members of the doctoral dissertation committee. I wish also to express my sincere appreciation to Dr. Robert Sanche whose scholarship inspired me, whose rigorous criticisms contributed greatly to this study and whose personal warmth and interest in rural education are a constant inspiration.

I am grateful to the supervisors, principals and teachers of the Bedford Regional, Chateaugay Valley Regional, Richelieu Valley and South Shore Regional School Boards for their cooperation and participation in this study. I am especially indebted to Mrs. Ruth D'Hollander, Mrs. Maureen Enright, Mr. Morgan Naidoo, Mrs. Grace Senegal and Mrs. Pauline Smith, who graciously consented to share with me their extensive knowledge and experience as resource teachers.

I wish to thank Dr. Jack Cram, Mrs. Barbara Cram, Dr. Justine Harris, Mrs. Muriel McCaw and Dr. Arlene Stains for their valuable assistance.

I acknowledge with thanks the financial support of the Social Sciences and Humanities Research Council of Canada and the Canadian Association for the Mentally Retarded.

And finally, I acknowledge with humble gratitude the contribution to my own awareness of the educational needs of rural and sparsely populated areas made by many colleagues and friends from the Regional School Board of Gaspesia and McGill University.

## CURRICULUM STUDIORUM

Vinton Campbell McBurney was born at Clermont, Charlevoix County, Quebec on April 27, 1940. After graduating from high school at Sawyerville, Quebec in 1957, he attended Macdonald College of McGill University where he obtained a Quebec Teaching Diploma in 1958. He completed his Bachelor of Arts degree from Queen's University in 1967. In 1974, Mr. McBurney completed a thesis entitled "Slow Learners in Special Classes Compared to Those in Regular Classes" and was awarded the degree of Master of Education from the University of New Brunswick. He also holds the Quebec Special Education Specialist Certificate.

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## Chapter I

### INTRODUCTION

The problem of how to provide adequate educational services for children with learning difficulties in rural areas is of growing concern to educators involved in rural service delivery systems. The current emphasis placed on mainstreaming programs throughout the United States and Canada casts an additional burden on rural educators. While rural school systems have traditionally left mildly handicapped learners in regular classes, the progressive demands to expand the services offered to these children necessitate improved ways to respond to these rural needs. The onus for providing better services to children with learning difficulties will remain primarily on the regular classroom teacher in rural areas. What is needed, therefore, is an appropriate system of support to the regular classroom teacher which will facilitate the best possible learning environment for the child and which will optimally utilize the available (and scarce) resources. The resource teacher model, in theory, is able to provide this much-needed support link in rural service delivery systems. Resource teachers are already being utilized in many rural school districts, and this study will look at their impact on rural service delivery.

The resource teacher as defined in this study is a specialist with cross-categorical (referring to the many diverse labels applied to

exceptional children) knowledge and competencies in the field of teaching exceptional children. As used in this study, the resource teacher is operationally defined as "a certified teacher, a major part of whose responsibility is to work in a collaborative, facilitative role with regular classroom teachers". The primary function of the resource teacher is to work directly with regular classroom teachers in a supportive role. The services which the resource teacher provides indirectly to students are occasionally complemented by such direct services to students as diagnosis and assessment, and diagnostic and remedial teaching. The resource teacher may also provide consultation to parents and to other professionals by means of case conferences on individual students or by means of suggestions for program development or behavior modification. The resource teacher, working primarily in a collaborative role with teachers and other professional personnel, is able to determine the educational needs of children with learning problems, and also is able to establish, provide or identify resources within a system to meet those needs.

Resource teachers are not a new educational phenomenon. Their recent history can be briefly traced by looking at the role played by the remedial teacher. The remedial teacher of the decade of the 1960's dealt with children who neither qualified for segregated special classes nor fitted into regular classes. The remedial teacher dealt with mildly handicapped children at the interface between "regular" and "special"

education. As the undesirable side effects of categorical special education came into focus in the early 1970's and the mainstreaming concept gained momentum, a need was felt for better ways of dealing with mildly handicapped learners. The remedial teacher of the 1960's with broad, general knowledge and experience in dealing with mild learning problems within the "regular" system was gradually replaced by the resource teacher who continued to deal with similar problems but in a somewhat more specialized way. With various pseudonyms such as consulting teacher, clinical teacher, diagnostic-prescriptive teacher and so forth, the resource teacher gradually became the "treatment interface facilitator" (Deno 1973) whose credibility in the "regular" system was assured by providing an important supportive service to the regular classroom teacher.

In general, regular classroom teachers began to assume more of the responsibility for mildly handicapped learners during the decade of the 1970's. The need for further training to enable them to deal more effectively with exceptional children became obvious. In effect, this became the responsibility of special education personnel such as the resource teacher. Thus, the resource teacher model evolved from that of the remedial teacher as a result of the mainstreaming movement and the need to provide regular classroom teachers with support in dealing with children with learning difficulties.

For rural and/or isolated areas the problem of providing adequate service delivery for children with learning difficulties is more complex than for urban areas. Many urban school districts have a broad spectrum

of instructional and related professional support services as well as local health and social services at their disposal. Few rural or isolated districts have these resources, nor is it likely that these districts will be able to provide many additional resources in the foreseeable future. Among the problems which these districts face are: 1) the vast distances between schools; 2) too few students representing each handicap to justify separate special education services for each type of handicap; 3) lack of ancillary support services or community agencies; 4) difficulty in recruiting and retaining qualified personnel; and 5) lack of financial resources (Chalfant, Van Dusen Pysh, and Moultrie, 1977, p. 47).

In a study designed to identify the characteristics and needs of exceptional children in rural areas of California (Keogh, Lyon, Becker, Kucic and Kucic, 1973), a number of advantages and problems in providing services were determined. Among the more important problems encountered were the high cost of special programs, and the difficulty of attracting highly qualified personnel (p. 29). Although population densities vary from one rural area to another, the cost of services to low-incidence exceptional children in rural areas is always higher than the cost of providing similar services in urban areas.

A nation-wide study sponsored by the Council of Administrators of Special Education Research Committee, aimed at improving the delivery of services to handicapped children in rural and sparsely populated areas, identified a number of factors which impede rural service delivery (Ondell, 1977). Ondell (1977) was primarily concerned with organizational

factors which limit or hinder service delivery, and she specifies a number of these, namely, 1) a lack of organizational readiness - this includes a lack of complementary support services, preconceived role rigidity on the part of teaching staff and the lack of commitment on the part of administrators; 2) a lack of public awareness and concern; 3) lack of trained personnel; 4) geographical limitations affecting transportation and 5) lack of financial resources. While Ondell's study went on to present a number of rural service delivery system models in use in various parts of the United States it emphasized that the work was merely a first effort in defining, in any comprehensive way, steps that can be taken to improve services.

Similar findings concerning the problems faced by rural special education service delivery systems are reported by a more recent study (Helge, 1981) for the National Rural Research and Personnel Preparation Project. This study investigated cultural, socioeconomic, geographic and other factors which impede rural districts in implementing the major provisions of the American 1975 federal law, Public Law 94-142, (Education for All Handicapped Children Act), namely, provision of the least restrictive environment, due process procedure, individualized education programs, and parent involvement for the education of handicapped children. Helge (1981) reported three primary hindering factors for rural areas. They are: 1) teacher retention and recruitment problems; 2) rural attitudinal problems and 3) problems based on rural terrain. She reported that these problems are the result of tradition-bound rural environments and they were exacerbated by the

geographic and climatic demands of remote and isolated areas (p. 515). Although only 38% of the United States' state education agencies were included in the study, all of those which responded reported difficulties in implementing the major provisions of PL 94-142. Difficulties in staffing and ongoing inservice education for teachers were seen as the most serious obstacles to providing full, appropriate services to handicapped children in rural areas. State agency officials were aware of the problems and were helping local education agencies in developing and implementing programs for the handicapped. Helge (1981) also noted that state officials appeared to welcome assistance in their search for better ways of dealing with the problems presented by rural service delivery. Similar findings with respect to the provision of special education services to French speaking exceptional children in remote areas of the Province of Ontario, Canada are also reported (O'Reilly, Bédard, Côté, Dow, Dostaler, and McBurney, 1979).

The use of some form of the special education teacher consultant to the regular classroom teacher has been found to be effective in some rural areas (Christie, McKenzie and Burdett, 1972; CASE Newsletter, 1977; McLeod, 1978; McLeod, Sanche and Bloom, 1979). Merely adding to the number of specialized support staff for rural areas, even if that were possible, however, would not in itself guarantee the realization of improved services to children with learning difficulties. Hurder (Note 1, Appendix H) points out that staff, one of the integral elements of a service, represent only potential service until delivery is achieved through the interaction of the agent providing the service (producer) and

the recipient of the service (consumer). Hurder maintains that a common mistake in the evaluation of human service systems is made when it is assumed that because a service has been made available, it has in fact been delivered. When the producer of the service is a human being and the consumer of the service is another human being, there are a host of interpersonal variables which can facilitate or block the delivery of services (Tagiuri and Petrullo, 1958 in Sanche, 1972).

The relationships between interpersonal variables and service delivery have been investigated (Thomure, 1971; Sanche, 1972) and it has been shown that some key components pertain to interpersonal perceptions of competence in the performance of specific tasks by the specialist. These studies and other related investigations (viz. Pynch, 1974; Otuyelu, 1976) have dealt mainly with data in the perceptual fields of the producers and the consumers of service. In general, the findings suggest that the perceived rate of service delivery varies with the perceived access to and availability of these services and to the perceived competence of the persons involved. These studies have provided important theoretical foundations and the methodology for further monitoring complex components of service delivery.

The present study will investigate the service delivery process in rural areas by examining further the relationship between the variables pertaining to the availability of services, the attitudes of the service producers and consumers concerning the acceptability of the services, and the rate or amount of services actually delivered. The present study will also investigate the relationship between certain organizational

variables and the amount of services delivered when the resource teacher model is used to provide services to children with learning difficulties in rural areas. These relationships will be studied within the conceptual framework developed by Hurder (Note 1) for the study of the delivery of services in health, education and social service settings. In fact, the primary purpose of the present study is to determine the validity of the Hurder (Note 1) paradigm by investigating the working relationships between the resource teacher and classroom teachers in the delivery of services to exceptional children in rural areas. The setting for the present study was the English rural schools of the Province of Quebec which extensively employ resource teachers in the delivery of services to exceptional children.

## Chapter II

### THEORY and RELATED LITERATURE

The present study uses the Hurder (Note 1) model for the analysis and description of service delivery as a frame of reference within which to investigate the delivery of resource teacher services in rural areas. The Hurder (Note 1) model provides a conceptual framework for service delivery and was originally developed as a means of relating components of service delivery for both program planning and program evaluation in health, education and social services. The present study uses the Hurder (Note 1) model to evaluate the services provided by resource teachers to classroom teachers in rural areas.

In the first part of the sections which follow, the resource teacher model is described and its various applications in several rural areas is reviewed. The conceptual base of the Hurder (Note 1) paradigm of service delivery is then presented followed by a review of several studies which employ the model as a framework for the analysis and description of the delivery of special education services.

#### Role of the Resource Teacher

Several models of resource teacher service delivery exist, and although the names attached to the various models differ slightly, many similarities can be seen. The concept is not a new one (Dunn, 1968; Meyer, 1969), and the remedial teacher of the sixties performed some of

the functions of the resource teacher model being studied. The present importance of the resource teacher concept developed after the negative consequences of segregated special classes became apparent (Hammill and Wiederholt, 1978).

The resource teacher is a broadly-based, trained specialist with cross-categorical knowledge and competencies (Harris and Mahar, 1975) who deals directly with teachers in a consulting capacity and who may offer direct services to children, parents and others as well.

Although some models may define consulting teacher and resource teacher differently, as used here the terms are interchangeable. The resource teacher may be attached to a separate resource room offering cross-categorical or non-categorical services (McLeod et al., 1979, pp. 28, 29) to a specific group of children for a given period of time. The resource teacher having a separate resource room may, however, take referred children for as little as a few periods a week for an indefinite period of time. The resource teacher who does not have access to a separate resource room may deal directly with the child in the regular classrooms.

In all instances, the resource teacher offers some form of direct service to the child. Consultation with the regular class teacher is also a part of the role of the resource teacher. If the resource teacher provides direct services to the child, then consultation with teachers will provide an opportunity for the regular class teacher to receive updated information on the child's progress. It will also permit the resource teacher an opportunity to receive information from the regular

class teacher concerning any changes in the child's behavior in the regular class. The interaction between the resource teacher and the regular class teacher is important in providing monitoring of the child's progress and in adopting appropriate program modifications as soon as significant behavior changes are noted.

The resource teacher plays an important role in ensuring that various persons dealing with the child are coordinated in their efforts to provide educational and other related services. Thus, the resource teacher acts as a "treatment interaction facilitator" (Deno, 1973), and acts in a consultative way to enable the best possible service delivery. A great deal of role flexibility is needed, but at the same time the resource teacher must frequently act as a trained specialist to detect certain specific needs the child may have and bring appropriate system resources to bear on the child's problem.

#### Competencies of Resource Teachers

The competencies of resource teachers are comprised of two broad kinds of skills - interpersonal relations skills and diagnostic/prescriptive knowledge and techniques. The consulting role of the resource teacher includes both kinds of skills.

The resource teacher's demonstrated competencies in professional skills was shown to be a crucial factor in inspiring the confidence of regular classroom teachers (Otuyelu, 1976). Unless a classroom teacher has confidence in the resource teacher's ability to understand and deal

with the problems presented by exceptional children, there can be no basis for a good, mutually-supportive consulting relationship between the two.

These essential competencies are required of the diagnostic/prescriptive teacher as outlined by Prouty and McGarry (1973):

... ability to

- a) analyze correctly the behavior of adults and children;
- b) utilize successfully informal teaching techniques and materials to diagnose children's needs and capabilities;
- c) create realistic, well-organized, easily-understood educational prescriptions;
- d) develop and maintain good rapport with teachers and principal;
- e) work co-operatively with a range of other ancillary service specialists;
- f) engage in difficult and frustrating tasks over a long period of time with minimal external support or reinforcement (pp. 51, 52).

In a study of the competencies of resource teachers Neely (1979) identified a number of common themes or groupings of competencies as perceived by university and college instructors of special education and special education administrators in Nebraska:

- 1) diagnostic and assessment skills
- 2) knowledge of subject matter
- 3) instructional and teaching strategies
- 4) classroom management skills
- 5) curriculum skills and communication skills
- 6) community resource and referral skills

Neely also noted that special education resource teachers serve a heterogeneous population and the requisite competencies apply to resource teachers working with teachers of normal children as well as with teachers of exceptional children.

The role of the resource teacher is a complex one, requiring a high degree of specific knowledge and skills and the personal characteristics necessary to work co-operatively in a consulting capacity with other professional personnel. The degree to which a resource teacher is able to carry out this assigned role and act as a facilitator in bringing resources to bear upon the special learning needs of exceptional children in regular class settings will have a bearing on the services the child receives.

#### The Resource Teacher Model in Rural Areas

A number of rural areas have incorporated some form of the resource teacher model into a service delivery model which is intended to provide increased services for exceptional children. Some of these models will now be described briefly.

The State of Vermont has been using the consulting teacher model for nearly a decade to help operationalize a regular classroom approach to special education (Fox, Egner, Paolucci, Perelman, and McKenzie, 1973). In this model, the consulting teacher assists and trains regular class teachers to provide successful learning experiences to children with learning problems. The consulting teacher receives training in procedures for individualizing instruction, preparing and adapting materials to use with children having special learning needs, and applying behavioral techniques. The consulting teacher provides both direct services to children and consultation with teachers and parents. The consulting teacher receives referrals from the classroom teacher and

provides diagnostic and prescriptive techniques in establishing entry level skills and in setting specific instructional objectives for the child. Further, the consulting teacher provides basic assistance in training the regular class teacher in the identification of children with learning problems.

Follow-up consultation with the regular class teacher concerning the effectiveness of the individual program for the child is also provided by the consulting teacher. The model relies heavily upon the use of behavioral techniques in dealing with children having learning difficulties.

It is assumed that regular class teachers will be willing to accept the interactive role of the consulting teacher and it is further assumed that system-wide change to accommodate mainstreaming principles can be undertaken in this training-based model. An evaluation of the consulting teacher program indicates that many regular classroom teachers have received inservice training in individualized instruction and applied behavior analysis, and that improved child learning behaviors have resulted. Further, it is reported that there has been a carryover effect of the changed teaching methods to other non-handicapped learners in regular classrooms. Superintendents of schools showed enthusiastic support for the program (Fox et al., 1973). In view of the fact that Vermont is a rural, sparsely populated state, these results bear particular significance to the present study.

In the State of Nebraska, a project was undertaken by Educational Service Unit No. 9 to provide basic system-wide change in the organization of special education (Chalfant et al., 1977). The special education service delivery system that was developed included a "generalist" resource teacher, one who provided remediation to children and consultation with teachers. Although this model assumes a school-based resource teacher in a separate resource room, demographic considerations may require such a resource teacher to be itinerant in the more rural or sparsely populated districts of the state.

In this model, the resource teacher receives referrals from regular class teachers, consults with the teacher, observes the child in the class setting and provides diagnostic and prescriptive services. The resource teacher then provides follow-up monitoring of pupil and teacher progress. In some instances referrals may be made to a Learning Assistance Center, a district resource facility staffed by specialists who handle cases which the school is unable to deal with effectively. Support for the delivery system is provided by a Teacher Assistance Team, a school-based referral screening committee consisting of the principal and one or two teachers, which reviews any referrals made for specialist help from outside the school.

In the State of New Mexico, a "methods and materials consultant teacher" (M & M) is part of a system-wide, "Fail-Save" delivery system (Van Etten and Adamson, 1973). In this delivery system, a child automatically is removed from a program which does not provide success for him within a pre-determined period of time. The M & M

Consultant/Teacher consults with a referring teacher, observes the child's classroom behavior, diagnoses academic and behavioral problems and develops an appropriate individual educational plan or program (IEP). The M & M consultant teacher also monitors the child's progress throughout the system and trains both teacher and parents to deal with the child.

