

5-Minute Therapy: An Alternative Service Delivery Model for Speech Sound Disorders

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INTRODUCTION

The roles and responsibilities of the school speech pathologist are continually evolving over time. Today's school-based SLP is required to provide therapy both in and out of the classroom, support curriculum, consult with teachers, address the increasing demand of paperwork and implement Response to Intervention (RTI) services. The expectations placed on the classroom teacher have been expanded in terms of accountability for student achievement of curriculum benchmarks as well as state and district assessments. It is increasingly important that a student spend as much time in the general education setting as possible.

Traditionally, children have received therapy to remediate speech sound errors in a small group setting for 40-60 minutes weekly. While this method is common in school-based speech therapy, there are concerns that the child is missing important academic instruction while attending speech. Furthermore, small group therapy may not be the most effective method to maximize the student's time spent in speech therapy.

There are issues regarding the quality and quantity of time spent in group therapy instruction. Generally, speech pathologists strive to elicit a high number of responses from the student during a group therapy session, however much of the student's time is spent waiting for an opportunity to practice their sounds. A child needs as many repetitions as possible to establish correct and consistent production of phonemes. This task can be challenging within the dynamics of the small group setting.

LITERATURE REVIEW

Individual speech therapy for speech sound disorders is an alternative to group therapy. Research regarding service delivery and the length and intensity of sessions supports the option of individual therapy for articulation. A study by Willingham (2002) compared massed practice vs. distributed practice and the effect on student achievement. Massed practice is defined as studying new material in one long session, commonly referred to as “cramming”. Distributed practice refers to learning material in short sessions over several days. The results of this study demonstrated that distributed practice was more effective than massed practice for retention of new information. In addition to the implementation of frequent sessions, the amount of time spent addressing goals is also critical for success. Kamhi (2006) states that, “More treatment time, especially in individual sessions, will result in more gains”.

Donna Ridley (2007) created a program to provide speech services for two weeks of individual 30-minute sessions. In one case study, she reported that a student established correct production of a phoneme in two weeks after initiation of this intervention. Strand’s study (1995) also supports the concept of the need for individual therapy by stating that, “Group therapy decreases the potential of responses per session for each child...” This research validates the need to provide articulation therapy for individual sessions several times weekly as opposed to two group sessions for 20-30 minutes, which is commonly practiced.

A research study at Hudsonville Public Schools in Michigan evaluated the effectiveness of individual therapy for speech sound disorders. Students in this project were enrolled in a program called Accelerated Personal Therapy (APT) and received intervention services two to four times weekly for 10 minute sessions. The results indicated that the discharge rate after one school year of therapy for the APT program was 6% higher than the discharge rate of students receiving traditional services. This study also concluded that the reduced time for therapy (16 hours per year for the APT program as compared to 32 hours of traditional small group therapy) did not negatively affect the outcome of intervention. (McCann, et al. 2008)

RATIONALE FOR PROGRAM

Sometimes parents and teachers express concerns about the reduced amount of instructional time in the regular education setting when speech is provided in a traditional small group pull-out session. In response to these concerns, an alternative service delivery model was introduced in North Branch Area Schools in Michigan in 2002. All of the students receiving articulation therapy in North Branch Elementary were enrolled in the 5-Minute program in September of the 2002-2003 school year. Parents were informed of this change, and the services on the IEP were addressed. The 5-Minute therapy program was presented to the staff at the beginning of the school year and was well received.

In order to maximize time in the general education classroom and to provide quality instruction, therapy is scheduled for short intensive drill sessions several times a week. The number of sessions provided weekly varied, depending upon the severity of the speech disorder. This schedule offered the opportunity for *individualized* therapy to address the unique needs of each student.

DISCUSSION

When this program was first implemented it was important to ascertain that this method of service was as effective as traditional therapy. Students selected for this study attended North Branch Elementary and received therapy for articulation disorders. They were in regular education classrooms and did not receive language therapy or any other special education services. Any students who received a combination of traditional therapy and 5-Minute services were not included in this study. It needed to be determined that the overall reduced time attending therapy would not negatively affect the progress toward the annual goals. The students' initial and exit dates of the Individualized Education Plan (IEP) were recorded in order to document the average number of months in therapy. The total number of hours and minutes enrolled in speech were calculated for the 5-Minute program and for traditional services.

