Determination of Hearing–Impaired Students' Requirements for Editing and Revision of Written Texts

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Abstract

The editing and revision stages are an important part of the writing process. This study documented the types of revisions, revision units, and revision methods used during writing conferences with hearing-impaired students. The study included seventeen hearing-impaired students educated with the auditory/oral approach and enrolled in grades six to eight. The study used descriptive methodology. Revision taxonomy was used to evaluate the data. The study findings showed that the most frequent types of errors committed by hearing-impaired students were replacing one type of affix with another, and adding the wrong type of affix to words. In the unit in which the errors were corrected, there was a greater need to perform corrections on the affixes of the words. Students could correct their errors by finding them independently, or having them pointed out during revision. Students were found to correct their mistakes mostly by listening. The results show that one-to-one writing conferences are very important for developing expressive writing among hearing-impaired students.

Key Words

Editing and Revision Process, Hearing-impaired Students, Reading-Writing Activities, Writing Conferences, Writing Skills.

Writing expression is a transfer of feelings, notions, and experiences of individuals through writing (Kavcar, Oğuzkan, & Sever, 1997; Sever, 2000). During this transfer, it is necessary to specify and arrange the message; select appropriate words; and construct sentences (Göğüş, 1991). Hearing-impaired students have difficulties with context, vocabulary, and spelling rules. They generate short and simply structured sentences, and their sentences may show problems with morphological subject–object agreement (Erdiken, 1996; Gormley & Sarachan-Deily, 1987; Yoshinaga-Itano & Snyder, 1985).

The Writing Process

The process of writing comprises four stages: pre-writing, drafting, revising and editing, and publishing (Calkins, 1994; Cunningham & Allington, 2003; Danielson & LaBonty, 1994; Fitzpatrick, 1999; Gunning, 2003; Hyland, 2002; Richek, Caldwell, Jennings, & Lerner, 2002; Schirmer, 2000; Tompkins, 2000). Hearing-impaired students require one-to-one writing conferences in which teachers serve as a model. *Revising and editing* enable students to revise their ideas, add or remove ideas, and correct sentences by identifying spelling and punctuation errors (Danielson & LaBonty, 1994; Girgin, 2003a; Gunning, 2003; Luckner & Isaacson, 1990; Reimer, 2001; Richek et al., 2002).

Revising and Editing: A writer identifies problems and errors in written work and edits the structure to produce a corrected version (Beal, 1987). Recognizing mistakes in writing, choosing appropriate modifications, and correctly implementing these

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modifications are regarded as a process of cognitive problem solving (Fitzgerald, 1987). Young writers or those with inadequate language or knowledge experience have problems recognizing errors in written works (Beal, 1990); however, hearing-impaired students have difficulty finding mistakes and correcting them appropriately (Graham, 1997). Students with disabilities experience difficulty elaborating on the contents of their writing during the revision process (Graham, MacArthur, & Schwartz, 1995).

Writing Activities

We conducted an analysis of international studies on writing expression abilities among hearing-impaired students and compared their performance to that of students with normal hearing. Strong and weak aspects of writing were specified; variables affecting writing ability were emphasized, and various teaching methods were discussed (Gormley & Sarachan-Deily, 1987; Klecan-Aker & Blondeau, 1990; Schirmer, Bailey, & Fitzgerald, 1999; Truax, 1985; Yoshinaga-Itano & Downey, 1992, 1996; Yoshinaga-Itano & Snyder, 1985). Previous studies examined questions posed to teachers during writing conferences with hearing-impaired students (Livingston, 1989) and the ability of students to make appropriate revisions (Gormley & Sarachan-Deily, 1987). Previous studies conducted in Turkey focused on strong and weak aspects of writing among hearing-impaired students (Erdiken, 1989, 2003; Girgin, 2003b; Girgin & Karasu, 2007; Karasu & Girgin, 2007; Tuncay, 1980), and on the effects of different teaching methods (Erdiken, 1996). However, writing conferences with hearing-impaired students in Turkey had not been previously analyzed. Thus, this study is important for teachers in Turkey working with hearing-impaired students and can highlight the importance of writing conferences and identifying factors that should be taken into account in teaching. In this study, hearing-impaired students read a story in a classroom, and the researchers than investigated the following questions: *1)* What types of editing were carried out in students' writings? *2)* Which units were edited? and *3)* How did the grammatical units need to be edited?

