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A DESCRIPTION OF SCHEDULING METHODS AND CASELOADS
IN THE UTAH PUBLIC SCHOOLS

by

Jocelyn A. Taylor

A report submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF ARTS

in

Communicative Disorders

UTAH STATE UNIVERSITY
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1972

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Jocelyn A. Taylor

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ABSTRACT

A DESCRIPTION OF SCHEDULING METHODS AND CASELOADS
IN THE UTAH PUBLIC SCHOOLS

by

Jocelyn A. Taylor

Utah State University, 1972

Major Professor: Dr. Jay R. Jensen
Department: Communicative Disorders

The purpose of this paper is to investigate the following:

1. What methods of scheduling, namely intermittent or block, are used most by clinicians working in Utah public schools.
2. What is the average size and composition of caseloads of Utah public school clinicians. Conclusions are drawn as to the implications of the data collected and based on these conclusions, recommendations are made.

(69 pages)

INTRODUCTION

Speech and language are among the most complicated functions of the human organism. A child uses his gift of communication during most of his daily activities. This process of communication begins at infancy with the birth cry and develops as the baby develops and matures. Speech and language is among the last of the motor skills to be refined.

A disorder in this communication process can have an adverse effect on many of the child's activities. This, in turn, could have an effect upon the personal, social, and intellectual development of this child.

The public schools provide an excellent opportunity for the speech clinician to diagnose and work with communication disorders of children. First, school-age children have not had sufficient time to practice and stabilize their errors. To identify these errors and work with these children would be to their advantage or benefit. Second, since some disorders affect educational achievements, correction at a young age could have a beneficial effect upon the future of the child. Third, the school is a gathering place for children and it is thus feasible economically and timewise to administer therapy in this environment. Finally, the general atmosphere in the schools is that of learning and the child realizes that this is what should be taking place. The child seems to be much more responsive to therapy during school hours than he would be after school or on Saturdays.

History

Although the major interest in the profession of Speech Pathology has developed rapidly in the past fifty years, this does not mean that man has never been interested in speech problems and voice. Ever since man has been able to use speech and language to communicate, undoubtedly he has had speech problems. Therefore, people were aware of and tried to cure speech problems. For example, Simon (1954) reported that Nero had a speech problem and attempted to treat it.

Then little by little he began to study and practice himself, and conscientiously undertook all the usual exercises for strengthening and developing the voice. He would lie on his back with a slab of lead on his chest, use enemas and emetics to keep down his weight, and refrain from eating apples and every other food considered deleterious to the vocal cords. Ultimately, though his voice was still feeble and husky, he was pleased enough with his progress to nurse theatrical ambitions. p. 34.

Though the early attempts to remediate speech problems were sometimes bizarre, it must be realized that these experiments were the beginning of a foundation upon which modern speech pathology was to grow and develop. In our modern world today, no one would do those things that Nero did. However, had no one ever done those things, we would have no way of knowing that those cures and remedies did not work.

The recognition of the necessity of speech therapy in our public schools marks the first steps of integration of this profession into our society. Gifford (1949) reports that this movement began in the early 1900's. It was also reported by Gifford that Chicago first instituted services for speech handicapped children in 1910, and Wisconsin was the first state to enact enabling legislation for this purpose in 1913. Educators and other interested persons, as well as agencies, began to

promote state legislation placing speech correction in the public schools (Ventry, 1965). Within the next 27 years, eight additional states wrote laws pertaining to speech therapy in the public schools in their statute books (Asha, 1952). In 1925, the American Speech and Hearing Association, (ASHA), held its first meetings (Black, 1966). World War II created a new flood of interest in speech correction because of the numerous speech and hearing handicapped persons discovered during military physical examinations (Black, 1966). By 1953, 30 states had established certification requirements for public school speech clinicians (Haines, 1965).

The new profession then had to identify and meet the problems inherent in developing programs that would effectively meet the needs of the public school population. In 1948, Ohio had identified two major problems: a. Finding qualified speech and hearing therapists, and b. Educating communities to the needs of children with speech and hearing defects (Irwin, 1972). Their solution to the problems was to develop curriculum and clinical facilities in the colleges and to train classroom teachers in speech therapy techniques (Irwin, 1952). The foundations upon which our profession was to rest were being built.

Once the need for therapy was recognized by communities, speech service programs were developed and grew rapidly. For example, in Oakland County, California, Freeman (1961) reported that during a six-year period, 78 different programs were developed as compared to 15 in all their previous history. This type of growth occurred in areas where the counties helped by providing funds in addition to those provided by the state.

Of these early years of speech therapy development, it is interesting to read the materials that were available to instruct the public school clinicians. For example, in 1948, Alfredo Dub made a list for the

clinician to follow for maximum cooperation from the public school teachers and personnel. He said:

To meet speech correction schedules at all times, do not presume to be the "be-all and end-all." ... Do not talk down to other teachers, don't worry about the attitudes towards Speech Pathology. Teachers were not errand boys to the parents and frequent conferences with the teachers would help them to realize what you were doing. Do not disdain the advice of the public school teacher concerning the children you work with and do not get upset if the harried teacher forgets to send a child to the clinician (Dub, 1948), p. 149.

Houchin (1949) organized a list that the public school therapist should have before he begins his work:

1. Forms for case history records, speech examinations, voice and articulation record blanks, case summary outlines, speech correction case file cards.
2. Requisition list of supplies needed to begin speech correction work (not including books).
3. List of equipment needed, including: books, reprints, file cabinets, small chairs, mirror, blackboard, audiometer, and access to a voice recording device.
4. Personal lesson plans, pictures, ideas, story books, etc.
5. Sample letter to parents (to be modified to suit the situation).
6. Professional library of periodicals, including:
Journal of Speech and Hearing Disorders, Quarterly Journal of Speech, and Journal of Exceptional Children, p. 82.

These two examples are typical of the early types of guidelines used by educators. The instructions were sketchy and broad and, many times, irrelevant. They very rarely gave ideas for actual therapeutic procedures, and the clinicians had to pioneer their way, step by step, by trail and error, in developing effective programs. It is likely that in the next 50 years speech pathologists will comparatively look back to our methods of today and note great advancements. Education is a

dynamic process and educators are constantly adding to the store of knowledge by research and investigation. This thesis is hopefully one of those small steps in the direction of creating more effective public school programs.

Statement of the problem

Speech Pathology is thus a relatively new profession with services that could be beneficial or not depending upon the speech clinician. Because it is a new profession, therapists have had to develop their own programs and pioneer their way into therapy with few guidelines to follow. Speech clinicians who work in the public schools are especially handicapped because of the lack of research done in that area. Therefore, it is essential to compare methods of delivery of speech therapy used in different geographic areas to help establish guidelines for present and future clinicians so as to improve the quality of service provided by them to America's school children.

Purpose and objectives of the study

This study includes two main objectives: First, it is designed to find out which systems of delivery, intermittent or block, are used more often in the public school districts in the State of Utah. Second, it is designed to find out the percentages of speech problems that make up the caseloads of the public school clinicians in Utah and the average size of current caseloads and year-long caseloads of Utah clinicians.

Definition of terms

1. Block system: intensive therapy scheduling or related systems which divide the school year into shorter, more intensive time periods

for delivery of speech therapy services. A more complete definition will be found in the Review of Literature.

2. Intermittent system: therapy scheduled once or twice a week throughout the entire school year or until therapy is no longer required. A more complete definition will be found in the Review of Literature.

3. Caseload: a. Current caseload--the number of children who are receiving therapy at that particular time. This does not include children that have been previously seen and whose therapy has been terminated.

b. Year-long caseload--the number of children who receive service during the year other than those seen for screening.

