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COMPARING THE EFFECTS OF VARIOUS PROCEDURES ON RECONSTRUCTION OF NARRATIVES ACCORDING TO STORY GRAMMAR OF A YOUTH WITH HEARING LOSS

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Abstract

The effects of silent reading, scrambled story activity, and extended procedure in reconstruction of narratives of a youth with hearing loss were examined within a single-subject research format. Stories were generated and validated for this purpose. Narrative reconstruction of the participant was assessed according to seven story grammar parts. The results revealed that the extended procedure resulted with the highest level of story grammar parts, followed by the scrambled story activity. Possible explanations are offered for these findings. Furthermore, limitations of the study and future directions are discussed.

Today, members of many cultures use spoken and written languages in communication. Children in these cultures know a great deal about the meanings and functions of reading and writing as well as speaking and listening. Children even pretend to read and write in their role-playing games (Smith, 1988). Hence, in order to function successfully in their society, children should accomplish both written and spoken languages. These modalities of any language are equally important and interrelated.

We are often unconscious of the components of the reading process in our reading tasks (Richek, Caldwell, Jennings, & Lerner, 2002). While King and Quigley (1985) described these tasks as text and reader variables, Smith (1978) named them as visual and non-visual information. The visual information is the written words and the nonvisual information is the knowledge already present in the reader's cognitive store. In other words, the reader's background knowledge about the type of the text and prior experiences about the content, interests, attitudes, purposes, and skills are the non-visual information. Kameenui and Simmons (1990, chap. 8) provided a model that is somewhat similar to the one offered by Smith (1978), and King and Quigley (1985). This model consists of the reader, the text, the task, and the strategies. Regardless of the differences of their classifications, King and Quigley (1985), Smith (1978), and Kameenui and Simmons (1990) suggest that these components are interdependent although they seem to be fairly independent. In order to comprehend written language effectively, the reader must learn to use those components automatically (Gillett & Temple, 1990; Hammermeister & Israelita, 1983; Kameenui & Simmons, 1990; Smith, 1978).

The type of the text is one of the major factors for reading comprehension according to the models mentioned above (Carnine, Silbert, & Kameenui, 1997; Hughes, McGillivray, & Schmidek, 1997; Richek et al., 2002). Although different authors classify somewhat differently, we mainly read expository, narrative, functional, and aesthetic texts in our daily lives. Stories are

one type of the narrative texts and are the earliest literary structure that most children come across (Heefner & Carlson, 1996). In many cultures, stories are the fundamental way of organizing human experience and understanding the world. The use of stories has long been recognized as a valuable means of developing literacy in children. Stories provide students freedom from the here-and-now (Fisher & Williams, 2001). Moreover, the ability to comprehend stories and tell well-formed stories is important for academic success (Pakulsky & Kaderavek, 2001).

Several authors have named story components differently. A typical story is consisted of setting, initiating the event/problem, internal response, plan, attempt, consequence, and resolution/ending (e.g., Hughes et al., 1997; Richek et al., 2002). In other words, stories include information about the setting, place, characters, and time. The characters usually initiate events to reach a goal and the stories end with some consequences related to the characters' actions. These story components or story structures are named as story grammar by some authors (Schirmer, 2000). Each story grammar component may consist of one or more sentences (Griffith & Ripich, 1988).

In order for effective comprehension, the reader should know about and analyze the story grammar as well as the other factors. Readers use their schema, a construct used in theories of perception, memory and learning, to comprehend any text (Schirmer, 2000). Textual schema refers to readers' mental organization of how a typical text is structured. The reader's cognitive representation of narrative text is known as story schema which is a type of textual schema. Story schema provides us an expectation of the form of a typical story. Skilled readers use their schema to make sense of the story by noticing the important or relevant aspects of the story, paying attention to how the story parts fit together and recall the story (Kameenui & Simmons, 1990; Schirmer, 2000). In addition to its importance for comprehension, internalization of a story grammar is also related to writing development (Schirmer, 2000).

