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AN EXAMINATION OF IMPACTS OF TEXT RELATED QUESTIONS ON STORY GRAMMAR ACQUISITION OF THREE TURKISH YOUTHS WITH HEARING LOSS

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According to recent studies, individuals with hearing loss seem to benefit from certain models or strategies, such as text related questions, designed according to the balanced literacy approach. Questions about story grammar that are asked after reading help readers organize and summarize the text. Therefore, it has been found worth to explore the impacts of text related questions following reading on story grammar acquisition of three Turkish youths with hearing loss attending a Vocational College in Turkey. The data of this action research effort have been compiled based on the cyclical actions through compiling a research journal, students' products, archival information, interviews, and videotaped data. The pre-and-post test results, the student portfolios and the actual post questioning activity derived from the videotaped data were analyzed quantitatively and qualitatively. The results indicated that verbal and nonverbal strategies the teacher applied and the unique contributions of each student during the post reading activity enhanced each student's story comprehension. However, in order for the students to acquire story grammar , they still needed more and various experiences.

There is limited research on the development of narrative performance in children with hearing loss. However, it is now accepted that spoken and written language development of children with hearing loss can be similar to that of normally hearing children, but often delayed (e.g., King & Quigley, 1985; Kretschmer & Kretschmer, 1978; Schirmer, 1997; Schirmer, 2000; Schirmer, Bailey & Schirmer Lockman, 2004). Studies involving the development of story grammar knowledge in students with hearing loss often focus on written or signed narrative productions. Story grammar provides causal and temporal relationships of a story. Although it is labeled in various ways by different researchers, the concept of story grammar includes setting (time, place, characters), problem, internal response, plan, attempt, consequence, and reaction (Applebee, 1978; Hughes, McGillivray & Schmidek, 1997). There is 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.

Those studies that implemented various instructional models and strategies (Cambra, 1994; Pakulsky & Kaderavek, 2001; Truax, 1985) demonstrated that students with hearing loss progressed in their own writings and activated their knowledge of story grammar in their own readings and writings. However, it must be pointed out that these results suggest that factors such as chronological age, linguistic age, hearing loss level and past experiences are influential on

story comprehension of the individuals with hearing loss (Kameenui & Simmons, 1990; King & Quigley, 1985; Smith, 1978).

The most effective teaching techniques of story grammar are not evident from the research literature, (e.g., Armbruster & Anderson, 1989; Cambra, 1994; Griffith & Ripich, 1988; Hagood, 1997; Pakulsky & Kaderavek, 2001; Truax, 1985). However, several models and strategies that are based on the balanced literacy approach which is the combination of the whole language (Goodman, 1986) and skills development emphasis (e.g., Asselin, 1999; Metsala, & Wharton-McDonald, 1997) seemed to be beneficial for individuals with hearing loss. One of the strategies based on the balanced literacy approach is implementing questions highlighting the text structure (e.g., Schirmer, 2000).

According to Cotton (1989) questions in classroom settings are instructional cues or stimuli that convey the content elements to be learned to students. They can be used to develop concepts, build background, clarify reasoning processes, enhance critical thinking skills and inquiring attitudes and even lead students to higher levels of thinking. Highlighting major structural elements in story is helpful for comprehension. Questions playing central role help readers focus on those major structural elements of texts. Through the use of questions that highlight the basic structure of texts, teachers can shape students' comprehension and their concept of what is important in a text (Gunning, 2003; Reutzel & Cooter, 1992). Questions foster understanding and retention (Gunning, 2003; Reutzel & Cooter, 1992).When questions are asked about important information in text, this information is remembered longer (Cotton, 1989). Practicing with such questions over time helps deaf and hearing children to internalize the structure of text into their textual schemata (Burns, Roe & Ross, 1988; Reutzel & Cooter, 1992; Schirmer, 2000).