Comparative Data on Both Programs

Table 1

Speech Program	Total number of months in therapy	Minutes per month based on average sessions	Total number of minutes in therapy	Equivalent number of hours in therapy
Traditional Therapy ¹	18	210	3780	63
5-Minute Program ²	9.6	45	432	7
Differences Between Programs	8.4 months	165 minutes	3348 minutes	56 hours

1. Based on an average of seven 30-minute sessions per month (IEP written as four to eight 30-minute sessions monthly)

2. Based on an average of nine 5-minute sessions per month (IEP written as five to nine 5-Minute sessions monthly)

The data shows that the students in the 5-Minute program were discharged from speech in an average of 9.6 months, as compared to 18 months for the traditional model. These children were able to spend *56 more hours* in general education when compared to students receiving traditional therapy. Students in the 5-Minute program have been discharged in as few as five weeks while some remained in the program for as many as 36 months of therapy. This wide range of time-frames is reflective of the differences in severity of the students' speech disorders.

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PROCEDURES AND IMPLEMENTATION

The first step in implementing this program is to address therapy time for the student's IEP. These services can be written on a monthly or weekly basis, or according to other schedules recommended by district or state guidelines. Specifying the services as sessions per month allows for flexibility in rescheduling therapy in the event of a cancellation while maintaining compliance with the IEP. Suggested wording of the IEP service is as follows: *X number of 5- to 10- minute individual sessions monthly or weekly*. The number of sessions and/or the number of minutes per session will depend upon the severity of the speech disorder, the needs of the student or caseload considerations. For instance, a child with a severe speech impairment or with both articulation and language goals may require sessions longer than five minutes. Most students are scheduled for three to five sessions weekly depending on individual needs. The following information offers guidelines for determining the appropriate number sessions for these services:

Mild disorder: 8-12 sessions monthly or 2-3 sessions weekly

Moderate disorder: 12-16 sessions monthly or 3-4 sessions weekly

Severe disorder: 16-20 sessions monthly or 4-5 sessions weekly

Some clinicians are concerned that they might not be able to implement this program because they are assigned to multiple buildings during the school week. Students can be scheduled twice weekly with successful results. On the other end of the scheduling spectrum, if the student has significant needs therapy can be scheduled twice daily two times per week, resulting in 16 sessions monthly.

The 5-Minute program was also implemented in a private school in North Branch, Michigan. The two students in that building had been receiving traditional therapy to remediate CH and J sounds. These students were quite lively and a portion of therapy time addressed behavior issues. During the first semester of the school year, these students received traditional therapy to remediate their sounds in all positions of words. The 5-Minute program was implemented twice weekly for the second semester and the students progressed from the word level to the conversation level by the end of the school year and were discharged from therapy. In addition, during the second semester only minimal behavior problems were noted.

Students can be scheduled into the therapy day using a variety of options. Four students can be scheduled into a 30-minute block of time two to four times weekly. Alternatively, a block of time during the day can be scheduled to service all students on the 5-Minute program for example, 90 minutes per day two to four times a week, or 45 minutes in both the morning and afternoon for a specified number of days. A third option would be to schedule students during non-instructional time, such as before the school day begins or at the end of the day.

It is recommended that the student receive services “out in the hall” on chairs borrowed from a nearby classroom. Many other students receive classroom support individually in the hallway with parent volunteers or paraprofessionals so confidentiality should not be a concern in this case. If an empty room is available nearby, it can also be used for therapy. It is not necessary to conduct the session in the speech therapy room and it is important to minimize travel time. Therapy materials, student folders and other supplies can be stored on a cart which is easily transported throughout the building.

Although the 5-minute session is short in duration, the time can be used productively when it is focused on the individual needs of the child. The speech-language pathologist begins the session by recording attendance and reviewing the child’s performance from the previous session. The SLP then selects a goal for the day and the child drills on the phonemes by repeating words phrases or sentences, naming pictures, creating sentences about pictures or even playing simple short games. *The focus of each session should be to elicit as many responses as possible.* At the end of the session data is recorded and homework can be assigned.

A variety of activities can be incorporated into this short session. The student can drill on sounds by repeating a word, phrase or sentence after the clinician. This format results in the highest number of responses per session and provides a verbal model for the child, which may be especially appropriate during the early phases of speech sound disorder therapy. The student can also name pictures, read lists of words, create sentences or read pages from classroom books and other materials.

