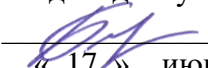


Министерство науки и высшего образования Российской Федерации
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ТОМСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ (НИ ТГУ)
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ДОПУСТИТЬ К ЗАЩИТЕ В ГЭК
Руководитель ООП
канд. пед. наук

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« 17 » июня 2022г.

МАГИСТЕРСКАЯ ДИССЕРТАЦИЯ


РАЗВИТИЕ НАРРАТИВНОЙ КОМПЕТЕНЦИИ В
ДОШКОЛЬНОМ ВОЗРАСТЕ: РАЗРАБОТКА
РЕКОМЕНДАЦИЙ И АПРОБАЦИЯ КРАТКОЙ ФОРМЫ
ОЦЕНИВАНИЯ НАРРАТИВНОЙ КОМПЕТЕНЦИИ ДЕТЕЙ
ДЛЯ ПЕДАГОГОВ

по основной образовательной программе подготовки магистров
направление подготовки 37.04.01 – Психология

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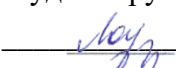
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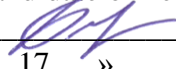
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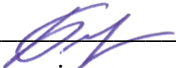
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
MASTER'S THESIS

NARRATIVE COMPETENCE DEVELOPMENT IN
PRESCHOOL: DESIGNING GUIDELINES AND PILOTING
BRIEF NARRATIVE COMPETENCE ASSESSMENT FORM
FOR PRESCHOOL TEACHERS

for Main Educational Programme of Master's Training
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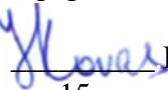
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УТВЕРЖДАЮ
Руководитель ООП
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 Ю.В. Сметана (Ковас)
« 15 » 02 2022 г.

ЗАДАНИЕ

на выполнение выпускной квалификационной работы магистра обучающемуся Лобачеву
Дмитрию Евгеньевичу по направлению подготовки 37.04.01 «Психология», профиль
«Развитие человека: генетика, нейронаука и психология»

1. Тема выпускной квалификационной работы

Развитие нарративной компетенции в дошкольном возрасте: разработка рекомендаций и
апробация краткой формы оценивания нарративной компетенции детей для педагогов

2. Срок сдачи обучающимся выполненной выпускной квалификационной работы:

а) в деканат – 17.06.2022 б) в ГЭК – 20.06.2022

3. Исходные данные к работе:

Объект исследования – нарративная компетенция детей дошкольного возраста

Предмет исследования – методы развития и оценки нарративной компетенции детей
дошкольного возраста в дошкольных образовательных учреждениях

Цель исследования – обзор и анализ литературы для разработки основанных на научных
данных рекомендаций для педагогов по развитию нарративной компетенции детей в
дошкольных учреждениях, а также разработка и опробование краткой формы оценки
нарративной компетентности для использования педагогами дошкольных
образовательных учреждений.

Задачи:

1. Проанализировать литературу и научно обоснованные практики, направленные на
развитие нарративной компетенции у дошкольников;

2. На основе анализа:

- разработать рекомендации, направленные на развитие нарративной компетенции детей
для использования педагогами дошкольных учреждений в их повседневной работе;
- разработать краткую форму оценки нарративной компетенции детей для педагогов
дошкольных учреждений (ФОНК) и протестировать ее.

Методы исследования:

Проект предполагает исследование с использованием смешанных методов.

Анализ литературы. Краткая форма оценки нарративной компетенции детей для педагогов
дошкольных учреждений (ФОНК) основана на методе прямого наблюдения педагогов за
детьми в их группах. Статистический анализ: описательный анализ, факторный анализ,
U-критерий Манна-Уитни, коэффициент альфа Кронбаха, коэффициент корреляции

Спирмена, критерий Краскела-Уоллиса, post hoc анализ. Для самооценки и рефлексии педагогов: две анкеты с вопросами открытого типа.

Организация или отрасль, по тематике которой выполняется работа – дошкольное образование, психология развития.


4 Краткое содержание работы

Принимая во внимание исключительную важность языкового развития детей в раннем возрасте и имеющиеся данные о положительном влиянии на него нарративной компетенции, в данной исследовательской работе предпринята попытка проанализировать литературу и обобщить научно обоснованные практики, направленные на развитие нарративной компетенции в дошкольном возрасте. На основе обзора и анализа статей разработаны рекомендации и краткая форма оценки нарративной компетенции детей для педагогов дошкольных учреждений (ФОНК). Представление рекомендаций для работы педагогам в детском саду; анализ информации об уже используемых и планируемых к использованию методах развития речи и развития нарративной компетенции педагогами. Апробация ФОНК в различных группах (средняя, старшая, подготовительная) детского сада. Апробация и анализ надежности разрабатываемой формы оценки; анализ групповых различий с использованием формы оценки нарративной компетенции детей. Среди направлений будущих исследований – дополнительная проверка и анализ надежности ФОНК, корректировка рекомендаций по развитию нарративной компетенции.

Руководитель выпускной квалификационной работы

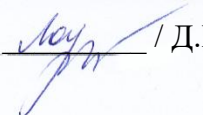
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должность, место работы

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Задание принял к исполнению

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The Ministry of Science and Higher Education of the Russian Federation
NATIONAL RESEARCH
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Psychology Department

APPROVED

MSc Programme Director
PhD, Professor

Y.V. Smetana (Kovas)
« 15 » 02 2022

ASSIGNMENT

for the MSc graduation thesis to the student Lobachev Dmitry Evgenevich in the field of study 37.04.01 «Psychology», training direction «Human Development: Genetics, Neuroscience and Psychology».

1. Title of the graduation thesis

Narrative competence development in preschool: designing guidelines and piloting brief narrative competence assessment form for preschool teachers.

2. Submission dates of the completed graduation thesis by the student:

a) to the Dean's office – 17.06.2022

b) to the State Examination Board – 20.06.2022

3. Baseline information for MSc thesis:

Object of research – narrative competence of preschool children

Subject of research – narrative competence development and assessment for preschool children in kindergartens

Purpose of research – to review and analyze literature to develop evidence-based guidelines for narrative competence development in preschool and to design and to pilot a brief narrative competence assessment form for preschool teachers

Tasks:

1. To analyze literature and evidence-based practice aimed for narrative competence development for preschoolers;

2. Based on the analysis:

- to develop guidelines aimed at the development of children's narrative competence for preschool teachers in their daily work;

- to develop a brief form for assessing children's narrative competence for preschool teachers (the FANC) and to pilot it.

Research methods:

The project involves a mixed-method research design. An analysis of the literature. The brief form for assessing children's narrative competence for preschool teachers (the FANC) is based in the method of direct observation of preschool teachers for children in their groups. Statistical analysis: descriptive analysis, Exploratory Factor Analysis, the Mann-Whitney U-test, the Cronbach's Alpha coefficient, the Spearman correlation coefficient, Kruskal-Wallis Test, Post


Hoc Comparisons. Teacher's self-assessment and reflection: two questionnaires with open-ended questions.

Organization or field in which the work is being completed – preschool education, developmental psychology.

4 Summary of the graduation thesis

Taking into account the exceptional importance of the language development of children at an early age and the available data on the positive impact of narrative competence on it, this research paper attempts to analyze literature and summarize evidence-based practices aimed for narrative competence development in preschool. Based on the review and analysis articles, the Guidelines and a brief form for assessing children's narrative competence for preschool teachers (the FANC) were developed. Presentation of the Guidelines to preschool teachers, analysis of data about the practices already used and planned for use on language development and the narrative competence development. Piloting the FANC in different kindergarten groups (middle, senior, preschool). Analysis of reliability of the assessment form, analysis of group differences using FANC. Additional approbation and analysis of the reliability of the FANC and the adjustment of the Guidelines are among the areas of future research.

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Psychology Department, TSU

 / O.Y. Bogdanova

Assignment is accepted for completion by
MSc student group 202020, TSU

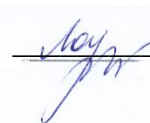
 / D. E. Lobachev

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ABSTRACT

Taking into account the exceptional importance of the language development of children at an early age and the available data on the positive impact of narrative competence on it, this research paper attempts to analyze literature and summarize evidence-based practices aimed for narrative competence development in preschool. Based on the review and analysis of 125 articles, the Guidelines and a brief form for assessing children's narrative competence for preschool teachers (the FANC) have been developed. The Guidelines were presented for work to preschool teachers in kindergarten and gained positive feedback during conducted seminars. Information was collected from 9 teachers about the practices already used and planned for use on language development and the narrative competence development. The FANC was piloted by 8 teachers in 7 kindergarten classes ($N = 200$). The analysis revealed the preliminary reliability of the assessment form. It also showed differences between three age groups ($p < .001$) and differences between classes in these groups (with medium or large effect size). There was no significant difference between girls' and boys' narrative competence assessed by teachers ($p = .07$). Analysis of data on the speech therapy class showed a significant difference in the assessments of children by two different teachers ($p = .02$, Cohen's $d = -.63$). An additional approbation and analysis of the reliability of the FANC and the adjustment of the Guidelines are among the areas of future research.

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1. INTRODUCTION AND LITERATURE REVIEW

This chapter summarizes the theoretical background and the main findings concerning the main research topics. One hundred and twenty-five articles were analyzed overall. Section 1.1 describes the role of language development in early childhood and section 1.2 is devoted to individual differences in language development. In Section 1.3 the significance of the early education impact is discussed along with the language development, storytelling and narrative competence in preschool. Section 1.5 is devoted to the narrative intervention programs for preschool and Section 1.6 provides information about the concept of a multi-tiered system of supports. In the section 1.7 research questions of the current study are stated.

1.1 Language development in early childhood

Early childhood is a time of amazing and important changes in a child's life. Vast body of research has shown that it is a critical period of development in a person's life, since it plays an important role in further development and well-being, and there are developmental changes that can have profound and lasting effects.

Language development plays a special role in this process. Language proficiency is a fundamental life skill, a cornerstone of cognitive and socio-emotional development, a necessary component for successful functioning in society (Bornstein et al., 2018). Dickinson, McCabe, and Essex (2006) in Spencer & Slocum (2010) strongly suggested that systematic language instruction in preschools can help avert more intense language and reading intervention during primary grades. They described the preschool years as the window of language opportunity. Vygotskij argued that the development of thinking is basically a cultural and historical process, based on the appropriation of language (Vygotsky 1987; Luria 1976 in Van der Veen & Poland, 2012). In cognitive development, language functions as “the mediator, the medium, and the tool of change” (Nelson, 1996, p. 350).

