

# A comparative macrostructural analysis of narrative discourse in children with regular language development and children with developmental language disorder

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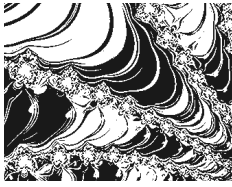
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# A COMPARATIVE MACROSTRUCTURAL ANALYSIS OF NARRATIVE DISCOURSE IN CHILDREN WITH TYPICAL LANGUAGE DEVELOPMENT AND CHILDREN WITH DEVELOPMENTAL LANGUAGE DISORDER

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The aim of this study is to compare the narrative ability of children with developmental language disorder (DLD) and children with typical language development (TLD) using new material for narrative assessment – the Multilingual Assessment Instrument for Narratives (MAIN). Twenty children with DLD and twenty with TLD, mean age 6.6 years, all monolingual speakers of Croatian, participated in the study. Results demonstrated that children with TLD outperform children with DLD at the macrostructure level in both conditions – story generation and retelling. In addition, the type of elicitation was shown to have an impact on narrative production.

Keywords: narrative ability, story generation, retelling, macrostructure, developmental language disorder (DLD)



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# INTRODUCTION

Numerous scientific and professional-clinical studies emphasise the importance of narrative discourse analysis in assessing the language and communication competences of various clinical groups of children and adults (Botting, 2002; Doyles et al., 1998; Schneider, Hayward, & Dubé, 2006). Some studies openly suggest that assessing narrative competence should be an obligatory part of the diagnostic procedure in speech and language pathology (Paul, 2007) because it can offer a more comprehensive description of language than the elicitation tasks of any language test (Stockman, 1996). Because it is possible to efficiently and credibly describe the communication competence of a speaker, narration as a scientific and clinical tool for assessment is marked by exceptional ecological validity (Botting, 2002). This is especially important with regard to the challenges related to the recognition of children with developmental language disorders (DLD), where diagnosis can be established in cases where a child, despite typical cognitive, sensory-motor, emotional and psychological development, does not master language at the expected level with regard to his/her chronological age. Seven percent of children in the general population achieve lower scores on various language measures (Tomblin et al., 1997). The present study joins the growing body of literature aiming to describe the narrative ability of children with DLD, with a particular emphasis on narrative ability at the macrostructure level.

## Measuring narrative performance

Traditionally, an oral narrative is analysed on both microstructural and macrostructural levels.

The analysis of microstructure is linguistic analysis directed primarily towards lexical units, syntactic structures and cohesive links, or the three components of language: lexicon/ semantics, syntax and morphology.

**FIGURE 1**  
An illustration of story structure according to Story grammar (Stein & Glenn, 1979)

|                                 | Components of story grammar | Description of the components                                                           |
|---------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| E<br>p<br>i<br>s<br>o<br>d<br>e | Situation                   | characters, time, space, objects, relationships between characters                      |
|                                 | Initiating event            | event that drives the plot of the story, i.e. the problem                               |
|                                 | Goal                        | characters' reaction to the initiating event/problem (planning targeted towards a goal) |
|                                 | Attempt                     | method for solving the problem                                                          |
|                                 | Outcome                     | consequences of attempts                                                                |
|                                 | Resolution                  | attitudes, views or physical reactions of the characters to the outcome                 |

Macrostructure refers to the structural analysis of a narrated text. Story grammar (Stein & Glenn, 1979) is the most commonly used approach for the analysis of story structure, in which each story is made up of a number of connected components. Each component contains different information that has a particular function in the story (Schneider et al., 2006). The first component – situation – describes the spatial and temporal context of the story. It is followed by at least one episode comprised of several components – an initiating event, goal, attempt, outcome and resolution (see Figure 1). A simple story contains a situation and one episode, whereas complex stories contain a larger number of episodes. The construct of the story grammar model is a story based on knowledge about story structure (Soodla & Kikas, 2010).

### **Narrative performance on macrostructural level of children with DLD**

In a number of studies, various developmental trends in marking story structure have been confirmed (Fey, Catts, Proctor-Williams, Tomblin, & Zhang, 2004; Schneider et al., 2006; Soodla & Kikas, 2010). Children most commonly mark an initiating event, or the problem of the story, along with the characters' attempts to solve the problem and the consequences of these attempts (Soodla & Kikas, 2010). However, the use of story grammar for differentiating between different clinical groups has not proven to be a sufficiently sensitive method. A study conducted by Schneider et al. (2006) that compared storytelling based on a simple (single episode) and complex (multiple episodes) story demonstrated that, up to the age of nine, children with TLD mark more story parts in a complex story than children with DLD. For a simple story, these differences disappear by the age of seven. Using the same narration method, Soodla and Kikas (2010) found no consistent difference in marking all story structure components among 6- to 8-year-old children with typical and delayed language development. Specifically, the authors found that the presence of the situation component did not differentiate the control group from the group of children with DLD, which they argued might be explained by insufficient explicit teaching about story components in the preschool period. Using the *Multilingual Assessment Instrument for Narratives* (MAIN, Gagarina et al., 2012; Gagarina et al., 2015), Tsimpli, Peristeri, and Andreou (2016) and Boerma, Leseman, Timmermeister, Wijnen, and Blom (2016) confirmed weaker narrative abilities at the macrostructural level among monolingual children with DLD speakers of Greek and Dutch, respectively. Apart from the production of only a few story structure components, children with DLD demonstrated weaker narrative comprehen-

sion and expressed a smaller number of internal state terms than children with TLD (Boerma et al., 2016).