According to the classroom research, the placement of questions has various effects on comprehension. Questions can be used before, during and after reading (King & Quigley, 1985). For instance, questions that are asked after reading help readers reorganize and summarize the text. Teachers should ask questions to younger and lower ability students after material has been read and studied (Cotton, 1989; Gunning, 2003). Schirmer (2000) reported that using questions instead of teaching the students the labels of story grammar components is more preferable by some researchers. Those researchers suggested that teachers should use questions to show the students the meaning of comprehension. And furthermore, story grammar should be taught to even older individuals with hearing loss who have limited language and life experiences by systematically designed, meaningful, and carefully employed instructions (e.g., Akcamete, 1999; Griffith, Ripich, & Dastoli, 1990; La Sasso, 1984; Schirmer, 2000). According to these results teaching story grammar through the use of questions seems to be helpful for individuals with hearing loss. However, we must expand our knowledge about the impacts of questioning on story grammar acquisition of individuals with hearing loss in various age levels and from different cultures by conducting systematically designed research efforts. Therefore, the purpose of this study was to examine the impacts of text related questions used after reading on story grammar acquisition of three Turkish youths with hearing loss. The research questions were as follows: (1) What were the characteristics of after reading questioning activity? (2) What were the impacts of text related questions when used after reading on story grammar acquisition of the students with hearing loss?

Method

Participants

Three females who had congenital bilateral profound sensory-neural hearing loss were the participants of the study. They were the second or third year students at a Vocational Community College for the Handicapped in Turkey. Their names were changed to Gonul, Ulku and Aynur for rights of their confidentiality. During the time of the data collection, the students were not attending any other language art lessons at the college. The students came from middle class families. Except Ulku's brother, the other students' family members were normally hearing individuals. All the students were diagnosed as having hearing loss in their earlier ages. Ulku and

Aynur were fitted with amplifications as soon as they were diagnosed. Since then they regularly wore their hearing aids in their daily lives. However, Gonul was fitted hearing aids when she was five years old. Moreover, she did not wear her hearing aids regularly and had somewhat unintelligible speech.

Although the students had attended integration programs in regular schools before they attended to college, as a result of several issues such as lack of the necessary technical equipment and teaching staff, they developed insufficient verbal and sign language. However, all the students would verbally maintain discussions at some level about issues such as life, being young and having hearing loss in Turkey and their future plans in group and/or one-on-one conversations.

As a college professor experienced in the education of individuals with hearing loss and in qualitative studies, the first author was the instructor. The other members of the research team were her colleagues experienced in either education individuals with hearing loss or research.

Materials

The materials were either prepared before the research effort or developed during the course of the study.

First, a sequential set consisting of six photographs cut out from a daily newspaper published in Turkey was used to provoke the students to create their own stories. We used the students' own stories developed based on the discussion occurred among us about this sequential photograph set.

Second, Aynur's story, developed based on the sequential set, was used during the last lesson which we analyzed in detail. The story was a complete episode including a single problem, initiating event, attempt of the main characters and conclusion of the story (Hughes, et al., 1997). We determined the readability values (Gillet & Temple, 1990; Hughes, et al., 1997) by identifying the story grammar parts, T-Units and clauses; and using them to calculate Subordination Index (SI) and Mean Length of T-Unit (MLTU) (Hughes, et al., 1997). Based on the calculations the readability values were as follows: The total number of the words was 259, of the clauses was 64, of the T-Units was 47; MLTU was 5.51, and SI was 1.36. The calculations of all reliability values in this article were based on the formula (agreement / agreement + disagreement x 100) recommended by Miles and Huberman (1994). So the inter rater-reliability for each of the readability criterion of Aynur's story was 100%.

A question list containing 35 questions that the students and I developed during the lesson 13 and 14 was the third material. We used the classification recommended by Woods and Moe (1989). So the question types were the main idea, factual, terminology, cause-effect, inference and conclusion. Based on the independent coding the inter-rater reliability was 97%. The percentages of the type of questions were as follows: Factual 73%; cause and effect 5.7%; conclusion 8.5 %; inferential 8.5%; main idea 5.7%

Fourth, the answering key was developed to score the students' written answers to the questions in the list. Reliability of this answering key was obtained by the first and second author independently. Based on this calculation the reliability percentage of the answering key was 100 %.