Early language skills are combined into higher-order verbal and mental functioning (Lewontin, 2005) and therefore have prognostic significance for the development of speech, reading, academic achievements (e.g. in Duncan et al., 2007; Gardner-Neblett & Iruka, 2015; Suggate et al., 2018). Achievements in the field of language and literacy can contribute to education, profession, income and health (Bornstein et al. in *Well-Being*, 2003). Fifteen year longitudinal study by Suggate et al. (2018) (N=58, age from 19 months to 16 years) provides evidence for the long-term interplay between early language, literacy, and later reading and vocabulary development and suggested that some of the early language and reading skills were generally strongly correlated through time (e.g., vocabulary at 19 months predicted reading comprehension at age 12 ($r=.41$), early literacy ($r=.18$)).

The acquisition of literacy by preschool children is crucial for their future learning and success in formal education (e.g. Pinto et al., 2016). Several researchers found moderate correlations ($r = .31$ to $.57$) between early childhood narrative abilities and reading comprehension in elementary grades (e.g. in Spencer & Slocum, 2010).

Children of the same chronological age can vary dramatically in terms of their language skills. Bornstein et al. (2018) analysis of 15-year prospective longitudinal data from the Avon Longitudinal Study of Parents and Children (5036 typically developing and 1056 atypically developing children), shows that language skill is a highly conserved and robust individual-differences characteristic: a single core language skill was extracted from multiple measures at multiple ages, and this skill proved stable from infancy to adolescence in all groups, even accounting for child nonverbal intelligence and sociability and maternal age and education (Bornstein et al., 2018, p. 1). Considering lagging language skills as a risk factor for child development, authors suggest that this issue should be addressed early in life.

The consequences of language development disorders can have a negative effect on later life. They can cause difficulties in mastering the skills necessary for successful communication with peers and literacy, problems with establishing social contacts with peers and teachers. (e.g. in Toseeb & St Clair, 2020). And they can also cause problems with learning (mastering the processes of reading and writing, mathematical operations, working with information (e.g. in McLeod et al.; 2019, Ralli et al.; 2021, Westerberg et al., 2021). In a population-based study of risk factors and school readiness consequences by Hammer et al. (2017) data from the Early Childhood Longitudinal Study (N=9600, aged 9-60 months) were analyzed. The results suggest that being a late talker increased children's risk of having low vocabulary at 4 year and low school readiness at 5 years. The early and effective acquisition of literacy by young children is critical for their long-term learning and success in formal education (Snow, Burns & Griffin, 1998, in Veneziano & Nicolopoulou, 2019).

Early childhood is important period in a child's life where the changes in development can have profound and long-term consequences. Language development plays a special role as language proficiency is a fundamental life skill and a highly robust individual-differences characteristic. Therefore it could be more effective to work with children's language development in early age.

1.2 Individual differences in language development

For child's language individual differences are a central and manifest characteristic (Feldman et al., 2000, from a prospective study of child development). As with other traits, to understand this difference genetic aspects and methods of behavioral genetics are of interest for language development and language acquisition. The complex influence of genetic, epigenetic

and environmental factors is studied. E.g. in review by Mountford & Newbury (2019) it is noted, that epigenetic factors have been proposed as a possible contributory mechanism for developmental language disorders, and that it may be that genetic susceptibility interacts with environmental factors such as lower socioeconomic status, that put a child at a higher risk of developing a language disorder given the “perfect storm” of conditions. The study of children 2-12 years old by Hayiou-Thomas et al. (2012) suggests that environment accounted for most differences for children aged 2-4. At the same time, heritability increased between the 2 to 4 and 7 to 10 years. Genetic factors become more significant as the child grows up. Thus, it is noted in the work of Tosto et al., 2017, which shows an increase in the heritability of language from age 7 to 16, as well as a strong genetic correlation between oral language and reading comprehension at the ages 12 and 16.

Selzam et al. (2017) used genome wide polygenic scores for years of education (EduYears) to predict reading performance assessed at UK National Curriculum Key (N=5,825). It is noted that EduYears GPS can explain for up to 5 % of the variation in reading performance at age 14, while the difference between the reading level in the lowest and highest 12.5 % is approximately equal two years of school. Using large sample of 4.5-year-old twins (N=1600, part of the Twins Early Development Study) Hayiou-Thomas (2008) revealed that genetic factors have a strong influence on the language variability of young children (both with typical development and with specific language impairment). At the same time, shared environment plays a more dominant role in broader language skills and in connection with subsequent reading. In the work of Kovas et al. (2005), the genetic and environmental factors for language ability and disability were studied (N= 1574, 4.5-year-old same-sex and opposite-sex twins). Moderate genetic influence was found for all aspects of language in the normal range, while environment impacts with mostly nonshared factors without any significant gender differences.

Given the crucial role of language development for human life, special attention has always been focused on the neurobiological component of this issue. With the development of technology, methods of direct study of the brain have become more accessible. Over more than 30 years of using PET or fMRI to study the anatomy of language, an understanding of the brain regions associated with heard speech, speech production and reading has been formed (e.g. in Abbott et al., 2010; MacGregor et al., 2012). The results were repeated and reproduced, which allows to draw conclusions about their sequence and the correctness of the compiled map. An anatomical model is formed that indicates the location of the language areas and the most consistent of the performed functions (e.g. in Price, 2012). This allowed to move from the model of Broca's and Wernicke's areas that dominated for decades, and, for example, showed the significance of the cerebellum for word generation and the anterior cingulate and left inferior

prefrontal cortex in a different language tasks. However, many questions still remain unanswered, including about one of the central components of language processing - mental lexicon, the perception of which has come a long way from the dictionary-like to the no-lexicon proposal (e.g. in Sousa & Gabriel, 2015).

As noted in Conti-Ramsden & Durkin (2012), genetic evidence for language impairment suggests complex interactions among multiple genes of small effect, and there are few consistent neurobiological abnormalities and currently there is no identified neurobiological signature for language difficulties, therefore the assessment of young children's language skills thus focuses on the evaluation of their performances in comparison to typically developing peers.

1.3 The early education impact

Considering that early childhood is a time when there are developmental changes that can have profound and lasting effects, early childhood programs influence to the adult life (e.g. Heckman et al., 2010). Study (e.g. The Effective Pre-School, Primary and Secondary Education project, UK) suggest that high quality early education predicted better outcomes and can help children to overcome early disadvantage (e.g. Sammons et al., 2018; Sammons et al., 2015).

Children who had attended a pre-school were almost twice as likely to go on to take any AS or A-levels (the subject-based qualification conferred as part of the General Certificate of Education in the UK; usually taken at the age 17-18 (Collins English Dictionary, n.d.) as students who had not attended any preschool - 47% vs. 24% (Melhuish et al., 2015). Also, students who had attended a pre-school were significantly more likely to take 4+ AS-levels or 3+ A-levels than students who had not attended any pre-school (AS-level 29% vs. 13%; A-level 30% vs. 13%). Studies (e.g. The Effective Pre-School, Primary and Secondary Education project, UK) suggest that high quality early education predicted better outcomes and can help children to overcome early disadvantage (e.g. Sammons et al., 2018; Sammons et al., 2015; Melhuish et al., 2015).

Narratives could be considered as a bridge between oral language and literacy as they are a naturalistic way of organizing abstract thinking, complex language and sequencing (Westby, 1991; Petersen 2011, in Favot et al., 2021).

Given that some children spend considerable time in preschool educational institutions, the possibility of developing language skills in this environment is of interest. The effects of preschool process quality showed impacts on language outcomes (Schmerse et al., 2018), and preschool represents an important early environment in which the language skills can be stimulated to improve their language development trajectory (Heckman, 2006; Hoff, 2013, in Johanson et al., 2016).

To achieve the best effect of preschool education in language development, various approaches are used. One of them is storytelling in the format of narrative programs. Research is being conducted to study the effectiveness of the use of narration as a pedagogical approach and its impact on the development of language (e.g. in Favot et al., 2021; Petersen, 2011; Spencer & Petersen, 2020). Given the universal nature of storytelling (narratives are present in various cultures, languages, the sphere of life), as well as the understandable, familiar and entertaining nature of storytelling for children, this seems to be a suitable method for working with them in preschool and is of focus of this paper.

1.4 Language development and storytelling in preschool

Research evidence suggest that language development at an early age plays an important role in a person's life and is a predictor of literacy, school performance, contributes to education and career. Given that language skill is a highly conserved and robust individual-differences characteristic, its development and adjustment is most effective at an early age (Bornstein et al., 2018). Studies using different methods are being conducted, the results of which show the benefits of storytelling and related interventions and positive effects on the language development of children (e.g. in Spencer et al., 2014). Storytelling seems to be a promising direction in the preschool development of children. It is an amazing activity observed in different eras, cultures, ages and conditions, and has the ability to capture attention, emotions and imagination. As Phillips (1999, p. 12), wrote: “Storytelling is an intimate sharing of a narrative with one or more persons. Storytellers use both their voice and body to create the settings, characters and storyline”.

Narrative competence in this work is understood as the ability to produce and comprehend a narrative (story) – a verbal presentation of interrelated events (Roch et al., 2016). Narrative competence is linked with storytelling skills. Asking children to tell a story is the most popular method in research to assess children’s narrative competence (Gazella & Stockman, 2003). Fisher (1987) argued not only that all humans acquire narrative competence in the course of socialization, but that it entails forms of argumentative rationality (in Dobson, 2005).

Thus, data showed the pivotal role played by storytelling as a task, and structure as a component in fostering the development of children’s narrative competence (Pinto, Tarchi, & Accorti Gamannossi, 2018). It is a complex task involving “higher level language skills,” which requires the integration of information beyond the word level (Ketelaars et al., 2012).

Preschoolers’ narrative competence can be predictive of writing skills (Bigozzi & Vettori, 2016; Pinto et al., 2015), future reading (Paris & Paris, 2003), general school success (Spencer & Slocum, 2010). The ability to tell stories is associated with “higher” abilities, in particular, literacy and the ability to write (see e.g. in Zanchi et al., 2020).

Children's storytelling and narrative competence positively linked to language skills. Storytelling is one of the ways to develop literacy by improving oral speech, reading and writing comprehension, as well as socio-emotional skills that are crucial for a child in the context of preschool and school environments (e.g. Miller & Pennycuff, 2008; Erickson, 2018; Agosto, 2013). Through stories, preschoolers organically develop early literacy. The ability to narrate influences her, including through vocabulary, phonetics, understanding and expression of large plot structures or narratives. Storytelling in kindergartens is effective for expanding vocabulary, mastering writing skills and understanding text (Lenhart et al., 2020) and is more effective than reading aloud, listening to audio recordings and retelling. Using storytelling in the classroom is one way to address literacy and language development by improving oral language, reading comprehension, and writing.

Gardner-Neblett & Iruka (2015) used mediation analysis to analyze the data from the Early Childhood Longitudinal Study to explore how language at age 2 is associated with narrative skills at age 4 and emergent literacy outcomes at age 5. It was found that storytelling skills mediate the pathway between early language and kindergarten emergent literacy.