### **Story production methods and the type of elicitation**

The act of storytelling might be based on a model story or might occur in the absence of a model story. Story generation tasks involve telling a story without a previous model, in which different types of elicitation can be used. For example, a person can tell a story based on a single picture or a series of connected events illustrated within a larger number of pictures. Alternatively, the participant might be asked to finish a story started by the examiner or be requested to think up a fictional story (Westerveld, 2007).

Retelling tasks always include a model. For example, the participant first hears someone telling a story and is asked to repeat it. Retelling tasks can be spontaneous or direct. In spontaneous tasks, the participant is required to retell a familiar story (for example, *Little Red Riding Hood*). In this case, the version of the story to which the participant was previously exposed serves as a model. Direct tasks include a structured model of a story unknown to the participant. This model can be presented in audio format or in both audio and visual formats. In the case of audio-visual presentation, the participant has additional support in the form of visual elicitation.

In cases where narrative assessment is based on a model, the examiner needs to take into consideration a number of variables that can affect the participant's performance. This includes the acquaintance of the participant with the information provided by the model, the number of exposures to the model of the story, contextual elicitation (for example, pictorial material), language complexity and length of the model (Westerveld, 2007). The importance of controlling testing conditions is highlighted by research demonstrating differences in narration when the story is presented only visually, only in audio format, or both visually and in audio format (Schneider & Dubé, 2005).

According to Liles (1993), story generation is a more demanding skill than story retelling because the narrator does not have the support of previously presented script and, as such, must rely on his/her linguistic knowledge during story production. Examining this claim in a clinical context is particularly interesting, where data of children with poor language skills can be analysed.

During narration, children must shift from the contextualised use of language in which the interlocutor is familiar with the communication situation to the decontextualised use of language in which the interlocutor is completely or largely unfamiliar with the content being transmitted (Curenton & Justice, 2004; Pellegrini, 1985). Decontextualised language de-

mands a higher level of language processing in order to express abstract concepts and events with the use of special language elements (for example, different conjunctions and words describing internal states) (Gardner-Neblett, Pungello, & Iruka, 2012). Certainly, context sharing also has an influence on narrative performance as well. Shared and unshared contexts refer to the conditions of the listener. A shared context implies the listener's familiarity with the content of what is being told or retold. In contrast, an unshared context simulates an assessment in which the participant is convinced that the listener/examiner is not at all familiar with the told content and that the participant's task is to introduce it to him/her. In light of its potential effect on the interpretation and possible comparison of results, the methodological diversity in assessing narrative competence described above must be taken into careful consideration.

## **THE PRESENT STUDY**

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Story generation and retelling are valuable sources of information about the participant's ability to narrate. However, given that they represent two different modes of assessing narrative discourse, they offer differing insight into the participant's ability for structural and linguistic story production.

The general aim of this study is to examine narrative performance at the macrostructural level among children with DLD. The specific aims of the study are a) to investigate whether children with DLD differ in narrative ability from children with TLD at the macrostructural level and b) to examine whether success in the production of story components differs between two differently elicited forms of discourse – story generation and retelling – among children with DLD and children with TLD.

We expect that children with TLD will be more successful in the production of story components than children with DLD on both variables, with a more pronounced difference expected for the story production variable. Based on the characteristics of language functioning among children with DLD, we also expect that the influence of elicitation type in this group of participants will be demonstrated through the more successful production of story components in the retelling condition than in the story production condition.

## **METHOD**

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### **Participants**

A total of 40 participants were included in the present study. The experimental group included 20 children with DLD while the control group included 20 participants with typical language development. Basic data for the sample are presented

in Table 1, where it is evident that participants from the experimental and control groups are matched in terms of the independent variables of gender, age and participation in a pedagogical educational institution. There are no significant differences in chronological age between the two groups ( $p = 0.720$ ).

Participants from the experimental group were chosen based on a speech and language pathologist's diagnostic report from two institutions in which the participants were undergoing language therapy: the Phoniatic Centre of the University Hospital Centre Rebro and the Laboratory for Psycholinguistic Research at the Faculty of Education and Rehabilitation Sciences, University of Zagreb. Apart from the criterion that the child was undergoing language therapy, it was also necessary that the child's diagnostic report clearly listed objective inclusion criteria for the diagnosis of developmental language disorder (F80.2), defined according to The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) (APA, 2014). The exclusion criteria for establishing this diagnosis are the presence of a cognitive disability and/or hearing impairment. Both criteria are confirmed as typical during diagnostic procedures included in psychological and audiological assessment.