The services of the M & M consultant teacher are complemented by a resource room teacher (RRT), a building-based teacher who receives children on a short-term basis (maximum 90 days) for diagnostic teaching in specific areas of the child's learning difficulty. Whereas the resource room teacher provides specific intensive services to the child, the M & M consultant teacher acts as a facilitator and coordinator with the regular class teacher, resource room teacher, parents, child, and any others involved in service delivery. The sparsely populated nature of the State of New Mexico makes this model particularly relevant to the present study.

The consulting teacher model used in certain districts of North Dakota is part of a non-categorical service model which began in 1975. An adaptation of the Diagnostic Prescriptive Teaching Model or (DPT - Prouty and McGarry, 1973), it has been adapted for use in a rural system. The model consists of eleven steps: referral, observation, initial parent contact, referral conference, diagnostic teaching, planning conference, educational plan summary, teacher/learning plan, implementation, classroom teacher evaluation, and program evaluation and recommendations (CT, 1977).

This consulting teacher model is expected to enable mainstreaming of most children with learning handicaps. Focusing as it does on the modification of or accommodation in a regular class setting, this model emphasizes that the responsibility for any child rests with the regular class teacher.

The usefulness of the resource teacher model in rural special education service delivery in Canada has been investigated in the Saskatoon Region: Special Services Project. One of the questions this project answered was "Can effective special educational services be organized for the majority of children, within a regular school, using the resource teacher model?" The response to this question indicated that the resource teacher model is effective if there is teamwork among the principal, class teachers and resource teachers (McLeod, August 1978).

The Saskatoon project was based on the SEECC (Standards for Educators of Exceptional Children in Canada) model of special education service delivery. A group of Canadian educators was brought together in 1971-72 by the Council for Exceptional Children in Canada, and they developed the SEECC model which provides for three stages of teacher preparation in dealing with educationally exceptional children. The first stage, "Level 1" preparation, should be achieved by all teachers, and would equip them with some basic competencies in identification, diagnosis, and corrective teaching of these children. "Level 2" preparation at a more advanced level would be provided either for another teacher in the same school, or one who would act as an itinerant teacher for a number of small rural schools. This resource

teacher would have acquired deeper diagnostic and prescriptive competencies. For children requiring specialized help beyond that provided by teachers with "Level 1 and 2" training a further, more highly specialized "Level 3" teacher would provide services at a regional Learning Assistance Center, (LAC) similar to the LAC's used in the State of Nebraska (Chalfant et al., 1977).

In this teacher preparation model, resource teachers provide for diagnosis, remediation and consultation within the regular school. The model as it has been developed at the University of Saskatchewan has become known as the SEEC model of special educational service delivery (McLeod, 1978).

Although resource teachers are an integral part of the SEEC model used in the Saskatoon Project, the Project itself investigated a number of questions related to providing quality special education in individual school units. Some of this related research contains implications for the use of resource teacher services.

One of these questions pertains to whether contact with educationally handicapped children in regular schools affects the acceptance and knowledge of such children by the regular classroom teacher. A study investigating this question (Dickson, 1975, in McLeod et al., 1979) indicated that physical proximity of handicapped children is not enough to guarantee their acceptance by regular teachers and that it might indeed have an adverse effect. Dickson's study concluded that there was a need to employ systematic inservice programs in conjunction with mainstreaming arrangements and to evaluate their effectiveness in

conveying information and in changing attitudes about handicapped children. The implications of Dickson's findings in terms of the resource teacher model are obvious. If children with moderate to severe handicapping conditions are added to the marginally handicapped who are already found in small rural schools it could be detrimental to all concerned. On the other hand, if a resource teacher could be used to provide services directly to some of these students; and more importantly, to provide much needed information and support to the classroom teacher it might well provide a mitigating influence on a school in which teachers may feel less than competent in dealing with the needs of handicapped children who have been thrust upon them as a result of a system-wide mainstreaming policy.

A related study by Haverstock (1977) in McLeod et al. (1979) investigated the extent to which regular classroom teachers rely upon the traditional model of referral to a multidisciplinary team of consultants. The teachers were asked how many children they had referred for consultant advice, how many other children in the class should have been referred but weren't, and in what sort of class they thought the children would best be served. Haverstock found that the number of referrals would have doubled if all children viewed by the teachers as being in need of services actually had been referred. Her findings suggested that more referrals would have been made by classroom teachers if they saw referrals being acted upon more quickly by the consultants and if the ensuing recommendations were more relevant to the regular classroom. Her findings also provide an optimistic indication of the sense of

professional responsibility of regular classroom teachers. While others have suggested that part of the allure of segregated special classes is that regular teachers see such classes as relieving them of students with serious learning difficulties (McLeod et al., 1979, p. 55) Haverstock's findings indicate that with additional professional competencies and with adequate and promptly available support services, teachers are willing to meet the challenge of the hard to teach. Further support for this optimism concerning the willingness of regular class teachers to assist in the educational programming for most handicapped children has been found (Hirshoren and Burton, 1979), but a key element in the successful integration of the handicapped child into regular class is that of teacher attitude and the provision of backup services. Thus, for rural schools at least, the resource teacher has an important role to play in inservice training of regular teachers as well as in expertise in diagnosis and programming skills which an individual teacher may lack.

#### A Paradigm for Description and Analysis of Service Delivery

In the present study service delivery is viewed in the conceptual framework elaborated by Hurder and Hurder (Note 3). According to Hurder and Hurder (Note 3) service delivery is the process of making service available and acceptable to consumers, and it rests on two broad assumptions. The first assumption is that service may be developed but not delivered, in which case it is designated as potential service to distinguish it from actualized service which has been accepted by the consumer. The second assumption is that service delivery is an

independent entity and its processes can be characterized and analyzed separately from the processes of substantive service. Thus, service delivery is part of the figure-ground in which substantive service is a more familiar figure. Failure to distinguish between the processes and outcomes of service itself and the processes and outcomes of service delivery has major implications for program evaluation and is of prime concern to the present study.

Only the most tentative steps have been taken to describe the delivery component of the service enterprise. It should be apparent that any attempt to treat the subject systematically is fraught with hazards, in part because there is only a recent awareness of the problem and systematic, formalized treatment of the service delivery component itself is virtually non-existent. Hurder and Hurder's (Note 3) paradigm presents a concept of service delivery which may seem simplistic at first glance, focusing as it does on a narrow segment of the service enterprise. The larger ground from which the concept of service delivery has been abstracted is complex, and thus it may be useful to describe the Hurder paradigm by presenting some basic definitions, forms and purposes of service, and objectives and criteria of delivery.

Two major definitions used in the paradigm are those of service delivery and service. Service delivery is defined as "... the process of making potential service available and acceptable to consumers (Hurder, Note 1, p. 2). Hurder elaborates on this definition by saying that it is the process of making services both available and acceptable to the

consumer. Service is defined as:

"... a formal social endeavor in which specialized knowledge and personnel are developed and utilized for purposes of induction, maintenance and restoration of essential human functions" (Hurder, Note 1, p. 1).

Service may be further characterized in terms of a life cycle containing two stages, a developmental stage and a utilization stage. Service which is developed but not utilized is potential service, but the complete discharge of the mission of any service undertaking is effected only when the ultimate delivery of the service to the target population or individual has taken place. Hurder (Note 1, p. 2) refers to these delivered services as actualized service.

Health, education and social services are generated from resources of the society-at-large in accordance with the priorities and interests of that society. Resources are limited, and the allocation of resources among the various forms of service has significant implications on the delivery component of the service. There are four forms of service, namely, promotion, prevention, remediation, and rehabilitation (Hurder and Hurder, Note 3, pp. 25-31). The purpose of promotion is to induce a specified level of function, improving that which is already deemed satisfactory or even excellent. Prevention has the purpose of maintaining a specified level of function, while remediation and rehabilitation aim at restoring function to a more appropriate level or developing compensatory mechanisms to combat the effects of disease, disorder or disability.

In general terms, schools may deal with all four forms of service, but regular classes tend to be oriented more towards promotion and prevention, while special education focuses more on remediation and rehabilitation. The concern of the present study is with remediation and rehabilitation, the purpose of both being restoration of function.

Hurder (Note 1) suggests that the objectives of delivery can be viewed as being upon a continuum, one end of which is anchored by the administrative-programmatic (A-P) objective, and the other end anchored by the clinical-prescriptive (C-P) objective. The A-P objective is to make a general class of service available to a general class or category of consumer. The C-P objective is to make a specific service or sequence of services available to an individual consumer (Hurder, Note 1, p. 2).

In terms of the present study, the target population or consumers, are classroom teachers and children served by the producer, namely the resource teacher. The A-P objective would be to provide resource teacher services to classroom teachers and children. The C-P objective would be to make a specific sequence of services available to a specific teacher or student.

Achievement of the A-P objective is a necessary prerequisite to pursuit of the C-P objective. Specialized knowledge, in the form of programs, personnel with specialized training, supplies, facilities and planning must be available to meet the needs of individual consumers. But, even if the A-P objective has been met in this way, failure to deliver the service to individual consumers will mean that the basic purpose and reality of the service has not been achieved. In such a case

the service was developed only to the level of potential service. Thus, in Hurder's view the A-P and C-P objectives are distinct but inseparable, interdependent aspects of service delivery.

Hurder further suggests that in service enterprises which are large enough to permit or require formal differentiation between administrative and clinical responsibilities and personnel, measures of organizational performance and accountability for resource utilization are usually focussed upon the A-P objective. Thus, measures of performance and progress usually hinge upon considerations such as number and type of personnel deployed, introduction of new programs and organizational innovations. It is only in smaller service enterprises that one finds equal or even primary concern for progress measured in terms of the C-P objective. The service enterprise being investigated in the present study is the small, rural school wherein both the A-P and C-P objectives should be visible.

To recapitulate briefly, Hurder defines delivery as the process of placing elements of health, education and social services at the disposal of a target population or individual in order to induce, maintain or restore a desired level of function. An evaluation of the extent to which this process has been adequately carried out must focus upon two phases of the process. The first phase is accessibility of the service and the second phase is the definition and negotiation of the desired state, hence the two criteria of delivery, access and disposition.

### Access and Disposition - the Two Criteria of Service Delivery

The first criterion, access to service, must be met before service can be realized. The service must make contact with the consumer and the measure of the probability of that contact is access. Access may be limited or non-existent either at the A-P level or at the C-P level. The lack of availability of programs or continuity of programs for handicapped children in the public school system is seen in the system gaps that occur between pre-school and primary school, between elementary school and high school and so on. Access can also be limited by the amount of time that is available for the producer of the service to interact with the consumer of the service. Staff ratios for supportive specialized consulting services from a pupil personnel services team may limit contact to the point where the consumer has little more than a random possibility of obtaining needed services. In the case of small rural schools, distance and other geographical factors seriously limit the possibility of contact. It can hardly be overemphasized that meeting the criterion of access with respect to individual handicapped children in rural and isolated areas presents many serious challenges. While it is readily accepted that many of these children require a sustained, integrated, and comprehensive set of services over a lengthy period of time, this is a process requiring complex organizational procedures which are lacking in most school districts. Further, precise knowledge about the requisite organizational components related to this aspect of service delivery is still primitive, fragmentary and generally unsatisfactory Hurder and Hurder (Note 3, Chap. I, pp. 18-24). The present study will investigate some of these elements impinging upon access to service.

The criterion of disposition pertains to the probability that the available services are acceptable, both to the producer and to the consumer. The definition and specification of the desired level of functioning is a ubiquitous process of negotiation between the producer and consumer of the service. At the level of the A-P objective, social policy and ideological and philosophical considerations may be important, while at the C-P level the considerations may be more idiosyncratic. In either case, disposition of a target population or individual to accept a service involves the most basic human and social values. Since the values of both the producer and consumer are involved, the process is peculiarly contractual, consensual and interpersonal in nature (Hurder and Hurder, Note 3, Chap. I, p. 24). Whereas measures of access pertain to demographic, organizational and economic variables which are open to quantification, measures of disposition are much more obscure and problematic, relating as they do to the ideology, values and attitudes held by consumer and producer of the service.

In the Hurder (Note 1) paradigm, three system components are believed to be crucial to optimal service utilization (delivery). These components are service related entities, namely, specialized knowledge, specialized personnel and organization. In the Hurder definition of service, knowledge and personnel are definitive attributes of service, while organization is a metaservice entity which interacts with both knowledge and personnel in providing and maintaining service in desired relationships with consumers.

### Specialized Knowledge and Service Delivery

In establishing a definition of specialized knowledge, Hurder and Hurder (Note 3, Chap. II, p. 30) use a classification which divides the totality of knowledge into two categories: generally relevant and accessible knowledge, and role specific knowledge. The content of the first category of knowledge is fixed by the society or group in which the knowledge is imbedded, while the second category contains specialized knowledge resulting from the division of labour in that society. In western technological societies in general, including the education field, role specific knowledge is growing at a faster rate than general knowledge. This phenomenon is evidenced in regular education by the rapid growth of methodologies pertaining to various teaching disciplines. In special education this growth of role-specific specialized knowledge is seen in the increasing specialization in teaching and diagnostic methodologies, innovative models, and extensive data and expanded theory pertaining to psychosocial processes of handicapped children.

The characteristics of the knowledge base of service which are relevant to the delivery of the service are those which affect the probability that the service will meet the two criteria of delivery, that is, access and disposition. Access has been defined as the probability that the service will make contact with the consumer and disposition has been defined as the probability that the consumer will accept available services. The content of specialized knowledge pertaining to the criterion of access would include knowledge about personnel requisites,

the degree to which consumers can directly utilize the knowledge, and the reliability with which the service activities can be specified and described. The knowledge base of some service activities may generate a technology which permits the use of personnel with relatively little specialized training. An example of this could be the use of behavior modification techniques by teachers as compared to the use of psychoanalysis or psychotherapy by more highly specialized personnel. Not only does the knowledge base influence the degree of training required, but also it influences the staff ratio as well, thus affecting the criterion of access. Further, the extent to which the knowledge base allows the responsibility for knowledge application to devolve upon the consumer is another dimension of access to service. The greater the involvement of the consumer, the higher is the probability of access. An example of high consumer involvement in education is the computer assisted information programs which make use of current technological innovations to increase contact between the producer and the consumer of a service.

According to Hurder and Hurder (Note 3, Chap. II, p. 40) the knowledge-linked characteristic most basic to achievement of the criterion of access is the reliability with which the service activities dictated by the knowledge base can be specified. The greater the reliability with which theory, methods and data derived from the knowledge base can be specified, the greater the probability that the consumer will make contact with the service. Insofar as there may be ambiguities in deriving implications from the knowledge base, access will

be limited. This principle is evidenced in the widespread use of standardized intelligence testing and achievement testing in schools during the past decade. The methods used were replicable, and the data obtained could be reliably recorded, and communicated. On the other hand, individualized instruction is a technological innovation in which there is ambiguity in deriving implications from the knowledge base, and this reduces the probability of access.

If we assume that the criterion of access has been achieved, then the interaction between the knowledge base and the attitudes, beliefs and values of producer and consumer become important. The attitude of the consumer toward the knowledge base itself may increase or reduce the probability of acceptance, as well as the attitude the consumer may have toward either the personnel involved or the organization of the service. Likewise, the producer, whether administrator or practitioner, may be attracted or repelled by various elements of the service enterprise. This attitudinal interface between consumer and producer with respect to the knowledge base may be reflected in concern over its scientific status (i.e. Is it based on the latest scientific findings?), its political status (e.g. the nature-nurture controversy in I.Q. testing), or its relative social value (i.e. Is it worth the time, effort and cost?).

#### Specialized Personnel and Service Delivery

Specialized personnel is the second major component identified by Hurder and Hurder as a service delivery system variable. There are two delivery relevant ways in which personnel may be designated as

specialized (Note 3, Chap. II, pp. 52-54). The first pertains to the nature and extent of the training required for membership in a class of personnel (professional, technical, etc.) and the second pertains to the nature of the task. Although the term specialized is customarily applied to the incumbent, the qualities which make the individual appropriate to the task may or may not take origin in task specific education or training. Moreover, the tasks which an individual may be called upon to perform may vary widely in their scope and complexity.

The distinction between administrator and practitioner provides another useful dimension in Hurder's description and analysis of personnel. The nature of the responsibilities of these two classes of personnel can be characterized as centering on responsibilities related to the pursuit of the two objectives of service delivery. The A-P objective is to make a general class of services available to a general class of consumers, while the C-P objective is to make a specific sequence of services available to an individual consumer. A given individual may serve both as an administrator and as a practitioner, for example, a school principal in a small school may teach part-time; and a practitioner may serve part-time as an administrator. It is, however, essential that the A-P objective be met before the C-P objective can be pursued. Before individual consumers can receive a service, facilities, supplies, skills, etc., must be available.

Thus, the practitioner must always devote some time to the A-P objective and must perform at least a minimum of administrative work. There is no comparable imperative that the administrator attend to the C-P objective.

Hurder and Hurder posit three attributes of specialized personnel which have most relevance to delivery of health, education and social services. These are role-specific knowledge, culture-specific components of generally relevant and accessible knowledge, and general and specific personality characteristics of personnel (Note 3, Chap. II, p.54). Role-specific knowledge includes both objective cognitive components of behavior and role-relevant feelings, attitudes and values. It is associated with the command of specialized knowledge and skill which common sense would say makes a "specialist". Culture-specific components of generally relevant and accessible knowledge refers to the norms and rules of the specific culture or subculture in which the personnel is providing the service. General and specific personality characteristics is self-explanatory, and the concern in the present study is for those personality characteristics which affect the processes of service delivery.

The criteria of access and disposition are useful as means of identifying aspects of specialized personnel which affect the processes of service delivery. Qualities of specialized personnel which are pertinent to the access criterion are those aspects which relate to the availability and distribution of personnel. In this study, these access criteria have to do with the number of available resource teachers and their physical and/or geographical proximity to the class teachers and students to whom they provide a service. In general, the more role specific knowledge required of a specialist, the fewer of such personnel will be available, and the lower the probability that the service will be available to consumers.

In terms of services provided to exceptional children, many school districts provide a highly specialized pupil personnel services team consisting of speech pathologist, psychologist, learning disabilities diagnostician, health nurse, guidance counselor and so forth. The availability of such personnel presents problems in most systems and in rural areas the itinerant team approach is fraught with hardships in meeting the criterion of access to the consumer.

Havelock (1969) referred to this fundamental cost component in the use of expert labor.