One of the important features of the story grammar is the fact that the story schema is developmental in nature (Applebee, 1978). As children grow older, their story schema develops through the experiences with the stories. Children in the fifth grade and above appear to recall more story grammar parts (Yoshinaga-Itano & Downey, 1996). However, regardless of their age, while good readers implicitly identify story grammar parts, poor readers often have difficulties in developing sense of them.

It is now known that spoken and written language development of children with hearing loss can be similar to that of normally hearing children, but often delayed (Kretschmer & Kretschmer, 1978; Schirmer, 2000). In terms of story grammar, studies have shown that individuals with hearing loss have more difficulties in story comprehension than their normally hearing peers. There are a number of studies on students with hearing loss about their knowledge and acquisition of story grammar. Both the descriptive studies by Yoshinaga-Itano and Snyder (1984), Griffith and Ripich (1988), Yoshinaga-Itano and Downey (1996), van Deusen-Philips, Goldin-Meadow and Miller (2001); and the applied studies by Truax (1985), Cambra (1994), and Pakulsky and Kaderavek (2001) have shown that individuals with hearing loss have more difficulties in story comprehension than their normally hearing peers.

Yoshinaga-Itano and Snyder (1984) conducted a study by collecting data from individuals with hearing loss through story retelling. This study resulted with some perplexing findings: more than fifty percent of the participants used minimal story components.

Griffith and Ripich (1988), as part of a larger project, examined the ability of making use of story grammars in organizing self-generated and retold stories of the students with hearing loss. A total of eleven, five primary and six intermediate, students enrolled in total communication

public day classes participated in the study. The children were presented with four stories with and without pictures and were asked to make up a story or listen to and retell a story to their friends. The story transcriptions were analyzed for correct descriptions of events and for correct story structures. Results indicated that students with hearing loss do make use of story grammars in organizing retellings and in constructing stories. However, as the story structures become more complex, they do less well. Furthermore, the pictures presented along with the texts enhanced their recall.

Yoshinaga-Itano and Downey (1996) conducted a series of studies in order to examine the use of inference and elaboration, sequencing, and story grammar strategies of students with hearing loss. The participants were divided into groups based on their hearing loss levels (from normal hearing to profound hearing loss) and chronological age levels (from 7 to 21 years). There were complete records for 474 cases coming from the groups of five levels of hearing loss and five levels of age. The language measures were obtained through the use of Colorado Process Analysis of Written Language (COPA) which was designed to assess the development of students' metacognitive processes and semantic written language abilities. The students wrote stories by getting clues from a single picture stimulus. One of the perspectives for the data analysis was the students' use of story grammar parts in their stories. The researchers argued that different strategies predominated depending on the participants' age and degree of hearing loss.

van Deusen-Philips, Goldin-Meadow and Miller (2001) examined the stories told by children who did not have access to conventional language. That is, the children's hearing loss prevented them from acquiring the language spoken around them. They observed eight deaf children of hearing parents in two cultures: four European-American children from Chicago and Philadelphia, and four Taiwanese children from Taipei. The children invented gesture systems to communicate. All eight children used their gestures to tell stories. The stories were the same type and the same structure as those told by hearing children. Moreover, the deaf children seemed to produce culturally specific narrations despite the lack of a verbal language model. The researchers argued that these particular messages were so central to the culture that the students used them in their stories both verbally and non-verbally.

The studies that implemented various instructional models and strategies (Cambra, 1994; Pakulsky & Kaderavek, 2001; Truax, 1985) showed that students with hearing loss progressed in their own writings and activated their knowledge of story grammar in their own readings and writings. The results of these studies suggested that not only chronological age but also linguistic age, hearing loss level, and past experiences of individuals with hearing loss are influential on story comprehension. It is apparent that these results were consistent with the comprehension models offered by several authors (Kameenui and Simmons, 1990; King & Quigley, 1985; Smith, 1978).