➔ TABLE 1  
Basic data about  
the participants

|                                |              | TLD     | DLD     |
|--------------------------------|--------------|---------|---------|
| Gender                         | M            | 13      | 13      |
|                                | F            | 7       | 7       |
| Pedagogical educational status | Kindergarten | 16      | 16      |
|                                | School       | 4       | 4       |
| Age (in months)                | Range        | 66 – 90 | 66 – 90 |
|                                | <i>M(SD)</i> | 78(7.0) | 77(6.9) |

With the permission of all participating institutions and parental consent, testing was conducted in the cities of Zagreb and Pregrada in four preschool institutions (Kindergarten Cvrčak, Kindergarten Siget, Kindergarten Zapruđe and Kindergarten Naša radost) and one elementary school (Gustav Krklec). Children in the control group were recruited on the basis of records kept by school psychologists as part of the routine monitoring of student academic performance. All participants were monolingual Croatian language speakers.

## Instruments

Story sampling was carried out using the Croatian version (Hržica & Kuvač Kraljević, 2012) of the *Multilingual Assessment Instrument for Narratives* (MAIN; Gagarina et al., 2012; Gagarina et al., 2015). Assessment material was developed by the multilingual working group *Narrative and Discourse* with-

in the project *Language Impairment in a Multilingual Society* (BI-SLI COST ISO804; <https://www.bi-sli.org>), conducted from 2009 to 2013. MAIN is part of LITMUS – Language Impairment Testing in Multilingual Settings – a battery of tests that have been developed in connection with the same COST Action. It can be used to assess narrative comprehension and production of children between 3 and 10 years of age. It has been translated into 30 typologically different languages spoken in different cultural contexts. During its construction, MAIN was piloted on several occasions in a larger number of languages with more than 550 participants (Gagarina et al., 2012).

Test material consisted of four stories divided into four sets of pictures presented on a computer screen, which differs from the preferred paper-format procedure prescribed in the MAIN manual (Gagarina et al., 2012, 2015). The first two sets of stories, each consisting of six pictures, were used to examine story generation ("Baby Birds" and "Baby Goats").

The second two sets of stories, each consisting of six pictures, were used to examine retelling ("Dog" and "Cat"). Two narrative texts were also audio recorded for the purpose of examining retelling.

Each of the four stories consisted of a situation and three episodes, where each episode consisted of five structural components: initiating event, goal, attempt, outcome and internal state as reaction. Controlling the structural complexity of the story enables the analysis of the story on a macrostructural level, regardless of the type of elicitation.

## Procedure

Each participant was presented with one story to tell and one story to retell (set A: *Baby Birds* and *Dog* or set B: *Baby Goats* and *Cat*). This procedure is justified given that the stories for story generation and retelling were uniform in all segments (number of episodes, number of target sentences, number and type of target expressions for labelling internal states, word frequency and grammatical structures elicited by pictures).

Testing was conducted on a computer using two presentations (set A and set B). Each presentation was seventeen pages in length and consisted of one story to generate and one story to retell. The first seven pages were used to sample story generation and the remaining 10 pages were used to sample retelling.

On the first page, participants were presented with a choice of four differently coloured circles. The purpose of this task was to make the participant believe that he/she could choose a story. However, the participant would be presented with the same story regardless of the circle chosen. Following this introductory page, a blank page was presented, which



served as an opportunity for the examiner to clarify to the child the manner in which the story would be presented. The third page consisted of the whole set of six pictures for the story generation task, while the following three pages each consisted of two enlarged pictures from the set. After viewing the whole story on the third page, the participant was asked to tell the story by looking at two pictures at a time (pages 4-6). The seventh page was again blank, marking the boundary between the story generation and retelling tasks. This was followed by another page with four differently coloured circles, where participants were again made to believe that they would choose a story to listen to and retell. The ninth page was blank, which gave the examiner sufficient time to put headphones on the participant's ears. The following four pages were set to change automatically, where pictures were followed by the corresponding segments of the told text recordings. On the first of these four pages, the complete set of six pictures was presented. Here, the participant heard the title of the story (*Dog* or *Cat*). The following three pages were then presented one after the other, where each page consisted of two enlarged pictures from the set. Following presentation of each set of two pictures, the child listened to the corresponding audio files of the story. A blank page was presented following completion of the entire picture set, thus providing additional visual information to the participant that the story had ended and that it was time for him/her to retell the recently heard and seen story. A single mouse click opened page 15, which presented the first two pictures from the same set. Using these pictures, the participant started to retell the story. This was followed by two pages that each presented the subsequent two pictures in the story retelling set. Upon presentation of the final page, the task was completed.