4. Speech clinician: The term clinician will be used to refer to the man or woman offering speech therapy in the public schools.

REVIEW OF LITERATURE

Background information is essential for the reader to be able to best appreciate the implications and conclusions presented in this study. Therefore, this section of the paper will be devoted to acquainting the reader with previous literature written about the subjects of scheduling methods of speech therapy and caseload composition and size.

Scheduling

As a speech clinician organizes her therapy program, she must solve many conflicts and problems that arise. One problem, the solution of which seems easier than it really is, is scheduling. The clinician must arrange a time to meet with the child when it is most advantageous and convenient for all those concerned. In other words, the clinician must serve as a team member in preparing her schedules because so many of the school personnel are involved (Eisenson, 1971).

There are different variables that make the preparation of a schedule a difficult task. For example, many times the initial schedule is changed over and over again before it is workable. In other instances, the clinician places students homogeneously in terms of age or speech defect; in some cases she works with certain cases in the morning, or schedules children out of several different classes for language groups. In addition, the clinician must work around the schedules of the teachers involved and other specialists who may have interests in the child (Eisenson, 1971). The clinician's schedule must be flexible enough to change if these

variables make it necessary.

By offering two workable plans for delivery of services to the child to teachers and principals, the clinician can obtain the cooperation of teachers and principals a little easier and can reduce some of the above variables at the start. Undoubtedly, after the clinician has her schedule worked out and the approval and cooperation of the teachers, there will still be some conflicts that arise which will necessitate changes in the schedule (Black, 1964). The clinician must expect and anticipate these changes to occur during the entire school year.

One of the things the clinician must consider as the schedule is prepared relates to determining which individuals should be placed in groups and which students should be worked with individually.

It has been estimated that nine-tenths of the children who are seen by speech therapists receive therapy in groups (Eisenson, 1971; Van Hattum et al., 1961). Some advantages of having children in groups seem to be: First, more children can receive therapy than if the clinician met the children one at a time. Second, the clinician can use the competitiveness of children to motivate them to work. Third, a shy child may not be as reluctant to leave the classroom to go to "speech" if other children also go to "speech". Fourth, the clinician can have the children remind each other to say their sounds correctly when they are in the classroom or on the playground.

There do seem to be disadvantages found in the scheduling of children in groups: First, the clinician must watch the children carefully to determine that each child is participating. It is not difficult for a shy child to be quiet and let a more aggressive child shout out the

answers. Second, the clinician must have complete control over the session so the children cannot use the time as a free play period. Third, there is a reduced amount of responsive time available to each child in the group since therapy time must be divided between all of the children in the group.

Some advantageous to scheduling therapy individually seem to be: First, each child receives intensive therapy during his session and the clinician is fully aware of the progress he is making. He cannot slide by on the coat tails of a more aggressive child. Second, some clinicians feel that individual therapy is more effective in terms of correcting the problem. For example, Eisenson (1971) reported that in 1962, Sommers found that 30 minutes of individual therapy for articulatory problems was generally as effective as 50 minutes of group therapy. Somers later found, however, that in the correction of articulatory defects, group therapy was as effective as individual therapy, regardless of the severity of the disorder or of the grade levels (Eisenson, 1971). In view of this equivocation in Sommers' findings, it must be realized that some children are able to work better and progress more rapidly in groups than are other children. Therefore, it cannot be said that individual therapy is better than group therapy nor is the reverse true; both have certain advantages over the other.

The clinician must use professional judgment as to which children would benefit more in group therapy and which children would benefit more in individual therapy. The judgments, however, are influenced by several persons with whom the clinician must cooperate--the most important being the classroom teacher (Van Hattum et al., 1961). Since classroom teachers

usually prefer to have all the speech pupils taken at the same time, group scheduling would be feasible from this standpoint. If, however, the children have different problems and would not function together in a group, individual scheduling would be necessary and must be worked out with the teacher (Black, 1964).

Another consideration that confronts the clinician in planning the therapy schedule is the demands of the program's organization. It must be considered how many schools should be seen during the week or should the entire week be spent at a single school.

With these types of variables facing the clinician, two systems of scheduling have emerged in speech therapy programs in the United States. These are the block system, and the intermittent system--sometimes known as the regular or itinerant system of scheduling.

Block system. The block system is defined as intensive therapy or some system which divides the school year into shorter, more intensive, time periods (Van Hattum, 1969). Therapy is usually given on a daily basis for several weeks, most often 5-6 weeks. Usually, the clinician stays at one school until most or all of the cases at that school are terminated, and then goes to another school and conducts intensive therapy for several weeks until all or most of those cases are terminated. The clinician may make return visits or rechecks on the terminated students. They may also be placed on a home program to make certain that those things learned will not be forgotten.

Intermittent system. The intermittent system is defined as therapy administered once or twice a week during the entire school year or until therapy is no longer required for a particular child. Generally, the child

is seen for two 15-20 minute sessions per week. These sessions continue during the entire school year or until the child is terminated. The clinician travels to all or most of the schools in the district during the week.

These particular programs have been tried and compared in various school districts as alternative speech therapy delivery models. Black (1964) reported a pilot study comparing the block system and the intermittent system of scheduling speech therapy in the public schools.

In Black's study it was hypothesized that children with articulation problems receiving speech correction under the block system would make a significantly greater gain in speech therapy than a contrast group of children receiving speech correction under the intermittent system of scheduling.

An experimental group was selected from five schools with a school population of 1,700 children. These five schools were served by two clinicians who were using the block system. A contrast group was selected from a school population of 3,400 children who were enrolled in the remaining schools in the district. The contrast group was served by four clinicians who were using the intermittent system.

The schools on the block system were each allotted three blocks of time through the school year. Each block extended for a five week period. When the school was on the scheduled block, speech services were provided four days a week during the five week block. The clinicians working under the intermittent system would normally see each child twice a week until the end of the school year or until the time of dismissal from therapy.

When the total group on the block system was contrasted with the

total group on the intermittent system, the speech gains evidenced by the children on the block system were consistently and significantly greater than those evidenced by the children on the intermittent system. This was felt to be of considerable importance since the average minutes of speech therapy received for the school year was less for the children on the block system than for the children on the intermittent system.

It was reported by Black (1964) that Van Hattum studied reports and records of public school districts in Rochester, New York. He found that the dismissal rates under the intermittent system of scheduling were from 18 to 21 percent. He contrasted these figures to the figures of a similar period of time that utilized the block or intensive system of two six-week sessions per school. The block system showed a dismissal rate of 38 to 41 percent.

Van Hattum (1969) reported a study by Weidner that indicated that more children received help under the block system which reduced the waiting list. More children were dismissed as corrected and there was more carryover among these children when examined again.

Weaver and Wollersheim (Black, 1964) found that speech gains displayed by children who were working on the block system were significantly greater than those children who were on the intermittent system. Because the average minutes of therapy for the school year were less for those children on the block, this result was felt to be of considerable importance.

Van Hattum et al., (1961), reported on an investigation that was taken by the use of questionnaires. Opinions were asked of clinicians and program supervisors on the subject of the effectiveness of the block

system and the intermittent system. Neither of the terms were defined in the questionnaires.

The responses revealed that 81 percent of the clinicians, 70 percent of local supervisors, and 33 percent of state supervisors had never used the block system. Table 1, lifted from the articles (Van Hattum et al. 1961) reports the evaluation of the block system by those clinicians and supervisors who had used it.