Truax (1985) and her colleagues conducted a study with collaboration of Cincinnati public school teachers of students with hearing loss in 1982. Analysis of the students' products showed that many of the pieces produced by primary and intermediate students did not meet the story grammar criteria. However, they were narrative accounts of personal experiences. At the secondary level nearly every written piece had the essential components of simple story grammar. Based on this study conducted in 1982, Truax and her colleagues at the University of Cincinnati and public schools established writing process studios for high school students with hearing loss during the 1983-84 and 1984-85 school years. As a teacher/ researcher Truax concluded that regardless of their age level, the students with hearing loss would demonstrate benefits of an educational environment where the students and the adults worked as authors.

Cambra (1994) conducted a pilot study to assess the effectiveness of a program to improve narratives of the adolescents with hearing loss. Ten students with prelingual and profoundly hearing loss were participated in a 12 week intervention period. The students were taught story structures and some strategies for writing during the intervention. The results showed that writing performances of the students improved and most students demonstrated that they knew text structure at the end of the intervention. However, the researcher indicated that the students still needed instruction and continued practice to improve their writing abilities. The intervention also influenced the students' reading comprehension level. Hence, the researcher suggested that reading instruction should not be separated from writing instruction in order to make language more accessible to students with hearing loss.

Pakulsky and Kaderavek (2001) conducted a study to examine the effect of role-play on narrative productions of 14 deaf and hard of hearing oral students. The age range of the students was seven to 14 years. The children listened to two stories once a day read by trained readers repeatedly for three days. Following this repeated book reading activity, the children were engaged in a story play skit. The role-play was made by randomly dividing the children into two groups. While Group I role-played Story A, Group II role-played story B. Subsequent to these activities story retelling was elicited from each child for both books. Results showed that role-play improved the narrative productions of children who are deaf or hard of hearing. The researchers argued that children who are learning to listen and talk (auditory-oral or auditory-verbal approaches) are capable of benefiting from auditory representations of the printed text. However, these children are at risk for language problems with respect to narrative productivity, fluency, lexical diversity, and grammatical complexity and accuracy.

As the research results suggest, students with hearing loss use story grammar in their own writings and activate their knowledge of story grammar in their own readings. However, there must be more to know in order to improve their knowledge of story grammar. Therefore, story grammar should be taught to even older individuals with hearing loss who have limited language and life experiences by systematically designed and carefully employed instructions (e.g., Griffith, Ripich, & Dastoli, 1990; Schirmer, 2000).

An instructional model is defined as 'a structure for approaching the teaching of reading and writing' (Schirmer, 2000, p. 139). Some of these models are language experience approach, directed reading activity/directed reading thinking activity, reading and writing workshop. Each model consists of several strategies such as building background knowledge, recognizing words in print, vocabulary development, silent reading, oral reading, questions that highlight the text structure, and predicting (Schirmer, 2000). These strategies are general and can be manipulated to fit the individual needs of specific students and classrooms (Hagood, 1997). For instance, literature is in favor of silent reading in the reading comprehension of students with reading problems (e.g., Richek et al., 2002). However, reassembling strategy seems to require more active attendance and use of higher level thinking in the reading process (e.g., Flynn, Koloveros, Robinson, Egan, Mandel, White, Conomos, Arcoudis, & Hutton, 1997; Lovitt, 1995; Pagés, 2004). Hence, it is worth to systematically compare the effects of various strategies on story reading and writing skills of students with hearing loss. Therefore, the purpose of the present study was to analyze the effectiveness of silent reading, scrambled story activity, and extended procedure on reconstruction of story grammar parts of a youth with hearing loss via a single-subject research design.

Method

Participant

The participant of the study was a 20 years old female having bilateral profound sensory-neural hearing loss. She had a pure tone average of 100 dB at the left ear and 105 dB at the right ear. She did not have any other additional handicapped. She was fitted hearing aids when she was four and a half years old. However, she did not use her hearing aids on a regular basis until she started college. The causes of her hearing loss are unknown.