Method

Study Model

As this study aimed to identify the performance of hearing-impaired students in correcting their writing, it was designed according to a descriptive model. In accordance with the aim of the study; the study data was used to calculate the percentages for the types of correction, the units in which the corrections were performed and the way in which the corrections were performed, all of which were part of the writing error correction taxonomy of hearing-impaired students. The obtained results were then evaluated.

Participants of the Study

The study population consisted of seventeen students enrolled in grades six to eight at the Education and Research Center for Hearing-Impaired Children (İÇEM) during the second semester of the 2011–2012 academic year.

Data Collection Tools

Data collection tools comprised *1)* a student information form, *2)* a classroom activity (reading a story), and *3)* a revision taxonomy.

Student Information Form: To obtain data regarding the characteristics of the students; an information form was prepared for recording the students' birth date, the age of first implant, whether the students had participated to family education, the age at which the students first began to attend İÇEM, the type of hearing aid used by the students, and the date in which the cochlear implant was first applied and programmed. These information were then obtained from the audiology clinic within the school.

Reading a Story in Class and Writing: A reading activity was conducted to obtain sample texts to be used in a Turkish course. After the story was read and its meaning was explained, the teachers distributed study cards including all of the events within the story. This provided an opportunity to evaluate students' reading comprehension. The students were asked to read and copy the sentences in their Turkish course notebooks and to draw a picture of what they understood.

Revision Taxonomy: Revisions made to written text can be analyzed in three stages (Crawford, Lloyd, & Knoth, 2008; Faigley & Witte, 1981), consisting of revision unit, revision type, and quality of revision. Sound/syllable and affix correction elements were included as revision types and revision units, since each affix added to the base of a word has an alteration feature that functions in different ways (Hengirmen, 1995). The quality of revision reflects the differences between the first version writ-

ten by a student, and final version at the end of the revision process. In the present study, the quality of the revision was not evaluated because the revision study was carried out jointly by the teacher and student. In addition, *revision methods* was added to the revision taxonomy in order to enable hearing-impaired students to identify their mistakes; decide on how to correct them; and accurately evaluate and correct their mistakes.

Validity Study: The validity assessment of this study was performed in two parts: first for the classroom story reading activity, and then for the writing correction taxonomy. Concerning the classroom story reading activities, a specialist was consulted to determine whether the story book prepared according to the language and knowledge level of the students was suitable for obtaining written products from them. This specialist was also consulted to ascertain whether the writing correction taxonomy was a valid tool for assessing the writing correction activities of the hearing-impaired students. An approval was then obtained from the specialist for both the story book content and the characteristics of the writing correction taxonomy. Content validity represents the extent to which an assessment tool can actually measure the variable it claims to measure (Gay, Mills and Airasian, 2006). The validity assessment of this study was performed together with a specialist in the field who has been working for over 32 years on the education, language development and literacy skills of hearing-impaired students.

Revision Implementation

First, students were given the chance to identify their own mistakes during the revision process. If the student did not correct the mistake, the mistake was shown, then a corrected version was shown. If the student again failed to correct the error, the correct version was written to provide a visual reference for the student to make corrections (Browne, 1996; Girgin, 2003a).

Data Collection

The participants were grouped by classroom level, and a story was read by the researcher and two different teachers. After the reading, study cards were distributed to students. Students then copied the study cards into their notebooks, and were asked to write what they understood from the story. Each student's written text was corrected in a one-to-one conference.

Reliability Study: Inter-rater reliability was examined in four sections: whether the application was performed as planned, revision type, revision unit, and ways of revision. A 100% consensus was achieved in all reliability studies.

Data Analysis

The results for revision type, revision unit, and the revision methods used in the revision taxonomy were represented as percentages.