Design and Procedure

The design of the study was based on action research. The action research process occurs as teachers gather information about and reflect on their students' needs, abilities and learning styles to enhance instructional outcomes. Assessing, exploring, researching, discussing, documenting, evaluating, monitoring, analyzing, refining and revising become in cyclical actions (Johnson, 2002; Mills, 2003; Schoen & Schoen, 2003). Data were collected through cyclical actions by compiling the reflective journal, field notes, creating the data retrieval charts, reviewing students' portfolios, videotaping the actual lessons, collecting archival data from the school archives and obtained additional information from the students' parents via survey letters. The first author

collected some incidental information from the parents when they visited their children. This information was useful to gain deeper understanding about the students.

This article focused on one of the teaching strategies the teacher applied during the lessons designed based on the balanced literacy approach. In addition to the other sources of data, the pre-and-post test results were presumed to provide evidences for possible changes in students' comprehension. Therefore, we developed a comprehensive pre-and-post criterion referenced test which contained various tasks (Gillet & Temple, 1990). Among them, the questions 5 and 6 required the students to answer text related questions. The instructor prepared an answering key for each test. These two questions were graded based on appropriateness and correctness of the answers.

Two members of the research team developed and refined the pre-and-post test questions based on the age appropriateness, interests, sentence structures and completeness of the story grammar. We prepared two sets for the reliability procedure. Based on these calculations, readability values of the stories are as follows: The mean number of words in the pre-test was 69 and the post-test was 72; of T-Units in the pre-test was 13.5 and the post-test was 14; of clauses in the pre-test was 17 and the post-test was 20.5; of MLTU in the pre-test was 5.21 and the post-test was 5.04; of SI in the pre-test was 1.27 and the post-test was 1.44.The inter-rater reliability for the story grammar in both pre-and-post tests was 100%; for answers in the pre-test was 97% and the post-test was 95%; for T-Units both in the pre- and-post tests was 100%; and for clauses in the pre-test was 85.7% and the post-test was 87%.

After administering a pilot test with a third year student at the same college, we identified the students from the school archives and contacted with them. Examining their school program and my time table, the students and the teacher decided to meet three times per week. A week after the pre-test administration, we started the lessons on 04/19/04 and terminated on 06/03/04. After completing the fifteenth lesson, the teacher administered the post-test on 06/04/04.While the shortest lesson was forty five minutes, the longest lesson was two hours long. The total duration of the entire lessons was 22 hours. The average lesson duration was an hour and forty six minutes. We conducted all the lessons in my room sitting around a round table placed in the middle of the room.

During the first lesson, the instructor explained the ethical issues stated in the consent letter and answered their questions and guided them to sign the letter. We created the stories based on the principles of language experience approach using the sequential photograph set (e.g., Cramer, 2004; Harris, 2003; Schirmer, 2000; Tompkins, 2000; Yoshinaga-Itano & Downey, 1996). We had discussions about the photographs and the students wrote their own stories. Reviewing each story, the instructor rewrote the students' stories in the computer without changing the main ideas and the correct sentences. Instead, she tried to write a complete story regarding their language level and completed the story grammar parts if necessary (Harris, 2003).

In the following lesson, the instructor informed the students about their rewritten stories. Later, we started to read Ulku's story because it was relatively short and simple compared to the stories written by the other students in the study. We applied the following strategies repetitively, explicitly and systematically: (a) Individual or group silent and oral reading, (b) predicting and defining new words, (c) questioning about the story components and modeling them to find the answer in the text, (d) answering questions before, during and after reading, (e) applying various retellings, (f) developing text related questions, (g) controlling and correcting the answers, (h) rewriting the stories without looking at the text, (i) determining headings and main ideas, and (j) working on sentence formation.