The participant attended a regular primary school, a special secondary school for the individuals with hearing loss, and the fashion design department of a regular vocational high school. The communication modality of all these schools was speech. However, in most of the special schools for individuals with hearing loss in Turkey, a combination of several communication modalities are utilized since many of the schools lack the necessary technical equipment, physical environment, and teaching staff to support oral education. Therefore, the participant of the study acquired a dialect of the signing system used in Turkey in the secondary school and she was a fluent signer when she started college. However, she would communicate through speech as well.

The participant was a freshman at the four-year Ceramic Program at a Vocational Community College for the Handicapped in Turkey during the time the study was conducted. The communication modality of this college is speech. However, some instructors use gestures while speaking in order to have students understand the course content better.

During the study the participant could initiate, continue and close conversations between herself and the researcher properly. She could stay on a familiar topic at least three turns and make comments and statements. She could ask and answer yes-no questions meaningfully. She could also use wh-questions such as what, which, and why. However, she was having problems in using the conventional forms of these questions properly. In addition, she needed help for answering why and how questions.

Based on the data from her dialogue journal, the participant could write her personal daily events in a rational order starting from the morning events till the end of the day. In doing this she could use correct simple sentences which consisted of three to four words. She was also attempting to use complex sentences such as adverbial clauses which were communicatively related but mostly incomplete. Furthermore, her using past tense forms was consistent and correct most of the time.

The reading tutor of the participant reported before the onset of the study that, she had difficulties in comprehending some texts such as complex stories and newspaper excerpts mainly because focusing on single words rather than the whole context. Her tutor also reported that she often needed adult help even for literal comprehension. However, she enjoyed carrying and pretending to read novels and newspapers in public.

When the participant was asked to retell a simple story, she could usually reveal the logic of the story although she missed some of the other story grammar parts. Furthermore, in terms of setting, she could mention the main characters but sometimes miss the place and time information. According to the observations of her teachers, she enjoyed reading simple stories and could read them fluently.

Setting

The experimental sessions were conducted in the office of the first author which was located in the college where the participant attended. Each experimental session was videotaped for data collection purposes.

Materials

Twenty four simple and complete stories were written by taking into consideration the following features: Readability is one of the important factors to create equivalent stories. There are several methods to maintain the readability of the texts (Gillet & Temple, 1990; Hughes, et al., 1997). One of them is to identify the T-Units and clauses and story grammar parts and to calculate Subordination Index (SI) and Mean Length of T-Unit (MLTU). 'A T-Unit consists of one main clause and all the subordinate clauses attached to it.' (Hunt, 1965, in Hughes, et al., 1997, p: 38). **'**A clause is a group of words containing both a subject or coordinated subjects and a finite verb or predicate.' (Hughes, et al., 1997, p: 353). This information would provide us to calculate Subordination Index (SI) which is the total number of clauses divided by the total T-Units; and Mean Length of T-Unit (MLTU) which is calculated by dividing the number of words by the number of T-Units (Hughes, et al., 1997**).**

Based on the calculations, total number of T-Units of the stories ranged from seven to 14 with an average of 10.1. Two independent raters evaluated which T-Unit was associated with each story grammar part in every story. Inter-rater reliability ranged from 70% to 100% with an average of 93% for this analysis. Subordination Index per T-Unit for the stories ranged from 1.1 to 1.67 with an average of 1.34. Two independent raters calculated the total number of T-Units in each sentence. Inter-rater reliability ranged from 78% to 100% with an average of 94% for this analysis. Mean Length of T-Unit (MLTU) of the stories ranged from 3.54 to 6.00 with an average of 4.76. Completeness was dealt with by including all of the seven story grammar parts in each story. Age appropriateness of the stories was ensured by considering the interests, experiences, and vocabulary of the youth with hearing loss in Turkey. Nineteen of these stories were randomly chosen and used during the study. For the scrambled story activity, each story was cut into seven parts according to story grammar parts and they were put into an envelope.