Findings

Revision Type

Revision types identified were deletion, substitution, addition, rearrangement, spelling, consolidation and expansion. No findings were obtained on the features of consolidation, which evaluates consolidation at clause, sentence, or paragraph level; or expansion, which expands one unit into several. The most common revisions were replacing sound/syllable/affix or word; and adding a sound/syllable/affix or word. The smallest number of revisions related to reorganizing and spelling rules.

Unit of Revision

A revision taxonomy was used to assess the units of scale at which corrections were made. The units measured were sound/syllable, affix, word, clause, sentence, multiple sentences, paragraph, and punctuation. Affix and word editing corrections were more common than other types. For affix editing, students failed to use derivational affixes and inflections and added or substituted incorrect affixes.

Revision Methods

Students revised mistakes they found independently or corrected mistakes pointed out to them. They were able to revise their mistakes mostly by listening. The final stage of assistance in the revision process involved showing the student the unit needing revision by providing a written word or sentence as an example for reference. The results showed that students needed to make less use of this final "written example" method than other tactics for revision.

Discussion

Students generally used incorrect affixes or omitted affixes and had difficulty using appropriate deriva-

tional and inflectional suffixes. These findings were similar to those of other studies, which reported that hearing-impaired students had difficulty with sentence syntax because of delayed language development (Antia, Reed, & Kreimeyer, 2005; Girgin & Karasu, 2007; Gormley & Sarachan-Deily, 1987; Livingston, 1989; Spencer, Barker, & Tomblin, 2003; Yoshinaga-Itano & Snyder, 1985).

Hearing-impaired students are known to improve their language abilities at different levels according to their differing experiences learning language within an educational environment, and the different language data generated from these experiences (Tüfekçioğlu, 1998). We found that 65% of students did not need revisions in element order. This finding is attributed to the writing program implemented within the educational environment, preliminary activities before writing, and systematic review and editing activities (Girgin, 2003b; Lewis, 1998). Students' ability to find and correct mistakes was related to their attending writing conferences systematically, and also with the choice and execution of reading and writing activities used in their training (Cunningham & Allington, 2003; Danielson & LaBonty, 1994; Girgin, 2003b).

The time and level of hearing loss, educational environment, and oral language ability also affect the quality of writing (Edmunds, Cumming, & Rodda, 1990). In this study, only one variable related to students' characteristics did not influence the findings: Students who started using hearing aids and auditory/oral education at early ages successfully identified and revised their mistakes without help, or corrected their mistakes when they were pointed out. Having a cochlear implant at an early age and becoming intensively involved in auditory/oral education also positively affected the development of reading and writing skills (Geers, Nicholas, & Moog, 2007; Paul, 2001). Recent studies emphasized that children who received cochlear implants,

especially before two years of age, can achieve the same level of language skills as their peers with normal hearing (Geers et al., 2007; Kirk, Miyamoto, Ying, Perdew, & Zuganelis, 2000). In the present study, six of the nine students with cochlear implants received them when they were five years old, and two at age three. We conclude that, apart from one student, the late implant affected the performance of students with cochlear implants who participated in this study.

In the Turkish language, every affix changes the meaning of its word and of the sentence as a whole. Another finding of this study was the observation that there is a greater need to study with the students affixes that change the meaning of words, as well as a greater need to organize various activities during group or individualized studies that focus on the subject of suffixes. The teaching of knowledge required by students is crucial for developing written expression skills in various contexts (Wolbers, 2008). Grammar lessons using various affixes in activities supporting the development of reading and writing can develop writing skills. Grammar rules can be taught directly, and can also be used as a model during the writing process or to reinforce knowledge (Sims, 2001). In addition, during writing conferences, students should be directed to the grammar rules to be emphasized, the types of structures the rules requires, and how that structures will affect meanings (Weaver, 1996). The findings of this study show that one-to-one writing conferences should be conducted every day according to the needs of hearing-impaired students, and that education programs should make explicit the themes to be emphasized during the revision process. Students' writing abilities and knowledge of the writing process can be developed by implementing teaching strategies that meet the specific needs of hearing-impaired students (Santangelo, Harris, & Graham, 2008).

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