Data Analysis

Analysis of the data had various aspects one of which was our decision process for the representative lesson. During the course of the instructions the instructor and her colleagues

analyzed the data continuously, reviewed the student products, the video and audio recordings and had decisions for the next action plans. As a result of this effort, we concluded that the last lesson was representative and the most improved. Therefore, we analyzed the last lesson in detail. Based on the check list, we confirmed that this lesson was appropriate to the principles of balanced literacy approach and long enough as being two hours and six minutes long. Reviewing the video recording carefully, we concluded that the lesson could be divided into four major phases, namely, planning for the next lesson, questioning-answering sequence, students' written answers to the questions without looking at the text, and finally each student's attempts to control and correct her answers with the help from the other group members.

Videotaped Data: The interactions during the questioning-answering sequence seemed to provide necessary data for the purpose of the study. Therefore, we decided to transcribe this part which was 37 minutes long. The transcription was developed and analyzed inductively based on a model described by Ratcliff, (1996). The first and second authors worked collaboratively on the transcription and emerging patterns of the interactions to create valid data.

Pre-and-Post-Test: We scored the answers of pre-and-post-tests independently and calculated inter rater-reliability for each question. The reliability percentage of question number 5 in pre-test for Gonul was 90% ranging from 80-100%; for Ulku was 100%; and for Aynur was 70% ranging from 50-100%.
The reliability percentage of question 5 in post-test for Gonul was 80%, ranging from 80-100%; for Ulku was 60%, ranging from 75-100%; and for Aynur was 50%, ranging from 50-100%.
The reliability percentage of question number 6 in pre-test for Gonul was 90%, ranging from 50-100%; for Ulku was 90%, ranging from 66-100%; and for Aynur was 80%, ranging from 66-100%. The reliability percentage of question number 6 in post-test for Gonul was 70%, ranging from 50-100%; for Ulku was 70%, ranging from 50-100%; and for Aynur was 60%, ranging from 66-100%.

Results

Based on the variation of the data sources, the results will be presented in three aspects: The instructional patterns, the students' written answers to the questions in the list and the pre-and-post-test results

The Instructional Patterns: Detailed analysis of the videotaped data revealed that the questioning-answering sequence appeared in various patterns based on the strategies used and the contributions of each student. We were sitting around the table in the order Gonul, Ulku and the instructor at the beginning of the lesson. Later When Aynur joined them she sat between Gonul and the instructor. The instructor started the activity introducing the rules: When it is turn, one of us was supposed to ask/read a question in the order to the person sitting next to her. That person was supposed to answer the question. Based on the contributions of each, the cycles appeared as being either simple or expanded. Since the interactions were to be in exact sequenced cycle, the preparation for the next question turns functioned as bridges between each question-answer-evaluation sequence. So regardless of either being simple or expanded cycle the pattern could be formulized as Preparation-Question-Answer-Evaluation-Preparation (P-Q-A-E-P).

Preparation: The instructor generally directed students to take turns. Initially the preparations took several turns due to her establishment efforts of the rule. During the course of the activity, sometimes each of them was confused and asked for confirmation of the turn. In several occasions, each student spontaneously signaled the turn verbally. Towards the end, there were no preparation turns at all. The instructor's signals for the turn were sometimes verbal questions, statements or acknowledgment; infrequently nonverbal, just pointing the students or herself; or mostly the combination of verbal and nonverbal such as while pointing out or gazing while verbalizing statements.

Asking-Answering-Evaluating: In terms of asking, they either read or verbalized the questions most of the time. In a few occasions they shifted their gazes from text to the person they directed the question. They answered 19 questions immediately. Among them there were 12 Factual, 3 Inference, 2 conclusion and 2 main idea questions. However, they also provided delayed answers for some questions. In addition, each student and the instructor gave long answers to some factual, and all conclusion, main idea and inference questions. They also supplied relatively long answers to the vocabulary questions emerged during the interactions.