In view of the results of previous studies examining the story generation and retelling abilities of children and adolescents with DLD and adolescents with TLD (van der Lely, 1997; Wetherell, Botting, & Conti-Ramsden, 2007), a testing procedure was used that offered the participant the illusory possibility that he/she could choose a story. This procedure created the condition of an unshared context in which the participant was convinced that the examiner does not know which story will be presented nor the content of the stories. This condition was further enhanced using situational limitations, where the examiner sat behind the screen so that he/she could not see the screen and the recording of the story was played to the participant through headphones. This procedure ensured a higher level of comprehensive storytelling because it includes language decontextualisation and minimises the possibility of simply describing the pictures or

skipping self-explanatory parts due to a common contextual field between the examiner and participant.

During testing, the examiner was not allowed to give prompting questions that could affect the content and structure of the participant's performance in the story generation process. Each participant produced two stories that were recorded and subsequently transcribed, i.e. transcriptions of children's stories were made on the basis of audio files.

All stories produced by the participants were recorded and transcribed using the Codes for Human Analysis of Transcripts (CHAT) and the Computerised Language Analysis (CLAN) programme. The CHAT and CLAN are both parts of the Child Language Data Exchange System (CHILDES; MacWhinney, 2000). Transcription and coding were carried out by a monolingual speaker of Croatian with previous training in language research methodology who had undergone special training for coding. Written instructions for coding were also provided and transcripts were additionally verified by two experienced researchers. All transcripts successfully passed the CHECK function in the CLAN program. In each group of language samples, five samples (25%) were randomly selected and re-transcribed by an independent transcriber who also had undergone previous training. Word-by-word transcription for each of the samples indicated at least 92% agreement with the corresponding original.

Transcripts were used for evaluating story structure. All stories produced by children were analysed using the scoring protocol for analysis at a macrolevel, which was developed and provided with the test materials. The scoring sheet developed for use with MAIN contains a list of structural components for situation and for each episode, as well as examples of each component. If a transcript contains utterances in which the relevant information is provided, scores are awarded. Each story consisted of a situation and 3 episodes and each episode was made up of 5 structural components: initiating event, goal, attempt, outcome, reaction. To mark the situation at the beginning of the story, i.e. for determining the time and place of the event, the participant can score a maximum of 2 points for situation (i.e. only 1 point if the child marked only one out of the two situational elements). Furthermore, each component of each individual episode (initial event, goal, attempt, outcome, reaction) is worth 1 point. As such, the maximum total score a participant can achieve on one story is 17. Following an initial meeting during which certain components not clearly stated in the MAIN manual were discussed (e.g., how to score for several structural components of the story within the same sentence), scoring was carried out independently by three researchers experienced in

using MAIN. A comparison of the scoring results established high inter-rater reliability (greater than 90% for the three raters).

## RESULTS

The normality of the distribution for both story generation and retelling variables was tested using the Kolmogorov-Smirnov test, which indicated that the distribution for the story generation variable deviates significantly from normal ( $Z = 0.216$ ,  $df = 40$ ,  $p = 0.000$ ). However, both symmetry ( $S = -0.128$ ) and kurtosis ( $K = -0.225$ ), as additional parameters of normality, do not deviate from the normal distribution. For the retelling variable, the distribution does not deviate from normal ( $Z = 0.130$ ,  $df = 40$ ,  $p = 0.086$ ), nor do additional distribution parameters ( $S = -0.128$  and  $K = -0.328$ ).

Table 2 presents the arithmetic means and standard deviations for story structure in the story generation and retelling conditions for the experimental (children with DLD) and control (children with TLD) groups.

TABLE 2  
Arithmetic means and standard deviations for the story structure variable in story generation and retelling conditions for children with DLD and children with TLD

|                  | Group | N  | Min | Max | M    | SD   |
|------------------|-------|----|-----|-----|------|------|
| Story generation | TLD   | 20 | 5   | 11  | 7.95 | 2.23 |
|                  | DLD   | 20 | 2   | 9   | 5.95 | 2.03 |
| Retelling        | TLD   | 20 | 5   | 11  | 8.80 | 1.57 |
|                  | DLD   | 20 | 4   | 11  | 7.25 | 1.97 |

An analysis of variance (ANOVA) was used in order to determine whether production of story structure components in the story generation and retelling conditions differs among children with DLD and children with TLD. An ANOVA was also used to examine the possible mediating influence of the method of story production (i.e. elicitation type), in which a 2 (groups of participants: TLD and DLD)  $\times$  2 (type of elicitation: story generation and retelling) model was applied. The dependant variable was success in production of story structure components.