Design and Procedure

The study was conducted in two phases. In the first phase, alternating treatments design was utilized to analyze the effectiveness of silent reading and scrambled story activity on the reconstruction of story grammar parts. Six intervention sessions with each procedure, a total of 12 sessions, were conducted in Phase I. In the second phase, scrambled story activity was extended with the addition of several feedback steps. Seven intervention sessions were conducted in Phase II. There was a four-week break between the two phases of the study.

One story was chosen randomly at each intervention session in both phases. All intervention sessions were conducted by the first author.

The researcher and the participant met everyday or every other day in a two-week period in Phase I. In each meeting, two intervention sessions took place: one with silent reading and one with scrambled story activity. The sequence of the procedures was reversed at every meeting. In silent reading, the participant was asked to complete the following steps: (a) Read the story verbally aloud, (b) Read the story silently, (c) Read the story verbally aloud once again, and (d) Write the story without looking at the text. In the scrambled story activity, the participant was asked to complete the following steps: (a) Read the story verbally aloud, (b) Reassemble the scrambled story parts without looking at the text, (c) Compare the reassembled story parts with the text and correct herself, and (d) Write the story without looking at the text. No feedback or correction was provided to the participant during reading aloud and writing.

All the instructions were provided by the researcher verbally using simple sentences without signing during the study. The participant was wearing her hearing aids during the

sessions. The contributions of the participant were communicatively relevant. The instructions provided by the researcher for the two types of interventions are presented in Table 1.

Table 1

Intervention Type	Instructions
Silent reading	- We will work on reading and writing today. - Read this story aloud for me. - OK. Now read it again silently. Try to keep everything in your mind. I will ask you to write it afterwards. - Now read the story silently once more. - Now write the story you just read. - Thank you. Now you can correct yourself by comparing your writing with the story.
Scrambled story activity	- We will work on reading and writing today. - Read this story aloud for me. - OK. Now sequence these sentences. - Now you compare your sequencing with the story and correct your errors. - Now write the story you read. - Thank you. Now you can correct yourself by comparing your writing with the story.

Since the participant's performance did not progress sufficiently by either procedure in Phase I, an extended procedure was developed for Phase II by adding the following steps to the steps of the scrambled story activity: (e) Read the story verbally aloud, (f) Ask the unknown words/phrases to the researcher, (g) Reassemble the scrambled story parts by looking at the text, (h) Copy the text, (i) Read the story verbally aloud, (j) Reassemble the scrambled story parts without looking at the text, (k) Compare the reassembled story parts with the text and correct herself, (l) Read the story verbally aloud, and (n) Write the story without looking at the text. The researcher and the participant met every other day in a two-week period during Phase II.

No instruction about story grammar parts was provided to the participant prior to intervention. However, she might have received some instruction about story grammar in the language courses she had taken at school and at the tutorial sessions she had attended at home.

The research data were collected on the written product that was produced by the participant in the last step of each instructional procedure. Whether or not each of the seven story grammar parts existed in the participant's written product was assessed by assigning one of the three points (i.e., 1, .5, or 0) to each story grammar part. Operational definitions of these points are presented below:

Point 1 was assigned for the meaningfully complete story grammar parts; tense errors and missing words were ignored; more than half of the story grammar part was to be present.

Point .5 was assigned for the incomplete or partially incorrect parts; when the story grammar part was grammatically incorrect but the meaning was sufficient; when the sequence of

the story grammar part was incorrect; when half or less than half of the story grammar part was present.

Point 0 was assigned for the non-existent or meaningless parts.

The total points for each written product of the participant were calculated as the story grammar data. Inter-rater reliability coefficients calculated for the entire data ranged from 67% to 100% with an average of 91.7%.

Results and Discussion

Based on the data, we have seen that the participant did make use of story grammars in organizing and reconstructing the stories. These findings are consistent with the findings of the previous studies on story grammar comprehension of individuals with hearing loss (Cambra, 1994; Griffith & Ripich, 1988; Pakulsky & Kaderavek, 2001; Truax, 1985; van Deusen-Philips, Goldin-Meadow & Miller, 2001; Yoshinaga-Itano & Downey, 1996; Yoshinaga-Itano & Snyder, 1984).