Gonul: She took nine turns to ask a question. When she asked, the instructor completed the cycle four times by reinforcing verbally the person who answered the question, agreeing or approving the answer. In addition, when Gonul asked to Ulku, she gave a partially correct answer. The instructor repeated the question. Ulku answered. The instructor provided the correct form. Ulku commented about her misconception and excused. The instructor accepted her excuse. Twice, Gonul and the instructor evaluated the answer together. In one occasion, when Gonul asked to Ulku, her answer was wrong. I directed Gonul to ask again. Ulku gave the correct answer. Gonul and the instructor accepted. And the instructor reinforced her. They all combined their answers in two occasions when Gonul asked to Ulku.

Ulku: Ulku took nine turns to ask to the instructor. Except three occasions, after answering her questions, the instructor asked for confirmation of her answer inviting Ulku and the other students. When the instructor started answering the question, the other students and Ulku joined her spontaneously in two occasions. She welcomed their contributions and combined her answer. She checked their confirmation individually. In addition, a quick cycle occurred when Ulku asked to the instructor, Aynur commented about the instructor's answer and expanded it.

Aynur: Aynur took five turns to ask a question to Gonul. Once, the instructor directed Gonul to answer correctly. Twice, Aynur and the instructor reinforced Gonul for her correct answer and her answering style. Twice, they all joined the evaluation of Gonul's answer. When Aynur asked to Gonul, the instructor reinforced her. The instructor repeated the newly learned phrase. Ulku and Aynur reinforced Gonul and the instructor for their previous hard work preparing most of the questions in the list. When Aynur asked to Gonul, she gave a wrong answer. The instructor did not accept it. She and Aynur pointed out related part of the text. The students and the instructor took turns to build the answer by commenting, pointing out the text, offering synonyms for the words. Finally, Gonul answered correctly and Ulku approved her answer.

The instructor: She took twelve turns to ask a question first to Gonul and later to Aynur since Aynur sat between Gonul and her. Once, the instructor simply reinforced Aynur. In another occasion, Aynur gave a correct answer and immediately expanded her answer providing information from her background knowledge. She did not evaluate this answer but quickly signaled the turn taking. During the other cycles, the instructor always tried to involve the other students. They joined the evaluation either spontaneously or with her initiation. For instance, when she asked to Gonul, she reinforced her verbally. Ulku repeated the answer. Gonul repeated the answer. The instructor reinforced Gonul

One cycle was rather longer than the others. When the instructor asked to Aynur, she gave a wrong answer. The instructor informed her for the wrong answer. Aynur tried to give the answer but she could not succeed. The instructor directed the same question to Gonul. Gonul gave the correct answer immediately. Aynur repeated Gonul's answer. The instructor pointed out the related part of the text and expanded the answer. She then checked their vocabulary and gave information about new concepts relating the students' and her lives. She related the information to the main character's life experiences. The topic expanded towards the types of psychological treatments, experts and their functions in their lives. She provided some new information about the topic. The students spontaneously asked clarification questions and made comments. Regardless of the student, in three occasions the instructor ignored each one because she intended to derive the answer from the target student. Later, she turned her attention to all of them.

The instructor welcomed the students' spontaneous contribution to correct their use of language. When she asked to Gonul, Gonul answered using an incorrect form of the utterance. She ignored it since the content was correct. However, Ulku provided the correct form spontaneously. She reinforced Ulku's attempt. She directed the last two questions to all students. While the one was about the main idea, the other was about the possible titles of the story. The students took turns voluntarily and gave answers including comments and statements coming from their life experiences and their prior readings. She checked understanding of each student. Later, she expressed her opinions about the main idea of the story expanding their answers. For the question about the title, she guided each student to determine appropriate titles.