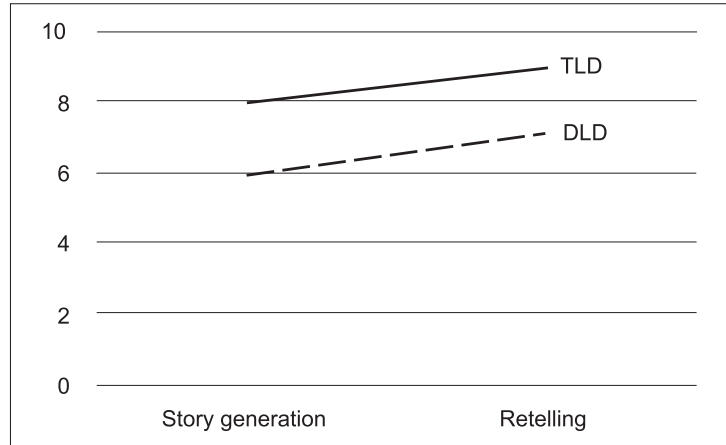
The results indicate that there is a significant main effect of group [ $F(1, 38) = 12.004$ ,  $p = 0.001$ ] and a significant main effect of elicitation type ( $F(1) = 9.209$ ,  $p = 0.004$ ). However, the interaction between elicitation type and group ( $F(1) = 0.403$ ,  $p = 0.529$ ) is not significant.

Average values on both variables are lower for participants with DLD than for participants with TLD. In addition, both groups of participants demonstrate better results in the retelling than in the story generation condition (Figure 2).

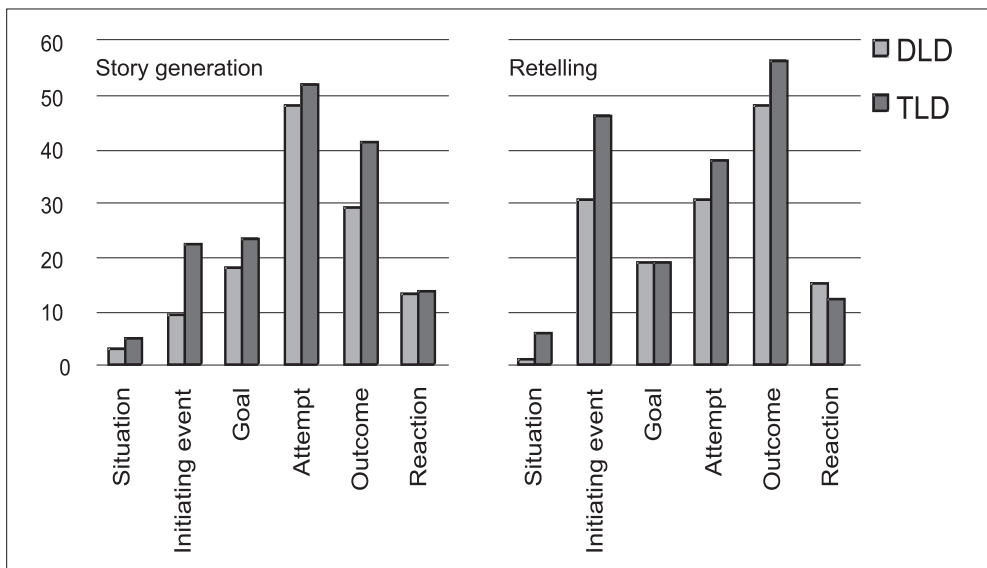
The demonstrated difference between participant groups in successful production of story structure components in

both conditions indicates the need for an analysis of the particular components of story structure. In Figure 3, it is evident that, in comparison to children with DLD, children with TLD more frequently mark the story situation in both conditions and more frequently mark all components of an episode in story generation and, in retelling, all components except reaction.

➔ FIGURE 2  
Success on the story structure variable in story generation and retelling conditions for groups of participants with TLD and DLD



⊙ FIGURE 3  
Frequency of marked situations and components of an episode in story generation and retelling conditions for groups of participants with TLD and DLD



## DISCUSSION

Currently available empirical data from studies in other languages examining narrative competence among children with DLD (Fey et al., 2004; Schneider et al., 2006; Soodla & Kikas, 2010) present contradictory findings concerning children's success in the production of story structure components in comparison to their peers with TLD. The present

study compared the narrative performance of a group of children with DLD and children with TLD. In order to elicit narratives in two modes – story generation and retelling – and to analyse narratives on a macrostructure level, the *Multilingual Assessment Instrument for Narratives – MAIN* (Gagarina et al., 2012, 2015) was used. The Croatian version of MAIN represents the first objective tool for assessing narrative ability in the Croatian language (Hržica & Kuvač Kraljević, 2012). In light of this contradictory evidence and prompted by the availability of the Croatian version of MAIN, the aim of this study was to determine whether these two groups of participants – children with DLD and children with TLD – differ in their ability to structure a story in two elicited conditions – story generation and retelling.

Consistent with our predictions, an analysis of variance demonstrated differences between the two examined groups, where children with TLD outperformed children with DLD in the production of story structure components in both conditions. However, this analysis also indicated that the type of elicitation had an effect on the success of narrative performance. Both groups produced more story structure components in the retelling condition than in the story generation condition.

