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RESEARCH ARTICLE

Oral Narratives by Hearing-Impaired Students in Ordinary Schools: A SFG Study

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Objective: This study aims to find the most suitable type of oral narrative in order to assess the transitivity system being used by hearing-impaired students of ordinary schools with their hearing counterparts.

Methods: Three types of oral narratives, including personal narration, storytelling, and story improvisation has been documented. The participants were eighteen hearing-impaired students along with control group of eighteen students. Oral narratives were transcribed and analyzed by Halliday's transitivity system framework. Data analysis was carried out using SPSS 26 based on the normality of the data in each of the transitivity indicators. Two-independent samples t-tests and U Mann-Whitney tests were conducted.

Results: Findings revealed that all three types of oral narratives of hearing-impaired students contained transitivity indicators lower than average, this difference was significant for processes (p=0.041) and participants (p=0.029) in improvisation, and for circumstances only in personal narrative (p=041). However, in the totality of narratives, the median difference between the two groups is significant in all transitivity indices (p= 0.024, p=0.022, and p=0.001 for processes, participants, and circumstances respectively).

Conclusion: In light of the results of this research, the storytelling task, which is the most widely used form of assessment in communication disorders, cannot capture the narrative weaknesses of hearing-impaired students enrolled in regular schools, and it is necessary to use more spontaneous narrative tasks such as personal narration and improvisation of narrative in evaluating and rehabilitating these students.

Keywords: Functional linguistics, Transitivity System, Processes, Participants, Circumstance

1. Introduction

The concept of transitivity investigated in this study was first proposed in Halliday's Systemic Functional Grammar (SFG). An important aspect of SFG is the approach it offers clinicians to understand language in use as a functional system (Ball et al., 2008). Among the most widely adopted linguistic methodologies for 'doing' critical linguistics, SFG provides theoretical rigor and a methodological system for dealing with both macro and micro aspects of language within social contexts (Pennycook, 2001). The main focus of speech-language pathologists is on the "micro" aspects of communication in social contexts, which is one aspect of SFG, but there are also wider aspects that may be relevant to their practices (Armstrong, et al., 2005). The transitivity (relationship between processes, participants, and circumstances) in a text is essential to determine the discourse style, and also to predict the degree of cohesion and coherence of the text (Hasan, 2009). These studies are undertaken in the field of discourse analysis, which interacts most with other fields of linguistics in the form of inter-field studies and interdisciplinarity (Masouni et al., 2017) Currently, clinical discourse research is used to study and evaluate communication skills in children, adults, and people with communication disorders (Ghayoumi et al., 2022; Beytollahi et al., 2019; Mojahedi Rezaeian, et al., 2018). The field of clinical linguistics has previously conducted studies to compare some aspects of functional grammar between groups with different special needs and their normal counterparts. For children with hearing impairments, for example, we could refer to research comparing the use of various types of Themes in primary school (in the Fifth Grade) (Ghiasian, 2014), and of various types of processes in preschool (Vaferi, 2015).

Nine in every 1,000 school-aged children have severe or profound hearing loss (Teele et al., 1989). According to the American Speech and Language and Hearing Association, children with hearing impairments face various challenges in their daily lives. This includes difficulties in communicating cognitively and expressively, learning difficulties in school, low self-esteem, and social isolation (National Academies Press, 2004). Different hearing-language and speech-related studies have investigated the relationship between language outcomes and potential predictors among these children. Language development studies have examined early language skills primarily in this population. Most clinical assessments of school-aged children with hearing impairments focus on those who attend special schools, but modern technology and early rehabilitation have enabled many of these children to attend ordinary schools, as a result, little information is available to determine the impact of new technologies and modern rehabilitation methods on more complex aspects of language, such as narrative production (Boons et al., 2013). However, narratives are closer to spontaneous languages than the elicited languages used in standard language tests (Merritt and Liles, 1989). A narrative is a type of discourse that involves the expression of events and activities with a temporal sequence, and it plays an important role in our lives (Markowiak, 2005). Proficiency in narrative discourse can impact positively a range of related outcomes, including social, emotional, and educational development (Shiel et al., 2012). While most

narrative studies on students focus on written texts rather than oral narratives (Asker-Árnason et al., 2010; Crosson and Geers, 2001), some studies demonstrate that our spoken narrative ability can have a significant impact on our social, emotional, and educational lives (Heilmann et al., 2010; Soares et al, 2010; Pinto et al., 2015). In recent decades, there has been a rising interest in oral narrative evaluation; however, most organizations only use picture-based assessments for retelling stories (Mojahedi et al., 2020). There has been little research comparing the transitivity of Persian-speaking children with hearing impairments and their hearing counterparts. The studies have been limited to compare the processes involved in retelling picture stories at the preschool age (Vaferi, 2015). As Milosky (1987) asserts, oral and written narrative language is essential to students, teachers, and books in their daily interactions. The assessment of narrative production is a challenging and complex task at all levels and aspects of form, content, and function, and this is particularly true in children. According to Hughes et al., (1997) three samplings were considered appropriate for eliciting narratives from children easily and naturally:

1) Narrations of personal experiences

2) Story Retelling with or without visual stimulation

3) Story Creation

The main objective of this study was to compare the transitivity of the narration in three different types of oral narrations (mentioned above) of hearing impaired (HI) Persian students and hearing peers (NH) in regular elementary schools. This objective is divided into three sections according to the definition of transitivity described later: comparing the average number of processes, the average number of participants, and the average number of circumstances used in each of the three types, and the total.

2. Theoretical Concepts:

SFG aims to provide functional explanations for formal system of language and considers it dependent on the communicative role of language (Dabir-Moghaddam, 2004). The principle unit of analysis in this grammar is the clause, which is a grammatical concept that simultaneously has three semantic layers (experiential, interpersonal, and textual metafunctions) and is interpreted based on the main verbs. As part of the experiential metafunction, the clause is considered as a representation, and the purpose of the representation is providing a set of events or experiences which are manifested in grammar and the grammatical system permitting expression of experience (on which this article focuses); this is called a transitivity system (Tafreshi and Ramezani, 2010). As mentioned earlier, the experiential and transitivity systems in the external world and the context of a situation are related to the element of the "Field of Discourse" and also consist of three macro functions: processes, participants, and circumstances. Figure 1 shows some examples based on our samples. Within the clause, processes and participants are the primary relations, but circumstances aren't necessary, but their presence does increase the semantic richness of the experience. Transitivity is on the first hand determined by determining the number and type of

the process (that is, the particular schema by which the clause has to interpret experience); Secondly, by determining the process type, we can determine the type and number of the participants, and finally, if present, the number, and type of circumstances of the clause.

Sample	Process type	Participant type	Circumstances type	Transitivity Analysis
I Want …	Want: Mental	I: Sensor Next clause: Phenomenon	-----	Mental process + 2 participants
…to say	Say: Verbal	(I): Sayer Next clause: Verbiage	-----	Verbal process + 2 participants
What I did yesterday.	Do: Material	I: Actor What: Goal	Yesterday: (Location: time)	Material process + 2 participants + 1 circumstance element
We woke up at 9 am.	Wake up: Behavioral	We: Behaver	At 9 am: (Location: time)	Behavioral process + 1 participant + 1 circumstance element
My sister was sick	Be: Relational	My sister: Carrier Sick: Attribute	-----	Relational process + 2 participants
There is a doctor in our village …	Be: Existential	A doctor: Existent	In our village (Location: place)	Existential process + 1 participant + 1 circumstance element

Figure 1. Part of a sample analysis

According to Halliday and Matthiessen (2013, 2014), there are three main types of processes (material, mental, and relational) and three subtypes (verbal, behavioral, and existential). However, some functional linguists believe that verbal processes are one of the main processes. The ration is while they are between material and mental processes they would have grammatically obvious features that distinguish them from others (Thompson, 2013). A material process represents the event or happening (such as arriving, departing, pouring, picking up, giving, etc.), and a mental process represents the mentality and feelings (perceptions such as seeing, hearing, emotive, or reactive feelings), or cognitive functions such as thinking, imagining, etc. and relational processes (such as be, become, have, seem, appear, etc.) including attributive and identifying, each of these processes can be Intensive, Circumstantial, or Possessive. Formally, attributional possession (like: my house) and predicative possession (like: this house is mine) are distinguishable, but identifying ownership and its type is not always straightforward. In such cases, cognitive-semantic parameters would be applied (Aghagolzadeh and Haghighi, 2014). In addition to these main processes, behavioral, verbal, and existential processes are also included. Behavioral processes describe physiological activities (such as breathing, yawning, coughing, staring, etc.), expressive/verbal processes describe the expression of something (such as say, tell, explain, criticize, etc.), and existential processes (be, exist) describe the existence of an entity.