As seen on Figure 1, Phase I data revealed that scrambled story activity resulted with slightly more story grammar parts than silent reading. However, there was no apparent progress in the participant's performance. Therefore, Phase II was designed and implemented with the addition of several steps to the scrambled story activity. Phase II resulted with higher rates of story grammar reconstruction.

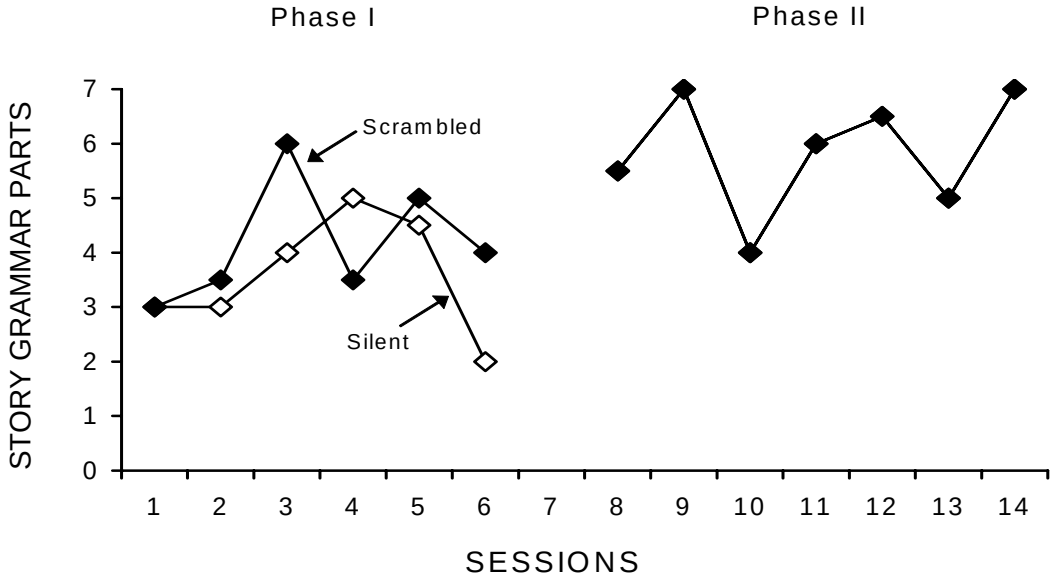

Figure 1. Story grammar parts identified in the written products of the participant during silent reading, scrambled story activity, and extended procedure.

Apparently, some or all of the additional steps increased the story grammar reproduction performance of the participant considerably. According to components of effective comprehension models suggested in the literature, (Kameenui & Simmons, 1990; Smith, 1978), we can suggest the following reasons for the effectiveness of Part II:

First, we speculate that one of the most effective steps of the combined approach must have been providing an opportunity to the participant to ask the words or phrases which she did not know to the researcher. Insufficient readers are said to sometimes substitute the words they do not know with very irrelevant ones while ignoring the meaning (e.g., Richek et al., 2002, chap. 8) which decreases the reading comprehension considerably. In other words, while struggling with a word, they cannot comprehend. As stated by Kameenui and Simmons (1990), 'It is not necessary to know the meaning of every word in a text, it is important to know those words that are central to the author's message' (p. 252).

The researcher observed that during the sessions the participant usually asked adult help for a couple of words or phrases about a story. While some of them were adverbs, the others were content words such as nouns or adjectives. However, most of the time, the words and phrases she asked had a key role in the comprehension of the story. When she received the meaning of these words she could make sense of the stories. This can be explained by the assumption that prior experiences and knowledge of words play important role on the readers' construction of meaning during reading (Richek et al., 2002).