Table 1. Evaluation of the block system

Evaluation	Clinicians N=705	Local Supervisors N=101	State Supervisors N=40
Block is far superior	3	6	8
Block is a little better	1	2	0
About the same	2	6	10
Regular is a little better	2	6	8
Regular is far superior	4	5	12
Have not used or no response	88	75	62

A follow-up study was conducted because there appeared to be some confusion among the respondents in answering questions about the block system. On the second study, when clinicians were asked to explain how the block system operates, 65 out of 75 respondents described 26 different variations of the block system. Most of the clinicians described the block system as a concentrated or intensive program varying in length from

two weeks to a full semester. Most stated that the system involved therapy sessions four or five times per week, but some described it as involving a period of therapy in one group of schools with two sessions per week followed by a shift to another group of schools. Twenty-seven of the 75 clinicians were currently using the block model or had used it; of these, 19 considered it (with all its variations) to be superior to the intermittent system (Van Hattum et al. 1961).

Van Hattum (1969) reported that the clinicians in his study preferred the block system. One basic reason was that there were administrative advantages. These advantages were:

1. Children and teachers found it easier to remember when therapy was scheduled.
2. The room was in daily use during that period.
3. Clinicians became better acquainted with school staffs.
4. The clinicians found it easier to plan and execute a program of therapy when children were seen daily. p. 163.

Black (1964) reported that principals preferred the block system and commented on the ease of scheduling, working relationships between speech clinician and the school faculty, and improved motivation. The teachers preferred the block system because of the same reasons, but some were concerned about the disruption of classes which they felt was more noticeable in a block system.

Other advantages of the block system seem to be: First, the clinician does not need to transport heavy and bulky equipment from one school to another during the day or even the week. Second, the clinician does not waste precious therapy time traveling from one school to another during the day. This is especially helpful if there is a considerable

amount of traffic or distance between schools. Third, there are many types of speech disorders that respond to therapy better if the therapy is intensive. In an articulation case, for example, the child does not have so much time in between his sessions that he forgets the sounds he has learned. The clinician can begin the next day where she left off without having to reteach and review.

Caseload

The organization of a caseload has been of much concern to clinicians. Considerations must be made as to what kinds of problems the clinician should schedule in her caseload, and how many children should be seen. Because the clinician wants to make sure that her time is utilized in the most efficient and useful way, she must consider the scheduling of her caseload carefully.

Caseload composition. It is estimated that there are two and one-half million school children in the United States who have speech problems which should be treated by specially trained personnel (Haines, 1965). Five percent of the school-age population have speech and hearing disorders (Executive Council of ASHA, 1962). Within this five percent, various authors have stated the relative percentages of different kinds of speech problems.

Dunn (1963) reported Hull as saying about three and one-half percent of the children in public schools have speech defects that are in need of formal therapy, and that disorders of articulation comprise 70 percent of all diagnosed disorders.

Black (1964) reported the distribution of the speech caseload in the Illinois public schools during the 1962-63 school year. The figures

are listed in Table 2. A survey reported by ASHA presented relative percentages of the different kinds of speech problems. The study utilized reports from 1,462 clinicians (Van Hattum et al., 1961). The figures are listed in Table 2. Massachusetts reported the incidence of speech and hearing impaired children in their public schools in 1960 (ASHA Legislation, 1960). These figures are also found in Table 2.

Table 2. Percentages of speech problems

Disorder	Black %	ASHA %	Massachusetts %
Articulation	82	81	60
Delayed speech	5	4.5	6
Stuttering	4	6.5	14
Voice problems	4	2.3	4
Hard-of-hearing	2	2.5	4
Cleft palate	1	1.5	2
Cerebral palsy	1	1	4
Aphasic	1	.7 ^a	-

^a Bi-lingualism and mental retardation were included in this figure.

The ASHA Committee on the Mid-Century White House Conference reported that 60 percent of the speech handicapped school age children were cases of articulation disorders. They reported that .7 percent of the total school-age population were stutterers, .2 percent had voice problems, and .5 percent had impaired hearing with a speech defect;

.6 percent had other defects of speech and/or hearing (ASHA, 1952).

Caseload considerations. Once the children with speech and hearing disorders in the schools are identified, the caseload may be selected. Several authors have made up lists of factors to be considered when choosing the caseload.

Webster (1966) suggested the following guidelines: What is the assessment of the speech symptoms; what are possible causes; what are the current and potential influences of the speech problem on the child; and what is the child's feeling about it.

Perkins (1966) considers: The modifiability of the problem by speech therapy; the social and academic concomitants of the speech problem; the child's awareness and motivation; and parent and teacher involvement and feasibility of scheduling.

Bloomer (1966) suggests the following criteria for selection: The age of the child; the social implications of the disorder; the ease of symptom elimination; concomitant problems; the attitudes of the child, family, peers and teachers; any familial history of speech disorders; and the length of time the disorder has persisted without improvement.

Pronovost (1966) provides the following criteria: What is the child's intellectual functioning; is the child able to imitate the clinician's correct sound production; the child's speech sound discrimination; the child's ability to produce rhythmic tongue movements rapidly; and the child's language output.

Black (1964) suggests the following procedures: Do not fill the caseload with the cases that seem to be the most severe--take some cases from every age group and from every type of defect. The caseload must

not have too many slow moving cases because it is essential that the clinician show progress.

Flower et al., (1967) discusses the following as criteria for case selection: a. readiness, especially in relationship to the hierarchy of tasks involved in speech therapy, b. breadth of disorder.

Henrikson (1968) suggests that in addition to selecting children who are most in need of help, care should be taken to see children who will increase the clinician's skill.

It is important that the speech clinician base the selection of cases on logical, appropriate rationale and that this rationale be used in defending the inclusion or omission of a child from the caseload. When classroom teachers and administrators have participated in working out the rationale, a parent, concerned about the omission or inclusion of his child in therapy, is more likely to accept the decision (Eisenson, 1971).

Caseload size. The size of the caseload is of concern to all clinicians. Black (1964) suggests that a clinician can serve from 70 to 100 pupils at any given time and 125 pupils can be seen during a year. She states that current caseloads above 100 are a waste of time and money and are "unworthy of professional recognition." p. 27.

A survey reported by Van Hattum (1961) provided a mean derived from responses received from a total of 1,462 clinicians nationwide working with a total of 186,962 children with speech and hearing problems. A current caseload in 1961 was approximately 130 children; the average number of children seen at least weekly was 111; and the average number of children worked with in the course of the year was 152.

Van Riper (1954) suggests that it is unwise for the clinician to carry a caseload of more than 100 cases. He indicated that even this number was high--it would necessitate seeing approximately ten cases each hour if each child was seen twice a week for a 15-minute therapy period.

Ohio recommends that a clinician handle not over 75 children in a caseload (Knight, et al., 1961). The Seattle public schools recommend a caseload of 65 (Pendergast, 1963). Alabama set a caseload of 75 children for their clinicians (Brown, 1967). The Utah State Board of Education recommends that the maximum number of students seen by clinicians should not exceed 100 and should not fall below 65 (Special Education Report, 1966).

It has been the aim of this section to present statistics and background information concerning scheduling methods and caseload composition and size in the public schools. By understanding past procedures, and learning what we can about present procedures, we can plan a more efficient pattern of service for the future.

METHODS OF PROCEDURE

A review of literature has provided background information and has acquainted the reader with previous literature written about the subjects of scheduling methods of speech therapy and caseload composition and size. A case study which will investigate the methods described in the literature review will be initiated by the writer. The methods of procedure of this study will be the focus of this particular section of this paper.

The relative youth of the Speech Pathology profession provides many areas that are open to exploration and study. New methods and ideas need to be shared. One way of accomplishing this task is by gathering the information, tabulating it, analyzing it, making comparisons and drawing conclusions. The gathered information then provides new areas for study and poses new questions that need to be answered. With this in mind, the writer decided to study the methods of speech therapy delivery and caseload composition in the Utah public schools. It is expected that the study will provide new information and insights into what is being done and indicate areas of weakness.