A more in-depth analysis of story structure, indicated that, in the retelling condition, children with TLD more frequently marked all parts of the story (except reaction) than children with DLD. From a developmental point of view, children can produce structured stories with the basic components of an episode (goal-attempt-outcome) from around five years of age. Of course, the number of marked story components and the complexity of the story increase with age and with regard to the number of marked episodes (Trabasso & Nickels, 1992). According to To, Stokes, Cheung, and T'sou (2010), this growth is greatest between the ages five and six, while Schneider et al. (2006) demonstrate that a ceiling effect emerges in marking goal, attempt and reaction at around seven years of age. While this does not mark the end to the development of story structuring skill (Berman & Slobin, 1994; To et al., 2010), it is expected that children are able to mark the situation, an initiating event, a goal and all attempts and consequences (i.e. outcome) in the year prior to entering school and in the first grade. Current evidence suggests that children with TLD progress more quickly in this developmental pattern of narrative competence than children with DLD.

As is evident in Figure 3, children with TLD more frequently marked all parts of the story in the story generation condition and, with the exception of the reaction component,

in the retelling condition. It is interesting that reaction, representing the part of the episode that relates to the expression of the feelings and attitudes of the story characters regarding the outcome, was the only component that children with DLD marked more frequently. According to several studies examining the emotional development of children with DLD, this group of children exhibits a lower level of empathy and emotional regulation than their peers with TLD (Fujiki, Brinton, & Clarke, 2002). However, this data was collected using various assessment scales completed by teachers observing children with DLD in a classroom environment and in different social relationships with other peers.

With regard to elicitation type, both groups of participants marked the initiating event and outcome (i.e. the problem and problem solution in a story) more frequently in retelling than in story generation. These two components of an episode are also those in which the difference between the two examined groups was most evident. Specifically, children with TLD more often marked the initiating event relating to the problem of the story (around 40% compared to 15% among children with DLD) and the outcome (77% compared to 51%). These border components are key parts to the story that determine the episode as a key storytelling component. A story produced without mention of these components of the episode is merely a description of the events depicted on the presented picture without any clear framework of the story episode as a structured unit.

Both groups of participants marked the story outcome in the story generation condition with high frequency. Here, children placed the greatest emphasis on the attempt, suggesting that they were more inclined to describe events that lead to solving the problem of the story instead of the problem itself (62% of children with TLD and 85% of children with DLD did not mark the problem, or initiating event, of the story). In contrast, most children in both groups marked the outcome in the retelling condition, which might be interpreted as the influence of the presented model of the story. This influence, depicted in Figure 3, prompted a similar tendency for more frequent marking of the initiating event and outcome, representing key boundaries of the story episode, in both groups.

The analysis demonstrated that the influence of story production method (i.e. type of elicitation) is significant, where both groups were more successful in the retelling task. Although visual elicitation decreases processing demands and facilitates the process of recalling information (McConnell, 2011), it is evident that both groups of children benefit more from a combined visual-audio elicitation. This was evident in

a study conducted by Schneider and Dubé (2005), who concluded that preschool children with TLD benefit more from multi-sensory elicitation during retelling in comparison to older children with TLD. Furthermore, despite evidence for the constraints in processing theory (Montgomery, Magimai-raj, & Finney, 2010), which argues that the non-functionality of working memory is the underlying cause of DLD, children with DLD appear to be more successful in memorising language material with accurate temporal sequencing using visual-audio support than during independent storytelling, in which they rely exclusively on their own language knowledge. This supports the premise that the core difficulties of children with DLD are exclusively linguistic in nature, despite the scientifically and clinically recorded weaknesses in mechanisms that support language processing ability, such as working memory. Furthermore, because storytelling requires the simultaneous correspondence of story structure and use of appropriate language skills, it appears to represent a more demanding task for both groups of children. Similar conclusions were drawn by Colozzo, Gillam, Wood, Schnell, and Johnston (2011), who identified two storytelling patterns through micro- and macro-level analysis of storytelling among children with DLD: one pattern in which content is precisely and thoroughly explained structurally, but contains numerous language errors and a second pattern in which content is short and concise and language elements are precise and with fewer errors.

Taken together, the above-mentioned findings indicate that, while TLD children outperformed children with DLD on both narrative skill tasks, the difference between these two groups is more pronounced in the story generation condition. As such, it can be concluded that story generation, a narrative ability that relies on the narrator's own linguistic competence without exposure to a prior model, is a more demanding skill for children with DLD as well as for TLD children.

This study, based on multi-year planning, development and revision to the complete system for examining and assessing narrative competences, demonstrates that MAIN can differentiate between groups of children with DLD on a macro-structural level. Namely, the use of this tool demonstrates that children with DLD are less successful in story generation and retelling tasks than their peers with TLD. More specifically, the stories produced by children with DLD are shorter and can be generally assessed as more modest in that they lack important structural components, such as the problem of the story. A story generation method based on the visual modality alone and where the participant's final performance

relies exclusively on his/her own language knowledge and temporal-spatial organisation of story content is especially demanding for preschool- and school-aged children. This complexity is additionally problematic for children with DLD, who typically experience difficulties in language processing. On the other hand, retelling is a measure that not only reflects the fact that children with DLD are capable of organising a story on a structural level despite their modest language knowledge, but also that this capability continues to gradually develop after the age of five, although not as quickly as for children with TLD. As such, this framework should be taken into account for encouraging story production in both educational and clinical contexts.