Each process has its own participant(s) being represented as nominal groups. In the non-transitive material process, the actors, i.e. the principal players of the event, are the main participants, while in the transitive material process, in addition to the actor, the goal on which the performance was based is also included. As for the participants in mental processes (sensor and phenomenon), the sensor is the person whose senses or mind is involved in the process, and the phenomenon is what the sensor senses or thinks about. In attributional processes, the attribute and carrier are the main participants (an attribute is usually an indefinite nominative group or an adjective), and in the processes of identity relations, the identifier and the identified are the main participants (an identifier is usually a definite nominal group). Behavioral processes involve participation along with the physiological behavior, and verbal processes involve the main participants being the sayer and verbiage (sometimes the receiver is also explicitly included in the clause), and finally,existential processes involve participants who are existents. Objectified as groups of adverbs or prepositions by Halliday and Metiso (Murri et al., 2014), circumstances are elements that are somehow related to this process. These include extents (distance, frequency, duration), locations (time, place), manner (means, comparison, quality, and degree), causes (reason, Purpose, behalf), and Contingency (Condition, Concession, and default).

3. Materials and Methods:

3.1. Design:

 Through an inter-subject design (experiment group, control group), the transitivity in three types of oral narrative has been compared and evaluated: personal narrative, a retelling of a memorized story, and story creation.

3.2. Participants:

 Thirty-six students from Qazvin's ordinary schools participated in the study, 18 of whom being normal hearing (NH) nominated randomly and 18 students with hearing impairment (HI) as the available sample group. In both groups, half of the children were female and the other half male, with a mean age of 9 years and 4 months in the NH group and 10 years and 1 month in the HI group. As for the both groups of children, Persian was the first language and they did not have any physical or mental problems. All the HI group had congenital hearing loss, and their degree of hearing loss ranged from severe to profound, nine of whom used hearing aids and nine had cochlear implants. The HI group had had at least two years of auditory rehabilitation (oral or verbal) before school age. A previous research (Milosky, 1987; Merritt and Liles, 1989) shows that the gender variable is ineffective at predicting narrative skills among school-aged children, so this variable was not included.

3.3. Method of gathering data

After ensuring of readiness of participants (not tired, hungry, or sleepy), they were asked to answer the following questions in the interview room:

1- How was yesterday? (Personal narration)

2. Tell a story you heard before (retelling the story)

3- Make an improvised story of yourself (narration creation)

The answers were recorded 30 seconds after each question (equal processing time for all students). A transcription was made for each student's narrative and then the number and type of the processes and circumstances, were calculated.

3.4. The procedure, materials, and tools

Data were extracted from the narratives based on transitivity indices defined in SFG. As stated above, the data were extracted based on the definitions of types of processes, participants, and circumstances. It is sometimes difficult to determine which type of process was involved when analyzing transitivity in actual texts (Thompson, 2013). Hence, the type of process was determined using references (Farrokhi et al, 2020; Razavian and Feizi, 2017) that specified the type of process of Persian verbs based on pragmatic meaning.

The following steps were followed to score the narratives:

- The transcription narrative was divided into clauses. Each main verb being in a single clause.

- The type of process in each clause was determined by its pragmatic meaning. As an example, in some clauses, "to be" was a relational process, and in others, an existential process.

- Each clause was determined by its type of process. For example, we looked for participants of the type actor (and if there was a goal) during the material process, and we looked for participants of the type sensor and phenomenon during the mental process.

- Then the presence or absence of circumstances elements and their type/s in the clause was being checked.

- Our final step was to record the number of all types of processes, participants, and circumstances in the narrative as transitivity indicators.

3.5. Ethical rules

This study was approved by Tarbiat Modares University's ethical committee. (Approval ID: IR.MODARES.REC.1400.072, Approval date: 2021-06-12).

3.6. Data analysis

Statistical analyses were performed using SPSS software 26. A with a statistical significance level of 5% . Depending on the normality or non-normality of the distribution of data, independent two-way t-tests or U-Mann-Whitney tests were used.

3.7. Validity and Reliability

Through the judgment of six linguistics experts, the validity of the content was confirmed and the reliability of the examiners' scores was determined by comparing them to the average scores of 12 experts in two randomly selected narratives, including six linguists and six speech therapists. No significant difference was found.

4. Results

A within-group comparison was made among hearing aid (HA) users and cochlear implant (CI) users in the HI group, before comparing NH and HI groups. Since the distribution of the data did not match normality, U Mann-Whitney tests were used. In none of the narrative types, there were a significant differences in the transitivity indicators (Table 1).