... it is important to recognize that service by itself is likely to be an extremely expensive and inefficient way to serve the consumer because it means that expert labor, always in short supply, is continuously tied up in tedious and redundant interaction with the consumer population. If the expert practitioner performs service for the consumer without passing on to the consumer information (software) and tools (hardware) which enable him to help himself, at least three unfortunate consequences are likely: first, the practitioner is overloaded because he has to serve the same needs of the consumer over and over again; second, his services become scarce, because of this overload and expensive because they are scarce; and third, the consumer is trained into an unhealthy dependence on the practitioner instead of developing his own capacity to seek out resources and help himself. (pp. 8-21)

The resource teacher model provides a middle ground between the more highly specialized team approach with its expert knowledge and the general knowledge of the classroom teacher. This would seem to respond to the three constraints which Havelock (1969) has underlined in that the resource teacher acts as a link between the classroom teacher and the specialists, encouraging the classroom teacher to accept more responsi-

bility in the assessment and remediation of learning problems. By acting as a facilitator rather than as an expert practitioner, the resource teacher not only increases the likelihood that children will be better served by the class teacher, but also he/she increases the likelihood that class teachers will be more disposed to seeking and using the available resource teacher services and the scarcer services of the support team of specialists.

Qualities of specialized personnel which pertain to the disposition criterion are those aspects which influence the probability that the consumer will accept the available services. According to Hurder and Hurder the significant attributes are "culture specific, generally relevant and accessible knowledge and personality characteristics of personnel" (Note 3, Chap. II, p. 58). These attributes acquire significance as they relate to the interaction between the consumer and the producer. Where there are significant differences between the consumer and the producer with respect to these attributes, then the probability that the consumer will accept the services is lowered.

In rural areas the outsider is often viewed with suspicion as a result of a discrepant cultural background. If the outsider is a specialist, is seen as having expert knowledge, and has little understanding of local customs and lifestyles, then the likelihood that any preferred services will be accepted is lowered. If this factor is augmented by an aloof attitude on the part of the specialist then this may be interpreted by the class teacher as arrogance or any of a number of other undesirable qualities and the specialist's effectiveness is seriously reduced.

In the case of resource teachers in rural areas, the model supposes that the resource teacher is seen as a support to the teacher and is familiar with the attitudes and values of the community. In many cases, the resource teacher is selected from among existing staff in small rural schools and receives further inservice training while on staff (McLeod et al., 1979). This ought to increase the likelihood that class teachers will view the resource teacher in a more favorable light and thereby use the services more effectively.

The interplay between cultural knowledge and personality of both the consumer and the producer may be manifested in one or more of three phases of the producer-consumer interaction process (Hurder and Hurder, Note 3, Chap. II, pp. 60-68). The first phase is one of definition and negotiation of the consumer's needs and the producer's response to the needs. In the second phase, namely the operating phase, the producer provides the service and in phase three the producer and consumer evaluate the outcomes of the service. If the consumer and producer are free to act voluntarily, then the alternatives in phases one and two are either to continue to work together or to cease the interaction. In the case of resource teacher services provided to class teachers the services are not strictly prescribed by administrative edict and, since the services may be somewhat scarce, the interaction is voluntary to a large degree. Thus, the criterion of disposition, in theory, is important in resource teacher service delivery because of the contractual and consensual nature of the relationship between the producer (resource teacher) and consumer (class teacher) of the service.

### Organization and Service Delivery

Specialized knowledge and personnel are the two major elements which are placed at the disposal of a target population or individual in health, education and social services delivery. Organization is a 'meta-service' entity which is the means for placing knowledge and personnel at the consumer's disposal. The definitive task of service delivery is the utilization and manipulation of knowledge, personnel and organization in order that the criteria (access and disposition) of service delivery be met (Hurder and Hurder, Note 3, Chap. III, p.1).

Organization is seen as both a social form or structure and as a process which enables the development and maintenance of a specified configuration of resources (specialized knowledge and personnel) in a desired relationship to a specified configuration of consumer needs (Note 3, Chap. III, p. 6). The end of the organization is seen as the relationship between organizational resources and consumer need and the ends of service delivery itself are the A-P and C-P objectives. The form or structure that the organization takes could be typified by describing such things as its bureaucracy, line-staff relationships, and so forth. The process of the organization relates to its function and operational style. In the Hurder paradigm, the process component acts as an operational link between the organization's ends and its form or structure.

In terms of the delivery of services for exceptional children in rural areas organizational factors play a key role. The availability of services in rural areas may be seriously limited due to many natural

barriers. Distance, weather and terrain often impinge forcefully upon the ability of the school district to provide even the most minimal services. These barriers are sometimes overcome by administratively placing additional resources in areas of greater perceived need. The rural school district may compensate for a lack of local community health and social services by providing itinerant teams of specialists including among others, school nurse, speech pathologist, and psychologist. Inevitably, however, the scarcity of human and financial resources imposes seriously limiting forces on the rural system. Whether the system is rural or urban, however, organizational factors present a major impact upon the service delivery process.

The factor which exerts most influence on organization for delivery is the relative division of organizational resources between the A-P and the C-P objectives of delivery (Note 3, Chap. III, p. 16). Further, the conditions which determine priorities among resource allocation are determined by the form which the organization takes. If the organization is primarily concerned with the needs of the "average" consumer, then the promotion and prevention forms of service are offered and the A-P objective is emphasized. "Regular" classes provide an illustration of this concept in education. If, however, the organization of a service is primarily concerned with the remediation and rehabilitation forms of service, as in the case of special education services generally, then the C-P objective must receive increased attention.

Thus, in rural schools, where children with special needs are integrated, for the most part, into regular classes, both A-P and C-P objectives must be met and the individual consumer's needs have to be met in order for delivery to be effected. The collaborative supportive role that the resource teacher enacts with respect to the class teacher should, in theory, facilitate service delivery in the sense of the Hurder paradigm, in that it brings the class teacher and resource teacher into close contact in setting and meeting the C-P objective.

The extent to which the organization aims to meet the A-P objective or the C-P objective will be reflected in the resource allocation and consumer/producer ratios for meeting the two objectives. This ratio is normally greatest in promotion and prevention and smallest in remediation and rehabilitation service forms. This is evidenced in teacher-pupil ratios for regular class and special class as well as in class teacher and specialist ratios.

### Summary

The foregoing overview has presented the Hurder (Note 1) paradigm for description and analysis of service delivery in health, education and social services. To summarize briefly, service is seen as a formal social enterprise in which specialized knowledge and specialized personnel are used for the purpose of induction, maintenance, and restoration of human functions. Services are distinguished by their knowledge base, the specialized personnel being utilized, and by the human functions at which the particular service may be aimed. The form

the service may take (promotion, prevention, remediation, or rehabilitation) is determined by the purpose at which the service is aimed.

TABLE 1  
BASIC ELEMENTS OF THE HURDER PARADIGM  
OF SERVICE DELIVERY

Elements	From	Process	To
Service Delivery	Potential		Actualized
Stages	Development		Utilization
Objectives	Administrative- Programmatic (A-P)		Clinical- Prescriptive (C-P)
Criteria	Availability (Access)		Acceptance (Disposition)
Variables	ACCESS Distance Staff Ratio Time		DISPOSITION Interpersonal Relations Perceived Competence of Personnel
Organizational Context			
1. Structure and Models used			
2. Staff Commitment			
3. Special Services Support			

Table 1 may help to summarize the paradigm. A major assumption of the paradigm is that the concept of service delivery is distinguishable from the concept of substantive service. Service delivery is seen as a dynamic process whereby elements of the service placed at the disposal of a target population (potential service) become actualized only when the intended recipient accepts them. The process typically undergoes a developmental stage in which planning occurs, followed by the utilization phase.

The deliverability of a service is governed by two broad criteria, namely, access (or, availability) and disposition (or, acceptability). Two broad objectives of service delivery are seen, namely, the administrative-programmatic (or, A-P objective - to make a general kind of service available to a general kind of consumer population) and the clinical-prescriptive (or C-P objective - to make a specific service available to a specific individual consumer). Although the two objectives are complexly interrelated and interactive, achievement of the A-P objective is a necessary prerequisite to pursuit of the C-P objective. Service delivery involves the flow of service from the producer to the consumer and until contact with the consumer has been achieved service exists only as potential service.

Three service related entities are seen as playing crucial roles in service delivery. These are, specialized knowledge and specialized personnel, definitive attributes of service, and organization which is seen as a meta-service entity which maintains services in desired relationships with consumers. The careful study of these factors in service delivery is necessary in order to ascertain the extent to which each one facilitates or constrains the process of service delivery.

In the present study, resource teachers in rural school districts are in the role of service producers and classroom teachers are in the role of consumers of the service. Specialized knowledge refers to the program and technology inherent in the resource teacher model within the context of education in general. Specialized personnel refers to the resource teacher, and organization refers to the resource teacher

delivery model set within the larger organizational context of the school system, including structure, staff commitment and the availability of special support services. This study will investigate the interactive and interdependent nature of these service entities as well as the part that each plays in the actualization of service delivery.

#### Findings of Studies Using the Hurder Paradigm

The late William Hurder developed this paradigm as part of an intended monograph at the University of Illinois at Urbana - Champaign where he succeeded Samuel Kirk as Director of the Institute for Research on Exceptional Children. The paradigm was an outgrowth of Hurder's lifelong involvement and research into service delivery in the fields of mental health and special education. Although most of his writings on this topic remain unpublished, his work influenced a number of researchers at the University of Illinois and elsewhere in the field of special education. Among the first to employ his paradigm was one of Hurder's doctoral students, Robert Sanche. To date there is no substantial published document on Hurder's work. What follows is a review of three studies in the field of special education which have been guided by Hurder's work.

Sanche (1972) derived a model from Hurder's work in a study of the delivery of consultant services to teachers of educable mentally retarded children in the Joint County School System at Cedar Rapids, Iowa.

Sanche (1972) investigated the relationship between access and dispositional variables and service delivery among 4 special education consultants (service producers) and 73 teachers and 31 principals (service consumers). Sanche generated and tested 14 hypotheses using correlational techniques. Most of the hypotheses were derived from the Hurder model. With respect to access variables Sanche found support for hypothesized relationships between staff ratio and rate of service delivery within the teachers' perceptual field, but not within the consultants' perceptual field. Regarding the relationships between dispositional variables and rate of service delivery the correlational data supported two of the hypotheses (teacher perceptions of the consultants' interpersonal relations and performance). His data failed to find support for the hypothesized relationships between dispositional variables and rate of service delivery within the consultants' perceptual field. Sanche (1972) concluded that the results of the study supported the utility of the Hurder (Note 1) model as a paradigm within which to study the relationship between elements of service delivery, especially from the perspective of the consumers of services.

Pyrch (1974) used the Hurder (Note 1) paradigm to study the resource room as a discrete mechanism for service delivery in the Special Education program of Lake County, Illinois. Pyrch examined the efficacy of the model by assessing the impact of the attitudes of 110 regular classroom teachers concerning specialized knowledge and specialized personnel on their perception of the rate of service delivery by

14 resource room teachers. Pyrch generated and tested 18 hypotheses of which 16 were based on the Hurder (Note 1) model. The data were analyzed using simple correlation techniques.

Pyrch (1974) tested three hypothesized relationships pertaining to access variables. Staff ratio, based on objective data, was not found to be significantly related to the regular classroom teachers' perceived rate of service delivery, nor was a second access variable, time lapse between service request and service delivery. He did find, however, that the perceived availability of the resource room teacher was significantly related to the perceived rate of service delivery.

Pyrch's findings supported the hypothesized relationships between dispositional variables and the rate of service delivery. He found that regular classroom teachers perceived a higher rate of service delivery from resource room teachers whom they perceived as personable. He also found that teachers' attitudes toward the underlying concepts pertaining to resource room services were significantly related to perceived rates of service delivery. That is, teachers who recognized the importance of learning disabilities methods and techniques tended to think of resource room services as being more effective.

Pyrch (1974) also tested seven hypotheses within the perceptual field of the resource room teacher. This part of his study dealt with self-perceptions by the resource room teacher since they did not provide services to the classroom teacher. Five of the hypothesized relationships were parallel to hypotheses in the regular classroom teacher perceptual field and were based on the Hurder (Note 1) model.

Pyrch failed to obtain statistically significant correlations for any of the seven hypotheses, a fact which he attributed to the failure of his instrument adequately to discriminate among responses which showed little variability. However, it should be pointed out that these hypotheses do not derive logically from the Hurder (Note 1) paradigm in that the paradigm states that service flows from the producer to the consumer and clearly assumes the interactive nature of the relationship between the two. This failure to respect that basic assumption would appear to represent a fundamental limitation of the Pyrch (1974) study and may account for the lack of significant findings within the resource room teacher perceptual field.

Otuyelu's (1976) study proposed to determine what factors were related to the delivery of resource teachers' consultant services and whether the Hurder (Note 1) model could be used in the evaluation of their delivery. He generated and tested six hypotheses based on the Hurder (Note 1) model using correlational techniques. Eighty-one regular classroom teachers were asked to rate 9 resource teachers in the Rosthern and Saskatoon East rural school units (5200 students) with respect to their interpersonal relations, their performance and the amount of services provided. Otuyelu (1976) failed to obtain support for predicted relationships between the access variables, staff ratio and time lag, and service delivery. He speculated that the lack of significant findings with respect to staff ratio may have been the result of low variability in the sample (from 1:6 to 1:12). Otuyelu (1976) failed to obtain significant findings with respect to the predicted relationship between

the dispositional variable interpersonal relations and service delivery, however his results did support the predicted relationship concerning perceptions of resource teacher performance. Otuyelu (1976) dealt primarily with the perceptual field of the classroom teacher (service consumer) and his major finding was that performance was the single factor significantly related to the delivery of resource teacher services.

These studies, however, left some important questions unanswered. Sanche (1972) and Pynch (1974) investigated the relationship between certain access variables and service delivery posited by the Hurder paradigm. Sanche (1972) predicted that distance between the producer and consumer of a service would be inversely related to the perceived rate of service delivery. His findings failed to support the relationship with respect to the perceptual field of the teacher or to that of the special education consultant. He stated (p. 39) that this result was most likely attributable to the fact that the school system in which the study was carried out had made considerable effort administratively to provide equal access to consultant services, thereby reducing any anticipated variability. Pynch (1974) carried out his study with school-based staff, hence distance was not a factor. The present study is carried out in a sparsely populated rural area covering an area approximately four times the geographical size of the system studied by Sanche (1972). In addition, the sample selected for the present study is administered under four distinct jurisdictions with no administrative links other than through the administrative directives established by the provincial ministry of education. Thus, greater variability in the present sample with respect to the access variable "distance" is anticipated.

Sanche (1972), Pynch (1974) and Otuyelu (1976) investigated the relationship between the access variable "staff ratio" and service delivery within the perceptual field of the service consumer (classroom teacher). Sanche found the relationship to be significant while Pynch's findings and those of Otuyelu failed to substantiate a significant relationship. Sanche also investigated the relationship between staff ratio and service delivery within the perceptual field of the service producer (special education consultant). His findings failed to show significance, a fact which he attributed to the administrative structure which attempted to ensure equal access to the special education consultants by establishing variable staff ratios for each consultant. In the present study the staff ratios of the four districts vary widely thus an indication of the relationship between staff ratio and service delivery suggested by the Hurder paradigm is anticipated.

Neither Sanche's (1972), Pynch's (1974) nor Otuyelu's (1976) findings were able to substantiate a significant relationship between the time lag for service delivery and the perceived rate of service delivery. Time lag is the lapse in time between a consumer's (classroom teacher) request for service and the producer's (consultant/resource room teacher) fulfillment of the request. Since time lag would seem to be a function of both distance and staff ratio, it may well be that the lack of a significant relationship between this variable and the rate of service delivery in two of these studies (Sanche, 1972 and Pynch, 1974) can be attributed to the fact that distance and staff ratio were administratively equalized across the districts studied. In the present study,

as previously mentioned, no such administrative attempt at equalization is practised hence a greater variability is anticipated.

Distance, staff ratio and time lag are three important variables which pertain to the access to services. Pyrch (1974) studied another general access variable "availability", and found, as predicted on the basis of the Hurder paradigm, that teachers perceived a greater rate of service delivery from those resource room teachers whom they perceived as available when needed. The present study will investigate this general access variable further by seeing whether the perceived availability of the consumer (classroom teacher) to the producer (resource teacher) as well as the availability of the producer to the consumer are significantly related to the rate of service delivery as suggested by the Hurder paradigm.

The Hurder paradigm predicted that once access to services (or, potential service) has been achieved, then the final determinant of service delivery is disposition. Disposition variables are those variables which pertain to the acceptability or suitability of the service as seen by the consumer as well as the producer of the service.

Sanche's (1972) findings confirmed the effects of certain dispositional variables in the classroom teacher's perceptual field. That is, he found that a significant positive relationship existed between the teacher's perception of the consultant's ability in interpersonal relations and the teacher's perception of the rate of service delivery. He also found that the teacher's perception of the consultant's performance, or ability to carry out the assigned functions,

was significantly related to the teacher's perception of the rate of service delivery. These relationships remained significant when the effects of the access variables were removed. As mentioned above (p. 44 supra) Otuyelu (1976) obtained similar findings with respect to the performance variable.

Sanche (1972) found a significant positive relationship between the special education consultant's perception of the classroom teacher's ability in interpersonal relations and the consultant's perception of the rate of service delivery. He also found a significant positive relationship between the special education consultant's perception of the classroom teacher's performance and the consultant's perception of the rate of service delivery. However, when the effects of the access variables were removed in order to meet the requirements of the Hurder paradigm, (see p. 26, above) the relationship between consultant perceptions of service delivery and dispositional variables was no longer significant.

Pyrch's (1974) findings support those of Sanche (1972) with respect to the relationship between interpersonal relations and the rate of service delivery within the perceptual field of the classroom teacher. Pyrch's (1974) findings, however, failed to support the predictions with respect to the relationship between the criterion variable and the teacher's perception of the resource room teacher's competence, or ability to carry out certain functions pertaining to exceptional children. Some of the competencies investigated by Pyrch (1974) are similar to "performance" items investigated by Sanche (1972). It may

well be that the competencies of the resource room teachers in the Pyrch (1974) study were seen as less important to the regular classroom teachers because of the relatively minor role played by the resource room teacher with respect to the classroom teachers themselves. The resource room teachers in his study primarily provided direct services to children whereas the special education consultants studied by Sanche (1972) provided services to teachers. It would therefore seem reasonable to suggest that when the producer (resource teacher in the present study) provides service directly to a consumer (regular classroom teacher in the present study) the attitude of the consumer toward the producer's ability to carry out his task would have a significant impact on the rate of service delivery. Since a major part of the resource teacher's role, in the present study, is to provide services directly to teachers, it is anticipated that the perceived competence of the resource teacher will bear a significant positive relationship to the rate of service delivery.