Already around 3–4 years, children are able to arrange and describe some action sequences; later, at around 5 years old, children enrich their stories with constituents and produce longer stories (Damico and Ball, 2008, in Bigozzi & Vettori, 2016).

Narratives can be a tool for detecting language development impairments in children (Botting, 2002; Swanson et al., 2005) or for developing storytelling skills in such children (e.g. Davies et al., 2004). Storytelling, in general, is a powerful pedagogical approach that can be used to enhance learning outcomes for general, scientific and technical education (Sharda, 2007).

Thus, the development of narrative competence (teaching storytelling skills) in preschool children could be an effective way to develop language skills as one of the most important components of overall development. The research data indicate the key role of the storytelling method in the development of narrative competence. At the same time, storytelling and programs using it are recommended for use in preschool institutions (e.g. Spencer et al., 2014).

1.5 Narrative intervention programs for preschool

Stories are an integral part of childhood and preschool education. Studies have been conducted to evaluate the effectiveness of the use of storytelling as a pedagogical approach and its impact on language development. Spencer et al. (2014, p. 264) suggested that “Given the foundation narrative skills, including storytelling and story comprehension, provide for reading and reading comprehension, teacher-implemented narrative interventions are well suited for preschool classrooms”.

Storytelling and narrative competence have been shown in studies to pave the way for literacy for young children, participating in the development of imagination and language skills. When a child learns to tell stories, it is also important for other aspects of their emotional world, and joint activities provide an opportunity to interact with adults and/or peers. In Spencer et al. (2014) study parents and teachers reported that the storytelling activities were engaging, enjoyable, and produced improvements in the children's language skills. Reese et al. (2010), points that the quality of a child's narrations at six and seven years predicts reading ability one year later, more so than phonic awareness and vocabulary.

Narratives can be a tool for assessment of children with pragmatic language impairments (social communication) and children with more typical specific language impairments (Botting, 2002). Swanson et al. (2005) used narrative-based language intervention with children aged 7-8 years with specific language impairment. The purpose of the intervention was to teach storytelling and retelling with an emphasis on the content, form of the story and sentence. Participants achieved a significant level of improvement based on the results of comparisons before and after testing of at least 1.45 points in the narrative quality rating ($p < 0.013$). Almost all children preferred storytelling tasks to retelling tasks. Petersen (2011) in a systematic review of narrative-based language intervention for children with language impairments (from 1980 to 2011) found that most studies reported medium to large effects on narrative structure.

The topic is also being studied in relation to different cultures and groups (e.g. in Schick & Melzi, 2010, review of researches conducted on the development of oral narratives among children from diverse sociocultural backgrounds, and in Van Kleeck et al. (2011) study of language abilities of 4 groups of African American and European American children whose mothers had high school education or less and higher education). In Flynn (2018) study of interactive features of storytelling in small groups in a multicultural preschool classroom the children told stories that included classic plots and features of different cultures. According to the results, the researcher suggests that such joint storytelling, given that it was led by the children themselves without interference, contributes to the formation of more effective communication without suppression and marginalization of participants. Weddle et al. (2016) explored the effect of a multitiered intervention on the narrative language skills of culturally diverse preschool students. As a result, a positive trend emerged in retells and personal stories from baseline to intervention for participants.

Nicolopoulou et al. (2015) in the study of 149 low-income preschoolers (aged 3-4) examined effect of storytelling and story-acting practice (STSA) integrated as a regular component of the preschool curriculum. Participation in the STSA was associated with

improvements in narrative comprehension, print and word awareness, pretend abilities, self-regulation, and reduced play disruption.

One of the most common approaches for studying storytelling and its impact is experimental research.

Davies et al. (2004) studied the impact of storytelling intervention ($N=34$, M age =5.9) with grammar approach on children with delayed language development, who have a limited ability to understand and tell stories. An intervention conducted in UK schools with a high proportion of children from families with low SES showed significant improvements in the quality of storytelling by such children ($p = .008$, $d = .68$).

Baumer et al. (2005), studied the effects of the Scandinavian educational practice of playworld on the development of narrative competence in 5- to 7-year-old children. Researchers created an experimental intervention consisting of a playworld practice on the basis of the essential elements (Lindqvist, 1995, Hakkarainen, 2004, in Baumer et al., 2005): joint adult–child dramatization of a text from children’s literature, general discussion, drawing, and free play. They used the text of C.S. Lewis’s novel ‘The Lion, the Witch and the Wardrobe’ as the plot and main idea of the playworld practice. Every session consisted of an enactment of the text, and there was a discussion afterward and then free play or art activities. The study showed that the children who participated in the playworld practice show significant improvements in narrative length (increased from an M of 68 ($S.D. = 7.37$) words in the pre-test condition to M of 94 ($S.D. = 8.81$) words in the post-test condition), coherence (increased from $M = 1.58$ ($S.D. = .21$) for the pre-test to $M = 2.53$ ($S.D. = .18$) with significant difference between experimental and control groups in both cases. The authors conclude that the playworld practice promotes the development of narrative competence in at least these areas.

The systematic review (Petersen, 2011) of narrative-based language intervention for preschool and school-age children with language disorder included articles published between 1980 and 2010 evaluated narrative-based language interventions and those which used oral narratives as a context to target language related skills (e.g. syntax and vocabulary). Moderate to large effects ($d = 0.73$ – 1.57) were reported for improvements in narrative macrostructure (for oral narrative interventions that explicitly taught macrostructure and included repeated telling, retelling and generating of stories using visual scaffolds (Petersen, 2011). But the effects of narrative intervention on microstructure showed mixed results. There was a lack of detail in the descriptions of procedures, and effect sizes varied from negative to positive. Recommendations of the review included that “narrative intervention with repeated story retellings and a focus on narrative macrostructure may be sufficient to facilitate a significant improvement in both narrative macrostructure and some aspects of narrative microstructure” (Petersen, 2011, p. 219),

and that clinicians could “continue to treat narratives as a functional language target and as a medium whereby language features are modelled and practiced” (Petersen, 2011, p. 219).

Studies published since 2010 provided further evidence for narrative interventions. Pinto et al. (2018) studied children’s narrative competence in Italian kindergarteners (N=170 children in kindergarten, M age = 4.98 ± 0.3). In experiment children were asked to make oral stories of two types: storytelling and retelling. After analyzing the mutual relationship between them using the cross-lagged model and ANCOVA, they found out that storytelling and retelling are tasks that involve interrelated, but not overlapping processes and trigger various aspects of narrative competence. And storytelling plays a key role as a component in promoting the development of children's narrative competence.

In Lenhart et al. (2020) research (N=60, M age = 3.69) the effect of the storytelling method (storytelling versus reading aloud) and its main mechanisms on children's assimilation of new words, understanding of the essence and behavior of children were studied. A mixed 4×2 design was used (method: live read-aloud vs. live oral storytelling vs. audiotaped read-aloud vs. audiotaped oral storytelling) and time (before and after the test). The children listened to four short stories twice in one of the conditions. Storytelling turned out to be the most effective: it contributed to the greatest increase in vocabulary (OR = 1.24), a better story comprehension (OR = 1.60), as well as more calm and attentive behavior of children.

A quasi-experimental study by Spencer et al. (2015), investigated the effect of storytelling intervention of a large group on the skills of narrative language in diverse preschoolers (N=71). The intervention consisted of teaching the structure of the storytelling through the practice. The children's retelling and story comprehension were measured before the test, after its completion and after 4 weeks. Post-test differences were found between the groups in terms of retelling ($p = .046$, $d = 0.49$) and comprehension of the story ($p = .023$, $d = 0.56$). Even a short intervention (in this case lasting only 3 weeks) for a large group of children can be effective and can serve as a targeted language intervention for preschool education.

Storytelling, when is combined with play-based activities, can provide an effective stimulus for early literacy (Maureen et al., 2020). For example, “Tales Toolkit” and other guided, playful approaches to early years provision can make a difference to the disadvantaged children (Jones, 2018; Nicolopoulou, 2015).

Vretudaki (2021) examined the impact of a self-regulated instructional strategy on kindergarten children's narrative skills development (N=98 children aged 5-6 attending 10 kindergarten, the 8 weeks training program). The study suggested that training in narrating fictional stories helped children assimilate story structure and allowed them to effectively apply it when they were asked to create a fictional story (in producing fictional stories using wordless

books differences between pre-test and post-test measures were $F(1, 98) = 512.265$, $p < .01$, partial $\eta^2 = .826$; in narrating fictional stories using cards differences were $F(1, 98) = 167.587$, $p < .01$, partial $\eta^2 = .608$). In addition, the children in the experimental group had significantly higher performance than the children in the control group. The effect of the storytelling skills training program in young children persisted even after they entered primary school.

Research groups have investigated the effects of narrative-based language intervention for preschool (Petersen & Spencer, 2016) and school-age children (Gillam & Gillam, 2016) with language difficulties. The programs evaluated in these studies – Story Champs (Petersen & Spencer, 2012) and Supporting Knowledge in Language and Literacy (SKILL) – both include the use of icons, teaching scripts and storyboards, explicit learning of the macrostructure of storytelling; repetitive opportunities for storytelling and retelling using picture prompts; and the producing of parallel stories.

“Story champs” is an intervention curriculum that can be used to teach children narrative skills. Based on the two levels of narrative language that affect comprehension, Story Champs focuses on story grammar and complex language features used when telling stories. Importantly, Story Champs was designed to be a flexible curriculum program with three implementation arrangements including large group, small group, and individual (i.e., tiers of intervention).

In a Story Champs study, (Spencer et al., 2014) implemented the large group procedures with preschool children (3-week - 12 sessions overall - treatment phase). A choral response was used to account for the size of the group, but retelling and framing procedures remained the main learning strategies. Narrative learning in a large group with low intensity yielded statistically significant improvements with moderate to strong effect sizes (ranging from .49 to 1.26) for the children’s story comprehension and retelling skills when compared with children in the control group. Authors suggested that low-intensity narrative intervention delivered to a large group of children was efficacious and can serve as a targeted language intervention for use within preschool classrooms.

In Spencer et al. (2014) quasi-experimental control group study with preschoolers ($N=71$) researchers worked with large groups up to 20 children at a time. They conducted 12 sessions over three weeks each lasting approximately 15-20 minutes. Results indicated that the treatment group’s retell ($p = .046$, $d = 0.49$) and question answering ($p = .023$, $d = 0.56$) scores were statistically significantly higher than the control groups at post-intervention and follow-up but the intervention had a minimal impact on children’s personal generation skills.

In Petersen et al. (2014) children received intense sessions too in only 12 total sessions. In Spencer, Kajian, et al. (2014) study, preschool children participating in special education received 24 shorter, less-intense classes compensated for their age and attention (each class lasts

10-15 minutes). The intervention included visual support (e.g. icons and pictures), as well as the practice of retelling and personal storytelling based on retelling stories, personal stories and understanding of history. Improvements across all three worlds were associated with this intervention. The authors mentioned that parents and teachers reported that storytelling classes were fun, enjoyable and contributed to the improvement of children's language skills.