Results of the Students' Written Answers: We assigned points considering the cognitive difficulty level of the question types. We graded the students' written answers independently and calculated our scores for reliability. The reliability percentage was 100% of each student's answers. Based on this grading, the students' performance on the test was 82 for Gonul, 84 for Ulku and 92 for Aynur.

Their performances based on the types of the questions are as follows: Gonul could not answer correctly 4 factual and 2 conclusion questions; Ulku could not answer 5 factual and 1.5 conclusion questions; Aynur could not answer 2 factual and 1 conclusion questions. In order to analyze the questions related to the story grammar, we prepared a matrix for story grammar and the questions we developed. The story grammar included setting (time, place, characters), problem, internal response, plan, attempt, consequence and reaction (Hughes, et al., 1997). Based on the story grammar, the first and second authors placed the questions in the matrix. Again using the reliability formula we calculated the reliability of this matrix. The reliability was 97%. According to this matrix the students' performances were as follows: Gonul could not answer one of the internal response questions, one of the plan questions and four of the consequence questions. Ulku could not answer the same internal response question with Gonul; the other questions she could not answer belonged to consequence questions. Aynur could not answer half of problem and internal response questions and 2 consequence questions.

Regarding the text related questions in the pre-and-post-tests, the results of each student are as follows: The mean number of Gonul's pre-test score was 3; of her post-test score was 4.87. Although there was a slight difference between her pre-and-post-test results, Gonul improved in answering the questions related to the place, time, internal response, plan and conclusion. However, she had difficulty in answering the questions of problem, attempt and consequences. The mean number of Ulku's pre-test score was 2.37; of post-test score was 4.25. Ulku demonstrated improvement in time, plan, and consequence. However, there appeared an inconsistency in terms of improvement of her answers in both pre-and-post tests relating to the questions place, problem, internal response, attempt and conclusion. The mean number of Aynur's pre test score was 5.75; of post-test score was 8.25. There was an apparent improvement in her pre-and-post-test results. She presented improvements in all story grammar parts.

Discussion

Action research models are not empirical. Therefore, it is not our intent to derive a conclusion based on the cause and effect relationship among the variables. However, we suggest that motivating, democratic, flexible and meaningful literacy learning environment designed according to the balanced literacy approach demonstrated benefits for the students and the instructor. This kind of learning environment was described in the previous studies conducted by Truax (1985), Cambra (1994) and Pakulsky and Kaderavek (2001).

Since we analyzed the impacts of application of the text related questions after reading, the discussion will focus on these results specifically. However, impacts of the strategies I applied before and during reading can not be ignored since their interrelated effects are obvious. The nature and quantity of workload we applied before and during reading were comprehensive, predictable and repetitive. This created an atmosphere that the students demonstrated their

developing story schema to comprehend the story. This interactive activity after reading provided opportunities for them to comprehend more reviewing, rereading and discussing about the story as it is recommended in the literature (Cotton, 1989).

The nature of the interactions among us can be examined as the *Instructional Conversation* model (Echevarria, McDonough, 1993; Goldenberg, 1993). Therefore, we will discuss about the data in the light of *Instructional Conversation Model* including the conversational and instructional elements.

The Conversational Elements: Our sitting arrangement and the rules of the activity provided each of us took turns almost equally. I signaled the turns mostly to orchestrate the participants' behaviors. In addition, I welcomed the students' spontaneous attempts for taking turns. The rules that governed the activity seemed to be more structural rather than flexible. However, our learning environment was more like a community. The instructor was interacting at an appropriate linguistic level with each student by supporting, modeling and *scaffolding* responses and questions (Vygotsky, 1978). The instructor welcomed the expressions coming from students' prior knowledge while focusing on a particular topic. The interactional patterns were not only simple but extended in nature. If the patterns appeared to be just the teacher asking questions, students responding and teacher evaluating the answer, it would serve just for the recitation of the story (Burns, et al., 1988). The students and the instructor had equal chances to contribute the activity by initiating comments, statements and expanding the contributions. In addition, the instructor was not the one who asked all the questions and evaluated all the answers.