Thus, the link between service delivery and the access variables so far is largely conceptual. One hypothesis of Sanche (1972) supports the link ("Staff Ratio") and one hypothesis of Pyrch (1974) ("Availability"), but even "availability" defined by Pyrch (1974) might have more disposition components as operationally defined by Pyrch (1974). The link between service delivery and the disposition variable has been supported in part by earlier studies, but as mentioned earlier, the findings to date have presented some inconsistencies. The lack of success in sustaining the hypotheses mentioned above may be due to methodological problems and sample selection rather than to theory.

A major element of the Hurder (Note 1) paradigm which was not examined directly by the earlier studies is the organization variable. The Hurder paradigm suggests that organization is a meta-service entity which encompasses and interacts with both access and dispositional variables.. This effect can be inferred from Sanche's (1972) findings with respect to the relationship between staff ratio (an access variable) and the perceived rate of service delivery, as mentioned earlier (Equal access to the consultants had been administratively assured). Pynch's (1974) findings indicate that certain teacher attitudes (disposition variable) towards resource room teacher services, such as the attitude of regular classroom teachers towards certain remedial reading techniques used by the resource room teacher, are significantly related to the perceived rate of service delivery. In this example as well, organization may be seen to act directly upon the variable. By means of inservice training a school district can provide its teachers with information about remedial reading techniques. This in turn could dispel fears held by the classroom teacher about the resource teacher's remedial methodologies and thereby improve service delivery. >

The administrative and organizational problems faced by school systems in rural and sparsely populated areas have been mentioned earlier (pp. 4-6 supra) and include both physical and human factors. The impact of some of these factors on rural service delivery within the context of the Hurder (Note 1) paradigm is examined in an exploratory way in the present study.

Hurder (Note 1) has speculated that in larger organizations the A-P objective (staff, program, etc) is emphasized whereas in smaller organizations the C-P objective (service to the individual consumer) receives more emphasis. While larger systems would no doubt maintain that they too are concerned with the actual services received by individual consumers, it is safe to say that the central office staff in large organizations are less exposed to the individual consumer. In a small rural school district, however, the individual consumer is more likely to be personally known to the administrative staff and the actual services delivered take on a much more direct, personal nature.

The present study will investigate the effect of the organization variable on service delivery as posited by the Hurder paradigm. Five items in the Data Collection Instrument (DCI) used in the present study pertain to the organization of services for children with learning difficulties. Two of these items concern the resource teacher model used (see DCI #27 and #28, Form A), one item concerns the support services available (see DCI #29 Form A) and two items concern the commitment by local and district level administrators to the resource teacher program (see DCI #30 and #31, Form A). It is anticipated that the findings will lend further support to the Hurder paradigm by demonstrating a link between certain organizational practices and the rate of service delivery for exceptional children.

With the exception of the Otuyelu (1976) study, the above-mentioned studies were carried out in relatively densely populated districts in the States of Iowa and Illinois. The Joint County School System (JCSS)

studied by Sanche (1972) comprised a student enrollment in excess of 75,000 whereas the total student enrollment in the four districts comprising the present study is less than 8,000 in an area about four times as large as that of the JCSS. The JCSS consists of a number of large, densely populated urban centred school districts. In sharp contrast the school districts comprising the present study are much smaller organizations each serving a large, rural, sparsely populated area.

#### Purpose of the Study

The primary purpose of the present study is to determine the validity of the Hurder (Note 1) paradigm by investigating the working relationships between the resource teacher and classroom teachers in the delivery of services to exceptional children in rural Quebec.

The study will investigate further the relationship between access variables, disposition variables and service delivery posited by the Hurder (Note 1) paradigm. The study will also investigate an additional element of the paradigm, namely, the organization variable influencing service delivery.



HypothesesClassroom Teachers' Perceptual Field

1. In rural areas, there is a significant negative relationship between distance and teacher perceived rate of service delivery.
2. In rural areas, there is a significant positive relationship between staff ratio and teacher perceived rate of service delivery.
3. In rural areas, there is a significant negative relationship between service delivery time lag and teacher perceived rate of service delivery.
4. In rural areas, there is a significant positive relationship between teacher perceived availability of the resource teacher and teacher perceived rate of service delivery.
5. In rural areas, there is a significant positive relationship between teacher perceptions of interpersonal relations and teacher perceived rate of service delivery.
6. In rural areas, there is a significant positive relationship between teacher perceptions of performance and teacher perceived rate of service delivery.
7. In rural areas, there is a significant positive relationship between teacher perceptions of organization and teacher perceived rate of service delivery.

Resource Teachers' Perceptual Field

8. In rural areas, there is a significant negative relationship between distance and resource teacher perceived rate of service delivery.
9. In rural areas, there is a significant positive relationship between staff ratio and resource teacher perceived rate of service delivery.
10. In rural areas, there is a significant negative relationship between service delivery time lag and resource teacher perceived rate of service delivery.
11. In rural areas, there is a significant positive relationship between resource teacher perceived availability of the regular classroom teacher and resource teacher perceived rate of service delivery.
12. In rural areas, there is a significant positive relationship between resource teacher perceptions of classroom teacher interpersonal relations and resource teacher perceived rate of service delivery.
13. In rural areas, there is a significant positive relationship between resource teacher perceptions of teacher performance and resource teacher perceived rate of service delivery.
14. In rural areas, there is a significant positive relationship between resource teacher perceptions of organization and resource teacher perceived rate of service delivery.

### Operational Definitions

Resource Teacher - a broadly-trained specialist and certified teacher, a major part of whose responsibility is to work in a collaborative facilitative role with regular classroom teachers.

Data Collection Instrument - A semantic differential scale adapted and modified from Thomure (1971), Sanche (1972), Pynch (1974), and used to gather data for the present study (See Appendix A).

### Criterion Variables

Teacher Perception of Rate of Service Delivery - The sum of the totals professional interactions between the resource teacher and the classroom teacher and children. This includes services at the classroom teacher's request and at the resource teacher's initiative for the three terms of the school year, as estimated by the classroom teacher. That is, the sum of all responses for items #32, 33, Form A.

Resource Teacher Perception of Rate of Service Delivery - The sum of the totals of professional interactions between the resource teacher and the classroom teacher and children. This includes services at the classroom teacher's request and at the resource teacher's initiative for the three terms of the school year. These estimates by the resource teacher are based on available logs kept by the resource teacher. The sum represents the total of all responses for items #32, 33, Form A.

### Access Variables

Distance - The time required to travel between the resource teacher's principle office or location and the school in which service is being rendered to the regular classroom teacher.

Staff ratio - Ratio of resource teachers to regular classroom teachers.

Service delivery time lag - The time lag in days between the time that a request for resource teacher service was made by a regular classroom teacher and the time that the service was provided by the resource teacher. Classroom teacher perceptions of the time lag refer to Form A, item 34 and resource teacher perceptions of the time lag refer to Form B, item 29 of the Data Collection Instrument.

Availability - The perception that the teacher, or the resource teacher, is always available for consultation when needed. Classroom teacher perceptions of availability refer to Form A, item 26, and resource teacher perceptions of availability refer to Form B, item 26.

### Disposition Variables

Teacher Perceptions of Interpersonal Relations - Regular classroom teacher ratings of resource teacher interpersonal relations (the average of scores on Form A part 1, questions 1-10 of the data collection instrument).

Resource Teacher Perceptions of Interpersonal Relations - Resource teacher ratings of the regular classroom teacher's interpersonal relations (the average of scores on Form B, part 1, items 1-10 of the data collection instrument).

Teacher Perceptions of Performance - Regular classroom teacher ratings of resource teacher competence in specific areas of knowledge and in the performance of specific tasks (Form A, part 2, the average of scores on questions 11-26 of the data collection instrument).

Resource Teacher Perceptions of Performance - Resource teacher ratings of the regular classroom teacher's competence in specific areas of knowledge and in the performance of specific tasks (Form B, part 2, the average of scores on questions 11-26 of the data collection instrument).

#### Organization Variables

Teacher Perceptions of Organization - Regular classroom teacher ratings of factors pertaining to the organization of programs and service for children with learning difficulties in their own teaching situation (the average of scores on Form A, items 27-31 of the data collection instrument).

Resource Teacher Perceptions of Organization - Resource teacher ratings of factors pertaining to the organization of programs and services for children with learning difficulties in the school of the regular classroom teacher being rated (the average of scores on Form B, part 4, items 1-5 of the data collection instrument).

## CHAPTER III

## RESEARCH METHODS

Population and Sample

For purposes of the present study it was necessary to select a jurisdiction which was large enough to provide suitable numbers of rural schools using the resource teacher model of service delivery. It was also considered useful to have a jurisdiction large enough to obtain districts with a variety of instructional and support services in order to test the Hurder (Note 1) paradigm with respect to organizational variables which might effect service delivery.

The jurisdiction selected was the Province of Quebec, Canada, in which a provincial ministry of education provides services through 9 regional offices. The regional offices provide liaison and administrative support for a number of regional and local school boards identified on a confessional basis as Roman Catholic or Protestant for instructional purposes.

The Protestant school boards selected for the present study provide instruction in the English language, for the most part, and constitute a minority (less than 20%) of the province's population. More than half of the English-speaking Protestant population lives on the Island of Montreal and is served by three large urban school boards having student populations (elementary and secondary) ranging from approximately 8,000

to 40,000. The rest of the English, Protestant population lives off the Island of Montreal and, with the exception of some schools within the off-island metropolitan area close to Montreal, are widely scattered in small English-speaking communities or in small pockets of English people in larger French-speaking communities. Much of this population is rural and is situated in varying degrees of remoteness and isolation with respect to the major urban centre of Montreal.

Of the fifteen Protestant school boards serving the needs of the English-speaking minority off the Island of Montreal, all of them had small elementary rural schools within their jurisdictions. None of these rural elementary schools had more than 250 students. Of the 15 school boards studied, five were identified as using the resource teacher model of service delivery, and one of these was excluded from the study because of the author's role in initiating and developing the model in that district.

Three of the four school boards studied offered services to both elementary and secondary level students, the fourth board offering elementary education only. The study was limited to the elementary level and a total of five resource teachers were identified as meeting the criteria for resource teacher as defined in the present study. Two of the resource teachers were school-based and three were itinerant. In the case of the itinerant resource teachers, two of them served in excess of 50 teachers each which would have made application of the DCI to all of their teachers inordinately time consuming and demanding for the resource teachers themselves. In those two cases, schools were selected by the

special education administrator, taking into account the amount of time needed for the study, constraints imposed by teacher union and school board relations in the wake of a particularly difficult period of labour negotiations and other considerations of a practical nature.

Seventy-two classroom teachers received services from the 5 resource teachers, thus there were 72 possible classroom teacher ratings of resource teachers and 72 possible resource teacher ratings of classroom teachers. Since only 5 resource teachers provided the 72 ratings of the classroom teachers, this could affect the outcomes of the present study. It was assumed, nonetheless that resource teachers, who worked closely with the classroom teachers, were able to rate them independently, thus providing for 72 independent resource teacher ratings of classroom teachers.

#### Data Collection Instrument (DCI)

The Data Collection Instrument (or, DCI) used in the present study is a four part questionnaire in which form A is provided for classroom teachers and form B for resource teachers (see Appendix A). Part I, 10 items, of both forms, measured perceptions of interpersonal/personal relations; part II, 16 items, of both forms, measured perceptions of competence in the area of knowledge and performance of specific tasks; part III of form A and part IV of form B, 5 items, measured perceptions of factors in the organizations of programs and services; and part IV of form A and part III of form B, consisted of 3 items pertaining to estimates of the amount of services delivered and the time lag between

service request and delivery. Additional comments are invited from the respondents on a final page of the DCI.

The four parts of the DCI and the items contained in each part are shown in Table 2. The first two parts of the DCI have been adapted from the Data Collection Instrument (Thomure, 1971) used to measure perceptions of supervisory behavior in a national sample of supervisors of teachers of the deaf. These parts of the instrument developed by Thomure (1971) have been modified so as to include only those items which are relevant to resource teachers as defined in the present study. Interpersonal/Personal characteristics items in part I have been used by Sanche (1972) in a study of consultant behavior as perceived by teachers of the educable mentally retarded and these items were also used by Pynch (1974) in a study which investigated classroom teacher attitudes toward the resource room as a means of service delivery. The ten items in part I are virtually unchanged from the Thomure (1971) instrument.

TABLE 2

## DATA COLLECTION INSTRUMENT (DCI) LIST SHOWING SECTION AND ITEM CONTENT

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Interpersonal/Personal  
 (Part I, Forms A and B)

1. Receptive Communication
2. Expressive Communication
3. Sensitivity
4. Receptivity to Change
5. Flexibility
6. Self Confidence
7. Reliability
8. Initiative
9. Enthusiasm
10. Creativity

Organization of Programs Services for Children with Learning Difficulties  
 (Part III, Form A; Part IV, Form B)

1. Resource Teacher Role
2. Mainstreaming
3. Support Services  
(Psychologist, etc.)
4. Administrative Support,  
School Level
5. Administrative Support,  
District Level

Service Delivery

(Part IV, Form A; Part III, Form B)

1. Services to Teachers
2. Services to Children
3. Service Delivery Time Lag

Competence in knowledge areas and performance of specific tasks (Part II, Forms A and B)

1. Teaching Special Skills
2. Curriculum Development,  
Children with Learning  
Difficulties
3. Child Development, General
4. Psycho-Social Development,  
Children with Learning  
Difficulties
5. Diagnosis and Assessment  
of Learning Problems
6. Remediation of Emotional  
Problems
7. Remediation of Learning  
Problems
8. Planning
9. Thoroughness
10. Communication,  
Organizational
11. Program Evaluation
12. Community Relations
13. Parent Relationships
14. Classroom Observation  
Activities
15. Consultations with  
Teachers/Resource Teacher

Availability

 (Part II, Item 26, Forms A  
and B)
 

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The second part of the instrument dealing with the perception of competence in specific areas of knowledge and in the performance of specific tasks is modelled after the Thomure (1971), Sanche (1972) and Pyrch (1974) instruments, but a number of modifications were necessary. Since Thomure's (1971) instrument dealt with supervisors of teachers of the deaf, terms such as "deaf" children were changed by Sanche (1972) to "EMR" children and by Pyrch (1974) to "handicapped" children. In the present study, "children with learning difficulties" is used. The term "children with learning difficulties" is felt to be more appropriate to the broader classification of children having some form of special need, learning disability or handicap as encountered by the resource teacher serving the needs of both "regular" and "special education" children and class teachers. Further, since all of the rural schools studied have very little access to a broad range of categorical special classes, the term "children with learning difficulties" is more descriptive and inclusive hence less confusing to the respondents.

In addition to modifying specific terms to correspond to the rural resource teacher situation under investigation, it was also necessary to modify the content of the items in order to reflect the nature of the competencies of resource teachers. Thomure (1971) used 8 items referring to "specific areas of knowledge possessed by the supervisor" and another 15 items referring to "performance of specific tasks" (pp. 64 & 66), and this division into "knowledge" and "performance" areas was also used by Pyrch (1974). Descriptions used to characterize the bi-polar adjectives used in the scale, however, indicate that this distinction between

"knowledge" and "performance" may have been little more than semantic in nature. For example, in the area of "KNOWLEDGE", frequent use is made of the description "demonstrates knowledge of approaches (techniques, etc.)". Sanche (1972) has resolved this matter by referring to both "knowledge" and "performance" simply as "PERFORMANCE" (Sanche 1972, p.58).

In the present study the instrument is intended to reflect the concept of competencies required of classroom teachers, special education teachers and resource teachers in teaching children with learning difficulties. These competencies must include both demonstrated knowledge and the performance of specific pertinent tasks. Thus, the instrument used in the present study combines the two concepts in part II, consisting of 16 items, referred to in Table 1 as Competence in knowledge areas and performance of specific tasks.

The first eight items in this part are derived from the Thomure (1971) instrument and were also used by Pynch (1974). Changes in the wording of polar adjectives and changes in the descriptions of the adjectives were made to render them more appropriate to the context of the present study. These eight items refer to a broad base of general knowledge requisite to the instruction of children with learning difficulties. In the DCI developed for the present study, the titles of items 6 & 7 highlight remediation and item 5 highlights diagnosis and assessment, both of which are seen as important in resource teacher competencies. A number of supervisory functions were included in the Thomure (1971) and Sanche (1972) instruments which are not pertinent to the resource teacher model in the present study, hence, "delegation of

duties", "staff participation in goal setting" and a number of similar items were deleted.

The remaining items pertaining to competence in the present instrument were adapted from the Thomure (1971), Sanche (1972) and Pynch (1974) instruments to reflect all of the major competencies of resource teachers suggested by the literature. The clusters of resource teacher competencies derived from current literature on the subject by Neely (1979) were carefully reviewed and compared with the competency items in Thomure (1971), Sanche (1972) and Pynch (1974). Further, refinements to the wording of items in the earlier instruments were made in order to reflect the collaborative, facilitative role of the resource teacher.

Review of the first draft of the instrument was made by 1) resource teachers working in rural areas and 2) special education teacher education personnel familiar with rural areas. While some minor refinements to the wording of various items were suggested, one item needed modification and emphasis. This item (DCI #22) pertained to community relations. While Thomure (1971) and Sanche (1972) both included items on "public relations", it was the strong feeling of the knowledgeable rural educators consulted that in order for any rural consultant to be effective, a clear understanding and respect for local community needs and values is essential. According to these sources and the personal experience of the author, the resource teacher in rural areas must be seen by those with whom he/she works as aware of and sensitive to local needs and values, hence the wording of item #22.

The part of the instrument dealing with organization of programs and services for children with learning difficulties contains five items considered by the author to be important organizational factors in rural resource teacher service delivery. Pynch (1974) found significant relationships between perceived rate of service delivery and teacher attitudes towards the role of the resource teacher, and mainstreaming. Teacher attitudes, the provision of backup services and administrative support were found to be important organizational factors in resource teacher service delivery using the SEECC model in Saskatchewan (McLeod et al., 1979).