Gillam & Gillam (2016) in implementation of the narrative language intervention (Supporting Knowledge in Language and Literacy (SKILL) suggested three main phases. Phase I “Teaching story elements and causal connections” (for teaching students the story grammar elements comprehension and use of the concepts and linguistic markers for “before” and “after”). Phase II consists of 16 lessons that target specific linguistic structures, concepts, and vocabulary necessary for creating elaborate, cohesive, and complex stories (still based on a wordless picture book). Phase III is to foster the development of the metacognitive skills students need to become independent storytellers and story editors. Main goals for the program are accomplished through scaffolded teaching of story structure with a heavy emphasis on assisting students in identifying and establishing causal networks. SKILL is an intervention program designed to improve narrative proficiency in support of listening and reading comprehension and composition. Researches have shown that SKILL is associated with consistently moderate to large effect sizes for improving narrative proficiency, ranging from 0.66 to 2.54 for students with language learning difficulties aged 5–11 years (Gillam et al., 2014; Gillam & Gillam, 2016).

Another studied intervention program is Oral Narrative Intervention Program (ONIP) by (Glisson et al., 2019). Intervention focused on explicit teaching of narrative macrostructure using icons, graphic organizers and repeated story retellings. Microstructure (morphosyntax and vocabulary) was targeted using implicit language facilitation procedures including modelling, recasting, expansion and vertical structuring. The ONIP was delivered by the primary researcher to small groups for 30- to 45-minute sessions, 3 times a week for 6 weeks (total of 18 sessions) in 2 phases. Phase 1 focused on the explicit teaching of narrative macrostructure and introduction to the therapy procedures and contexts (repeated book shares, graphic organizers, narrative icons etc.). Phase 2 focused on applying knowledge of narrative macrostructure (to support the retelling of children’s books, with modelling of microstructure). Each session used an established format of a book share, an explicit narrative teaching focus using visual supports and gestures, application of the explicit focus into a picture book and oral language games to further consolidate the concept. The study showed that participation in the program resulted in significant changes with moderate to large effect sizes for most participants in the number of macrostructure elements, and conjunctions and adverbs.

The Narrative competence intervention (NCI) studied by (Pinto et al., 2019) was applied by teachers. It included four main goals aimed at aspects affecting children's narrative competence, namely: understanding the genre and macro- and microstructural competencies; increasing children's awareness of the genre and their ability to distinguish the genre of fictional narrative from other genres; increasing children's competence in creating a story with structure. This includes the main traditional elements of the narrative; increasing the competence of children in creating coherent stories with a clear causal and temporal structure that gives the listener a global understanding of the meaning and coherence of the story; increasing the competence of children in making their stories coherent, as well as linking and organizing the structure at the local level so that messages and meaning are conveyed effectively. The classes were designed to be similar to the daily life of children and offer children game scenarios in which they could specifically use text material. Each lesson lasted about an hour and a half and was held twice a week at the beginning of the school day for 15 weeks (20 classes in total). Authors suggested that narrative competence interventions should be multi-componential, and teachers should integrate both, macro-structural (e.g. genre awareness; structural knowledge; and coherence), and micro-structural (e.g. cohesion).

In Lourenço et al. (2019) study of the contribution of a narrative intervention program in linguistic performance the percentage of correct consonants (PCC), mean length of utterance (MLU), and auditory memory (AM) of preschool children (N=14) were measured. The narrative intervention program consisted of eight weekly group sessions. It focused on understanding and using narratives and developing the vocabulary, inferencing, expressive language, and listening skills. In a typical session, the language therapist told a story to the children. Each session was similarly organized: (1) telling the story; (2) questions and reflection in relation to the story; (3) retelling; (4) story-related activity; and (5) a task that required language skills or AM. The results suggest improvements in PCC ($F [1, 12] = 18.761, p = 0.001, \eta^2 = 0.202$) and MLU ($F [1, 12] = 4.722, p = 0.049, \eta^2 = 0.285$) but no support for intervention effectiveness on these measures. In AM, the results indicate a significant intervention effect on words and orders. Parents reported intervention to be favorable/very favorable.

“Tales Toolkit” is a storytelling program for preschoolers with using of props, based on research and ideas about the association between early markers of literature (e.g. vocabulary, storytelling ability), social competence and school readiness and later academic outcomes. “Tales Toolkit” provides interactive, child-led resources with symbols representing story structure (Character, Setting, Problem and Solution) which children supposed to memorize well. Activity can be described next way. In group sessions, children are presented with a special set. Objects of props are gradually putted in different bags, starting with those that are easiest to

recognize. Children are encouraged to come up with their own story around objects, in which there will be a “problem” and its solution. Classes are interactive and often include songs, sounds, and movements. “Tales Toolkit” evaluation report (Jones, 2018) provides data collected from 2 groups (1 - 463 children aged 2-5 using Tales Toolkit, 2 - 199 children in control group). Data suggests that children in the Tales Toolkit group made greater progress (with differences represented by medium effect sizes) on all seven Early years foundation stage (EYFS) areas of learning (personal, social and emotional development, communication and language, physical development, literacy, mathematics, understanding the world, expressive arts and design). Also, for Literacy, boys who attended a Tales Toolkit school showed more catch-up to girls’ scores than boys not in settings using Tales Toolkit. Similar outcomes are seen for Mathematics and Expressive Arts and Design. The opportunity to use guided play to support the development of narrative and literacy skills in the early years appears to be one that has potential (Jones, 2018).

Narrative interventions are also used in working with bilingual children. E.g., (Temiz, 2019) studied narrative competence of bilingual children (N=15, L1 Kurdish, L2 Turkish) from low socio-economic status before and after they were involved in fourteen weeks of Turkish storytelling activities. Results suggested that the storytelling intervention made statistically significant differences to the produced structured narratives for all story units except the coda, and overall that children produce more structured narratives after being involved in storytelling activities. The intervention in this study involved storytelling for fourteen weeks (a total of fourteen storybooks were read to children). The researcher read the storybooks on Tuesday, then the same story was told again the following Friday, but using props. This intervention is aimed at strengthening the structure of children's history, the selected books served this purpose. They allowed to describe the sequence of events, the circumstances, the problem, the actions of the hero and the conclusion. The researcher read the book, and then asked the children about all these components and invited those who wanted to retell the story (the total duration of the lesson is about 30 minutes). The next time the story was repeated, but with the use of props. Storytelling classes using props lasted much longer than reading a storybook because all the children wanted to tell stories using props provided in class. They all listened eagerly and actively participated in the storytelling. Children were allowed and encouraged to use all the props in class in front of their friends, and they became more attentive and sociable using these methods. For example, when working with dolls, children showed less embarrassment and demonstrated better language skills.

The interventions considered in this section are characterized, in general, by a relatively short duration (up to 24, mainly 12-18), while even short programs show effectiveness. Interventions can be implemented in different kinds of groups, including large ones, as well as

with different cultural characteristics. Both preschool teachers and external participants can conduct interventions. Narrative interventions use stories and retellings, elements of acting. Many programs include the use of visual materials, props and improvised materials, teaching the macrostructure of the story.

1.6 A multi-tier system of supports

Individual differences of children determine the need for a differentiated approach to their learning, development and support in the preschool educational environment. In this paper I use the multi-tier system of supports (MTSS) approach, which seeks to differentiate levels of instructional support provided to students based on their demonstrated needs (Gersten et al., 2014). The typical MTSS is divided into three tiers of instructional support (e.g. in Greenwood et al., 2014).

Universal (primary), Tier 1 is whole-class instruction, utilizing a high-quality general curriculum. Children with the lowest risk of not learning the language and literacy by going through the general basic training planned for all children; children for whom this level is suitable demonstrate academic performance at or above the benchmark.

Selected (secondary), Tier 2 typically provides supplemental instruction often in small groups to help children with delays overcome specific learning gaps. Children at moderate risk due to poor skills and who may not be able to achieve the expected indicators of language proficiency and literacy by kindergarten without more intensive training.

Indicated, Tier 3 is more intensive, often individualized intervention, for those with significant learning need. It refers to children from the highest risk group with very weak skills, who, according to forecasts, will not reach the expected indicators by kindergarten without more intensive training.

Multi-tier system of supports as a dynamic system of two or more adapted interventions could be used for work with children based on rules and linked to assessed performance indicating benefit from an adapted experience. The goal is to differentiate learning for children who are not making adequate progress in the main areas of interest. So, if it becomes clear that a child does not achieve, for example, expected academic results, a higher Tier level is provided. MTSS is a learning implementation system that adapts or differentiates depending on the assessed needs of children (Greenwood et al., 2014).

Among top challenges reported in 2009/2010 MTSS implementation was evidence-based Tier 1 curricula (Greenwood et al., 2011). Greenwood et al. (2013) suggested that Tier 1 improvement is an early priority because without it, Tier 1 remains a continuing source of larger numbers of children needing Tier 2 and 3 interventions leading to lower outcomes and higher costs (Chard et al., 2008).

In a (Petersen et al., 2021) large-scale randomized controlled trial the effects of a multitiered system of language support (MTSLS) on kindergarteners' narrative retelling, personal stories, writing, and expository language were examined. Results indicated that the students in the treatment group had significantly higher scores on all outcome measures compared to the students in the control group.

This research work focuses specifically on Tier 1 - the most universal, general and suitable for all children in kindergarten class. Elements of this Tier level can be included in the general work curricula and could be used, among other, to work in a group format. The assessment issue is of particular importance here. In order to apply MTSS and to determine the need for higher Tiers of support, preschool teachers need a tool to assess the current state of the child. This understanding will allow to make informed pedagogical decisions.

1.7 Research questions of the present study

The task of the research work is to review and analyze literature to develop evidence-based guidelines for narrative competence development in preschool and to design and to pilot a brief narrative competence assessment form for preschool teachers.

The main aims are:

1. To analyze literature and evidence-based practice aimed for narrative competence development for preschoolers;
2. Based on the analysis:
 - to develop guidelines aimed at the development of children's narrative competence for preschool teachers in their daily work;
 - to develop a brief form for assessing children's narrative competence for preschool teachers (the FANC) and to pilot it.

The research work is devoted to the study of the development of narrative competence as a way of language development of young children in preschool educational institutions. The existing literature suggested that, given the key importance of language development at an early age, a system of work with the narrative competence of children in preschool can be one of the methods of language development. Its specificity allows to include narrative elements in everyday work with children and takes into consideration individual differences of children. Numerous narrative interventions which positively affect the development of narrative competence exist and are being studied. However, their application in real kindergarten conditions by teachers not always possible and has a number of limitations, as well as the assessment of children's narrative competence. This work is aimed to contribute to bridging this gap.