Table 1. *Comparing transitivity within the HI group*

PROCESSES					
Narrative type	Hearing Instrument	MEAN	Std. Deviation	Std. Error Mean	P - value
Personal	HA (9)	17.44	11.71	3.90	0.790
	CI (9)	14.33	5.52	1.84	
Story retelling	HA (9)	25.00	17.94	5.98	0.122
	CI (9)	48.11	30.46	10.15	
Story creation	HA (9)	23.67	15.36	5.12	0.785
	CI (9)	28.89	15.37	5.12	
Total	HA (9)	22.04	15.00	2.89	0.257
	CI (9)	29.11	23.97	4.61	
Participants					
Narrative type	Hearing Instrument	MEAN	Std. Deviation	Std. Error Mean	P - value
Personal	HA (9)	26.11	18.25	6.08	0.859
	CI (9)	22.22	10.12	3.37	
Story retelling	HA (9)	40.33	28.18	9.39	0.102
	CI (9)	79.33	52.55	17.52	
Story creation	HA (9)	37.11	22.80	7.60	0.952
	CI (9)	37.88	23.11	7.75	
Total	HA (9)	34.53	23.35	4.49	0.337
	CI (9)	46.44	40.61	7.82	
Circumstances					
Narrative type	Hearing Instrument	MEAN	Std. Deviation	Std. Error Mean	P - value
Personal	HA (9)	10.44	6.88	2.29	0.212
	CI (9)	7.11	3.44	1.15	
Story	HA (9)	10.44	8.37	2.79	0.170

retelling	**CI (9)**	18.57	14.72	4.91	
Story	**HA (9)**	13.00	9.68	3.23	0.785
creation	**CI (9)**	14.22	9.00	3.00	
Total	**HA (9)**	11.30	8.15	1.57	0.448
	CI (9)	13.30	10.88	6.09	

Having ensured that there are no significant differences between the two groups of HA users and CI users, and applying the U Mann-Whitney test, the whole HI group was compared with the NH group. Table 2 shows the results of   investigating the mean of the processes of both groups.

Table 2. *Comparing PROCESSES between two groups*

	PROCESSES				
Narrative type	**Hearing Status**	**MEAN**	**Std. Deviation**	**Std. Error of the Mean**	**P -value**
Personal	**HI (18)**	15.89	9.02	2.13	0.161
	NH(18)	22.00	14.35	3.38	
Story retelling	**HI (18)**	36.56	27.01	6.37	0.521
	NH(18)	50.06	45.34	10.69	
Story creation	**HI (18)**	24.28	14.92	3.51	0.047*
	NH(18)	39.22	18.24	4.29	
Total	**HI (18)**	25.57	20.12	2.74	0.024*
	NH(18)	36.09	31.08	4.23	

The occurrence of various types of processes (appendix 1) in the task of personal narrative has the same pattern from maximum to minimum:

NH: Material > relational > behavioral > mental > verbal > existential
HI: Material > relational > behavioral > mental > verbal > existential

Compared to their NH counterparts, HI children, in retelling a memorized story, used more mental processes than verbal and more existential processes than behavioral ones:

NH: Material > relational > verbal > mental > behavioral > existential
HI: Material > relational > mental > verbal> existential > behavioral

The mean difference in the improvisation of the narrative was statistically significant, but both groups mostly followed the same pattern (except for the existential and behavioral processes):

NH: Material > relational > mental > verbal> existential > behavioral

HI: Material > relational > mental > verbal > behavioral > existential

As well, in the three types of narratives being combined, the mean differences of each group were statistically significant; however each group repeated the same pattern (except for the mental and verbal processes):

NH: Material > relational > verbal > mental > behavioral > existential
HI: Material > relational > mental > verbal > behavioral > existential

Likewise, the normality hypothesis was rejected in all participants; therefore the Mann-Whitney test was applied to compare the mean participation rate for HI and NH groups (Table 3).