The scale used in the DCI is a seven point semantic differential scale with bi-polar adjectives which identify extremes of judgment, each point on the scale representing a level of intensity and direction of the judgment of the respondent (Osgood, Suci, and Tannebaum, 1969). Each item contains a heading which identifies the topic, bi-polar adjectives which indicate the appropriate logical extremes of opinion, and descriptions which provide clarification of the extreme positions. The response is indicated in one of seven positions shown including a neutral mid-point marked "N". Directions to the respondents include an explanation of the semantic differential scale and an example.

Thomure (1971) obtained reliability coefficients of from .713 to .946 on the sub-sections of his instrument, while Sanche (1972) obtained ratings of .979 to .988 and Pynch (1974) obtained ratings of .847 to .940 on the first two parts of the instrument (Interpersonal/Personal Relations and Performance). These data are presented in Table 2 and are based on the Horst (1949) procedure (Thomure, 1971, pp 30, 72-73; Sanche, 1972, p. 44; Pynch, 1974, p. 42).

TABLE 3

COEFFICIENTS OF RELIABILITY FOR THE THOMURE DCI USING HORST PROCEDURE  
AS REPORTED BY THOMURE (1971), SANCHE (1972) AND PYRCH (1974)

Category	Thomure <sup>a</sup>	Sanche <sup>b</sup>		Pyrch <sup>c</sup>	
		Form A/Form B	Form A/Form B	Form A/Form B	Form A/Form B
I Interpersonal/Personal	.924	.985	.987	.940	.847
II Command of Knowledge	.713	not tested		.919	.858
III Performance of Administrative Functions	.787			not tested	
IV Performance of Direct Supervisory Functions	.849	.979	.988	not tested	

Note: a) From "Supervisory behavior as perceived by academic teachers in schools for deaf children" by F.E. Thomure, 1971, p. 30.

b) From "Delivery of consultant services as perceived by teachers of the educable mentally retarded" by R.P. Sanche, 1972, p. 44.

c) From "Analysis of the resource room as a discrete mechanism of service delivery" by O.S. Pyrch, 1974, p. 42.

Because Part I (Form A & B) of the present DCI is virtually the same as that of the Thomure (1971) instrument and Part II (Form A & B) contains most of Thomure's (1971) items with modifications to the descriptions given and added items to reflect the content of the resource teacher functions, there is reason to believe that the instrument will be reliable in the present context.

Content validity of the present DCI was assumed after preliminary versions were submitted for critical review and suggestions to knowledgeable, experienced educators and teachers, as mentioned earlier (p. 64 supra). Construct validity stems from the work of Thomure (1971), Sanche (1972), Pynch (1974) and from the present study and is evidenced by the fact that the theoretical bases of the studies cited have been supported through use of the instrument.

#### Data Collection Procedures

The first contact with school boards was used to determine whether the resource teacher model was being used in the delivery of services to exceptional children. For each of the four school boards so identified a follow-up visit was made to the administrator responsible for special education services in order to explain the purpose of the research and obtain approval for the undertaking of the study within each jurisdiction. This was followed by a formal request to senior administrators in cases where this was advised by the special education administrator.

A subsequent meeting was then held with the resource teacher in order to describe the project and explain just how much of her time would be involved in participating in the project. Participation in the project implied a considerable expenditure of time and effort by the resource teachers, and their good will and voluntary participation in the project were essential. The high level of interest and support for the project shown by the resource teachers was reflected in the willingness with which they undertook the time-consuming task of completing the DCI's of the several teachers they were rating.

A DCI was distributed to each classroom teacher served by the resource teacher by visiting the schools concerned, meeting the Principal and, in several cases, meeting the teachers to briefly describe the nature of the intended research. Letters to teachers and resource teachers accompanied the DCI (see appendix D) and stamped, addressed envelopes were provided for the return of the DCI.

Because the DCI was distributed to schools as late as the third week in June immediately prior to the summer break, it was anticipated that some teachers might not have time to respond. Thus, in September, a follow-up letter was sent to everyone whose response had not been received. This follow-up increased the rate of participation, and at the same time revealed that many responses had fallen prey to a labour dispute and subsequent problems in the postal service, the DCI's having been posted but never received. Finally, data pertaining to the qualifications, experience and age of each of the participants were obtained by contacting the school boards. All data were then placed on

master lists and entered as raw data using Wylbur semi-interactive language on the computer terminals at the University of Ottawa.

#### Treatment of the Data

For purposes of scoring the first three parts of the Data Collection Instrument, Form A and Form B, the semantic differential scale was transformed to numerical values by assigning values of 1, 2, 3, 4, 5, 6, and 7 to the seven steps of each item. In each case 1 was the value assigned to the blank closest to the negative adjective and 7 was assigned the blank closest to the positive adjective. Each item in parts I, II and III was scored in this manner and the average for each of these subsections was found (I- interpersonal relations; II- performance; III- organization).

SPSS (Statistical Package for the Social Sciences) programs were used in subjecting the data to correlational analysis (Pearson Product Moment Correlation) in testing hypotheses 1-14. Within the classroom teachers' perceptual field (hypotheses 1-7) the criterion variable was teacher perceived rate of service delivery, whereas within the resource teachers' perceptual field (hypotheses 8-14) the criterion variable was resource teacher perceived rate of service delivery. The access variables distance and staff ratio were obtained from information gathered from the central office of each school district. The access variables time lag and availability were obtained from the responses to the DCI and represent perceptual data of the respondents.

In order to test hypotheses 7 and 14 more fully, data concerning the number of specialists in the pupil personnel services (PPS) staff were obtained from the central offices of the school districts concerned. These data were then entered and additional correlational analyses were performed. All correlations were tested at the .05 level of significance.

Finally the data for Form A and Form B were analysed separately using SPSS programs to establish the reliability of each form.

## CHAPTER IV

## RESULTS and DISCUSSION

Returns

Every attempt was made in the present study to obtain a high rate of return. Given the geographic distribution of the schools, labour strife in the teaching ranks at the time and a postal strike, many barriers had to be overcome. Table A presents the number of regular classroom teachers and resource teachers in the original sample and shows the rate of return.

TABLE 4

## RATE OF RESPONSE BY DISTRICT AND FORM USED

District	Form A Classroom Teachers			Form B Resource Teachers		
	Sample Size	No. of Useable Responses	Rate	No. of Resource Teachers	No. of Ratings of Classroom Teachers	Rate
1.	16	16	100%	2	16	100%
2.	12	8	67%	1	12	100%
3.	13	11	85%	1	13	100%
4.	31	22	71%	1	31	100%
TOTAL	72	57	79%	5	72	100%

A good initial rate of return was realized, however a follow-up letter was sent and telephone calls were made to some of the schools. This resulted in the discovery that many of the missing forms had been sent by the teachers and subsequently lost in the mail. In one case all of the returns for one school (12 teachers) had been mailed in one package and subsequently lost in the mail. In this case, a second mailing was made to the school concerned and the teachers consented to fill out the questionnaires a second time.

Of the 16 classroom teachers' returns which were not useable, 13 were missing and three were returned incomplete with an explanation that the resource teacher's services did not apply to their teaching situation. Thus a high rate of return from classroom teachers was realized (78% useable).

The 5 resource teachers completed questionnaires rating each of the teachers (72 in all) to whom they provided services. Telephone calls were made to individual resource teachers to clarify any ambiguous responses or to gather data on any missing responses. The rate of useable returns from resource teachers was 100%.

#### Reliability of the Instrument

The reliability of the Thomure (1971), Sanche (1972) and Pynch (1974) data collection instruments has been mentioned earlier (p. 60). Spearman-Brown split-half co-efficients were computed for Parts I, II and III of Forms A and B to estimate the reliability of the scales. The results are shown in Table 5.

TABLE 5

RELIABILITY OF THE THREE PARTS OF FORM A AND FORM B  
OF THE DCI USED IN THIS STUDY

Form	Spearman-Brown Split-half co-efficient
Form A <sup>a</sup> (Classroom Teachers)	
I	0.862
II	0.871
III	0.802
Form B <sup>b</sup> (Resource Teachers)	
I	0.924
II	0.883
IV	0.449

a) n=52

b) n=72

Part I of the DCI used in the present study was derived from Part I of the Thomure (1971), Sanche (1972) and Pynch (1974) instruments as shown in Table 3, and the obtained co-efficients of reliability are similar. Part II of the DCI used in the present study has been derived from Parts II, III and IV of the Thomure (1971) instrument, and from Part II of the Sanche (1972) and Pynch (1974) instruments with the limitations mentioned earlier (pp. 55-60).

The reliability of Part II of the DCI used in the present study also compares favorably with the reliability of the instruments used by the above-mentioned researchers.

Part III of Form A and Part IV of Form B of the DCI represent organization items not covered by the above-mentioned investigators. The co-efficient of reliability for Part III of Form A is within reasonable limits, however the co-efficient of reliability for Part IV of Form B is

considerably lower. Whereas Part III has a degree of reliability with the classroom teacher group (Form A), the reliability with the resource teacher group (Form B) is too low and suggests a lack of internal consistency within the five items comprising the scale. These five items therefore will be reviewed individually in testing hypothesis 14.

Data for this study were analyzed from two separate perceptual fields, namely, that of the consumer of services (classroom teacher) and that of the producer of services (resource teacher). Hypotheses 1-7 pertain to the perceptual field of the classroom teacher and the data were obtained from classroom teacher responses to Form A of the DCI. Hypotheses 8-14 pertain to the perceptual field of the resource teacher and the data were obtained from resource teacher responses to Form B of the DCI. Means and standard deviations for each variable are appended (Appendix G).

#### Classroom Teachers' Perceptual Field

##### Results

Within the teachers' perceptual field, hypotheses 1-4 pertain to access variables, hypotheses 5 and 6 pertain to dispositional variables and hypothesis 7 pertains to organization variables. Table 6 provides a breakdown of the results of the testing.

1. In rural areas, there is a significant negative relationship between distance and teacher perceived rate of service delivery.

Hypothesis 1 predicts that as distance increases, the rate of service delivery perceived by the teacher decreases. Distance is operationally defined as the time required to travel between the resource

TABLE 6

PEARSON PRODUCT-MOMENT CORRELATIONS BETWEEN ACCESS, DISPOSITION AND ORGANIZATION VARIABLES AND CRITERION VARIABLE: CLASSROOM TEACHERS' PERCEPTUAL FIELD

Variable	Services Delivered																							
	1 Total		2 Teachers		3 Children		4 To Teachers: their request		5 To children: teacher's request		6 Term 1		7 Term 2		8 Term 3									
n	r	p	r	p	r	p	r	p	r	p	r	p	r	p	r	p	r	p						
1. Distance	72	-0.371	.005	-0.414	.001	-0.209	.079	-0.483	.000	-0.240	.050	-0.452	.001	-0.244	.048	-0.439	.000							
2. Staff ratio	72	0.511	.000	0.534	.000	0.320	.014	0.562	.000	0.361	.006	0.567	.000	0.389	.003	0.571	.000							
3. Time lag	37	-0.214	.112	-0.369	.012	0.026	.441	-0.387	.009	-0.012	.474	-0.333	.025	-0.046	.396	-0.279	0.049							
4. Availability	52	0.275	.031	0.259	.033	0.186	.105	0.306	.015	0.198	.088	0.326	.011	0.177	.115	0.298	.018							
<u>DISPOSITION</u>																								
5. Interpersonal	53	0.378	.004	0.351	.006	0.258	.040	0.372	.004	0.239	.051	0.369	.005	0.306	.017	0.380	.003							
6. Performance	52	0.430	.001	0.413	.001	0.283	.027	0.443	.000	0.262	.036	0.406	.002	0.353	.007	0.445	.001							
<u>ORGANIZATION</u>																								
7. Organization	53	0.299	.021	0.291	.019	0.171	.125	0.328	.009	0.165	.131	0.272	.030	0.245	.047	0.276	.027							

teacher's principle office and the school concerned. The distance variable was ranked in four categories: 1) school based; 2) less than 1 hour travel required; 3) 2-4 hours travel required; and 4) more than 4 hours travel required. Thirty-two per cent of the cases fell into the first category, 55% fell into the second category and 13% fell into the third category. No cases fell in the fourth category.

The perceived rate of service delivery variable was operationally defined as the total of all professional interactions including services both to teachers and to students over the period of one year.

The obtained Pearson product-moment correlation ( $r=-0.371$ ) was significant at the .005 level. This indicates a significant negative relationship between distance and the criterion variable, teacher perceived rate of service delivery and the hypothesis is therefore supported:

This result lends support to the Hurder paradigm where Sanche (1972) and Pyrch (1974) failed to obtain significant findings. As anticipated, the wider dispersal of resource teachers and classroom teachers enabled a more complete study of the distance variable.

2. In rural areas, there is a significant positive relationship between staff ratio and teacher perceived rate of service delivery.

Hypothesis 2 predicts that as the ratio of resource teacher to classroom teacher increases, there is an increase in the rate of service delivery perceived by the classroom teacher. The obtained correlation ( $r=0.511$ ) is significant at the .0001 level and the hypothesis is supported.

Sanche (1972) had similar findings whereas Pyrch (1974) failed to obtain support for his hypothesis.

3. In rural areas, there is a significant negative relationship between service delivery time lag and teacher perceived rate of service delivery.

Hypothesis 3 predicts that as the lapse in time increases between a request for service and its delivery, the perceived rate of service delivery decreases.

Perceived time lag was ranked in four intervals: 1) less than 1 day; 2) 2-5 days; 3) 6-20 days; and 4) more than 20 days.

The obtained correlation ( $r=-0.214$ ) was not significant at the 0.05 level. Although the correlation is negative, the level of significance does not permit acceptance of the hypothesis. Sanche (1972) and Pyrch (1974) obtained similar results.

A more detailed analysis of the data was performed by breaking down service delivery (the criterion variable) into 1) services provided to the teacher and 2) services provided to children. The obtained correlation between time lag and services provided to teachers ( $r=-0.369$ ) is significant at the .012 level, while the correlation between time lag and services to children is not significant.

A further breakdown of the criterion variable was performed by selecting only services provided to teachers which they had requested (as opposed to services provided on the resource teacher's initiative). The obtained correlation between time lag and service to teachers requested by the teachers themselves ( $r=-0.387$ ) is significant at the .008 level.

That time lag in resource teacher services to children is not significantly related to the teacher perceived rate of service delivery is not surprising if one keeps in mind the fact that the primary role of the resource teacher in this study is to provide services to teachers.

Finally, a breakdown of the criterion variable into services provided in the first, second and third terms was performed. The obtained correlations for the first ( $r=-0.333$ ) and third ( $r=-0.279$ ) terms are significant at the .025 and .049 levels respectively. The obtained correlation for the second term was not significant.

Thus, although the test of the hypothesis using the total of resource teacher services delivered as the criterion variable fails to support the hypothesis, nonetheless the trend of the data supports a negative relationship, and, some components of the total services delivered are significantly correlated with time lag.

A. In rural areas, there is a significant positive relationship between teacher perceived availability of the resource teacher and teacher perceived rate of service delivery.

Hypothesis 4 predicts that the more a resource teacher is seen to be available when needed, the greater is the perceived rate of service delivery. Availability as used here is a general access variable which encompasses both physical and human factors in one perceptual rating.

The obtained correlation ( $r=0.275$ ) is significant at the .03 level and the hypothesis is supported. This finding is similar to that of Pyrch (1974).

The first four hypotheses posit relationships with respect to access variables within the perceptual field of the classroom teachers. The access variables distance, staff ratio and availability indicate a significant relationship with the rate of service delivery, while time lag does not. At the same time, however, the access variable time lag is seen to bear a significant relationship to important components of the criterion variable as posited by the Hurder paradigm.

5. In rural areas, there is a significant positive relationship between teacher perceptions of interpersonal relations and teacher perceived rate of service delivery.

Hypothesis 5 predicts a positive relationship between teacher perception of resource teacher interpersonal relations (a dispositional variable) and the criterion variable. The obtained correlation ( $r=0.379$ ) is significant at the .004 level and the hypothesis is supported.

This finding further confirms the findings of Sanche (1972) and Pynch (1974) both of whom obtained significant correlations between classroom teacher perceptions of the resource teacher's interpersonal relations and the rate of service delivery.

6. In rural areas, there is a significant positive relationship between teacher perceptions of performance and teacher perceived rate of service delivery.

Hypothesis 6 predicts a positive relationship between the resource teacher's competence, in specific areas of knowledge and ability to perform certain tasks (a dispositional variable) and the criterion. The correlation obtained ( $r=0.43$ ) is significant at the .001 level and the

hypothesis is supported. Sanche (1972) found support for a significant positive relationship between teacher perceptions of consultant performance and rate of service delivery (Sanche, 1972, p. 5). Pynch's (1974) findings failed to support a similar hypothesis.

The relationship between disposition variables and service delivery was investigated by hypotheses 5 and 6. The results provide further support for this element of the Hurder paradigm which posits that the attitudes of the service consumer towards the service producer have a bearing on service delivery.

7. In rural areas, there is a significant positive relationship between teacher perceptions of organization and teacher perceived rate of service delivery.

Hypothesis 7 predicts a positive relationship between factors relating to the organization of programs and services for children with learning difficulties and the criterion. The correlation obtained ( $r=0.299$ ) is significant at the .02 level.

The organization variable consists of 5 factors thought to be important in the organization of programs and services for children with learning difficulties in each school. The data represent the classroom teacher's perception of the level of organization support, based on the seven point semantic differential scale used in the DCI.

Earlier discussion (pp. 34-36) has indicated the relationship that exists, in theory, between organization and service delivery. Since other researchers have not investigated this relationship, these findings are particularly useful as support for this element of the Hurder paradigm.

Additional analysis of this relationship may be useful. Table 7 presents the correlations obtained between the organization variable and various components of the service delivery (criterion) variable. Except for services delivered to children, organization correlates with the criterion variable components at the .05 level or better and the hypothesis is supported.