Questionnaire methodology was decided upon because the information to be gathered needed to be uniform for the sake of comparison and tabulation, convenient for the clinicians to respond to, and relatively inexpensive.

A mailing list of speech clinicians was obtained from Mrs. Mae Taylor, Consultant in Speech Pathology, Utah State Office of Public

Instruction. Mrs. Taylor sent the most recent and up-to-date list, the Special Education Directory of Speech and Hearing Clinicians in Utah Public Schools, 1971, published by the Utah State Board of Education.

A letter of explanation, the questionnaire (see Appendix A and B for actual copies of these forms), and a self-addressed, stamped envelope were sent to each entry in the directory. Because the directory did not distinguish between audiologists and hard-of-hearing clinicians, it was necessary that they receive a copy of the questionnaire even though the study did not apply to them. As a result, it was expected that these persons would not respond and, therefore, the number of questionnaires not responded to would be higher than usual.

The form of the questionnaire included two major divisions or categories:

1. Delivery model of speech therapy.
 - a. Block system
 - b. Intermittent system
 - c. Other
- 2a. Caseload.
 - a. Number of children currently being seen for therapy
 - b. Number of children seen during the school year
1971-72 for therapy
- 2b. Number of speech problems being seen.
 - a. Articulatory
 - b. Voice
 - c. Postoperative
 - d. Delayed speech

- e. Stuttering
- f. Aphasia
- g. Hard of hearing
- h. Foreign speech
- i. Cerebral palsy
- j. Other

A deadline of April 1, 1972 was set for the questionnaires to be returned. After the deadline had been reached, reminders on post cards were sent to those individuals who had not yet responded and a second deadline was set for April 20, 1972.

When the questionnaires were returned, the information was gathered and tallied on the data collection sheets (see Appendix C for copies of these sheets). The information was then analyzed and organized into tables for ease of presentation.

The data provided information on the methods of therapy delivery and caseloads in the Utah public schools, as well as provided insights into other related areas. It will be useful to evaluate strong and weak points in the deliverance of therapy throughout Utah public schools. This information will be helpful to training institutions as well as individual clinicians in planning caseloads and studying new methods of speech therapy delivery.

The writer has collected some limited information from several states other than Utah, with the intention of observing wider geographic trends in the methods of public school clinicians. For the sake of comparison only, their reported statistics will be compared with the findings of this study for Utah.

DESCRIPTION OF THE DELIVERY MODEL OF SPEECH THERAPY
AND CASELOADS IN THE PUBLIC SCHOOLS IN UTAH

This section is concerned with reporting and describing the information taken from questionnaires that were sent to the Speech and Hearing Clinicians in the Utah public schools as listed in the Special Education Directory of Speech and Hearing Clinicians in Utah Public Schools, 1971. The information will follow the main divisions in the questionnaire form, i.e.:

1. Delivery model of speech therapy.
2. Caseload.
 - a. Number of children in caseload.
 - b. Types of speech problems in caseload.
3. Miscellaneous: Different names and titles used by the speech and hearing personnel.

In March, 1972, letters and questionnaires were sent out to the speech and hearing clinicians in the Utah public schools from the Utah State University Communicative Disorders Department as part of this study project by the writer. There were 171 letters and questionnaires, one to each public school speech and hearing clinician in Utah (see Appendix A and Appendix B for copies of the actual forms). Twenty-two questionnaires were returned with no known forwarding address; 23 letters were returned with a reply that they were no longer working as a clinician or employed by the public schools; 52 questionnaires were returned containing

the desired information; and there was no response from 74. This high no response rate was attributed by the researcher to the fact that many letters were sent to hearing personnel as well as audiologists. The information desired did not apply to the latter. This could not be helped, however, because the directory did not distinguish between speech clinicians and hearing clinicians or audiologists.

In some instances, individual clinicians did not answer all of the questions on the questionnaire. Therefore, the number of responses reported for each question will represent the answers of those individuals who did answer that particular question. As a result, N on the tables will not always equal 52.

The question, as it appears in the actual form of the questionnaire will be stated and enclosed in quotes. A table summarizing the clinician's responses will follow each question.

Description of delivery model

The two kinds of delivery methods, intermittent or block, previously discussed in the review of literature, were offered as choices on the questionnaire form. The clinician was instructed to check the system most closely related to his or her own method of delivery. There were spaces available for the clinician to indicate whether or not individual therapy was given or if therapy was provided in groups or if both methods were used. There was also a space available for the clinician to indicate whether or not another method of delivery was used that had not been described and offered as a choice. If necessary, they were asked to specify this additional method of delivery.

The question read as follows:

1. "Delivery Model of Speech Therapy.

Check the one most closely related to your system.

_____ Block System, (3-5 days a week per child. Therapy at one school only until all cases at that school are terminated.)

_____ Individual therapy

_____ Group therapy (specify)

_____ Intermittent system, (Service to all schools in your assignment at the same time.)

_____ Individual therapy

_____ Group therapy (specify)

_____ Other: (specify)"

Table 3 lists the responses recorded on the returned questionnaires.

N exceeds 52 because one clinician reported the systems used by 8 other clinicians in her particular district. She indicated that she was reporting for them and that they would not be responding on a separate questionnaire.

Table 3. Delivery model of speech therapy.

System	No. of Clinicians N=60	Percent of total
1. Block system		
with individual therapy only	8	13.33
with group therapy only	1	1.66
with individual and group therapy	7	11.66
2. Intermittent system		
with individual therapy only	13	21.66
with group therapy only	6	10.00
with individual and group therapy	25	41.66
3. Other systems	0	0.0

The data indicates that 73.33 percent of the clinicians who responded to the questionnaire use the intermittent system of scheduling and 26.65 percent of the clinicians use the block system of scheduling.

Irrespective of the block or intermittent schedule, clinicians mainly worked with individual treatment models or a combination of individual and group. Very few clinicians reported group therapy only.

Discussion. The literature reviewed for this study tended to support the block system of scheduling as being more efficient and effective than in the intermittent system. Nevertheless, though the literature suggests that the block system is the most efficient, the majority of the clinicians responding to the questionnaire used the intermittent method for delivery of therapeutic services.

The majority of clinicians and supervisors who were questioned about the effectiveness of the two systems had never used the block system. One problem with the study reported by Van Hattum (1961) was that the systems were not defined on the questionnaire and many of the respondents did not know what the systems were. On a second study, where the respondents defined their interpretation of the block system, Van Hattum (1961) found that 70 percent of the respondents who used the block system or some variation of it considered it to be superior to the intermittent system. Where so little has been written and researched on the subject, however, one must be careful not to accept the conclusions of the literature without some reservation. There may be many reasons why an intermittent system would function more effectively in many school districts than would a block system.

In many districts, the principals of the schools dictate the schedules and facilities that are to be available to the clinician. Within this structure, the clinician must design and schedule her caseload. A principal may object to a block system because, during part of the year, his school is not receiving speech services that his school was scheduled to receive.

If any problems develop between the teacher and clinician, the principal must mediate between them and attempt to satisfy both parties. Many teachers prefer not to have children taken out of their class every day at the same time because the class may be disrupted, and the students miss the particular subject being taught at that time. The principal has the responsibility of making sure that everything is running smoothly, and

coordinating schedules of services given to the school child seems to be one of his major difficulties.

In school districts where there is more than one clinician, materials and programs used in therapy sessions sometimes need to be shared. In this event, it may be unreasonable for one clinician to use a certain program for five solid weeks. Therefore, block scheduling may prevent efficient use of the existing materials.