The productivity of the sessions can be evaluated by counting the number of responses for all students on a given day and determining an average number of word and phrase repetitions. This data is shared with parents and teachers if they are concerned about what can be accomplished in such a short time. The following information illustrates what a student can be expected to complete in a short period of only five minutes.

- Name 117 pictures
- Repeat 157 words
- Repeat 125 phrases
- Create 35 sentences

To help maintain student interest, simple games can be played in the 5-Minute session. If the student is naming picture cards, a sticker can be placed on one card. The student and the SLP take turns drawing the cards but the child names ALL of the pictures. The person who gets the picture card with the sticker wins the game.

A variation of this game can be played by placing play money coins in a bag with one coin painted red. The student performs the appropriate speech task and then draws one coin from the bag. The SLP also takes a turn selecting a coin. The player who draws the red coin is “bankrupt” and must return his or her coins to the money bag. The player with the most money at the end of the session is declared the winner.

Another activity involves writing target words on Popsicle® sticks including one stick with the word ZING! written on it. The sticks are placed into an empty medicine bottle or soup can. The players take turns drawing the Popsicle® sticks and saying each word a specified number of times or creating a sentence for the word. The player who draws ZING! must return all his/her sticks to the container. At the end of the session, the player with the most sticks wins the game.

Small, manipulative toys such as Legos®, blocks or plastic links may also be used to good advantage. The student says a designated number of words and receives the block or link to build a tower or create a chain. Commercial games for therapy can also be used in the five minute session. The emphasis for all of these activities is to obtain as many responses as possible by having the student repeat a word several times before taking a turn in the game.

Another simple game can be created by copying a picture of a target word onto many small cards (25 or more). One card has a word or phrase that is used as the “spoiler” card. All of the cards are placed into a manila envelope. The student practices the target word each time he or she takes a turn. The person who draws the “spoiler” card must return all of his or her cards to the envelope. For example, if the child is working on S clusters, a picture of a snake can be copied and reproduced 20 or more times on a card stock sheet or glued to construction paper. The word **HISS!** is written on one card and all of the cards are placed into a manila envelope. The player who draws **HISS!** loses all of his or her snakes.

In addition to direct therapy, the 5-Minute program can also be appropriate for a Response to Intervention (RTI) program. In this model, students can be scheduled for 5-minute sessions for a pre-determined number of weeks. The student is instructed on correct articulation of the sound and practices it during the session. Homework can be assigned as needed. The clinician records the percentage of correct production at the beginning of the RTI program. When the student completes the intervention for the specified number of weeks, the SLP records the data again. At that time, a determination is made on whether the intervention has been successful or if the child needs to be referred for direct therapy through special education speech services.

RESULTS AND CONCLUSION

After several years of participating in the 5-Minute model the parents and staff at North Branch Schools have been very supportive of this new program. Both the teachers and the parents are pleased that the amount of academic instructional time being missed by their children is minimal. There has been very little concern expressed by parents over the decreased time in therapy. The charts of dismissal rates (Table 1) are shared at the initial IEP meeting in order to explain the effectiveness of this program.

The challenge in providing this service is to be able to create the necessary added time to the therapy day every time a new child is enrolled in speech. For instance, if three new students are added to the caseload an additional *30 to 60 minutes of therapy time must be added to the schedule*. Other problems arise when there are interruptions to the schedule such as phone calls, assemblies or meetings. In those situations it is difficult to service all of the students scheduled for that day.

In addition to remediating speech sound disorders, the 5-Minute individual therapy schedule works well with students who have goals addressing grammar. The speech-language pathologist can facilitate drills on the specific grammatical structures using picture cards, words and short games for the target constructs. For example, this model works well to remediate errors on regular and irregular past tense verb forms, negatives, interrogative reversals, contractions and pronouns.

Overall the individual drill session is a successful model of instruction for a variety of goals. This program can be used in the general classroom setting for learning times tables, spelling lists and other material which needs to be memorized. It may also be the recommended format for home practice of speech and other skills.

A highly respected speech-language pathologist in Michigan, Libby Lockwood once said, "I swear, Moses came down from the mountain carrying tablets that were carved: *"Speech services will be twice weekly for 30 minutes."* She recommended that SLPs instead consider a variety of options for service delivery. The challenge for speech-language pathologists is to continually assess the needs of the students and to individualize instruction to meet those goals. The 5-Minute model of short intensive articulation drills is one such option.

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