The implementation of this research project will contribute to professional reflection of preschool teachers in the domains of children language development, narrative competence and will strengthen the practice of informed decision-making in terms of planning daily activities in the class. The project will also allow to make a pilot testing of a brief assessment tool for evaluating children's narrative competence that will use teacher's observations as a method (the FANC).

2. METHOD

This chapter is divided into four main sections. Section 2.1 describes the design of the current study, Section 2.2 – participants of the study. In section 2.3 I describe in detail the materials used in the work, as well as their designing and theoretical basis. In particular, the section tells about the Guidelines for working with narrative competence, about the FANC and two Forms for teachers' self-assessment. Section 2.4 is devoted to the overall study procedure.

The current study has been approved by Tomsk State University Ethics Committee for Interdisciplinary Research.

2.1 Design

The project involves a mixed-method research design.

A series of workshops were held for teachers to get acquainted with evidence-based practices for the narrative competence development. The Guidelines and the Brief form for assessing children's narrative competence for preschool teachers (the FANC) were presented in detail.

Discussions with preschool teachers were held and individual work plans for each group were designed by preschool teachers, taking into account already existing practice of language development in the group lead by each preschool teacher. Preschool teachers completed brief self-report on current practice of language development with the aim to reflect upon current practice.

Preschool teachers conducted a pilot pedagogical assessment of children's narrative competence with the help of the FANC (an observation tool for teachers). Preschool teachers filled out this form electronically by clicking on the link to the website <https://cdp.tsu.ru/test/rasskaz/> and using anonymized identification codes. Preschool teachers already have experience in filling out electronic child development assessment forms. All the necessary introductory and theoretical information about the FANC was additionally brought to teachers at seminars, workshops, as well as in printed form. Administration of the kindergarten reviewed and approved all materials used for the study.

The FANC is based on the analysis of evidence-based narrative interventions, systematic reviews and meta-analyses. It includes 4 main blocks (macrostructure, microstructure, emotional vocabulary and independence) with 12 items. The FANC is not a diagnostic tool. Its main task is to be used by the teacher in everyday work for a general assessment of the narrative competence in order to plan/ adjust work in the group. Detailed information about the designing and content of the FANC is in the section 2.3.3.

Guidelines for the development of narrative competence are also based on the analysis of evidence-based narrative interventions, systematic reviews and meta-analyses. They include a

theoretical basis (a brief review of the literature), recommendations and techniques, principles, possible formats of work. Detailed information about the designing and content of the Guidelines is presented in the section 2.3.2.

Data was collected with qualitative and quantitative methods. An assessment form was used to collect quantitative data, while preschool teacher forms were used to collect qualitative data. Quantitative data was analyzed using JASP software (ver. 0.16.0.0 for Windows x86).

2.2 Participants

The research work was carried out in a kindergarten based in Sochi, Russia. This is a municipal kindergarten of a combined type. Language development is a specialization in methodical work for this kindergarten across all groups. Conferences and seminars are regularly held on the basis of this kindergarten. Groups in kindergarten differ in directions and topics: for example, there are groups of cultural, research, theatre profiles, etc.

The consent of the administration of the preschool institution to carry out research activities and work with teachers was obtained. Teachers are informed about the goals and objectives of the project. Previously, I have already conducted a seminar on the narrative competence of preschool children for teachers, methodologists and the management of the kindergarten. The kindergarten administration and preschool teachers have an active interest in the project, as it is integrated into the work and is in demand by the practice.

Nine teachers were invited to take part in the pilot stage of the project – these teachers were nominated by the administration of the kindergarten and expressed their agreement to participate. All participants are teachers for whom the topic of language development is one of the main directions of their professional development. All participants have extensive experience of working with children.

The project fully corresponds to the direction of the kindergarten's methodical work: to create evidence-based conditions for language development of young children. Since the proposed work with children will be designed and implemented by preschool teachers already working in the group, is a part of daily practice in the domain of language development, assessment is planned in the form of continuous pedagogical observation (monitoring).

During all the planned seminars and workshops, information about the goals and objectives of the project, its content, and current status was provided and discussed with teachers each time. All teachers participating in the project receive support by the kindergarten head teacher if needed.

Individual and group formats of work were assumed. If any of teachers had concerns, issues that are not comfortable for discussion in a group, then they always were able to discuss them in an individual format with the head teacher or request additional workshop meeting.

Guidelines for the development of children's narrative competence proposed in the project are based on the results of evidence-based narrative interventions, analysis of systematic reviews and meta-analyses. Teachers will use them as a basis and adapt them independently in terms of themes, content, props used, etc., embedding them into the logic of teaching and into current pedagogical practice. Embedding practices of narrative competence development integrates into daily work and flexibly adjusts to it.

2.3 Materials

2.3.1 Teacher's self-assessment of the current practice for the children's language development (Form 1)

To obtain information about the methods and practices used in the current work on the language development, a self-reflection questionnaire was designed. Questions for the teacher's self-assessment of the current practice of working in a group for the children's language development were brought to teachers in electronic form and filled by hand on a pre-printed form or electronically (Word document) at the teacher's choice.

There were 12 questions overall. The list of questions is presented below. The answers were supposed to be in free form.

Question 1. How do you currently assess the language development of children?

Question 2. What forms of work on the language development do you use now?

Question 3. What forms of storytelling skills development are you using now?

Question 4. What games do you use for the children's language development?

Question 5. What exercises do you use for the children's language development?

Question 6. What visual materials do you use for the children's language development?

Question 7. What digital technologies (video materials, interactive class boards, programs for personal computers) do you use for the children's language development?

Question 8. What props (available materials) do you use in the work for the children's language development?

Question 9. What aspects of children's language development do you have difficulties assessing?

Question 10. Which of the practices you use for the children's language development do you consider effective?

Question 11. Which of the applied practices is it desirable to change/modify?

Question 12. What techniques/methods/tools for the children's language development would you like to include in your work?

Form 1 intended to collect primary information about how the work with the language development of children is currently arranged, to analyze the current formats of teachers' work and their reflection.

2.3.2 The Guidelines for the development of children's narrative competence for preschool teachers

The task of the research and methodological work was to develop, based on the analysis of scientific literature, guidelines that will help to create conditions for the children's narrative competence development for use by teachers and other specialists of preschool education in their daily work.

One hundred and twenty-five articles were analyzed, ninety-four of which were ninety-four of which were specifically devoted to storytelling and narrative competence. Fifty-six articles containing descriptions of evidence-based storytelling/narrative interventions with proven effectiveness and/or methods for assessing (measuring) children's narrative competence, as well as systematic literature reviews and meta-analyses were selected for further work. In some of them, storytelling and narrative competence development were considered in relation to children with language impairments.

There are various programs for the development of narrative skills in preschool children with very different levels of abilities.

In meta-analysis Pico et al. (2021) studied interventions that aimed to improve narrative language outcomes for preschool and elementary school-age children.

Different effective interventions have been found that improve the quality of narrative production and understanding outcomes in children with diverse learning characteristics. Some common characteristics of these interventions include manualized curricula, opportunities for producing narrative language, verbal and visual support, direct instruction in the grammar of stories, and the use of authentic children's literature.

Pesco & Gagné (2017) in meta-analysis of instruction in early childhood settings identified that verbal scaffolding, alone or in combination with other strategies, was the predominant teaching approach. The meta-analysis revealed average effects (weighted for sample size) for narrative expression (.50) and a slightly larger effect for comprehension (.58). These effects were unrelated to the duration of instruction. However, when verbal strategies were combined with nonverbal ones, such as engaging children in enacting stories or in telling stories with props, the effects for expression increased (i.e., children's storytelling improved more from pretest to posttest). The researchers suggested diverse kinds of verbal scaffolds, complementary nonverbal approaches, and storybooks that have been used effectively to foster narrative competencies among young children.

The meta-analysis (Pesco & Gagné, 2017) also notes the effectiveness for the development of narrative abilities of preschoolers of combining verbal methods of teaching storytelling and non-verbal (for example, acting out stories, telling stories using various props, toys, improvised objects, etc., the use of children's books).

Favot et al. (2021) in a systematic review identifies the following components of effective narrative interventions: teaching the structure of the narrative, using graphic symbols, visual materials, as well as providing the opportunity to tell the full story to the end at each session.

In each of the analyzed articles, the main elements characteristic of the interventions that showed effectiveness were written out. Then the most common elements were highlighted. Based on these, a list of 10 recommendations with appendices and illustrations has been formed, the use of which can potentially have a positive impact on the development of narrative competence of preschool children.

1. Teaching the macrostructure of the story

Purposeful learning to work with the structure of the story is used in many narrative programs (see, e.g., Gillam & Gillam, 2016, the program “SKILL - Supporting Knowledge in Language and Literature”).

In a scientific context, a narrative is usually a story or retelling of a real or imaginary event in the form of a monologue (Gillam & Ukrainetz, 2006, in Spencer & Petersen, 2020). Such narratives are goal-oriented - they describe the hero's efforts to solve the problem/difficulties and their outcome. The classic elements of the story include the initial event (usually the problem), the actions to solve the problem, and the final consequences (Mandler, 1987; Stein & Glenn, 1979, in Spencer & Petersen, 2020). Other structural elements may also be included, for example, a plan to solve the problem, feelings and attitudes of the hero, additional steps, etc. However, the story will not be a story without causal and temporal relationships between events, elements of history - this is what makes the hero's behavior purposeful.

Pinto, Tarchi, & Gamannossi (2018) also provide similar definitions of narrative (this is an oral representation of events related causally or in time), noting that the story should include elements that allow the listener to understand the meaning of the characters, their actions and the overall plot.

Narrative structure is a key component of the story, and structure assessment is used in most methodologies (see e.g. Botting, 2002; Channell et al., 2015; S. Gillam et al., 2018; Glisson et al., 2019; Ketelaars et al., 2016; Melzi et al., 2013; Peña et al., 2006; Zanchi & Zampini, 2020). At the same time, the number of assessed structural elements of story in the methods

varies (e.g. from 3 to 11 in the analyzed articles). Five elements were identified most common and general: place (setting), hero (character), problem, solution, completion (consequences).

Coherence is also important in the macrostructure (what makes the text semantically significant – in a sequential text, ideas are logically and consistently linked to obtain a final meaning (see e.g. Baumer et al., 2005; Melzi et al., 2013; Peña et al., 2006; Pinto, Tarchi, & Gamannossi, 2018)

Effective macrostructure training programs include repeating one's own stories, retelling, and composing stories using visual support (cards, signs, whiteboards, etc.) (Petersen, 2011). Glisson et al. (2019) in the Oral Narrative Intervention Program also focused on teaching narrative macrostructure using repetitive retellings and visual materials (signs, graphic hints, etc.).

A possible option for teaching structure and sequence may be the following (based on Peña et al., 2006):

1. Read/tell stories aloud using illustrated books (pictures, other visual materials). The story should contain all 5 elements: place (setting), hero (character), problem, solution, completion (consequences).