TABLE 7

CORRELATIONS BETWEEN ORGANIZATION VARIABLE AND VARIOUS COMPONENTS OF SERVICE DELIVERY: CLASSROOM TEACHERS' PERCEPTUAL FIELD

Service Delivery Component	Correlation	Significance
	r	P
Services delivered (total)	0.299	0.021
Services to teachers	0.291	0.019
Services to children (total)	0.174	0.125
Services to teachers at teachers' request	0.328	0.010
Services to children at teacher's request	0.165	0.131
Services during first term	0.271	0.030
Services during second term	0.245	0.047
Services during third term	0.276	0.026

n=47

The organization variable can be further analyzed by breaking it down into its individual items and obtaining correlations with the criterion variable (Table 8).

TABLE 8  
 CORRELATIONS BETWEEN ORGANIZATION ITEMS AND THE CRITERION  
 VARIABLE: CLASSROOM TEACHERS' PERCEPTUAL FIELD

Organization Items	Rate of Service Delivery		
	n	r	p
1. Resource teacher role as support to classroom teacher.	47	0.449	0.001
2. Mainstreaming as an important system objective	47	0.276	0.030
3. Specialist support services are available	47	-0.067	0.328
4. School Principal supports the resource teacher program	47	0.234	0.057
5. Regional administrator supports the resource teacher program	49	0.194	0.096

Two of the items had significant positive correlations while the remaining items were not significant. One item, however, is opposite to the direction hypothesized. Factual data for this item "availability of support services or pupil personnel services" were available and a further testing of this item using this factual data obtains a correlation ( $r=-0.247$ ) significant at the .047 level (Table 9). This suggests that teachers perceive a higher rate of resource teacher service delivery where special support services are fewer.

TABLE 9

CORRELATIONS BETWEEN THE VARIOUS COMPONENTS OF SERVICE DELIVERY  
AND FACTUAL DATA ON AVAILABLE SUPPORT SERVICES (PPS):  
CLASSROOM TEACHERS' PERCEPTUAL FIELD

Service Delivery Component	Available Support Services	
	r	p
Services delivered (total)	-0.247	.047
Services to teachers	-0.126	.190
Services to children (total)	-0.293	.023
Services to teachers at teachers' request	-0.168	.119
Services to children at teacher's request	-0.244	.047
Services during first term	-0.185	.102
Services during second term	-0.283	.026
Services during third term	-0.243	.045

n=47

#### Resource Teachers' Perceptual Field

##### Results

Hypotheses 8-14 pertain to the resource teachers' perceptual field. Hypotheses 8-11 pertain to access variables, hypotheses 12 and 13 pertain to disposition variables and hypothesis 14 pertains to the organization variable.

The criterion variable in all cases is the total number of professional interactions between the resource teacher and classroom teachers and students as estimated by the resource teacher. Table 10 presents a breakdown of the results of the testing.

8. In rural areas, there is a significant negative relationship between distance and resource teacher perceived rate of service delivery.

Hypothesis 8 predicts that there is a negative relationship between distance and the rate of service delivery perceived by the resource

TABLE 10

PEARSON PRODUCT-MOMENT CORRELATIONS BETWEEN ACCESS, DISPOSITION AND ORGANIZATION VARIABLES AND CRITERION VARIABLE: RESOURCE TEACHERS' PERCEPTUAL FIELD

Variable	Services Delivered															
	1 Total		2 Teachers		3 Children		4 To Teachers: To children: their request teacher's request		5 Term 1		6 Term 2		7 Term 3		8	
	r	p	r	p	r	p	r	p	r	p	r	p	r	p	r	p
ACCESS																
1. Distance	-0.508	.000	-0.517	.000	-0.331	.002	-0.475	.000	-0.332	.002	-0.496	.000	-0.510	.000	-0.474	.000
2. Staff ratio	0.732	.000	0.724	.000	0.502	.000	0.653	.000	0.445	.000	0.745	.000	0.715	.000	0.675	.000
3. Time lag	-0.179	.073	-0.127	.153	-0.182	.070	-0.153	.109	-0.207	.046	-0.141	.124	-0.194	.057	-0.208	0.043
4. Availability	0.307	.004	0.310	.004	0.203	.044	0.271	.010	0.319	.003	0.319	.003	0.310	.004	0.266	.012
DISPOSITION																
5. Interpersonal	0.303	.005	0.230	.005	0.207	.041	0.239	.021	0.101	.199	0.312	.004	0.290	.007	0.280	.009
6. Performance	0.174	0.71	0.185	.060	0.104	.193	0.129	.141	0.014	.462	0.187	.058	0.165	.083	0.156	.096

n=72

teacher (criterion variable). The distance variable is ranked as for hypothesis 1. The obtained correlation ( $r=-0.508$ ) is significant at the .000 level and the hypothesis is supported. The greater the distance between the resource teacher's principal office and the school, the less is the resource teacher's perceived rate of service delivery to classroom teachers.

Sanche (1972) failed to obtain support for a similar hypothesis. He stated that the lack of relationship between access variables and the consultant's perceived rate of service delivery had been anticipated, and he reasoned that equal access to services had been administratively assured (Sanche, 1972, p. 39).

9. In rural areas, there is a significant positive relationship between staff ratio and resource teacher perceived rate of service delivery.

Hypothesis 9 predicts that as the ratio of resource teacher to classroom teacher increases, there is an increase in rate of service delivery perceived by the resource teacher. The staff ratios encountered in this study range from a high of 0.14 (1 resource teacher serving 7 teachers) to a low of 0.01 (1 resource teacher serving 99 teachers). The correlation obtained ( $r=0.732$ ) is significant at the .000 level and the hypothesis is supported. Thus, resource teachers who provide services to fewer classroom teachers perceive a higher rate of services delivered to those teachers.

10. In rural areas, there is a significant negative relationship between service delivery time lag and resource teacher perceived rate of service delivery.

Hypothesis 10 predicts that as the lapse in time between a request for service and its delivery increases, the rate of service delivery perceived by the resource teacher decreases. If the average time lag for the three terms of the school year is used, the obtained correlation ( $r=-0.179$ ) with the criterion variable is not significant at the 0.05 level. Further analysis of the time lag variable for each term of the year reveals that for the first term the obtained correlation ( $r=-0.141$ ) is not significant at the 0.05 level, for the second term the correlation ( $r=-0.194$ ) is not significant at the 0.05 level but for the third term the correlation ( $r=-0.209$ ) is significant at the 0.043 level. Further analysis using a component of the criterion variable, "services delivered to children at the teacher's request", reveals a correlation ( $r=-0.207$ ) significant at the .046 level.

Thus it would seem reasonable to suggest that the relationship between time lag and service delivery is not evident in the early part of the school year. As the year progresses, however, the relationship between time lag and service delivery is more pronounced. The obtained correlations are all negative and although the significance level for the first two terms does not permit acceptance of the hypothesis, the third term results and the services delivered to children provide evidence of a relationship between time lag and service delivery. Sanche (1972) did not find support for his time lag hypothesis, however he did not report findings pertaining to services to children and teachers separately, nor did he report the school terms separately.

11. In rural areas, there is a significant positive relationship between resource teacher perceived availability of the regular classroom teacher and resource teacher perceived rate of service delivery.

Hypothesis 11 predicts that the more available the regular classroom teacher is when the resource teacher needs to consult with him/her, the greater is the rate of services delivered as seen by the resource teacher. The obtained correlation ( $r=0.307$ ) is significant at the .004 level and the hypothesis is supported. Neither Sanche (1972) nor Pynch (1974) report findings pertaining to the relationship between the classroom teacher's availability and service delivery from the producer's perceptual field.

Hypotheses 8-11 examine the relationship between access variables and service delivery within the perceptual field of the producer of the service. The hypotheses pertaining to distance, staff ratio and availability are supported while the hypothesis pertaining to time lag was not supported. In the case of distance and staff ratio the data represent "actual" data, whereas the data for time lag, availability and the criterion variable are from the perceptual field of the resource teacher. These results support the relationship between access variables and service delivery within the producer's perceptual field as posited by the Hurder (Note 1) paradigm.

12. In rural areas, there is a significant positive relationship between resource teacher perceptions of classroom teacher interpersonal relations and resource teacher perceived rate of service delivery.

Hypothesis 12 predicts a positive relationship between the way in which the resource teacher sees the classroom teacher's interpersonal skills as measured by the DCI and the criterion variable. The obtained correlation ( $r=0.303$ ), is significant at the 0.005 level and the hypothesis is supported.

This finding further confirms Sanche's (1972) finding that the interpersonal skills of the teacher are significantly related to service delivery.

13. In rural areas, there is a significant positive relationship between resource teacher perceptions of teacher performance and resource teacher perceived rate of service delivery.

Hypothesis 13 predicts that the greater the competence of the classroom teacher as seen by the resource teacher, the greater the rate of service delivery as seen by the resource teacher. The obtained correlation ( $r=0.174$ ) is not significant at the 0.05 level.

Further analysis reveals that one of the performance items, namely, the ability of the classroom teacher to provide useful information about individual students and program needs to the resource teacher (DCI, Form B, #25) is correlated ( $r=0.250$ ) at the .017 level of significance with the criterion variable. Two other items, namely, the teacher's competence with respect to the psychosocial development of children (DCI, Form B, #14) and the teacher's competence with respect to teaching

special skills (#11) obtained correlations ( $r=0.212$  and  $r=0.203$ ) with significance levels of .037 and .044 respectively. All other items of the performance scale have correlations which are positive. Although the correlations were in the hypothesized directions, they were not statistically significant.

Hypotheses 12 and 13 pertain to the disposition variable within the perceptual field of the resource teacher. The relationship between the interpersonal skills of the classroom teacher and the rate of service delivery is confirmed, whereas the relationship between the classroom teacher's competence or ability to perform certain tasks and the rate of service delivery remains tentative.

14. In rural areas, there is a significant positive relationship between resource teacher perceptions of organization and resource teacher perceived rate of service delivery.

Hypothesis 14 predicts that there is a significant positive relationship between certain factors in the organization of programs and services for exceptional children and the criterion variable. Given the lack of reliability of the organization scale for Form B reported earlier (p. 69) the hypothesis was not tested using the total organization score, but rather the scale was broken down and individual items were tested.

An analysis of the individual DCI items comprising the organization variable (Table 11) reveals that all items obtain correlations significant at the .01 level or better, however, two of the items indicate a positive relationship whereas the other three are negative.

The strongest negative correlation obtained pertains to the availability of specialized support services.

TABLE 11

CORRELATIONS BETWEEN ORGANIZATION ITEMS AND THE CRITERION  
VARIABLE: RESOURCE TEACHERS' PERCEPTUAL FIELD

Organization Items (DCI)	Rate of Service Delivery	
	r	p
1. Resource teacher role as support to classroom teacher	0.280	.009
2. Mainstreaming as an important system objective	-0.452	.000
3. Specialist support services are available	-0.799	.000
4. School Principal supports the resource teacher program	0.461	.000
5. Regional administrator supports the resource teacher program	-0.335	.002

n=72

The item pertaining to support services was further tested by using factual data on available specialists and finding correlations with components of the criterion variable. The obtained correlations are presented in Table 12. They are all negative and statistically significant. These findings indicate a strong negative correlation and suggest that resource teachers perceive a higher rate of service delivery where there are fewer available support services.

Note that similar results were obtained with respect to the relationship between factual data on the provision of specialist services

and the criterion variable within the classroom teachers' perceptual field (see Table 9).

TABLE 12

CORRELATIONS BETWEEN THE VARIOUS COMPONENTS OF SERVICE DELIVERY  
AND FACTUAL DATA ON AVAILABLE SUPPORT SERVICES (PPS):  
RESOURCE TEACHERS' PERCEPTUAL FIELD

Service Delivery Component	Available Support Services	
	r	p
Services delivered (total)	-0.482	.000
Services to teachers	-0.344	.002
Services to children	-0.491	.000
Services to teachers at teachers' request	-0.387	.000
Services to children at teacher's request	-0.444	.000
Services during first term	-0.428	.000
Services during second term	-0.487	.000
Services during third term	-0.497	.000

n=72

Thus, some organization factors are positively correlated with the perceived rate of service delivery while others are negatively correlated. From the strength of the correlations obtained it is obvious that organizational factors are related to service delivery.

### Discussion

Within the perceptual field of the classroom teacher the findings pertaining to the access variables distance, staff ratio and availability were all predicted by the Hurder (Note 1) paradigm. In the case of the access variable time lag, although a significant relationship with the total resource teacher services delivered was not obtained, there were nonetheless significant findings with respect to services to teachers themselves and to services provided to children at the teachers' request. From the many positive comments towards resource teacher services made by classroom teachers, it is reasonable to suggest that the teachers in this study felt that the services provided to children at the resource teacher's initiative were carried out effectively and that the time lags were reasonable in view of the situation.

The findings pertaining to distance and availability corroborate earlier findings by Sanche (1972) and Pynch (1974), respectively. The findings pertaining to staff ratio provide support for the paradigm whereas neither Sanche (1972) nor Pynch (1974) found a significant relationship. Neither of these investigators obtained a significant relationship with respect to time lag. It should be noted, however that they did not report the breakdown of services to teachers and services to children.

The findings pertaining to the disposition variables interpersonal relations and performance also were predicted by the paradigm. These findings corroborate Sanche's (1972) results. The findings also corroborate Pynch's (1974) results with respect to interpersonal relations within the perceptual field of the service producer.

Earlier investigators did not study the organization variable and the present finding in support of the prediction of the Hurder (Note 1) paradigm, adds another important element to the empirical base of the model.

Within the perceptual field of the resource teacher the findings pertaining to distance, staff ratio and availability were all predicted by the Hurder (Note 1) paradigm. With respect to the access variable time lag, some components of the service delivery criterion variable were significantly related lending some degree of support to this element of the paradigm. These findings provide further support for the Hurder (Note 1) paradigm where Sanche (1972) did not obtain significant results. His study was carried out in a much more densely populated area, where access to services had been administratively equalized thus effectively reducing the variability. The present study was carried out in rural areas where access to services becomes a major administrative problem, having many real barriers which are not present in more densely populated areas.

The findings pertaining to the disposition variable, interpersonal relations, were predicted by the Hurder (Note 1) paradigm and corroborated by the findings of Sanche (1972). Thus, these findings confirm that the interpersonal skills of both the service consumer and the service producer are positively related to the rate of services delivered.

In the case of the disposition variable, performance, the present study found no significant relationship between the resource teacher's perception of the classroom teacher's competence and the criterion

variable. Thus it may be that resource teachers do not permit their perception of the classroom teacher's competence to limit the service they themselves provide to the teacher or to the children. There were significant findings, however, with respect to some of the performance items, notably those items which dealt with competencies pertaining to their ability to work co-operatively with the resource teacher. Sanche (1972) found support for the paradigm with this disposition variable in the producer's perceptual field, however his findings were not based on the current measure of performance scales. As a matter of fact, the performance items are a satisfactory measure of resource teacher competencies as seen by the classroom teacher (supra pp. 79, 80) however, the scale is not adequate in measuring salient competencies of classroom teachers.

Perplexing results were obtained with respect to the organization variable within the perceptual field of the service producer. The items within the organization variable are all seen to be correlated with the criterion variable, but two of the items are positive predictions while the other three are negative. Nevertheless, they all provide support for the element of the Hurder (Note 1) paradigm which indicates that organization is related to service delivery.

Within the perceptual fields of both the classroom teachers and resource teachers positive correlations were obtained between both the system's commitment and the local principal's support for the resource teacher model and service delivery.

Actual data pertaining to the provision of special services support personnel further confirmed the significant negative relationship with

the criterion variable obtained using perceptual data within both the classroom teachers' and the resource teachers' perceptual fields. In the rural areas studied itinerant teams of special services support staff provided assistance to classroom teachers for the individual cases referred to them. The services of the itinerant team and the resource teacher's services often overlap to some extent. Thus, when the itinerant team was more available, the resource teacher may have felt less need to provide assistance. Given the scarcity of any kind of support to rural classroom teachers this result may merely confirm that the resource teacher assists where the need is greatest.

In general, these findings provide support for all elements of the Hurder (Note 1) paradigm. In the case of access variables the link with service delivery is now clear, whereas earlier studies found only partial support for the relationship. In the case of disposition variables these findings provide additional confirmation for the relationship already elaborated in earlier studies. In the case of the organization variable, the present findings support the relationship posited by the Hurder (Note 1) paradigm, however the findings also suggest that the organization variable consists of a complex array of factors of which the present study provides only an exploratory analysis.

The present study has found support for the relationship between access variables and service delivery where earlier studies fell short of doing so. This may suggest that some fundamental rural/urban differences are being touched upon. Because of a scarcity of resources and the barriers imposed by the environment, many rural areas are unable to assure equal access to those resources by administrative measures. The

present study would seem to indicate, therefore, that these variables ought to be carefully considered both in the planning and in the implementation phases of rural education for exceptional children.

For the rural areas studied which were utilizing the resource teacher model there have been many benefits. In general, the attitude of classroom teachers toward all of the resource teachers was very positive and was an indication of the extent to which the resource teacher model represents a real and practical resource for rural special education.

## CHAPTER V

## CONCLUSION

Summary

The primary purpose of the present study was to determine the validity of the Hurder (Note 1) paradigm for service delivery as a theoretical framework within which to examine the resource teacher model in the administration of special education services in rural areas. Access (availability of the service), disposition (acceptability of the service) and organization variables were analyzed in relation to the perceived rate or amount of services provided by the service producer (resource teacher) to the service consumer (classroom teacher).

Teachers in rural school systems providing English language education in the Province of Quebec off the Island of Montreal, were chosen as the sample for this study because they work in large, rural, and sparsely populated areas having considerable service delivery problems. Four out of the five school districts in the Province which use the resource teacher model were selected.

A four part questionnaire was administered to 5 resource teachers and to 72 classroom teachers to whom they provided services. Parts 1 and 2 provided scores for perceptions of interpersonal relations and performance (dispositional variables), part 3 provided scores for the organization variable, and part 4 provided data for the criterion variable, perceptions of rate of service delivery, as well as data pertaining to the time lapse (access variable) which occurs between a

request for service and its delivery. Other data pertaining to staff ratio and distance (access variable) were obtained from the administration offices of the school districts.

Fourteen hypotheses were generated and tested using simple correlational techniques. Seven of these hypotheses fell within the perceptual field of the rural classroom teacher and seven fell within the perceptual field of the rural resource teachers.