## REFERENCES

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- American Psychiatric Association (2014). *Dijagnostički i statistički priručnik za duševne poremećaje* [Diagnostic and statistical manual of mental disorders]. Zagreb: Naklada Slap.
- Berman, R. A., & Slobin, D. I. (1994). *Relating events in narrative: A cross-linguistic developmental study*. Hillsdale, NJ: L. Erlbaum.
- Boerma, T., Leseman, P., Timmermeister, M., Wijnen, F., & Blom, E. (2016). Narrative abilities of monolingual and bilingual children with and without language impairment: Implications for clinical practice. *International Journal of Language & Communication Disorders*, 51(6), 626–638. <https://doi.org/10.1111/1460-6984.12234>
- Botting, N. (2002). Narrative as a tool for the assessment of linguistic and pragmatic impairments. *Child Language Teaching and Therapy*, 18(1), 1–21. <https://doi.org/10.1191/0265659002ct224oa>
- Colozzo, P., Gillam, R. B., Wood, M., Schnell, R., & Johnston, J. (2011). Content and form in the narratives of children with specific language impairment. *Journal of Speech, Language, and Hearing Research*, 54(6), 1609–1627. [https://doi.org/10.1044/1092-4388\(2011/10-0247\)](https://doi.org/10.1044/1092-4388(2011/10-0247))
- Curenton, S. M., & Justice, L. M. (2004). African American and Caucasian preschoolers' use of decontextualized language: Literate language features in oral narratives. *Language, Speech, and Hearing Services in Schools*, 35(3), 240–253. [https://doi.org/10.1044/0161-1461\(2004/023\)](https://doi.org/10.1044/0161-1461(2004/023))
- Doyles, P. J., McNeil, M. R., Spencer, K. A., Goda, A. J., Cottrell, K., & Lustig, A. P. (1998). The effects of concurrent picture presentations on retelling of orally presented stories by adults with aphasia. *Aphasiology*, 12(7-8), 561–574. <https://doi.org/10.1080/02687039808249558>
- Fey, M. E., Catts, H. W., Proctor-Williams, K., Tomblin, B. J., & Zhang, X. (2004). Oral and written story composition skills of children with language impairment. *Journal of Speech, Language, and Hearing Research*, 47(6), 1301–1318. [https://doi.org/10.1044/1092-4388\(2004/098\)](https://doi.org/10.1044/1092-4388(2004/098))
- Fujiki, M., Brinton, B., & Clarke, D. (2002). Emotion regulation in children with specific language impairment. *Language, Speech, and Hearing Services in Schools*, 33(2), 102–111. [https://doi.org/10.1044/0161-1461\(2002/008\)](https://doi.org/10.1044/0161-1461(2002/008))



Gagarina, N., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Balčiūnienė, I., Bohnacker, U., & Walters, J. (2012). *Multilingual Assessment Instrument for Narratives* (MAIN). ZAS Papers in Linguistics, 56. Berlin: ZAS.

Gagarina, N., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Balčiūnienė, I., Bohnacker, U., & Walters, J. (2015). Assessment of narrative abilities in bilingual children. In S. Armon-Lotem, J. de Jong, & N. Meir (Eds.), *Assessing multilingual children* (pp. 243–276). Bristol: Multilingual Matters. <https://doi.org/10.21832/9781783093137-011>

Gardner-Neblett, N., Pungello, E. P., & Iruka, I. U. (2012). Oral narrative skills: Implications for the reading development of African American children. *Child Development Perspectives*, 6(3), 218–224. <https://doi.org/10.1111/j.1750-8606.2011.00225.x>

Hržica, G., & Kuvač Kraljević, J. (2012). MAIN – hrvatska inačica: Višejezični instrument za ispitivanje pripovijedanja [MAIN – Croatian version: Multilingual Assessment Instrument for Narratives]. ZAS Papers in Linguistics, 56. Berlin: ZAS.

Liles, B. (1993). Narrative discourse in children with language disorders and children with normal language: A critical review of the literature. *Journal of Speech and Hearing Research*, 36(5), 868–882. <https://doi.org/10.1044/jshr.3605.868>

MacWhinney, B. (2000). *The CHILDES project: Tools for analysing talk*. New Jersey: Lawrence Erlbaum Associates.

McConnell, G. E. (2011). *Story presentation effects on the narratives of preschool children from low and middle socioeconomic homes*. (PhD dissertation). University of Kansas, Lawrence. Available at [https://kuscholarworks.ku.edu/bitstream/handle/1808/8169/McConnell\\_ku\\_0099D\\_11594\\_DATA\\_1.pdf;sequence=1](https://kuscholarworks.ku.edu/bitstream/handle/1808/8169/McConnell_ku_0099D_11594_DATA_1.pdf;sequence=1)

Montgomery, J. W., Magimairaj, B. M., & Finney, M. C. (2010). Working memory and specific language impairment: An update on the relation and perspectives on assessment and treatment. *American Journal of Speech and Language Pathology*, 19(1), 78–94. [https://doi.org/10.1044/1058-0360\(2009/09-0028\)](https://doi.org/10.1044/1058-0360(2009/09-0028))

Paul, R. (2007). *Language disorders from infancy through adolescence: Assessment & intervention*. Philadelphia: Mosby Incorporated.