Second, another explanation could be about the linguistic level of the participant. During the course of the study she was using simple sentences and was beginning to use some complex syntactical forms. However, many of her use of complex sentences such as adverbial clauses were incomplete. We can speculate that she did not know both written and spoken forms of these adverbs although she developed the concepts of them. According to the literature, normally hearing children gradually acquire the exact forms of complex utterances. Initially, they combine sentences with the word 'and'; later, they learn the exact words representing those concepts (Kretschmer & Kretschmer, 1978, chap. 3). Examining the raw data we found that during Phase II, the participant asked the meaning of some of the adverbs such as 'however' and 'suddenly' for sentence combinations. Similar to the word meaning situations, once she understood the meanings of these adverbs, she could understand the sentence and make sense of the whole story. As Truax (1978) stated, in addition to spoken language development, the child's linguistic competence cannot be underestimated in a reading comprehension task. Therefore, in teaching reading to children with hearing loss, we must be aware of not only the semantic features of language but also the role of linguistic structures of the reader.

Third, during Phase II the participant had more chances to interact with the researcher. She could get answers via conversations and this might have helped her build not only her knowledge but also create a bridge between spoken and written languages. As Goodman (1986) stated, conversations during the sessions seemed useful for the participant to review and correct her knowledge and understanding of the task.

Fourth, readers are more successful in comprehension when they are familiar with the task and they become familiar when they are exposed to repetitive tasks (Kameenui & Simmons, 1990, chap. 8).The repetitive nature of the tasks in Phase II might have created predictability of the steps of the task. That is, at the beginning of the study the participant needed more directions. Later, she developed a frame for the steps of the sessions. We argue that she developed a sense of control over her reading task.

Fifth, the results also suggest that the sessions provided opportunities for her to improve her story schema. However, considering her limited experiences in both spoken and written language experiences, it is clear that she needs more experiences with different types and levels of stories. This recommendation is consistent with the results and suggestions of Truax, (1985), Cambra, (1994), and Pakulsky and Kaderavek (2001).

Sixth, another important aspect of the combined approach might have been the participant's opportunity to engage in repetitive reassembling activities. The literature is full of suggestions for teachers to always give an active role to the learner in the learning process rather than to keep him/her passive during learning (e.g., Goodman, 1986).

Based on the above discussions, we can suggest that more explicit teaching is necessary for story grammar reconstruction in students with hearing impairment as suggested by Griffith et al. (1990) and Schirmer (2000). However, this suggestion should be evaluated in the light of the following limitations: (a) The data of the present study were not stable in any of the experimental conditions. This might be, in part, due to the variations in the stories. Although the stories were written and standardized according to several criteria, some stories may have been much easier or harder for the participant due to her vocabulary, experiences etc. Hence, more homogeneous stories can be suggested to be chosen for similar studies in the future. (b) Since some aspects of the Phase I and Phase II overlap, it is not possible to tell for sure which aspects of Phase II are responsible for the improvement of the participant's performance. (c) Although the overall reliability coefficient was acceptable (91.7%), the inter-rater reliability was low in some stories. Therefore, alternative ways of increasing the inter-rater reliability should be initiated in the future work. (d) The data of Phase II lack experimental control. Therefore, the effectiveness of the extended procedure on narrative reconstruction should be reexamined via controlled experiments in the future.

References

Applebee, A. (1978). *The child's concept of story*. Chicago: Chicago University Press.

Cambra, C. (1994). An instructional program approach to improve with hearing loss adolescents' narratives: A pilot study. *The Volta Review, 96*(3), 237-246.

Carnine, D. W., Silbert, J., & Kameenui, E. J. (1997). *Direct instruction reading*. Upper Saddle River, NJ: Prentice Hall, Inc.

Fisher, R. & Williams, M. (2001). *Unlocking literacy. A guide for teachers*. London: David Fulton Publishers.

Flynn, J., Koloveros, A., Robinson, G., Egan, C., Mandel, A., White, K., Conomos, N., Arcoudis, C., & Hutton, P. (1997). Teaching literacy in languages in year 7. NSW Department of School Education Curriculum Directorate. No: 10818.