The findings provide support for most elements of the Hurder (Note 1) paradigm with respect to the rural classroom teachers' perceptual field. Classroom teachers perceived a higher rate of service delivery where distances from the resource teacher were smaller, where staff ratios were more favorable and where the resource teacher was seen as more available (access variables). Classroom teachers also perceived a significantly higher rate of service delivery from resource teachers whom they perceived as personable and competent (disposition variables), and in schools where they felt greater organizational support (organization variables).

With respect to the rural resource teachers' perceptual field, 5 of the 7 hypothesized relationships were confirmed by statistically significant correlations. Resource teachers perceived a higher rate of service delivery where distance between themselves and the classroom teachers was less, where they had fewer classroom teachers to serve, and where they saw the classroom teacher as available for meetings when needed. They perceived time lag as affecting service delivery only in the third term of the school year. Resource teachers perceived that they

provided a higher rate of service delivery to classroom teachers whom they saw as personable, however perceived competence of the classroom teacher was not significantly related to the rate of service delivery.

Resource teachers perceived a higher rate of service delivery in schools where the system was committed to the model and where the local principal supported them. However, the resource teachers perceived a lower rate of service delivery where support services were more available, where mainstreaming was more established and where the regional special education administrator provided stronger support.

Contributions of the present study are three-fold. Firstly, a further elucidation of the Hurder (Note 1) paradigm has been provided. Secondly, the Hurder model has been applied to the study of service delivery in rural and sparsely populated areas. Thirdly, evidence has been found in support of the access component of the Hurder model. Earlier studies based on urban samples did not provide support for the access factor in the Hurder model and researchers had speculated that access to services had been administratively equalized. In addition, the effects of the organization component have been examined in an exploratory way and the evidence suggests that this factor is related to service delivery as posited by the Hurder (Note 1) paradigm.

#### Implications for Administrative Practice

This study has provided further support for the Hurder (Note 1) paradigm as a conceptual framework within which to study elements of the

service delivery process in education. The organization variable has been added to the list of elements significantly related to the service delivery process.

This study has addressed itself to some of the more pressing problems in the provision of special education services for children with learning difficulties in rural areas. These rural service delivery problems have been stated by several researchers during the past decade or so (for example, Chalfant et al., 1977; Keogh et al., 1973; Ondell, 1977; O'Reilly et al., 1979; Helge, 1981; Sanche, 1982). While it is not being suggested that the resource teacher model of service delivery is a panacea for rural education of exceptional children, the model does seem to respond to many of the concerns raised by these recent investigators. The model is based on current assumptions pertaining to rural service delivery (O'Reilly et al., 1979; Sanche, 1982, pp. 9, 10) in that it is a training-based systems model which enables mainstreaming to be practised in rural areas. This model further emphasises the need for practical solutions to rural problems using local staff and respecting local conditions. Local teachers and resource teachers are seen as the key figures in improving services to individual exceptional children in rural areas.

In addition to supporting the Huder (Note 1) paradigm, these findings have the following broad implications for administrative practice in rural education:

1. Special education administrators will need to consider access variables, dispositional variables, and organizational variables in

- the planning, implementation and evaluation of resource teacher services for rural areas.
2. Funding bodies need to become more cognizant of the real limitations faced by rural school districts, particularly distances between sites and other factors contributing to time lag in providing services. The rural school district is often faced with these and other impediments in providing for minimum essential services for children with learning difficulties.
  3. Even with comparable staff ratios, rural school systems which use itinerant resource teachers face the restriction imposed by time lost due to travel. This factor needs to be carefully considered by administrators when assigning the resource teacher's work load.
  4. As a producer of services the resource teacher must be able to relate well to classroom teachers. It is therefore incumbent upon rural school districts to carefully consider this factor in selecting staff. Consideration should also be given to providing inservice training and staff development programs aimed at improving relations between the resource teacher and class teachers. Further, teacher preparation institutions would be well-advised to include practical, applied courses in human relations and communications appropriate to rural resource teacher training programs.
  5. It may well be beyond the ability of an itinerant resource teacher, no matter how personable and competent, to provide effective services to a school in which the principal's support is weak, or,

where the principal withholds his support and negates the resource teacher's efforts. Further, the delivery of services to an individual teacher may be an impossible task for the resource teacher if the classroom teacher views the services negatively.

These facts must be constant reminders to resource teachers in obdurate situations which seemingly defy positive self-appraisal. It would also be well for the supervisors of resource teachers to keep such facts in proper perspective when monitoring and evaluating the progress of any individual resource teacher.

#### Recommendations for Further Research

The present study investigated the relationship of certain access, disposition, and organization variables to rural resource teacher service delivery. There is need for further research as follows:

1. There is a need to develop a broader understanding of the scope and impact of the organization variable in service delivery. In particular, those organizational factors which limit or hinder rural service delivery need special attention.
2. There is a need to develop and standardize instruments capable of objectively measuring the extent of actual services delivered in a variety of educational settings. Such instruments need to provide measures of service delivery quality as well as quantity.
3. There is a need for further study into the fundamental differences between rural and urban educational service delivery for exceptional children. That the present study obtained significant

relationships between the access variables distance and time lag where other studies did not, may not be surprising when one takes into account the variation encountered in the staff ratios. It does suggest, however, that access-related problems may be commonplace in rural areas. Further research and study is needed to delineate the scope and nature of access variables in rural service delivery.

4. Rural educators have shown a good deal of interest and creativity in dealing with problems imposed by their environment. Some advances have been made in describing possible service delivery models appropriate for rural areas. More research and study is needed in order to evaluate the usefulness and efficacy of these models for rural areas in general.
5. The present study has provided some evidence to indicate that in those rural areas which utilize the resource teacher service delivery model, there may be a diminished need for itinerant pupil personnel service teams. In a time of increasing need and decreasing financial resources, further research into this topic could be beneficial in both human and financial terms.
6. There is need to determine whether resource teacher service delivery to classroom teachers results in a concomitant improvement to the services that the children themselves receive from their classroom teachers. The ultimate test of any educational service delivery model will be the real learning and change felt by the children reached. Much further study and research is needed to establish this link in the service delivery process.

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APPENDIX A

Data Collection Instrument

Form A - Classroom Teachers

## DATA COLLECTION INSTRUMENT

## FORM A

TO BE COMPLETED BY REGULAR CLASSROOM  
TEACHERS WHO ARE RATING THE FOLLOWING  
RESOURCE TEACHER

NAME OF RESOURCE TEACHER BEING RATED

DIRECTIONS

Every numbered item contains a pair of adjectives on a 7-step scale with 3 degrees of intensity on each side of a neutral point. The degrees of intensity may be considered in the following terms:

Sharp

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Dull  
 (1) (2) (3) N (4) (5) (6)

- (1) extremely sharp (6) extremely dull  
 (2) quite sharp (5) quite dull  
 (3) slightly sharp (4) slightly dull  
 N neither sharp nor dull

Each scale also includes a brief explanation of the adjectives to assist you in your judgement.

EXAMPLE(A) SCHOOL EMERGENCIES

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
 N

effectively meets emergency situations

ineffectively meets emergency situations

If you feel that your resource teacher is extremely effective in meeting emergency situations you would mark as follows:

Effective X : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
 N

If you feel that your resource teacher is slightly ineffective in meeting emergency situations you would mark as follows:

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : X : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
 N

Please read each scale carefully and make your judgement, but do not dwell on any one item. Your comments are welcome in the space provided at the end of the scales.

Turn this page over to begin.

(1) COMMUNICATION (Receptive)

Receptive \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:N:\_\_\_\_\_:\_\_\_\_\_ Unreceptive

receptive to viewpoints, criticisms and suggestions of teachers

takes a negative slant toward the viewpoints, criticisms, and suggestions of others

(2) COMMUNICATION (Expressive)

Clear \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:N:\_\_\_\_\_:\_\_\_\_\_ Vague

communicates his (her) ideas and feelings in a clear, understandable manner

communicates his (her) ideas and feelings in a vague, difficult-to-understand manner

(3) SENSITIVITY

Sensitive \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:N:\_\_\_\_\_:\_\_\_\_\_ Insensitive

sensitive to the individual needs, purposes, and feelings of teachers

insensitive to the individual needs purposes and feelings of teachers; finds it difficult to empathize with others

(4) RECEPTIVITY (To Change)

Openminded \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:N:\_\_\_\_\_:\_\_\_\_\_ Resistant

openminded to change, new concepts, ideas and innovations

resistant to change, new concepts, ideas and innovations

(5) FLEXIBILITY

Flexible \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:N:\_\_\_\_\_:\_\_\_\_\_ Inflexible

flexible: aware that varied approaches can have common goals; adapts to circumstances, being direct-indirect, firm-permissive as the situation warrants

inflexible: shows preference for particular approaches or procedures regardless of appropriateness to the situation



PART II: Items 11 through 26 pertain to specific areas of knowledge possessed by the resource teacher being rated and to his (her) performance of specific tasks.

(11) TEACHING SPECIAL SKILLS

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

demonstrates knowledge of the approaches for teaching special skills (e.g. reading, language, auditory training) to children with learning difficulties.

demonstrates limited knowledge of the approaches for teaching special skills to children with learning difficulties

(12) CURRICULUM DEVELOPMENT (Children With Learning Difficulties)

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

demonstrates knowledge of curriculum development

demonstrates limited knowledge of curriculum development

(13) CHILD DEVELOPMENT (General)

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Incompetent  
N

demonstrates knowledge of the general principles of child growth and development

demonstrates limited knowledge of the general principles of child growth and development

(14) PSYCHO-SOCIAL DEVELOPMENT (Children With Learning Difficulties)

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Incompetent  
N

demonstrates knowledge of the manner in which a learning problem influences the psycho-social development of children

demonstrates limited knowledge of the manner in which a learning problem influence the psycho-social development of children

(15) DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

is effective in diagnosing and assessing children's learning problems

is not effective in diagnosing and assessing children's learning children's learning problems

(16) REMIATION OF EMOTIONAL PROBLEMS

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

demonstrates knowledge of the approaches and techniques for helping children with emotional problems

demonstrates limited knowledge of the approaches and techniques for helping children with emotional problems

(17) REMIATION OF LEARNING PROBLEMS

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

demonstrates knowledge of the approaches and techniques for helping a child with learning problems

demonstrates limited knowledge of the approach and technique for helping a child with learning problems

(18) PLANNING

Efficient \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Inefficient  
N

indicates careful and efficient planning and budgeting of time

indicates difficulty in the planning and budgeting of time

(19) THOROUGHNESS

Thorough \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Remiss  
N

follows through on projects, assignments, problems etc.

does not follow through on projects, assignments, problems, etc.

(20) COMMUNICATION (Organizational)

Adequate \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Inadequate  
N

maintains adequate communication with teachers concerning changes in policy, practices or procedures relating to children with learning difficulties

does not maintain communication concerning changes in policy, practices or procedures

(21) PROGRAM EVALUATION

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

participates in evaluating the instructional program

does not participate in evaluating the instructional program

(22) COMMUNITY RELATIONS

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Limited

demonstrates sensitivity to the particular needs and values of the community

demonstrates limited sensitivity to the particular needs and values of the community

(23) PARENT RELATIONSHIPS

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Limited

demonstrates ability to advise and work with parents of children with learning difficulties

demonstrates limited ability to advise and work with parents of children with learning difficulties

(24) CLASSROOM OBSERVATION ACTIVITIES

Aware \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Unaware

aware of class and pupil progress, curriculum areas being covered, and instructional techniques being used

unaware of class and pupil progress curriculum areas being covered, and instructional techniques being used

(25) CONSULTATIONS WITH TEACHERS

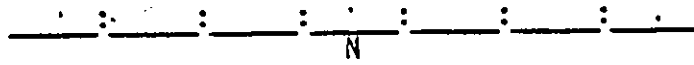
Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

makes effective use of information provided pertaining to individual students and program needs

does not make effective use of information provided pertaining to individual students and program needs

(26) AVAILABILITY

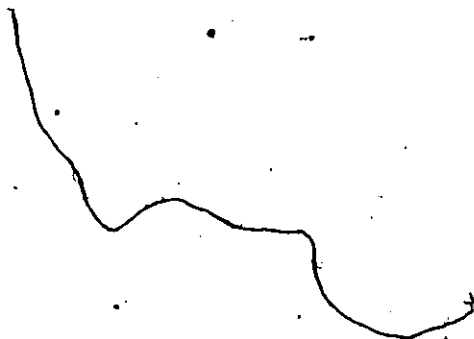
Available



Not Available

resource teacher is always available for consultation or help when needed

resource teacher is never available for consultation or help when needed



PART III: Items 27 through 31 pertain to factors in the ORGANIZATION of programs and services for children with learning difficulties in your school. Please respond to these items in terms of how these items pertain directly to your teaching situation,

(27) RESOURCE TEACHER ROLE

Totally agree \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Totally disagree

the resource teacher serves as a major source of assistance in the appropriate approaches and techniques to help teachers maintain children with learning difficulties in regular classrooms

the resource teacher does not serve as a major source of assistance in the appropriate approaches and techniques to help teachers maintain children with learning difficulties in regular classrooms

(28) MAINSTREAMING

Totally agree \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Totally disagree

maintaining children with learning difficulties in regular classrooms is an important objective

maintaining children with learning difficulties in regular classrooms is NOT an important objective

(29) SUPPORT SERVICES (Psychologist, Speech Therapist, Counsellor, etc.)

Totally agree \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Totally disagree

the services of specialists are available for children whose learning problems cannot be dealt with effectively by the regular teacher and the resource teacher

the services of specialists are not available for children whose learning problems cannot be dealt with effectively by the regular teacher and the resource teacher

(30) ADMINISTRATIVE SUPPORT (School Level)

Totally agree \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Totally disagree

the Principal supports the resource teacher program

the Principal does not support the resource teacher program



PART IV: SERVICES DELIVERED BY:

(32) SERVICES TO TEACHERS

During the present school year, you may have received consultation services, either at your request or at his (her) request from the person whose name appears above.

Would you please estimate the number of times that you interacted professionally with him (her) during each quarter of the present school year and respond in the table below. If you did not interact please enter zero (0).

PERIOD	AT YOUR REQUEST	AT HIS (HER) REQUEST
Sept. - Nov.		
Dec. - Feb.		
March - May		

(33) SERVICES TO CHILDREN

During the present school year children in your class may have received services from the person whose name appears above. Services in this context means professional contact with a child either at your request or at the request of the resource teacher. Respond in the table below. If no contact, enter zero (0).

PERIOD	NUMBERS OF CHILDREN AT YOUR REQUEST	NUMBER OF CHILDREN AT REQUEST OF RESOURCE TEACHER
Sept. - Nov.		
Dec. - Feb.		
March - May		

(34) SERVICE DELIVERY TIME LAG

When you requested the service, what was the average time lag in days between the time of the request and the actual provision of the service by the resource teacher.

DURATION	SEPT. - NOV.	DEC. - FEB.	MARCH - MAY
Less than 1 day			
2 - 5 days			
6 - 20 days			
more than 20 days			

COMMENTS:

Please feel free to add any additional comments you have concerning resource teacher services or any other comments pertaining to this research study. Thank you.

APPENDIX B

Data Collection Instrument

Form B - Resource Teachers

## DATA COLLECTION INSTRUMENT

FORM B

PARTS I - III.

TO BE COMPLETED BY RESOURCE TEACHER \_\_\_\_\_  
WHEN RATING THE FOLLOWING CLASSROOM  
TEACHER

\_\_\_\_\_  
NAME OF CLASSROOM TEACHER BEING RATED

DIRECTIONS

Every numbered item contains a pair of adjectives on a 7-step scale with 3 degrees of intensity on each side of a neutral point. The degrees of intensity may be considered in the following terms:

Sharp \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Dull

(1) (2) (3) (4) (5) (6)

(1) extremely sharp (6) extremely dull  
 (2) quite sharp (5) quite dull  
 (3) slightly sharp (4) slightly dull  
 N neither sharp nor dull

Each scale also includes a brief explanation of the adjectives to assist you in your judgement.

EXAMPLE(A) SCHOOL EMERGENCIES

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

effectively meets emergency situations      ineffectively meets emergency situations

If you feel that the classroom teacher whom you are rating is extremely effective in meeting emergency situations you would mark as follows:

Effective X : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

N

If you feel that this teacher is slightly ineffective in meeting emergency situations you would mark as follows:

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : X : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

N

Please read each scale carefully and make your judgement, but do not dwell on any one item. Your comments are welcome in the space provided at the end of the scales.

Turn this page over to begin.

PART I: Items 1 through 10 pertain to INTERPERSONAL/PERSONAL characteristics of the teacher you are rating.

(1) COMMUNICATION (Receptive)

Receptive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Unreceptive  
N

receptive to viewpoints, criticisms and suggestions of teachers

takes a negative slant toward the viewpoints, criticisms, and suggestions of others

(2) COMMUNICATION (Expressive)

Clear \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Vague  
N

communicates his (her) ideas and feelings in a clear, understandable manner

communicates his (her) ideas and feelings in a vague, difficult-to-understand manner

(3) SENSITIVITY

Sensitive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Insensitive  
N

sensitive to the individual needs, purposes, and feelings of teachers

insensitive to the individual needs purposes and feelings of teachers; finds it difficult to empathize with others

(4) RECEPTIVITY (To Change)

Openminded \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Resistant  
N

openminded to change: new concepts, ideas and innovations

resistant to change: new concepts, ideas and innovations

(5) FLEXIBILITY

Flexible \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Inflexible  
N

flexible: aware that varied approaches can have common goals; adapts to circumstances, being direct-indirect, firm-permissive as the situation warrants

inflexible: shows preference for particular approaches or procedures regardless of appropriateness to the situation

(6) SELF-CONFIDENCE

Self-Confident \_\_\_\_\_:\_\_\_\_\_N\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ Unsure

has confidence in his (her)  
ability to do the jobunsure of himself (herself);  
lacks self-confidence(7) RELIABILITY

Reliable \_\_\_\_\_:\_\_\_\_\_N\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ Unreliable

reliable and dependable in his  
(her) relationships with staff  
membersinconsistent in his (her)  
relationships with staff  
members(8) INITIATIVE

Effective \_\_\_\_\_:\_\_\_\_\_N\_\_\_\_\_ / \_\_\_\_\_:\_\_\_\_\_ Ineffective

effectively initiates new ideas  
and approachesineffectively initiates new  
ideas and approaches; or expects  
teachers to always take the  
initiative(9) ENTHUSIASM

Enthusiastic \_\_\_\_\_:\_\_\_\_\_N\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ Apathetic

shows enthusiasm for his (her)  
workshows apathy for his (her)  
work(10) CREATIVITY

Creative \_\_\_\_\_:\_\_\_\_\_N\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ Noncreative

shows creativity: originality,  
imagination, willingness to  
experiment, fluency of ideas

does not show creativity

FORM B:

PART II: Items 11 through 26 pertain to specific areas of knowledge possessed by the teacher being rated, and to his (her) performance of specific tasks.