Pellegrini, A. D. (1985). Relations between preschool children's symbolic play and literate behaviors. In L. Galda & A. D. Pellegrini (Eds.), *Play, language and stories: The development of children's literate behavior* (pp. 79–97). Norwood, NJ: Ablex.

Schneider, P., & Dubé, R. V. (2005). Story presentation effects on children's retell content. *American Journal of Speech-Language Pathology*, 14(1), 52–60. [https://doi.org/10.1044/1058-0360\(2005/007\)](https://doi.org/10.1044/1058-0360(2005/007))

Schneider P., Hayward, D., & Dubé, R. (2006). Storytelling from pictures using the Edmonton Narrative Norms Instrument. *Canadian Journal of Speech-Language Pathology and Audiology*, 30(4), 224–238.

Soodla, P., & Kikas, E. (2010). Macrostructure in the narratives of Estonian children with typical development and language impairment. *Journal of Speech, Language, and Hearing Research*, 53(5), 1321–1333. [https://doi.org/10.1044/1092-4388\(2010/08-0113\)](https://doi.org/10.1044/1092-4388(2010/08-0113))

Stein, N. L., & Glenn, C. (1979). An analysis of story comprehension in elementary school children. In R. O. Freedle (Ed.), *New directions in discourse processing* (pp. 53–120). Norwood, NJ: Ablex.

Stockman, I. J. (1996). The promises and pitfalls of language sample analysis as an assessment tool for linguistic minority children. *Language, Speech, and Hearing Services in Schools, 27*(4), 355–366. <https://doi.org/10.1044/0161-1461.2704.355>

To, C. K. S., Stokes, S. F., Cheung H. T., & T'sou, B. K. Y. (2010). Narrative assessment of Cantonese-speaking children. *Journal of Speech, Language, and Hearing Research, 53*(3), 648–669. [https://doi.org/10.1044/1092-4388\(2009/08-0039\)](https://doi.org/10.1044/1092-4388(2009/08-0039))

Tomblin, B. T., Records, N. L., Buckwalter, P., Zhang, X., Smith, E., & O'Brien, M. (1997). Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language, and Hearing Research, 40*(6), 1245–1260. <https://doi.org/10.1044/jslhr.4006.1245>

Trabasso, T., & Nickels, M. (1992). The development of goal plans of action in the narration of a picture story. *Discourse Processes, 15*(3), 249–275. <https://doi.org/10.1080/01638539209544812>

Tsimpli, I. M., Peristeri, E., & Andreou, M. (2016). Narrative production in monolingual and bilingual children with specific language impairment. *Applied Psycholinguistics, 37*(1), 195–216. <https://doi.org/10.1017/S0142716415000478>

van der Lely, H. (1997). Narrative discourse in grammatical specific language impaired children: A modular language deficit? *Journal of Child Language, 24*(1), 221–256. <https://doi.org/10.1017/S0305000996002966>

Westerveld, M. F. (2007). *Examining the relationship between oral narrative ability and reading comprehension in children with mixed reading disability*. (Unpublished PhD thesis). University of Canterbury, Christchurch, New Zealand.

Wetherell, D., Botting, N., & Conti-Ramsden, G. (2007). Narrative in adolescent specific language impairment (SLI): A comparison with peers across two different narrative genres. *International Journal of Language & Communication Disorders, 42*(5), 583–605. <https://doi.org/10.1080/13682820601056228>

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KUVAČ KRALJEVIĆ, J.,  
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A COMPARATIVE...

# Komparativna makrostrukturna analiza pripovjednog diskursa djece urednog jezičnog razvoja i djece s razvojnim jezičnim poremećajem

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Cilj je ovog rada usporediti pripovjednu sposobnost djece s razvojnim jezičnim poremećajem (RJP) i djece urednog jezičnoga razvoja (UJR) primjenom novoga materijala za procjenu pripovjedne sposobnosti Multilingual Assessment Instrument for Narratives (MAIN). Dvadesetero djece s RJP-om i dvadesetero djece urednoga jezičnog razvoja (UJR), prosječne dobi 6,6 godina, jednojezičnih govornika hrvatskog, uključeno je u ispitivanje. Rezultati su pokazali da su djeca s UJR-om značajno uspješnija u strukturiranju priča u oba uvjeta – u pripovijedanju i u prepričavanju – u odnosu na djecu s RJP-om. Analiza pokazuje i utjecaj vrste poticaja pripovijedanja na uspješnost proizvodnje priče.

Ključne riječi: pripovjedna sposobnost, pripovijedanje, prepričavanje, makrostrukturna razina, razvojni jezični poremećaj (RJP)



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