Description of the caseload

In this study, the clinicians were asked to describe their caseloads in two parts. The first part was how many children were in their caseloads currently and how many children made up their caseloads during the entire year. The second part related to the types of speech problems comprising their caseloads.

The first part of the question and the responses of the clinicians are listed below.

2a. "Caseload (exclusive of screening)

_____ Number of children currently being seen by you.

_____ Estimate number of children seen by you for the therapy during the school year 1971-72."

Table 4. Number of children in current and year-long caseloads.

Current Caseload		Year-long Caseload	
No. of children	No. of clinicians N=49	No. of children	No. of clinicians N=51
7-19	4	8-19	5
20-23	6	21-28	5
30-39	6	39-47	2
40-46	10	50-59	7
51-59	9	60-69	6
60-65	3	70-75	9
71-78	7	80-88	6
81-83	2	90-99	4
120	1	100-112	3
126	1	120-150	4

The number of children reported by the clinicians to be in their caseloads was grouped into ten intervals. The corresponding column indicates the number of clinicians that have that many children in their caseloads.

The median in the current caseload column is the 40-46 interval. Interpreted, this means that the largest number of clinicians have between 40-46 children in their caseloads at any given time. The next largest number of clinicians have between 51-59 children in their current caseloads. The median in the year-long caseload column is the 70-75 interval.

Therefore, the highest number of reporting clinicians see from 70-75 children throughout the year.

For the sake of comparison, Table 5 below summarizes from the literature review the suggested sizes of current and year-long caseloads.

Table 5. Suggested sizes of caseloads--current and year-long.

	Current Caseload	Year-long Caseload
Black	70-100	125
ASHA	130 ^a	152 ^b
Van Riper	100 (not over)	
Ohio	75	
Seattle	65	
Alabama	75	
Utah	65-100	

^{a,b}, This figure was not a recommendation by ASHA. It was a mean derived from responses received from 1,462 clinicians nationwide.

Discussion. A comparison of Table 4 and Table 5 indicates the following: 71 percent of the clinicians who participated in this study have less children in a current caseload than any of the recommendations reviewed in the literature suggest. This means that these clinicians have less than 60 pupils in their current caseloads. Twenty-eight percent of the participating clinicians have between 60 and 83 pupils and 4 percent have more than 100 students in their current caseloads.

There have been arguments as to whether or not the state, the American Speech and Hearing Association, or the individual school districts should place regulations on the size of the caseload. Although Table 4 does not leave room for explanation of variables that may affect the caseload size in any one particular case, the fact that 71 percent of the clinicians do not meet any suggested recommendations, indicates the need for some type of investigation into the reasons why the lesser number of children are being seen by certain clinicians.

The second part of the description of the caseload asked the clinicians to indicate the number of different types of speech problems they were currently seeing.

Nine different major speech problems were given as choices on the questionnaire. Spaces were available for the clinicians to indicate the grade and sex of the children in each area. Room was available for the clinicians to designate other speech problems that they were working with which had not been listed on the questionnaire.

Question 2b. is the question listed on the questionnaire and Table 6 describes the types of speech problems being seen by clinicians. Table 7 describes the other types of speech problems the clinicians were working with that were not offered as choices on the questionnaire.

2a. "Caseload (exclusive of screening)

_____ Number of children currently being seen by you.

_____ Estimate number of children seen by you for therapy during the school year 1971-72."

Table 6. Types of speech problems being seen.

Speech disorder	Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total	Percent
Articulatory	38	1169	342	70	838	626	1619	54.69
Voice	0	37	29	15	52	19	81	2.73
Postoperative								
a. Cleft palate	0	8	2	2	7	4	12	
b. Cleft Lip	0	1	0	1	2	0	2	1.08
c. Both	1	13	2	1	9	5	18	
Delayed speech & language	12	336	39	10	204	107	468	15.81
Stuttering	0	17	24	9	38	9	51	1.72
Aphasia	1	0	0	1	0	2	2	.06
Hard of hearing								
a. Lip reading	0	5	4	2	4	7	11	
b. Auditory training	1	39	52	20	47	29	112	4.12
Foreign speech (bilingual)	4	76	14	7	39	29	101	3.41
Cerebral Palsy	1	12	2	3	9	4	18	.60

Table 7. Other types of speech problems.

Speech disorder	Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total	Percent
Special education & TMR	0	1	2	0	50	35	85	2.87
Learning disabilities	0	29	3	1	17	16	207	6.99
Tongue thrust	0	13	5	5	9	13	22	.74
Speech improvement	0	100	0	0	60	40	100	3.37
Psychomatic hearing loss	0	0	0	1	1	0	1	.03
Auditory perceptual disorders	0	27	8	0	-	-	35	1.18
Cluttering	0	0	1	0	1	0	1	.03
Non-designated	0	6	4	4	8	6	14	

Discussion. A comparison of this data with figures quoted in the review of literature shows that the percentage of articulation cases seen by Utah clinicians is well below Black's estimate (Black, 1964), ASHA's norm, (ASHA, 1952), and 5.5 percent below the figure quoted in Massachusetts, (Legislation, 1960).

Questions have arisen as to whether or not clinicians should spend time with articulation cases when there are more severe speech problems that need attention. There are also professionals who feel that articulation errors are normal in children who are in the lower grades and the errors will self-correct as the child matures. One who agrees with these ideas would feel that the smaller articulation caseload is justified.

Delayed speech and language is generally considered to be a more severe disorder than articulation. The data in this study showed that this disorder comprised 15.81 percent of the total reported caseload. The majority of these children were in kindergarten to third grade. This figure is about 10 percent higher than the figures quoted in the review of literature.

In the past, many clinicians have not known how to remediate or even diagnose children with delayed speech and language. Recently, new language programs have been developed which incorporate effective methods of teaching language skills. As a result, more clinicians are experiencing remedial success with this type of child and are adding more delayed speech and language children to their caseloads.

Learning disabilities are more readily recognized today than in past years. The literature review does not mention learning disabilities; therefore, we cannot compare the data of this study to previously established norms in this area. However, more is being learned about the disorder and more clinicians are scheduling therapy with these children.

Many of the responding clinicians had one or two hard of hearing children in their caseload. The percentage of hard of hearing children in their caseloads is only slightly higher than the percentages quoted in the literature review. There does not seem to be any specific age group when these children are receiving therapy in the public schools. There were considerably more clinicians providing auditory training than lip reading. This is probably explained by the fact that hard of hearing children in public schools usually have some residual hearing and are not profoundly deaf. Auditory training helps them use their hearing

more effectively and speak more clearly and thereby enables them to function more normally in the classroom situation.

Children, whose native language is not English, are frequently found in English-speaking schools. The difficulties encountered by these children are substantial. A speech clinician can be of valuable aid to these children in many areas of communication, e.g., in pronunciation techniques, language development, phrases and sayings unique to the English language, and socialization. Only one source in the literature review mentioned bilingualism and the percent quoted was a percentage of .7.

Speech improvement consisted of 3.3 percent of the total caseload in the study. These cases were all seen by one clinician and every one of her cases was listed under this heading. The term "speech improvement" is too general a term when defining the specific speech disorder of the child. Generally, speech improvement programs involves those children who deviate within the range of normal. This writer questions the effectiveness of the clinician who fills her entire caseload with speech improvement cases if this definition encompasses the type of children in her caseload.

There has been a tendency in the past for clinicians not to work with special education or trainable mentally retarded children in speech therapy in the public schools. It was considered to be a waste of time because so little, if any, progress was made. That no longer seems to be the popular opinion as more and more clinicians add children who are in special education and TMR's to their caseloads. Although the progress made by these children is not as rapid as progress made by other children, the clinician's time spent in therapy is justified. The clinician must

realize that no matter how little progress is made, progress in itself is significant; the small step taken by the child is the clinician's reward.