The instructor's role would be labeled as a *moderator*. She was a collaborator as well as a facilitator and leader as recommended by the basic principles of balanced literacy approach (Schirmer, 2000). Her purpose was to provide environment that was conducive to the students' narrative comprehension. However, she realized in few occasions that, she did not give time to them to complete their answers since she interrupted and provided the correct forms immediately

The Instructional Elements: Their thematic focus was on Aynur's story. The instructor's effort for them to generate their own questions relating to the story is valuable. Moreover, using their questions, we developed a new set of questions collaboratively valuing their efforts of ownership (Schirmer, 2000). This could be effective on their motivation to join the activity and on their overall comprehension as indicated by Duke and Pearson (2002). For instance, the instructor observed this in Gonul's effort since they got together worked hard before the lesson 15. Although Aynur's story was relatively difficult for her, she did not give up working on and making sense of it. According to our observations, she was the leader of the last session. The students are more likely to work through complexities when they are motivated (Schirmer, 2000). This suggests that the balance was readjusted on not only the strategies but also the teaching styles for creating meaningful learning environments (e.g., Asselin, 1999; Metsala & Wharton-McDonald, 1997).

Although the total of factual questions was more than the other type of questions in the question list we developed, the students could answer not only the factual questions that require low cognitive skills but also the main idea, inference, conclusion questions which require higher cognitive skills. In addition, during the course of the interactions vocabulary questions requiring the ability to define, describe, explain or provide example emerged spontaneously. We all built the meaning of the phrases, words relating the story and our real life experiences. Once the basic plot of a story or the main facts in an article are established, students can be led to a deeper understanding of the material. It is important to ask questions that help children see relationship among ideas, relate new information to their background of experience and modify their schema. Students must also have opportunities to respond in a personal way to literary pieces to judge the material and apply the information they gather to their own lives (Gunning, 2003).

During the interactions, the instructor pointed out the related part of the text several times. The students also demonstrated this behavior when they tried to help their friends. Writing down the new words or phrases and making them read individually or altogether, the instructor created chances for the students to see the written forms and that reading and writing are interrelated. The development in reading enhances development in writing (Truax, 1978). Language instruction objectives for children with hearing loss are to provide them with learning environment rich in literacy opportunities (Schirmer, 2000). It is recommended in the literature that the skills necessary for reading and writing should be explicitly taught to students with hearing loss (Schirmer, 2000). The modeling strategies used in this study appeared in the flow of the interactions such as providing the students the correct form, or making them reading the notes the instructor had taken during the lesson. This conversational modeling style is different from more direct modeling strategy that La Sasso (1984) applied when teaching comprehension and question forms to the students with hearing loss. It has been considered that this indirect modeling style provided situations for the students to internalize what the skilled reader accomplish in comprehending and writing stories. The instructor encouraged the students to express their thoughts with more correct forms especially when the utterances were semantically meaningless. She also welcomed the students' initiations to correct each other's utterances.

Conclusion

In summary, the results showed that the students could remember many details of the story. Moreover, they easily answered the main idea questions which require inferential comprehension rather than literal. Their answers were comments and statements coming from their life experiences and prior readings. The questions we created were one of the tools for their comprehension. They demonstrated improvement in acquisition of story grammar that is necessary for comprehending and writing stories. However, due to some factors such as the students' insufficient language and background knowledge, our instructional design, time durations of the study etc., their levels of writing and comprehending stories were still delayed. This result is consistent with the findings of the previous studies (e.g., Cambra, 1994; Pakulsky & Kaderavek, 2001; Truax, 1985). These studies have shown that individuals with hearing loss have capability in writing and comprehending stories and progress when provided with instructions. However, they experience more difficulties in story comprehension than their normally hearing peers. We believe that we should have higher expectations of the individuals with hearing loss. Furthermore, we have to provide opportunities for each individual to play a more active role in his/her literacy learning.

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