2. Tell the children about the key elements of the narrative: name them, explain what it is, what it is for – using the example of the story you just listened to.

3. Repeat the material through the game (for example, to name an element in the story with a suggestion to say in chorus what kind of element is “The brave cat in our story is ...” – “Hero!”, or to suggest drawing a character, playing “problem solving”, etc.).

When the structure and logic of the story is organized (macrostructure), you can proceed to microstructure – the actual language used in storytelling (e.g. Colozzo et al., 2011). Interestingly, the focus on macrostructure also leads to the development of individual elements of the microstructure of the story (Petersen, 2011).

2. Teaching the microstructure of the story

Stories are chosen (or specially composed) so as to gradually introduce new grammar, connectives, words of independent (verbs, adjectives, nouns) and service parts of speech (in particular, subordinate conjunctions: temporary, target, conditional, comparative, causal, etc.).

The special role of words forming a sequence in time (“before”, “after”, “then”, “when” etc.) is noted, since they are critically important for building relationships between events in time (Gillam & Gillam, 2016). Researchers also pay attention to the words that form causal relationships (“therefore”, “to”, “because”, etc.).

An important part is teaching emotional vocabulary words. Storytelling can help children in their emotional development by giving and explaining the necessary vocabulary to express their emotions and feelings (see e.g. in Erickson, 2018; Tarchi et al., 2019).

The amount of material for training depends on the planned duration of work with narrative competence and the age of children and ranges from simpler to more complex elements. Learning the words of temporal and causal relationships can occur simultaneously with familiarity with the macrostructure of the story.

3. Visual materials

Photographs, illustrations, pictures, drawings, flashcards, pictograms, images, symbols and other visual materials can be used both in teaching storytelling and retelling, and as hints on the content or the structure of the story. Since they greatly facilitate the child's task, they should be used with caution, without, for example, forming a dependence on visual cues (Spencer & Petersen, 2020).

E.g., the symbols of the place, the hero, the problem, the solution and the completion of the story can be used when telling each new story by the teacher to teach the structure. Through the repeated visual presentation of these symbols with names, children can come to understand the general scheme of the story. Icons have also been used to represent less common vocabulary (Beck et al., 2013) and complex language features such as causal and temporal ties (Petersen et al., 2021).

Visual materials can be especially useful when getting acquainted with abstract complex concepts (for example, words and phrases of cause-effect and temporal relationships) – this makes them more understandable and specific for children, as well as with new words (see Beck et al., 2013; Glisson et al., 2019; Petersen et al., 2021). In the “Tales Toolkit” program, symbols on paper or on special pockets depict the four main elements of the story (Setting, Character, Problem, Solution) and children, using improvised props, consistently fill in each of the elements.

Pictograms, simple images, and drawings denoting ideas and events in a story can support storytelling, retelling, and the use of more complex language (e.g. in Favot et al., 2021; Petersen, 2011). There should not be too many supporting visual materials, as this can make it difficult to assimilate. Signs, symbols, pictograms can be a good help in mastering new information, at the same time, they contain less information and details than pictures and illustrations. It is recommended that when teaching storytelling, gradually reduce the frequency of using pictures and illustrations in favor of signs, symbols and pictograms. For example, in one of the programs, illustrations and cards were shown when the structure of the story was being taught and at the first retelling of the child, at the second retelling only cards with symbols remained, at the third -

there was no visual support at all (e.g. in Gillam et al., 2018). The same approach is used, for example, in the narrative program “Story Champs” - both in large groups and in individual classes (e.g. in Spencer et al., 2017)

Children's illustrated books are a common tool of many narrative programs. Books can serve as an effective tool for teaching, for example, macrostructure and the process of retelling (see e.g. Glisson et al., 2019). A teacher can use an illustrated book when telling a story aloud, turning the pages and introducing the sequence of the story. It can also be a standard task for training in writing a story or retelling, when a child, looking at the illustrations, comes up with a narrative about what is happening in a book or retells a story heard from a teacher (see e.g. Peña et al., 2006). Books should be selected in such a way that the illustrations in them really line up in a consistent story in accordance with the structure of the narrative being studied. Successful storytelling can synchronize brain activity between the speaker and listener, but not all stories are created equal. Sharing happy stories increases feelings of closeness and brain synchrony more than sad stories (Xie et al., 2021).

4. Using the props

Children are capable of more structured stories when using objects, for example, when retelling a story using props (Temiz, 2019). Studies show the effectiveness and greater involvement of children when using props (for example, when playing a story with dolls, children showed less embarrassment and showed better language skills). Props can be any objects, toys, materials, household items, clothing, etc.

Thus, in the “Tales Toolkit” program, it is recommended to use any available props that may be suitable for the story, including symbolic ones (for example, a white cloth may be the “snow” on which the action takes place). At the same time, it is recommended to start with specific objects (for example, a stone means “stone”), moving on to more abstract ones (a stone means “mountain”). In “Tales Toolkit”, pockets with four main elements of the story (Setting, Character, Problem, Solution) serve to get children used to them: toys, other objects used in the story are folded into the corresponding pocket. Then the familiar structure can be used anywhere, you can find props for stories, for example, on walks on the street – and tell a story.

5. Digital technologies

Despite the widespread use of digital technologies and increased attention to them, data on the use of such technologies for the development of narrative competencies are limited. Wu & Chen (2020) in a systematic review of educational digital storytelling marked that no studies in preschool education contexts were found while researches on such technologies for primary, secondary, and higher education levels are more common.

Although there is not a single digital storytelling definition, the majority emphasize the use of multimedia tools including graphics, audio, video, and animation to tell a story, the use of digital technologies to construct meanings (e.g. in Smeda et al., 2014; Yang et al., 2020). A digital story can be viewed as a merger between traditional storytelling and the use of multimedia technology (Normann, 2011).

Crawshaw et al. (2020) in study children's narrative elaboration after reading a storybook versus viewing a video found that the children from the video condition gave significantly more elaborated retellings, particularly across the who, what, and where (sub-)components (German language). Authors suggested that different media types entail differential cognitive processing demands of a story, and that this is lines us with previous research and indicate that today's digital technologies can offer a positive environment for children's development, education, and their interaction with the world around them.

Some of the digital formats can be demanding on the technologies and materials used. E.g. in Catala et al. (2017) study children's storytelling activity assumes the use of tablets or other similar mobile devices. In two pilot studies by Gil & Sylla (2022) (N=22 preschool children) researchers used interactive digital narratives, which is considered by authors as more holistic view of the storytelling process, considering as integral part of it the system, the user, the process and the output. They used digital manipulative as a storytelling authoring tool directed to young children that uses physical blocks to promote the creation of collaborative intercultural narratives. The physical blocks communicated with a computer or tablet via Bluetooth, and with each other through magnets embedded on the sides of each block. Connecting the blocks to each other triggers its digital representation on a device's screen. Each element has specific animations that display different actions. Children can change the scene, mix and remix the elements, try out different plots, shift direction and start all over again. The system provides visual and auditory feedback in the form of sounds from the characters and music from the instruments. Although this system may be promising (is can scaffold young children's storytelling by structuring the space of potential narratives through the proto-story, guiding a flexible narrative through the narrative design, and determining possible directions to the story through the narrative vectors), it requires special equipment.

The use of digital technologies for the development of narrative competence, storytelling training can be an effective tool (see e.g. in Smeda et al., 2014; Yang et al., 2020). It could imply the use of multimedia tools (graphics, audio, video, animation) for telling / retelling stories by a teacher and/or children. Integrating technology with learning activities can create an engaging and entertaining environment. Some researchers have introduced the concept of "digital storytelling".

Modern digital technologies can offer a positive environment for children's development and education. Using, for example, videos without words (for example, as an alternative to showing static pictures in a book) does not reduce the effectiveness, and may even contribute to greater detail in subsequent stories of children (Crawshaw et al., 2020). Drawing on a digital whiteboard, presenting the main parts of the story or its connecting elements on it, simple animation, videos/cartoons (without words, but possibly with sound effects) - if technically possible, the use of these and other multimedia tools can enrich the narrative process.

6. Play activities

Studies show that the integration of storytelling and play activity (role-playing games, the use of toys, gestures and movements related to the story) increases children's language results (see in Spencer & Petersen, 2020), makes children's stories more structured, increases their duration and increases the coherence of the narrative (Temiz, 2019). Storytelling combined with play activities can be an effective incentive for early literacy development (Maureen et al., 2018). Participation in acting out a story significantly improves the narrative competence of 5-7-year-olds (Baumer et al., 2005).

Among the recommended forms of activity are:

- playing with props (toys, finger/wrist dolls, household items, materials – paper, fabric, etc.) when teaching the structure of a story or new words, when retelling a story (collective or individual), when fixing/ repeating information, when composing a story by children or a teacher; such activities can last much longer because of the children's desire to play (e.g. in Aprillina et al., 2021; Nicolopoulou, 2005);

- acting out a story (conditionally it can be called a “children's theater”: using available props and costumes, children and a teacher act out a story listened to or composed (including by children collectively), depicting characters and following the structure of the narrative (e.g. in Baumer et al., 2005); living the story from the inside is potentially able to have a positive impact on the quality of the narrative;

- additional activities after the main training related to the history and/or the material passed. For example, after the main lesson, time is given to free play, drawing, where children are invited to look for a hero among toys, come up with a solution to a problem, draw a hero experiencing a certain emotion (if an emotion was studied) or performing an action (if a verb was studied), etc.

7. Equal opportunities – different formats

It is necessary to strive to ensure the possibility of active participation of all children (active participation leads to greater educational opportunities). Every child should be able to

compose/retell a story. For large groups, different strategies for engagement are possible (see e.g. Spencer et al., 2017; Spencer & Petersen, 2020). Examples are given below.

1. Answers in chorus (especially when the groups are large and the teacher does not have the opportunity to work individually with everyone); for example, together name the main elements of the structure of the story, answer the teacher's question, repeat the sentence from the retelling or the part just composed (“The Bear was sad because he fell from a tree”); answers in chorus they make sure that all children participate, not just confident and active ones who raise their hand.

2. Telling/retelling a story by children to each other in pairs after group activity; working in pairs provides an opportunity for each child to tell/retell a story to a partner (e.g. in Kim, 2021); the partner should be encouraged to listen carefully and respectfully. one of the tasks here may be a request to briefly retell the story heard from a friend; working in pairs can increase the motivation of children, perhaps they will want to impress a friend and will accept help more willingly than from a teacher. Telling stories to each other in pairs has a positive impact, and is especially useful for children with lower academic performance (Pinto, Tarchi, & Bigozzi, 2018).