The percentage of stuttering cases that were reported by the respondents is very much smaller than the percentages quoted in the literature review. This indicates that either Utah has fewer stutterers than is reported on a national basis or that the clinicians are not scheduling as many stutterers in their caseloads as they could schedule.

The percentage of repaired cleft lip and palate children in post operative therapy reported by Utah Clinicians does not differ greatly from the percentages quoted in the literature review.

Twenty-two tongue thrust cases were reported as being seen by four clinicians. There was no mention of tongue thrust in the literature review. One clinician in this study reported fourteen tongue thrust cases in her caseload.

Eighteen cerebral palsy cases were reported, which makes a percentage of .6. The literature review reported percentages ranging between 1.0 and 4.0. The cerebral palsy children who attend the public schools are usually not severe cases and do not require extensive speech therapy. Severe cases of this type who are in need of speech therapy will usually be found in a private clinic or special training situations.

Names and titles

Throughout the short history of speech pathology, clinicians have not been sure as to what their official title was. Even today there is still confusion as articles for and against certain names appear in the professional journals.

On the questionnaire, the clinicians were asked to give their position or their title. It was interesting to note the different titles. Table 8 lists these titles and the number of clinicians using the title.

Table 8. Names and titles.

Title	Number of clinicians N=49
Speech Therapist	16
Speech Clinician	6
Communicative Disorders Specialists	6
Speech Pathologist	4
Speech and Hearing Therapist	3
Audiologist	3 ^a
Speech Correctionist	2
Speech and Hearing Clinician	2
Hearing Therapist	2 ^b
Coordinator	2
Audiologist and Speech Therapist	1 ^c
Communication Specialist	1
Resource Teacher	1

a,b,c, The hearing personnel who responded to the questionnaires had a full caseload of all types of problems--not just hard of hearing cases.

Thirty-two percent of the clinicians preferred to refer to themselves as speech therapists, 12 percent preferred speech clinician, and 12 percent preferred communicative disorders specialists.

It would be beneficial, not only to clinicians and persons concerned with the speech and hearing profession, but also to the general public, if there was a common title for persons administering speech therapy.

On this subject, there have been conflicts of opinion as to which name would best represent speech personnel. For example, some feel the term "speech pathologist" presents the best professional image, whereas some feel the term "speech therapist" best describes the functions carried on by the profession.

The clinicians responding to the questionnaire are representative of others in the field in that a great discrepancy exists in the titles used and preferred.

CONCLUSIONS AND RECOMMENDATIONS

This summary will review the major points brought out by the study and those discussed in the review of literature. Recommendations will be made as a result of the study in the hope that they will provide the basis for improvement in the Utah public school speech therapy programs. It is recognized that it will take time before such recommendations could be implemented and have an impact throughout the state. It is also recognized that through continued research, and the pressure generated from resulting recommendations, improvements and progress will result in this important area of speech therapy.

The recommendations will reflect to some extent the information developed by previous researchers as well as this researcher. The opinions of the writer were derived in large measure from her studies and experience, limited though it may be, in the field. Paramount is the desire to see the system improved within the limitations that it faces. Hopefully, other studies will also generate increasing pressure based upon understanding that will result in increased support to achieve some of the recommendations that follow.

Scheduling methods

The block system of scheduling is favored over the intermittent system by most researchers who have studied and compared the two systems. The data generated by this study, however, indicates that 63.2 percent of the Utah clinicians use the intermittent system of scheduling. Also,

the literature indicated that many clinicians did not understand nor were they acquainted with the block system.

Since there is evidence to support the premise that better therapy results from the block system, the following recommendations are proposed.

1. It is recommended that a pilot study be initiated in selected public schools to gather comparative data with respect to the block system and the intermittent system. Such a pilot project should be monitored so that valid data could be collected and used to ascertain the relative effectiveness of the two systems.

2. Since there is evidence to support the premise that a large number of clinicians do not understand nor are aware of the block system, it is recommended that an effort be made by training institutions in assuring that students are up to date and know of the alternative methods available for use. Also, students should have access to the latest research in the field.

3. Since the dissemination of information is a problem, it is recommended that a program to encourage more writing and more study on this subject be initiated.

4. It is recommended that school principals and teachers be included in mailing lists of published material so that their support can be assured to help overcome the problems presently encountered in scheduling. Increased understanding on their part should remove some of the roadblocks to better scheduling.

5. The review of literature made this writer aware of the fact that research in the public school area is not plentiful. It is recommended that public school clinicians be made aware of their responsibility to contribute research for the improvement of speech therapy programs.

Caseload Size

The majority of the Utah clinicians who participated in this study showed a wide divergence from the caseload size suggested in the literature review.

Since the data indicated a trend for clinicians to shift from a heavy articulation load to a caseload filled with more difficult and diverse disorders, many of whom must be seen individually, the following recommendations are proposed.

1. It is recommended that the Utah State Board of Education reconsider the recommended caseload of no less than 65 and place it according to types of disorders that are prevalent in the caseloads of individual clinicians.

2. Since the working time of a clinician may very well affect the size of her caseload, it is recommended that the Utah State Board of Education consider a possible caseload size for part time clinicians.

Caseload composition

There was a wide divergence between the data indicating the percentages of articulation, delayed speech and language, and stuttering seen in Utah and the range of percentages quoted in the literature review. In view of these differences, the writer will make recommendations concerning these three disorders.

Although the data showed that articulation cases comprised the majority of the caseload, the percentage was considerably lower than the percentages from the review of literature. The trend to shift from a vast articulation load is encouraging and it is the opinion of this writer that this trend

in Utah is in the right direction. A decrease in articulation load will leave more time for attention to more serious problems. It is therefore recommended that:

1. Clinicians attempt to see only those articulation cases who, in their professional judgment, either will not self correct or are severe enough to interfere with the child's ability to communicate.

2. Training institutions make an attempt to place more emphasis on the therapeutic procedures for cases other than mild articulation.

The data indicated that the percentages of delayed speech and language cases in the Utah public schools were considerably higher than the range of percentages listed in the literature review. No recommendation, therefore, is being made in this paper for change because this trend to include more delayed speech and language children in a caseload is encouraging to the writer.

It is recommended, however, that clinicians, teachers, parents, and principals be made aware of the potential seriousness of a delayed speech and language disorder and the negative effect it can have on the future and success of the child.

Unfortunately, the data indicated that comparatively few stuttering cases were being seen in the Utah school caseload. As a result, the following recommendations are being made.

1. It is recommended that more appropriate screening procedures to find stuttering cases be included in the workloads of clinicians throughout the Utah public school system.

2. Training institutions should make an attempt to better train clinicians to be able to effectively work with stuttering cases.

3. Requests should be made for teachers to be aware of and refer any students in their classes who may stutter.

There were no wide divergences between the data indicating the percentages of the remainder of the speech disorders discussed in this paper and the range of percentages quoted in the literature review. With this in mind, the writer will make some general comments and recommendations concerning these remaining disorders.

The inclusion of children with learning disabilities into speech therapy caseloads is an encouraging sign that clinicians are attempting to handle more difficult cases. Therefore, no recommendations are being made for change.

Since speech improvement cases are generally cases that deviate within the range of normal, it is recommended that clinicians do not include speech improvement cases in their caseloads unless there is either a possibility that the child's speech will deteriorate without therapy or the caseload of the clinician is under control and has room for speech improvement cases.

Since the necessity of postoperative therapy is recognized, the following recommendations are being made:

1. Clinicians work with children with repaired cleft lip and palate who need therapy in order to prevent any speech problems which may be currently developing or to help remediate those speech problems the child has already developed.