Table 3. *Comparing Participants between two groups*

Participants					
Narrative type	Hearing Status	MEAN	Std. Deviation	Std. Error Mean	P -value
Personal	HI (18)	24.17	14.46	3.41	0.168
	NH(18)	33.00	21.91	5.16	
Story retelling	HI (18)	59.83	45.56	10.74	0.486
	NH(18)	84.72	80.66	19.01	
Story creation	HI (18)	37.44	22.27	5.25	0.029*
	NH(18)	60.56	33.33	7.86	
Total	HI (18)	59.43	52.25	7.52	0.022*
	NH(18)	40.48	33.36	4.54	

As both groups employ similar types of processes in the personal narrative, it is predicted that both groups would use the same types of participants (appendix 2) in this task:

NH: actor > goal > identifier and identified > behavior > attribute and carrier > sensor and phenomenon > sayer and verbiage > receiver > existent
HI: actor > goal > identifier and identified > behavior > attribute and carrier > sensor and phenomenon > sayer and verbiage > receiver > existent

The pattern of using participants in storytelling differs as follows:

NH: actor > sayer and verbiage > sensor and phenomenon > attribute and carrier > identifier and identified > goal > receiver > behavior > existent
HI: actor > sensor and phenomenon > sayer and verbiage > goal > attribute and carrier > identifier and identified > behavior > receiver > existent

Also, a different pattern of participation is required in each group when creating improvised narratives:

NH: actor > sensor and phenomenon > sayer and verbiage > attribute and carrier > identifier and identified > goal > existent > receiver > behavior

HI: actor > sensor and phenomenon > sayer and verbiage > goal > attribute and carrier > identifier and identified > behavior > existent > receiver

A comparison of the circumstances of using each type of narration and the total use is shown in Table 4. For all narrative contexts, the hypothesis of group normality is accepted i.e. two-independent-sample t-tests are used to compare means, but for comparisons of total mean, U Mann-Whitney test was applied since the K-S test rejected the normality hypothesis.

Table 4. *Comparing Circumstances between two groups*

Circumstances					
Narrative type	Hearing Status	MEAN	Std. Deviation	Std. Error Mean	P -value
Personal	HI (18)	8.78	5.55	1.31	0.041*
	NH(18)	14.72	10.35	2.44	
Story retelling	HI (18)	14.50	12.34	2.91	0.057
	NH(18)	24.44	17.45	4.11	
Story creation	HI (18)	13.61	10.65	2.14	0.073
	NH(18)	19.72	9.09	2.51	
Total	HI (18)	12.30	9.58	1.30	0.001*
	NH(18)	19.63	13.58	1.85	

The pattern of using circumstances (appendix 3) in the personal narrative task was as follows:

NH: location > manner > extent > cause > contingency

HI: location > manner > extent > cause

In the task of telling the story, the frequency of using circumstances in two groups is as follows:

NH: location > manner > extent > cause > contingency

HI: location > manner > cause > extent > contingency

Finally, the pattern of using circumstances in both groups during creating an improvised narrative is as follows:

NH: location > manner > cause > extent > contingency

HI: location > manner > extent > cause > contingency

In all three types of narratives, both groups use circumstances related to location and manner most frequently, and contingency is least often used.

5. Discussion

The present study analyzed the transitivity of three types of oral narrative in Iranian students with and without hearing impairments, enrolling regular elementary schools**.** Tables 2, 3, and 4 indicate that the difference in the transitivity indices (processes, participants, and circumstances) in a total of three narrative types between the two groups is statistically significant**.** This finding is in line with the research that has found HI children have difficulties in narrative development despite learning spoken language (Jones et al., 2016). According to the present study, these problems are not identical across all types of oral narration.

Observing Tables 2, 3, and 4, it appears that in the story-telling task, there were no significant differences between the two groups on any of the transitivity indicators (processes, participants, and circumstances). Although no research has been conducted on the ability of HI children to recall memorized stories, our findings are generally in line with the studies that asked children to retell a pictorial story verbally and found no significant difference in macrostructures between the narratives of these children and their peers (Zamani et al., 2018). A possible explanation is that auditory training and speech therapy programs provide HI children with a great deal of experience with retelling stories before entering school. This could also be explained by the fact that the students are only reporting the elements existing from previously memorized stories, whereas when they are creating their own stories and narratives, the elements must be generated and processed independently. Ashouri and Jalil-Abkensar (2020) which examined how memory-based cognitive training impacted the abilities and communication skills of deaf students would support this interpretation. It shall also be supported by the Mousavi and Karami Nouri (2008) which compared the two main systems of long-term memory of deaf students in special schools with hearing students and has concluded that these students may have difficulty with long-term memory. Another point worth noting is that retelling a previously preserved story requires less creativity and productivity than producing a personal narrative, especially in creating a story.

The personal narrative does not demonstrate a significant difference in the mean of total processes and participants between the two groups, however, the mean of circumstance in personal narratives produced by HI students is significantly lower than those produced by hearing students. It might be that both groups produced shorter and less complex narrations in story creation, but in personal narration, NH students produced longer and more elaborate narrations. In retelling the tale, as mentioned, the elements already exist in the story and the student's job is to merely recall them. An HI child may also feel compelled to point out certain extents, locations, manners, causes, and contingencies when recalling a personal narrative, but not elaborate further because of a lack of vocabulary and information.