3. Collective storytelling/retelling.

Through such activity, children can exchange ideas, knowledge, make joint decisions during discussions, and share personal experiences (see Liu et al., 2010). Such activity is usually built in a group, when all the children and the teacher sit in a circle and in the process of telling/retelling the children (raising their hand, giving a different sign or simply speaking) express their suggestions on key elements of the story and its development (e.g. Flynn, 2018). Proposals are discussed in a group or taken immediately. They can be fixed by the teacher on paper, electronic or classical blackboard, marked by the choice of appropriate props (for example, a hero toy).

In a number of narrative programs, the leading role of the child in storytelling is proclaimed as one of the principles (see, for example, “Tales toolkit” <https://talestoolkit.com>). The older and more experienced the children, the less there should be a teacher in the process, the more the children themselves build a plot, inventing its components – determine the place, the hero, the problem, its solution, sum up the results.

4. Graphic (drawn or printed) schemes, according to which children independently compose / retell a story. The teacher, approaching the children in turn, asks everyone about one or more invented elements.

Pinto, Tarchi, & Bigozzi (2018) looked at the potential of peer interaction practices in improving narrative competence by analyzing the efficacy of peer learning on children’s oral

narrative productions were analyzed (gains on a macro-level - structure and coherence of the narrative- and a micro-level - cohesion of the narrative). Results suggested that peer interaction was particularly beneficial for individuals with lower individual competence in fluency, structure, cohesion, coherence, as well as in the total narrative competence score, and for pairs with a high discrepancy among individual scores. Authors suggests that joint story-telling can be an effective intervention for children struggling in oral narrative productions, as they can convert their interactions with the partner into meaningful learning opportunities and better understand the components of a narrative.

Collaborative storytelling prompt children to communicate ideas, transfer knowledge, and make decisions (Wang et al., 2003, in Liu et al., 2010). Therefore, as collaborative storytelling brings people together to experience a common perspective, it helps to stretch people's capacity to empathize with others and share experiences which is essential to social learning. During collaborative storytelling, tellers bring different ideas and coordinate with each other trying to create a coherent story. Liu et al. (2010) in study of the collaborative storytelling with linear (linear stories contain exactly one begin, one middle and one end) and nonlinear approaches suggested that non-linear approach could be more beneficial for children in terms of derivation, ownership and positive independence.

Flynn (2018) studied the interactive features of small group, child-led storytelling in preschool classrooms serving lower socioeconomic status (N=49). Author suggested that through their stories, the children advanced ideas, built connections, and evaluated ways of telling stories as they continued ideas like threads from story to story. Child-led storytelling did not disrupt the dynamics of power through which some ways of using language are privileged while others are marginalized. "Child-led discourse simply shifts children's relationship to the process of being and becoming a literate member of the larger social world. The children advance ideas, build connections, and evaluate what constitutes valuable participation. The teacher's role is to listen" (Flynn, 2018, p. 46).

8. Storytelling, retelling and personal stories

Telling a story can be more difficult than retelling a story. At the same time, a fictional story is more difficult for a child than a story about himself (Spencer & Petersen, 2020). Narratives of personal experience, particularly if relating recurrent events, seem to be relatively well organized sooner than fictional stories (Nelson, 1999, Berman, 2004 in Veneziano & Nicolopoulou, 2019). The narrative and retelling involve related, but not always overlapping processes that may affect different aspects of narrative competence (Pinto, Tarchi, & Gamannossi, 2018). Familiar pictures and retelling of a story allow a child to generate more complex and long stories, at the same time, composing a story, as a more complex task, makes it

possible to more effectively identify possible language impairments in children (Nakhshab et al., 2014).

For initial storytelling training, it is recommended that children retell the story they heard from the teacher. It is easier to start with small and familiar illustrated books for children.

After mastering the general structure and logic of the narrative, it is recommended to move on to personal stories – children tell stories (often real) with themselves in the role of the main character. As a rule, they like to talk about themselves and their experiences, so stories could be an ideal context for working on a language without feeling "work".

After that, as the most difficult stage, there is a transition to telling completely fictional stories.

For retelling, you can use a 5-step structure (based on Lourenço et al., 2019).

1. The learning factor (what activity will be now, what will we do, what to get acquainted with – for example, the structure of the story). 2. Storytelling by a teacher (for example, based on an illustrated children's book). 3. Questions and reflections about history 4. Collective retelling by children 5. Activity related to history (drawing, playing).

As noted earlier, visual materials and props can be used for all types of storytelling and retelling.

Repetitive retellings and visual support materials, scaffolding may be preferred storytelling teaching methods (Spencer, Kajian, et al., 2014).

The retelling in the “Story Champs” program is based on a similar structure, it can be adapted for a story. The session consists of 5 main blocks: 1. Analysis of the structure of the story 2. Gestures (symbols) of the story 3. Collective retelling with the teacher 4. Retelling to each other in pairs 5. Symbolic awards ceremony for all participants (support).

Researches has debated on whether storytelling and retelling are overlapping tasks or, conversely, if they measure different aspects of children’s narrative competence (e.g. in Pinto, Tarchi, & Gamannossi, 2018). Thus, results from this study suggest that storytelling and story retelling are tasks that involve interrelated but not overlapping processes, and trigger different aspects of narrative competence).

9. Feedback and prompts

When working on the development of narrative competence, the teacher gives children corrective feedback, which is the powerful teaching tool (Hattie & Timperley, 2007).

Effective feedback (Hughes et al., 2018; Slocum & Rolf, 2021; Watkins & Slocum, 2003):

- focuses on what the child should do and minimizes the attention paid to the wrong answer;

- given immediately (repeated mistakes will continue and be fixed; for example, when a child misses an element of the grammar of a story, it may be useful for him to practice the correct sequence again immediately after correction;

- specific (general information about a mistake made, a hint that it was necessary to say something else “It seems you forgot something” are not effective, they can confuse or upset children, further reducing their motivation to try difficult things).

The hints given to the child can be two-stage.

At the first stage, it is recommended to use direct questions (“How did the dragon treat his problem?”, “What did she do to cope with it?”), because they direct the child's attention to a specific part of the story that needs to be told/ retold. The second stage is needed if the child cannot answer the question within a few seconds. Then you need to model it for the child, supplementing it with a typical sentence, for example, “The cat was upset because it hurt its paw. Now you say” or “She asked her mom for a chair to get to the candy. It's your turn.”

It should be noted that the behavior of teachers, their involvement in the process directly affects the effect of programs, for example, on the memorization of new words by children (Lenhart et al., 2020).

Cekaite & Bjork-Willen (2018) studying storytelling in a regular Swedish preschool for 1- to 3.5-year-olds notes that teachers used “lighthouse” gaze, props, marked prosody and pauses to invite the child audience to participate, join the attentive multiparty participation frameworks and share the affective layering of story. The young children exploited the recognizability of the story and contributed by co-participating through bodily repetitions, choral completions, elaborating or volunteering anticipatory contributions, and pre-empting the upcoming story segment.

10. Ten principles of narrative intervention.

These principles are formulated in Spencer & Petersen (2020) study to supply foundational information about the importance of narratives and to offer recommendations about how to maximize the potential of narrative interventions in school-based clinical practice. Authors suggested that when narrative intervention is implemented following a set of principles drawn from research and extensive clinical experience, language pathologists can efficiently and effectively teach a broad set of academically and socially meaningful skills to diverse students. I believe that these principles are fair and applicable for teachers to take into account in the work on the development of narrative competence.

1. Build story structure before vocabulary and complex language.
2. Use multiple exemplars to promote metalinguistics and generalization.
3. Promote active participation.

4. Contextualize, unpack, and reconstruct stories.
5. Use visuals to make abstract concepts concrete (e.g. story diagrams, icons, symbols, gestures, etc.) – they will help in the assimilation of abstract concepts in the story (for example, causal relationships).
6. Deliver immediate corrective feedback.
7. Use efficient and effective prompts.
8. Differentiate, individualize, and extend (Change stories for current tasks (studying the structure – some, solving problems – others, etc.). This also applies to the complexity and volume of the story – some may be too difficult or easy for children, too long or short.
9. Arrange for generalization opportunities (e.g. work together with language therapists and other specialists; for example, a teacher can work with the main group, while a language therapist provides separate support to children at risk).
10. Make it fun! (Children like to talk about themselves and their experiences usually, so stories are an ideal context for working on a language without feeling “work”).

Work format

The analyzed narrative interventions vary in duration: for example, from 1 lesson per week for 2 months to daily practices for several months. So, there are studies that show a certain effectiveness even after two sessions (but in an individual format – e.g. Peña et al., 2006). At the same time, even low-intensity programs for large groups show their effectiveness in the development of narrative and language skills, therefore they can be used in preschool educational institutions to develop children's narrative competence (Spencer et al., 2014; Spencer et al., 2017).

For short-term use in large groups, the following format of work can be one of the options: 12 sessions for 3-4 weeks. Each session can consist of 20-30 minutes of main work, and 15-30 minutes of subsequent activity (a desirable element for information consolidation, see Sections 2.1., 2.6.). Given Section 2.1., in the first week it is advisable to study the macrostructure of the story, in the second – combining it with the work on the microstructure, and in the third week – to consolidate the knowledge gained in producing fictional stories.

In this section the theoretical basis and design of the Guidelines is presented. They consist of 10 main blocks describing various aspects of possible work with the narrative competence of children in preschool. I suggest that their implementation by teachers can potentially have a positive impact on the development of narrative competence of preschool children.

2.3.3 A brief form for assessing children's narrative competence for preschool teachers

To plan work on the development of children's narrative competence and language development in general, to identify possible areas for improvement in the child's skills and observation in dynamics, an assessment of children's narrative competence is used. The scientific literature suggests various approaches to assessing the narrative competence of children. The variety of methods is noted in systematic literature reviews and meta-analyses (e.g. in Favot et al., 2021; Nakhshab et al., 2014).

At the same time, almost all such methods are intended for use by specialists, researchers, scientific teams or organizations. For example, the number of words in the 5 longest sentences can be counted, the total number and frequency of use of prepositions, conjunctions, verbs, general vocabulary, the average length of sentences can be analyzed, etc. Often, an audio recording of all stories is used to collect and analyze data for subsequent decryption using special software.

Due to the complexity (number of parameters, number of participants, time to study methods, complexity of data collection, analysis), cost (time, effort, human and material resources), the use of such methods by teachers or language therapists with a total load in the “field” conditions of a real preschool educational institution has a number of limitations.

One of the tasks of the research work was to develop a short questionnaire for educators and other interested preschool education specialists based on the analysis of the available scientifically-based and proven methods for assessing the narrative competence of preschool children.

This tool is not supposed to be a diagnostic tool. The task is to help the teacher in his daily work. It is assumed that it will be used for a general assessment of children's narrative competence in order to plan and/or adjust further work in the group. This is also why the emphasis was placed on briefness and familiar format of the form while maintaining an integrated approach to evaluation.