Gillet, J. W., & Temple, C. (1990). *Understanding reading problems: Assessment and instruction* (3rd ed.). Glenview, IL: Scott, Foresman and Company.

Griffith, L. P., & Ripich, D. (1988). Story structure recall in with hearing loss, learning disabled and nondisabled children. *American Annals of the Deaf, 133*(1), 43-50.

Griffith, P. L., Ripich, D. N., & Dastoli, S. L. (1990). Narrative abilities in with hearing loss children: Propositions and cohesion. *American Annals of the Deaf, 135*(1), 14-21.

Goodman, K. (1986). *What's whole in whole language*. Portsmouth NH: Heinemann Educational Books.

Hagood, B. F. (1997). Reading and writing with story grammar. *Teaching Exceptional Children, 29*(4), 10-14.

Hammermeister, F. K., & Israelita, K. N. (1983). Reading instruction for the hearing impaired: An integrated language arts approach. *The Volta Review, 85*(3), 136-148.

Heefner, D. L., & Carson, S. P. (1996). Assessing the written narratives of deaf students using the six-trait analytical scale. *The Volta Review, 98*(1), 147-167.

Hughes, D., McGillivray, L., & Schmidek, M. (1997). *Guide to narrative language: Procedures for assessment.* Eau Claire, WI: Thinking Publication.

Kameenui, E. J., & Simmons, D. C. (1990). *Designing instructional strategies: The prevention of academic learning problems.* Columbus, OH: Merrill.

King, C. M. & Quigley, S. P. (1985). Reading and deafness. London College-Hill Press, Inc.

Kretschmer, R. R. & Kretschmer, L. W. (1978). *Language development and intervention with hearing impaired*. Baltimore: University Park Press.

Lovitt, T. C. (1995). *Tactics for teaching*. Engelwood Cliffs, NJ: Prentice Hall, Inc.

Pagés, J. M. (2004).Learning tip #22: Developing a concept story strengthens story comprehension and writing. Accessed: file://C:\Documents%20and20Settings\Administor\Desktop\KidBibs%#LT22… November 26, 2004

Pakulsky, L.A., & Kaderavek, J.N. (2001). Narrative production by children who are deaf or hard of hearing: The effect of role play. *The Volta Review*, 103(3), 127-139.

Richek, M. A., Caldwell J. S., Jennings, J. H., & Lerner, J. W. (2002). *Reading problems: Assessment and teaching strategies.* Boston, MA: Allyn and Bacon, Inc.

Schirmer, B. R. (2000). *Language and literacy development in children who are deaf*. Boston, MA: Allyn and Bacon, Inc.

Smith, F. (1978). *Understanding reading* (2nd ed.). New York: Holt, Reinhart & Winston.

Smith, F. (1988). *Joining the literacy club: Further essays into education.* Portsmouth, NH: Heinemann Educational Books.

Truax, R. R. (1978). Reading and language. In R. R. Kretschmer & L. W. Kretschmer, *Language development and intervention with the hearing impaired* (pp. 279-310). Baltimore: University Park Press.

Truax, R.R. (1985). Linking research to teaching to facilitate reading-writing-communication connections. . *The Volta Review*, 87, 155-169.

van Deusen-Philips, S. B., Goldin-Meadow, S., & Miller, J.P. (2001) Enacting stories, seeing worlds: Similarities and differences in the cross-cultural narrative development of linguistically isolated deaf children. *Human Development.* 44, 311-336.

Yoshinaga-Itano, C., & Snyder, L. S. (November, 1984). *Story grammar analysis of deaf and hard of hearing children's written compositions.* Paper presented at the American Speech-Language-Hearing Association Convention, San Francisco, CA.

Yoshinaga-Itano, C., & Downey, D. M. (1996). The effect of hearing loss on the development of metacognitive strategies in written language. *The Volta Review, 98* (1), 97-144.

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