Based on Table 1, there was not a significant difference in any transitivity indices between the two subgroups of users of hearing aids and users of cochlear implants. These results are consistent with previous research (Razavi et al., 2017), where the intelligibility of speech in children with hearing loss who use cochlear implants and those who use HAs was not significantly different.

Our study has two main characteristics. First, any empirical study may be affected by unpredictable and uncontrolled factors. To control some of these factors, we homogenized the children in the two groups according to the socio-economic status of the families, taking into account factors such as the physical (checking nutrition and sleep order of the child before the assessment session), and psychological (checking the child's readiness for cooperation before the assessment session) state of the children during the test, and giving equal amounts of time prior to each narrative. Secondly, in the background of research, if the scale or criteria of measurement was not exact in discourse analysis, it should have been avoided.

6. Conclusion

This study suggests that HI students in normal primary schools display different levels of competence in representing transitivity in various types of oral narrative activities. In retelling a memorized story, they did not differ significantly from their counterpart in any transitivity indicator, including processes, participants, or circumstances. In contrast, there was a significant difference between the mean use of the two groups in processes and participants while creating an improvisational narrative. Additionally, the use of circumstances in the personal narrative task differed significantly between the two groups. Our discussion pointed out both similarities and differences between the two groups highlight the different types of narration.

Declarations of interest
None.

Highlights

- Hearing impaired students display different levels of transitivity in various types of oral narrative activities
- retelling a memorized story, they show no significant different from their counterpart
- there was a significant difference between the mean use of the processes and participants in creating an improvisational narrative
- there was a significant difference in the use of circumstances in the personal narrative task

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روایت‌های شفاهی دانش‌آموزان آسیب‌دیدهٔ شنوایی در مدارس عادی، مطالعه‌ای در چارچوب SFG

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هدف: این پژوهش با هدف یافتن مناسب‌ترین نوع روایت شفاهی برای ارزیابی نظام گذرایی مورد استفادهٔ دانش‌آموزان کم‌شنوای در حال تحصیل در مدارس عادی با همتایان شنوای آن‌ها انجام شد.

روش کار: سه نوع روایت شفاهی شامل روایت شخصی، بازگویی داستان و خلق روایت بداهه جمع‌آوری شد. شرکت‌کنندگان، هجده دانش‌آموز آسیب‌دیدهٔ شنوایی (به‌عنوان نمونه در دسترس) به همراه هجده دانش‌آموز شنوا بودند. روایت‌های شفاهی در چارچوب نظام گذرایی هالیدی بازنویسی و تحلیل شد. تجزیه و تحلیل داده‌ها با استفاده از نرم‌افزار SPSS 26 انجام، و براساس نرمال بودن یا نبودن داده‌ها در هر یک از شاخص‌های گذرایی، از آزمون‌های t دو نمونه مستقل و Mann-Whitney U استفاده شد.

یافته‌ها: یافته‌ها نشان داد که هر سه نوع روایت شفاهی دانش‌آموزان کم‌شنوا دارای شاخص‌های گذرایی پایین‌تر از میانگین است، این تفاوت در تکلیف خلق روایت بداهه (برای فرآیندها (p=0.047) و شرکت‌کنندگان (p=0.029)) و در تکلیف روایت‌های شخصی فقط برای عناصر حاشیه‌ای (p=0.041) معنی‌دار بود. با این حال در مجموع سه نوع روایت، اختلاف میانگین بین دو گروه در هر سه شاخص گذرایی (p=0.024، p=0.022، و p=0.001) به ترتیب برای فرایندها، مشارکان و عناصر حاشیه‌ای، معنی‌دار بود.

نتیجه‌گیری: با توجه به نتایج این پژوهش، تکلیف بازگویی داستان که پرکاربردترین شکل سنجش در اختلالات ارتباطی است، نمی‌تواند نقاط ضعف روایتی دانش‌آموزان کم‌شنوای ثبت‌نام شده در مدارس عادی را نشان دهد و لازم است بیشتر از تکالیف روایتی خودانگیخته مانند روایت شخصی و خلق بداهه در ارزیابی و توانبخشی این کودکان بهره گرفت.

کلیدواژگان: زبان‌شناسی نقش‌گرا، نظام گذرایی، فرایندها، مشارکان، عناصر حاشیه‌ای