2. If a child is not seen in therapy, it is recommended that the clinician make periodic checkups on the child in order that any developing speech disorders may be stopped.

The importance of speech therapy for bilingual children, voice disorders, special education and TMR children is recognized, therefore, no recommendations are being made for change.

Limitations of the study

There are limitations which accompany some of the minor details of the organization of this study. These limitations must be recognized and listed in order that future studies may avoid the misunderstandings and difficulties that have arisen as a result of these limitations.

First of all, it was evidenced by the data of this study that many clinicians were not clear as to the meanings of the two therapy delivery systems being investigated; intermittent, and block. In view of this, it would be helpful if a similar study not only requested the clinicians to describe, in detail, the type of systems they were currently using. With this information, the researcher would be able to more effectively assess and determine the type of system the clinician was using. A more accurate description would develop as a result of the clinician's assessment and would prove to be more useful in the study.

Second, a short statement by the participating clinician as to why she uses a particular system and not another would add valuable information and insight into the pros and cons of the effectiveness of a particular system. This type of information is scarce in the literature and would prove useful in terms of understanding different viewpoints.

Third, it was recognized by the researcher that many clinicians used different terms for the same disorder. As a result, there were many different names of cases reported that should have been listed under the same category. Therefore, it would be useful for a similar study to list

a brief and clear definition of each disorder and list other possible names used for the same disorder. This would eliminate a certain degree of confusion and would facilitate the reporting and understanding of the data.

Last of all, it is recommended that if a similar study is initiated, an attempt be made to obtain a response from every person receiving a questionnaire in the study. An attempt should be made to locate and include in the study clinicians that have been recently hired and whose names do not appear in the directory.

It is apparent from this study that the critical variables of the delivery model and caseload size and composition need further research.

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APPENDIXES

Appendix ALetter of Explanation Sent to Each Clinician



DEPARTMENT OF
COMMUNICATIVE
DISORDERS

UTAH STATE UNIVERSITY · LOGAN, UTAH 84322

50

COLLEGE OF EDUCATION

March 17, 1972

As a thesis project, we are sending out the enclosed questionnaires to all the public school districts in the State of Utah. We wish to obtain data concerning the types of delivery models of speech therapy, and the percentages of speech problems that make up the general case loads of the public school clinicians in the State of Utah. We would greatly appreciate your cooperation in filling out the questionnaire and returning it to us by April 1, 1972.

Thank you for your time.

Sincerely,

Jocelyn A. Taylor
Graduate Student

Jay R. Jensen, Ph.D.
Head, Dept. of
Communication Disorders

Appendix B

Questionnaire Sent to Each Clinician

Name _____

Position _____

School District _____

Full Time _____ Part Time _____

No. of Speech Clinicians in District _____

No. of Schools in District _____

DELIVERY MODEL OF SPEECH THERAPY

Check the one most closely related to your system

_____ Block System, (3-5 days a week per child. Therapy at one school only until all cases at that school are terminated.)

_____ Individual therapy

_____ Group therapy (specify)

_____ Intermittent system. (Service to all schools in your assignment at the same time.)

_____ Individual therapy

_____ Group therapy (specify)

Other: (specify) _____

LOAD (exclusive of screening)

_____ Number of children currently being seen by you.

_____ Estimate number of children seen by you for therapy during the school year 1971-72.

No. of speech problems you are currently seeing:

Pre-School	K-3rd grade	4-6 grade	7-12 grade	No. of BOYS	No. of GIRLS	TOTAL
------------	-------------	-----------	------------	-------------	--------------	-------

Articulatory						
Voice						
Postoperative						
a. Cleft Palate						
b. Cleft Lip						
c. Both						
Delayed Speech						
Stuttering						
Aphasia						
Hard of Hearing						
a. Lip Reading						
b. Auditory training						
Foreign Speech (bilingual)						
Cerebral Palsy						
Other						

Appendix C

Data Collection Sheets for Types
of Speech Problems in Caseloads

DATA COLLECTION SHEET

for

Articulation

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	30	6	2	22	16	38
-	28	3	-	22	9	31
-	35	5	-	28	12	40
-	33	3	2	29	14	43
-	34	9	6	23	26	49
3	30	12	4	27	22	49
-	32	-	1	28	5	33
-	38	-	-	24	14	38
-	35	32	5	42	30	72
1	45	9	3	33	25	58
-	11	3	-	-	-	13
-	37	3	1	-	-	41
-	-	-	1	1	-	1
26	63	17	4	51	59	110
-	28	11	-	26	13	39
-	45	13	-	35	23	58
-	36	19	-	28	27	71
-	32	15	-	32	15	47
-	30	12	-	26	16	42
-	46	14	-	42	18	60
-	38	13	-	37	14	51
-	9	4	8	16	5	21

Articulation (cont.)

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	50	11	-	24	26	50
2	18	13	-	-	-	33
-	2	1	3	5	1	6
-	18	-	2	13	7	20
-	20	2	-	15	7	22
-	13	9	2	14	10	24
-	12	1	-	7	6	13
-	29	-	-	18	11	29
-	7	-	-	5	2	7
-	9	6	-	12	3	15
-	6	3	-	-	-	9
-	28	14	-	-	-	42
-	13	3	-	6	10	16
1	20	6	-	14	13	27
-	24	10	-	19	15	34
-	15	4	8	-	-	27
-	19	6	-	15	10	25
-	34	15	14	24	29	53
-	8	-	-	7	1	8
-	28	5	-	20	13	33
5	7	12	-	-	-	24
-	32	12	4	28	24	52
-	42	8	-	-	-	50
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38	1168	344	70	838	626	1620

DATA COLLECTION SHEET

for

Delayed Speech

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	17	-	-	9	8	17
-	9	1	-	9	1	10
1	3	2	-	5	2	7
-	4	-	-	3	1	4
-	2	-	-	2	-	2
1	4	2	2	5	4	9
-	4	1	-	-	-	5
-	3	-	-	-	-	3
-	4	-	-	3	1	4
-	12	1	-	8	5	13
-	8	7	-	9	6	15
-	8	-	-	6	2	8
-	4	5	-	7	2	9
-	-	2	-	1	1	2
-	5	1	-	4	2	6
-	7	-	-	4	3	7
-	-	-	1	-	1	1
-	10	-	-	10	-	10
-	4	-	-	3	1	4
-	1	-	-	1	-	1
-	3	2	-	3	2	5
-	5	-	-	4	1	5

DATA COLLECTION SHEET

for

Language

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	37	-	-	-	-	37
-	2	-	-	-	-	2
-	5	-	-	-	-	5
-	4	-	-	3	1	4
-	3	-	-	3	-	3
-	22	-	-	-	-	22
-	5	-	-	2	3	5
3	?	?	?	16	10	29
-	3	-	-	3	-	3
7	2	-	-	-	-	9
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12	200	24	3	123	57	266

DATA COLLECTION SHEET

for

Language

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
16	-	-	-	9	7	16
-	9	-	-	6	3	9
-	20	5	-	18	7	25
-	5	-	-	3	2	5
-	11	-	-	8	3	11
-	49	-	-	-	-	49
-	7	-	-	-	-	7
-	13	-	-	6	7	13
-	22	-	-	11	11	22
-	10	-	-	7	3	10
-	3	10	7	13	7	40
—	—	—	—	—	—	—
16	149	15	7	81	50	207

DATA COLLECTION SHEET

for

Learning Disabilities

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	4	3	1	2	6	8
-	9	-	-	7	2	9
-	15	-	-	7	8	15
-	1	-	-	1	-	1
—	—	—	—	—	—	—
0	29	3	1	17	16	33