(11) TEACHING SPECIAL SKILLS

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

demonstrates knowledge of the approaches for teaching special skills (e.g. reading, language, auditory training) to children with learning difficulties

demonstrates limited knowledge of the approaches for teaching special skills to children with learning difficulties

(12) CURRICULUM DEVELOPMENT (Children With Learning Difficulties)

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

demonstrates knowledge of curriculum development

demonstrates limited knowledge of curriculum development

(13) CHILD DEVELOPMENT (General)

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Incompetent  
N

demonstrates knowledge of the general principles of child growth and development

demonstrates limited knowledge of the general principles of child growth and development

(14) PSYCHO-SOCIAL DEVELOPMENT (Children With Learning Difficulties)

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Incompetent  
N

demonstrates knowledge of the manner in which a learning problem influences the psycho-social development of children

demonstrates limited knowledge of the manner in which a learning problem influence the psycho-social development of children

(15) DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective  
N

is effective in diagnosing and assessing children's learning problems

is not effective in diagnosing and assessing children's learning children's learning problems



(21) PROGRAM EVALUATION

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

participates in evaluating  
the instructional program

does not participate in evaluating  
the instructional program

(22) COMMUNITY RELATIONS

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Limited

demonstrates sensitivity to  
the particular needs and  
values of the community

demonstrates limited sensitivity  
to the particular needs and values  
of the community

(23) PARENT RELATIONSHIPS

Competent \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Limited

demonstrates ability to advise  
and work with parents of chil-  
dren with learning difficulties

demonstrates limited ability to  
advise and work with parents of  
children with learning difficulties

(24) CLASSROOM OBSERVATION ACTIVITIES

Aware \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Unaware

aware of class and pupil  
progress, curriculum areas  
being covered, and instruc-  
tional techniques being used

unaware of class and pupil progress  
curriculum areas being covered, and  
instructional techniques being used

(25) CONSULTATIONS WITH RESOURCE TEACHER

Effective \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : N : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Ineffective

provides useful information  
pertaining to individual  
students and program needs

does not provide useful information  
pertaining to individual students  
and program needs

(26) AVAILABILITY

Available \_\_\_\_\_:\_\_\_\_\_N\_\_\_\_\_ Not Available

teacher is always available  
for consultation

teacher is never available for  
consultation



PART III: SERVICES DELIVERED

132

Items 27 through 30 pertain to the actual amount of SERVICES PROVIDED by you to the teacher being rated. Please refer to any data you may have in logbooks, referral forms, etc. in making your estimates.

(27) SERVICES TO TEACHER

During the present school year you have provided service to the teachers in the school(s) you visit. Service in this context means professional consultation between you and the teacher either at your request or at the teacher's request.

Please state or estimate the number of times you had professional consultation with this teacher during each quarter of the school year and respond in the table below. If no contact, enter zero (0).

PERIOD	AT YOUR REQUEST	AT TEACHER'S INITIATIVE
Sept. - Nov.		
Dec. - Feb.		
March - May		

(28) SERVICES TO CHILDREN

During the present school year you may have provided services directly to children in this teacher's class. Services in this context means professional contact with a child either at your request or at the request of the teacher or other professional person.

Please state or estimate the number of children from this teacher's class with whom you had professional contact during each quarter of the present school year. If no contact, enter zero (0).

PERIOD	NUMBER OF CHILDREN		REQUESTED BY OTHER PROFESSIONAL
	AT YOUR REQUEST	REQUESTED BY TEACHERS	
Sept. - Nov.			
Dec. - Feb.			
March - May			

(29) SERVICE DELIVERY TIME LAG

When this teacher requested the service, what was the average time lag in days between the time of the request and the actual provision of the service by you.

DURATION	SEPT. - NOV.	DEC. - FEB.	MARCH - MAY
Less than 1 day			
2 - 5 days			
6 - 20 days			
more than 20 days			

(30) TRAVEL TIME REQUIRED

Approximately how much time does it usually require for you to travel from your principal office or location to this teacher's school.

- less than 1 hour     
  2 - 4 hours     
  5 hours - 1 day  
 2 - 3 days     
  more than 3 days     
  my office is in this teacher's schools

COMMENTS:

DATA COLLECTION INSTRUMENT

FORM B

PART IV.

TO BE COMPLETED ONCE ONLY BY THE FOLLOWING  
RESOURCE TEACHER \_\_\_\_\_





APPENDIX C  
Data Collection Instrument  
Form C

DATA COLLECTION INSTRUMENT FORM C

DIRECT DATA COLLECTION PERTAINING TO RESOURCE TEACHERS. To be gathered by interview and fact-finding from the central district office.

1. Name / Age / Sex
2. Years of teaching experience
  - \_\_\_ regular class
  - \_\_\_ special education class
3. Total years of schooling
4. Special Education courses taken
5. Other related course work (Eg. specialist certificate in teaching others, counselling, psychology, etc.)
6. School based or Itinerant
7. Number/size of schools served
8. Number of teachers served
  - \_\_\_ regular elementary classroom
  - \_\_\_ special education classroom
  - \_\_\_ other
9. Support Services: psychologist, counsellor, speech/hearing/language consultant
10. Log books or other referral information relative to actual services delivered.

APPENDIX D

Letter to Classroom Teachers

UNIVERSITÉ D'OTTAWA

OTTAWA ONTARIO  
CANADA K1N 6N5

UNIVERSITY OF OTTAWA

FACULTÉ D'ÉDUCATION  
SCIENCES DE L'ÉDUCATIONFACULTY OF EDUCATION  
EDUCATIONAL STUDIES

June, 1980

Dear

This letter is to request your cooperation in a study of the delivery of resource teacher services to classroom teachers in rural schools. The study looks at the relationships which exist between classroom teachers and the resource teachers who provide services to them. Some of the skills required of resource teachers are investigated, as well as other organization variables such as consulting services which may have a direct bearing on service delivery. The purpose of the study is to determine what is the most appropriate system of support to give to classroom teachers so that they in turn can provide the best possible learning environment for children with learning difficulties.

Specifically I am asking you to respond to the attached Data Collection Instrument, Form A, which looks at the following factors:

- Part 1) interpersonal/personal characteristics of your resource teacher,
- Part 2) the performance of your resource teacher,
- Part 3) the organization of programs and services for children with learning difficulties in your particular teaching situation, and
- Part 4) the actual services rendered to you or your students by your resource teacher.

The number on the flap of the enclosed envelope and the first page of the instrument identifies your school. When all completed forms have been returned the number will be deleted. Analysis of the data will not identify or compare schools, resource teachers or teachers. Please do not sign your name to the instrument. I prefer that you remain anonymous.

Only those questionnaires which have been completed in full can be used in this study. It should take no more than 10-15 minutes to complete the instrument.

DIRECTIONS:

- 1) Read the instructions on page one of the instrument.
- 2) Complete Parts I, II and III indicating your impressions on each item. It is not necessary or desirable to ponder the meanings at length. First impressions are preferable on each item.
- 3) Complete Part IV using your best estimate of the professional interactions you had with your resource teacher during the 1979-80 school year.
- 4) Place the completed questionnaire in the enclosed, stamped, self-addressed envelope and drop it in the mail as soon as possible.

I plan to be in your area within a week or two and will call at any schools for which complete returns have not been received.

YOUR ASSISTANCE IS NEEDED AND VERY MUCH APPRECIATED. MY THANKS TO YOU IN ADVANCE.

Sincerely,

*Campbell McBurney*  
Campbell McBurney,  
René-Lamoureux Hall,  
University of Ottawa,  
Graduate Studies in Education,  
651 Cumberland Street  
Box 110,  
Ottawa, Ontario,  
K1N 6N5

Encl:

CMCB/lp

APPENDIX E

Follow-up Letter to Classroom Teachers

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UNIVERSITÉ D'OTTAWA



UNIVERSITY OF OTTAWA

FACULTÉ D'ÉDUCATION  
SCIENCES DE L'ÉDUCATIONFACULTY OF EDUCATION  
EDUCATIONAL STUDIES

September 10, 1980

Dear

In June 1980 I wrote to you requesting your participation in a study of the delivery of resource teacher services to classroom teachers in rural schools. The study will determine ways in which resource teachers can best help classroom teachers to provide the best possible learning environment for children with learning difficulties.

A good response has been received to date, in spite of the fact that the questionnaires arrived at the schools at the end of June in one of the busiest times of the school year. A response from every teacher, however, will make the findings of the study much more complete and thus more reliable.

To date I have not received the questionnaires I sent you, so I am sending you a second one in the hope that you will take some of your time to participate in this study. Your help in this study will be very much appreciated. Thank you.

Sincerely,

*Campbell McBurney*  
Campbell McBurney,  
University of Ottawa

Encl:

CMcB/lp

APPENDIX F

Letter to Resource Teachers

UNIVERSITÉ D'OTTAWA



UNIVERSITY OF OTTAWA

FACULTÉ D'ÉDUCATION  
SCIENCES DE L'ÉDUCATION

June, 1980

FACULTY OF EDUCATION  
EDUCATIONAL STUDIES

Dear

I must apologize in advance for asking you to devote so much of your time to my research. The purpose of the study is to determine what is the most appropriate system of support to give to classroom teachers so that they in turn can provide the optimum learning environment for children with learning difficulties. The resource teacher model seems to work well in rural areas and the study looks at particular aspects of the working relationships between resource teachers and the classroom teachers to whom they provide a service. The results of this study will be made available to you when complete.

Attached are copies of the DATA COLLECTION INSTRUMENT FORM A (PARTS I-III) for each of the classroom teachers for whom you provide consultant and/or other services. I have placed a gummed label on the front page of each so that you will be able to see at a glance the name of each teacher you are rating. When all of the booklets have been returned, I will remove the front page and destroy it. The teacher being rated is unknown to me and I insist that anonymity be assured.

PART IV of the DATA COLLECTION INSTRUMENT pertains to factors in the organization of programme and services and this part is to be completed once only by you.

Please respond to every item on the data-gathering instrument. Only fully completed forms can be used in the study.

I field-tested the questionnaire and found that after the initial one on two, when you get used to the wording, it is possible to complete them in about 5 minutes each. You may wish to complete forms for your teachers in several separate groups in order to avoid fatigue.

.../2

INSTRUCTIONS:

- 1) Please complete, in full, a separate DATA COLLECTION INSTRUMENT, FORM B, PARTS I-III for each teacher.
- 2) If some items do not exactly fit the teacher - resource teacher situation, please respond to them anyhow.
- 3) Respond to each item with your first impression. It is not necessary or desirable to ponder the meanings at length.
- 4) Fill out PART IV once only.
- 5) Please do not consult the teacher or another resource teacher or consultant while completing the forms.
- 6) When accurate data is not available for PART III, please provide your best estimate.
- 7) Please place all completed forms in the stamped self-addressed envelopes enclosed and drop them in the mail as soon as possible.

Your co-operation and assistance in this study is much appreciated.  
My sincere thanks to you in advance.

Sincerely,

Encl:

Campbell McBurney

CMcB/lp

## APPENDIX G

## Means and Standard Deviations

## MEANS AND STANDARD DEVIATIONS

Variables	Rater's Perceptual Field					
	Classroom Teacher			Resource Teacher		
	n	X	Sd	n	X	Sd
<u>Access</u>						
Distance	72	1.80	0.64	72	1.80	0.64
Staff Ratio	72	0.05	0.05	72	0.05	0.05
Time Lag	37	2.14	0.89	72	2.15	0.51
Availability	52	6.02	1.29	72	5.61	1.64
<u>Disposition</u>						
Interpersonal Relations	53	6.24	0.67	72	5.12	1.52
Performance	52	5.97	0.84	72	4.67	1.35
Organization	53	5.51	0.94	72	6.25	1.35
<u>Rate of Service Delivery</u>						
Total	47	36.79	58.03	72	36.69	40.41
To Teachers	51	18.88	31.91	72	20.57	25.95
To Children	47	16.85	36.52	72	16.13	21.50
First Term	49	11.71	17.17	72	12.04	13.38
Second Term	48	12.98	25.50	72	12.64	14.14
Third Term	40	11.14	16.97	72	12.01	14.10

Note: Distance and staff ratio are based on objective data.

APPENDIX H

The work of the late William Paul Hurder

### The Work of the Late William Paul Hurder

William Paul Hurder's service delivery paradigm, which is analyzed in the present study, was part of an intended monograph on the theory of service delivery. The monograph itself was never published, and the references to it in the present study are taken from archival materials held in the University Library at the University of Illinois at Urbana-Champaign. Although no attempt is made here to provide a complete biographical or historical account of Hurder's life and work, a few brief observations may help the reader better to understand the context of the present study.

The Hurder paradigm of service delivery in social systems was the outgrowth of Hurder's lifelong involvement in the fields of mental health research and consultation on the administration and planning for services for the mentally retarded.

A native of Evansville, Indiana, Hurder received an A.B. degree from the University of Alabama, a Ph.D. from Ohio State University, and M.D. from Louisiana State University. He taught and conducted research at Ohio State University and at Louisiana State University. He directed the Louisiana State Department of Institutions and served as assistant and, later, associate director of the Southern Regional Education Board, during which time he planned and conducted regional programs of training and research in mental health and mental retardation. He was appointed as professor of special education and associate director of the Institute for Research on Exceptional Children at the University of Illinois and later he succeeded Samuel Kirk as director of the Institute.

His interest and expertise in the field of service delivery in the mental health field are evidenced by the numerous appointments he received to various bodies investigating mental retardation problems. Among the more notable were his appointment as Chairman of the Committee on Coordination of the President's Panel on Mental Retardation (1961-63), as principal investigator of a federally funded study of European programs of development and delivery of services to the mentally ill and mentally retarded (1961), as principal investigator of federally funded research into utilization and training of non-professional patient personnel in mental institutions (1960-65), and as a member of the Task Force on Organization, Administration and Financing of Services, for the Joint Commission on Mental Health of Children (1967-70). He received numerous other appointments and provided pertinent consultation to various study groups of the National Institute on Mental Health during the period 1960-1970. He was the author of many published articles, many of which dealt with the problems of planning, coordinating and implementing mental health services.

Although Hurder's service delivery paradigm was in preparation for publication in the form of a theoretical analysis of the delivery of health, education and social services, his untimely death precluded their full elaboration. He had presented the theoretical framework during a series of graduate seminars prior to his death and rough drafts and seminar reports can be found in the archival material.

The present study provides validation for the theoretical framework of the Hurder paradigm applied to research in special education in rural areas and provided both a further elucidation of the paradigm and an examination of earlier research studies in special education which used the paradigm as a conceptual base.

ABSTRACT

A VALIDATION OF THE HURDER MODEL IN  
RURAL RESOURCE TEACHER SERVICE DELIVERY

Campbell McBurney

University of Ottawa

This study was designed to determine the validity of the Hurder paradigm for service delivery in social systems as a theoretical framework within which to examine elements of the resource teacher model used in the administration of special education services in rural areas. The Hurder paradigm distinguishes the processes of service delivery from service itself and assumes that the service delivery mandate has not been filled until the intended recipient of the service (the consumer) has accepted the service provided by the producer. Variables which relate to the deliverability of services are access, or availability of the service, disposition, or acceptability of the service, and organization, which is seen as an entity which encompasses and impinges upon both access and disposition factors. Service delivery, therefore, is seen as a function of access, disposition and organization factors. This conceptual base was used to examine the resource teacher model, presently in use in many rural areas of Canada and the United States, as a means of providing increased support to classroom teachers in meeting the needs of children with learning difficulties in regular and segregated classes. The resource teacher (service producer) in this study refers to a broadly trained specialist, a major part of whose responsibility is to work in a collaborative, facilitative role with classroom teachers (service

consumers). Two forms of a four part questionnaire were administered to five resource teachers and the seventy-two classroom teachers whom they served in rural Quebec. Form A provided perceptual data on the classroom teachers' perception of the resource teacher's ability to relate to teachers (interpersonal relations), on the resource teacher's ability to perform certain tasks related to teaching exceptional children (performance), on the presence of certain organizational factors in special education service delivery in the school/district, and on the perceived rate of services delivered by the resource teacher. Form B provided similar perceptual data from the resource teachers.

The relationships between the perceived rate of service delivery (the criterion variable) and access, disposition and organization variables were analyzed through the testing of 14 hypotheses, 7 of which were within the consumer's perceptual field, and 7 of which were within that of the producer. Within the consumer's perceptual field four hypotheses predicted a significant relationship between access (availability) variables and the criterion variable (perceived rate of service delivery). Three of these hypotheses were supported. Consumers (classroom teachers) perceived a higher rate of service delivery from producers (resource teachers) where the distance between them and the producer was less, where the staff ratio was more favorable and where they felt that the producers were more available. Two hypotheses predicted a significant relationship between the criterion variable and the disposition variable and both were supported. Consumers perceived greater service delivery from producers whom they saw as more personable

and more competent. The hypothesis dealing with the organization variable was supported indicating that consumers perceived a higher rate of service delivery where certain organizational factors were in greater evidence.

Seven similar hypotheses relating to the producers' perceptual field were generated and tested as well. Three of the four hypotheses concerning access variables were supported, indicating that the service producers perceived that they provided more services where the distance was less, where they had fewer consumers to serve and where the consumer was more available. One of the hypotheses pertaining to the disposition variable was supported indicating that producers perceived greater service delivery where the consumer was more personable.

Service producers, however, did not perceive a higher rate of service delivery where they saw the consumer as more competent. Some aspects of organization were positively related to the criterion variable.

The Hurder paradigm was supported as a conceptual framework within which to study special education service delivery in rural areas. Some broad implications for administrative practice were highlighted, namely: 1) that special education administrators need to consider access, disposition and organization variables in the planning, implementation and evaluation of resource teacher services for rural areas; and 2) that training, competence and personability of the resource teacher are key factors in utilization of the service.