DATA COLLECTION SHEET

for

Hard-of-Hearing

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
<u>Lip-Reading</u>						
-	-	1	-	-	1	1
-	2	-	-	1	1	2
-	2	-	-	1	1	2
-	-	2	-	-	2	2
-	-	1	2	2	1	3
-	1	-	-	-	1	1
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0	5	4	2	4	7	11

Auditory Training

-	3	4	-	5	2	7
-	4	4	4	5	7	12
-	1	1	-	2	-	2
-	1	-	-	1	-	1
-	-	3	-	1	2	3
1	1	-	-	1	1	2
-	1	-	-	-	1	1
-	2	1	-	1	2	3
-	3	1	-	2	2	4
-	9	4	8	16	5	21
-	6	4	6	10	6	16
-	-	-	1	1	-	1
-	-	-	1	-	1	1
-	4	30	-	-	-	34
-	4	-	-	-	-	4
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1	39	52	20	47	29	112

DATA COLLECTION SHEET

for

Foreign Speech

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	3	-	-	2	2	4
-	-	3	-	1	2	3
1	-	-	-	1	-	1
-	1	-	-	1	-	1
-	3	-	-	2	1	3
-	1	-	-	-	-	1
-	-	-	1	-	-	1
-	1	-	-	1	-	1
-	3	4	-	5	2	7
-	2	1	-	2	1	3
-	8	-	-	-	-	8
-	-	2	5	3	4	7
-	1	-	-	1	-	1
-	23	-	-	11	12	23
-	1	-	-	1	-	1
-	15	-	-	-	-	15
-	2	-	-	-	-	2
-	3	1	-	2	2	4
-	3	3	-	3	3	6
-	2	-	1	3	-	3
3	3	-	-	-	-	6
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4	75	14	7	39	29	81

DATE COLLECTION SHEET

for

Voice

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	1	2	-	3	-	3
-	-	1	1	2	-	2
-	5	-	-	3	2	5
-	5	1	-	5	1	6
-	-	1	-	1	-	1
-	-	1	1	-	-	2
-	-	2	-	2	-	2
-	2	-	-	-	-	2
-	-	-	1	1	-	1
-	-	3	-	3	-	3
-	1	1	-	2	-	2
-	2	1	-	2	1	3
-	3	2	-	4	1	5
-	-	1	-	1	-	1
-	-	1	-	1	-	1
-	1	-	-	-	1	1
-	3	-	1	3	1	4
-	1	-	1	-	2	2
-	1	1	-	1	1	2
-	2	1	-	1	2	3
-	1	2	-	3	-	3
-	1	-	-	-	-	1

Voice (cont.)

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	-	2	-	1	1	2
-	2	1	-	2	1	3
-	1	1	-	-	-	2
-	-	1	-	-	1	1
-	3	-	2	5	-	5
-	2	-	-	2	-	2
-	-	3	-	-	-	3
-	-	-	8	4	4	8
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0	37	29	15	52	19	81

DATA COLLECTION SHEET

for

Stuttering

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	-	2	-	2	-	2
-	-	1	-	1	-	1
-	-	2	1	3	-	3
-	1	2	1	3	1	4
-	-	1	-	1	-	1
-	1	1	-	2	-	2
-	1	-	-	-	-	1
-	-	-	1	-	-	1
-	2	2	-	3	1	4
-	1	1	-	2	-	2
-	2	-	1	3	-	3
-	-	1	-	1	-	1
-	-	1	-	1	-	1
-	1	-	-	1	-	1
-	-	-	1	-	1	1
-	1	-	-	1	-	1
-	-	4	-	3	1	4
-	1	-	-	1	-	1
-	1	1	-	2	-	2
-	1	1	-	1	-	2
-	1	2	-	1	2	3
-	2	1	2	3	2	5
-	1	1	-	1	1	2
-	-	1	2	2	-	3
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0	17	24	9	38	9	51

DATA COLLECTION SHEET

for

Post operative

Pre-school K.-3rd grade 4-6 grade 7-12 grade Boys Girls Total

Cleft Palate

-	4	1	-	4	1	5
-	1	-	-	1	-	1
-	1	-	-	-	1	1
-	1	-	-	1	-	1
-	-	-	1	1	-	1
-	1	-	-	-	-	1
-	-	1	1	-	2	2
<u>0</u>	<u>8</u>	<u>2</u>	<u>2</u>	<u>7</u>	<u>4</u>	<u>12</u>

Cleft Lip

-	1	-	-	1	-	1
-	-	-	1	1	-	1
<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>

Both

-	-	-	1	1	-	1
-	1	-	-	-	-	1
-	-	1	-	1	-	2
-	1	-	-	-	-	1
-	1	-	-	1	-	1
-	1	-	-	1	-	1
-	1	-	-	-	-	1
-	3	-	-	3	-	3
1	1	-	-	1	1	2
-	2	1	-	1	2	3
-	2	-	-	-	2	2
<u>1</u>	<u>13</u>	<u>2</u>	<u>1</u>	<u>9</u>	<u>5</u>	<u>18</u>

DATA COLLECTION SHEET

for

Cerebral Palsy

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	1	-	-	-	1	1
-	1	-	-	1	-	1
-	-	-	1	-	-	1
1	-	-	-	1	-	1
-	1	1	-	2	1	2
-	2	-	-	-	2	2
-	3	-	-	-	-	3
-	1	-	-	1	-	1
-	3	1	-	4	-	4
-	-	-	1	-	-	1
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1	12	2	2	9	4	18

DATA COLLECTION SHEET

for

Aphasia

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
-	-	-	1	-	1	1
1	-	-	-	-	1	1
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1	0	0	1	0	2	2

DATA COLLECTION SHEET

for

Miscellaneous

Pre-school	K.-3rd grade	4-6 grade	7-12 grade	Boys	Girls	Total
<u>Tongue Thrust</u>						
-	-	1	1	1	1	2
-	1	1	2	2	2	4
-	10	3	2	6	8	14
-	2	-	-	-	2	2
<u>0</u>	<u>13</u>	<u>5</u>	<u>5</u>	<u>9</u>	<u>13</u>	<u>22</u>

Special Ed. & TMR

-	-	2	-	4	2	6
-	-	-	-	9	6	15
-	1	-	-	-	1	1
-	-	-	-	11	7	18
-	-	-	-	25	19	45
1	-	-	-	1	-	1
<u>1</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>50</u>	<u>35</u>	<u>85</u>

Speech Improvement

-	100	-	-	60	40	100
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Psycho-Somatic Hearing Loss

-	-	-	1	1	-	1
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Auditory Perceptual Disorders

-	27	8	-	-	-	35
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Cluttering

-	-	1	-	1	-	1
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VITA

Jocelyn Anderson Taylor

Candidate for the Degree of

Master of Arts

Report: A Description of the Scheduling Methods and Caseloads
in the Utah Public Schools.

Major Field: Communicative Disorders

Biographical Information:

Personal Data: Born at Logan, Utah, June 4, 1949, daughter of
Dr. Bruce Holmes Anderson and Lula Anna Ellis. Captured
and married Reed G. Taylor, February 10, 1971; mother of
two children--John A. and

Education: Attended elementary school in Tehran, Iran and
Logan, Utah and Davis, California; attended junior high
at Davis, California and Logan, Utah; attended high
school at Merida, Venezuela and graduated from Logan High.
Entered Utah State University in 1967 and graduated in 1971
with a major in Communicative Disorders and a minor in
Psychology; did graduate work in 1971-72 and completed
requirements for Master of Arts degree in Communicative
Disorders at Utah State University in 1972.

Goals: To be a loving and supporting wife, a first-rate mother
to many children, and when the time comes, a dedicated
and effective speech clinician.