A systematic review of narrative development programs from 1980 to 2010 (Petersen, 2011) notes the lack of consistency in the methods of assessment (measurement) of narrative competence, while two main blocks within such dimensions are distinguished: macrostructure (e.g., the main elements of the story and its sequence) and microstructure of the narrative (characteristics of the language used in the story)

The systematic review of narrative development programs (Favot et al., 2021) also indicates the variability of the evaluation system and terminology. At the same time, there is an established division into two main blocks – the macrostructure and the microstructure of the

narrative. In the macrostructure, an assessment of the structure of the narrative is usually used for measurement. It can be called by different authors by different terms ("script", "narrative units", "components of history", etc.), including a different number of constituent elements. Microstructure measurements are divided into two directions: complexity (for example, the use of complex sentences, conjunctions, bundles, verbs, adjectives) and productivity (for example, the total number of words in a story). Moreover, productivity was measured in a larger number of studies than complexity, and almost always through an assessment of the total number of words.

Children's oral histories are evaluated, as a rule, through language examples using various types of narration: writing stories, retelling stories, telling personal stories (see for example. in a systematic review of methods for assessing children's narrative competence (Nakhshab et al., 2014), which also notes two levels of measurement: micro- and macro-structure).

The analysis of 34 articles (2002-2020) with a detailed description of the applied (tested) methods of measuring the narrative competence of children allowed us to identify the main, most frequently used parameters, on the basis of which it is possible to get an idea of the level of the child's narrative competence.

At the macrostructure level:

- narrative structure is a key component of the story, and structure assessment is used in most methodologies (see e.g. Botting, 2002; Channell et al., 2015; Gillam et al., 2018; Glisson et al., 2019; Ketelaars et al., 2016; Melzi et al., 2013; Peña et al., 2006; Roch et al., 2016; Zanchi & Zampini, 2020). As noted in the section 2.3.2, five elements were identified that are characteristic in one form or another for most methods: place (setting), hero (character), problem, solution, completion (consequences).

- coherence is also important in the macrostructure (what makes the text semantically significant – in a sequential text, ideas are logically and consistently linked to obtain a final meaning (see e.g. Baumer et al., 2005; Melzi et al., 2013; Peña et al., 2006; Pinto, Tarchi, & Gamannossi, 2018). The story will not be a story without causal and temporal relationships between events and elements of the story - this is what makes the hero's behavior purposeful.

At the microstructure level (the language used in the story), the following main parameters are highlighted (e.g. in Gillam et al., 2018; Gillam & Gillam, 2016; Glisson et al., 2019; Ketelaars et al., 2016; Melzi et al., 2013; Pinto, Tarchi, & Gamannossi, 2018; Safwat et al., 2013):

- productivity (for example, the total number of words in a story is the volume of the story);

- complexity (for example, the use of complex sentences, conjunctions, connectives, verbs, adjectives);
- integrity (grammatical and lexical elements linking the text and giving it meaning).

A number of studies also touch on the emotional sphere and emotional vocabulary (e.g. in Van der Veen & Poland, 2012). This parameter is studied both at the level of macrostructure (it is included as a separate component of the narrative, for example, “feelings of the hero in relation to the problem” or “emotions of the hero after solving the problem”), and at the level of microstructure (for example, it is studied how often words denoting emotions, feelings sound in the story, how developed the emotional vocabulary of the child). Research found that Russian parents are more likely than U.S. parents to read stories to their children that feature negative emotions, such as fear, anger and sadness. Russian parents are more likely to support opportunities to engage with their young children about challenging emotions, such as anger and sadness. (Chentsova-Dutton et al., 2021). In Peterson & Biggs (2001) study preschool-aged were girls more likely to use emotion words to describe their feelings than boys and even after listening to stories regarding emotions and emotional situations boys were more likely to use evaluative devices to describe emotional events.

A one more parameter that is not directly related to the above-mentioned levels is “Independence” (e.g. in Melzi et al., 2013). This parameter reflects the degree of independence of the child's story from prompts (for example, visual diagrams, pictures, oral prompts) or other assistance from the teacher.

All of the above items are included in the Brief form for assessing children's narrative competence for preschool teachers– the FANC.

As demonstrated in different studies, the evaluation of parameters in different methods was carried out using different scales:

- "Yes"- "No"
- a point score (from 3 to 5 points)
- general quantitative assessment (for example, the total number of words in a story, the average number of words in a sentence, the frequency of use of conjunctions, etc.).

For the developed form of assessment of narrative competence, a 4-point Likert-type assessment scale is proposed (according to the degree of agreement with the statement, where 1 – disagree, 2 – rather disagree, 3 – rather I agree, 4 – I agree, 0 – I find it difficult to answer/cannot evaluate).

The developed form is presented in Appendix 3 (in Russian, as it was sent to teachers for review).

Speaking of evaluation, it should be noted that there are also different approaches to the process itself. In addition to the standardized approach, when the assessment is carried out to actually measure, for example, the level of language development or narrative competence, a dynamic approach is also possible (Fiestas & Peña, 2018; Peña et al., 2006; Petersen et al., 2017; Van der Veen & Poland, 2012).

Dynamic assessment differs from traditional, static assessment in three important ways: 1. examiners and children interact extensively during the assessment process. 2. a focus of dynamic assessment is on the observation of learning processes and strategies during the teaching phase (examiners look for evidence of emerging skills and strategies as they watch children attempt to learn a new skill; 3. assessment measures more than the demonstration of a skill at one point in time. Pretest-to-posttest comparisons of performance and examination of emerging learning strategies during mediation sessions can reveal children's latent capacities for change (in Peña et al., 2006). Current approaches to dynamic assessment have been influenced by Vygotskian sociocultural theory and Feuerstein's theory of mediated learning experiences believed that cognitive and linguistic development occur as a function of symbolic mediation

Our assessment scale performs a similar function in relation to narrative competence. Its main function is not diagnostic, but auxiliary for planning and adjusting the teacher's work with children. Its use involves simultaneous work with methods and techniques for the development of narrative competence (for example, from the Guidelines). Thus, here we can also talk about the dynamic nature of the work, when the assessment is carried out together with the educational component.

2.3.4 Teacher's self-assessment of the work planned for creating environment for the development of children's narrative competence (Form 2)

To obtain information about the planned work with the Guidelines and for creating environment for the development of children's narrative competence in general, another questionnaire was designed (Form 2). Questions were brought to teachers in electronic form and filled by hand on a pre-printed form or electronically (Word document) at the teacher's choice.

There were 7 questions overall; the list is presented below. The answers were supposed to be in free form.

1. Describe the situation (cases) in the group that require solutions.
2. Formulate possible reasons for situations that require solutions.
3. What you have already done to solve these situations? What developmental effects have you observed? What techniques did not lead to the expected results and why?
4. What new methodological/pedagogical techniques do you plan to implement? Describe the technique and explain how the developing effect will be provided.

5. Describe the plan for the implementation of new techniques (times a week, duration of activity, etc.).

6. How do these techniques differ from those that you used previously?

7. What other aspects of children's development require attention in the context of the narrative competence development?

Form 2 allows the teacher to conduct a professional reflection on the problem situation that currently exists in work and plan actions to solve it. At the same time, it refers to the new information received about narrative competence and the possible use of the guidelines proposed by the study.

2.4 Procedure

For preparation, a search was carried out for articles on storytelling, narrative competence and its development, narrative (storytelling) interventions, language development and preschool education on sites webofscience.com, sciencedirect.com, scopus.com, scholar.google.com and others. One hundred and twenty-five articles were used for this research work overall. Fifty-six articles with descriptions of evidence-based storytelling/narrative interventions with proven effectiveness and/or methods for assessing (measuring) children's narrative competence, and systematic reviews and meta-analysis on the topic were selected for further analysis. In each of the analyzed articles, the main elements characteristic of the interventions that showed effectiveness were written out. Then the most common elements were highlighted. Based on these, a list of 10 recommendations has been formed, the use of which can potentially have a positive impact on the development of narrative competence of preschool children.

The analysis of articles (years 2002-2020) with the applied (tested) methods of measuring the narrative competence of children allowed to identify also the main, most frequently used parameters, on the basis of which it is possible to get an idea of the level of the child's narrative competence.

Based on the analysis, the following have been developed:

- the Guidelines aimed at the development of children's narrative competence for preschool teachers in their daily work;
- the brief form for assessing children's narrative competence for preschool teachers (the FANC).

To obtain information about the practices used in the group for the children's language development, teachers answered self-assessment questions in the corresponding questionnaire (Form 1).

Before the pilot approbation of these tools, 3 seminars were held for teachers, headteacher, language therapists and kindergarten management: December, 2021 – “Narrative

competence of preschool children”, April, 2022 – “Assessment of narrative competence of preschool children” (the form of assessment is presented) and “Development of narrative competence of preschool children” (guidelines are presented). Teachers received electronic documents with Guidelines and the FANC for studying and work.

The assessment of children's narrative competence was carried out by teachers in April, 2022. In total, 200 children were assessed in 7 classes by 8 preschool teachers. One class out of seven was a speech therapy class for children with language impairments. There were 183 children in 6 typical classes (102 girls and 81 boys): 2 “middle” classes (aged 4-5 years), 2 “senior” classes (aged 5-6 years) and 2 “pre-school” groups (ages 6-7 years). In speech therapy class 16 children were assessed by the teacher 1 (with speech development specialization) and the same 16 children plus 1 child additionally were assessed by the teacher 2. The evaluation form was completed electronically on the website <https://cdp.tsu.ru/test/rasskaz/> and used anonymized logins. The electronic version repeated the text form that the teachers had read earlier.

Based on the information received, as well as on the results of seminars and personal meetings, together with teachers, an individual plan of their work in groups for the next 3 weeks was drawn up. It implied the inclusion in the standard work of adapted methods and techniques from Guidelines that are potentially able to have a positive impact on the development of children's narrative competence.

The instruments were selected in such a way that they corresponded to the direction of work in the group (for example, for teachers of a group with an artistic direction, theatrical elements, playing stories were more interesting). A common parameter was teaching children the structure of history and the skills to work with it.

After that, the teachers filled out Form 2 in electronic form, which contains questions about the work planned for creating conditions for the development of children's narrative competence.

A qualitative analysis of the responses according to Form 2 and a quantitative analysis of the results the FANC piloting was carried out.

3. RESULTS

The key content of this research work was the development of the Guidelines for working with the narrative competence of preschoolers, as well as the Brief form for assessing their narrative competence (the FANC). This work and the results are described in sections 2.3.2 and 2.3.3.

This chapter is divided into several sections. In section 3.1 I describe the result of the analysis of the teacher's self-reflection questionnaire about the current practice for the children's language development (Form 1). The results of the primary assessment of children's narrative competence are described in section 3.2. Analysis of Form 2 answers (teacher's self-assessment of the work planned for creating environment for the development of children's narrative competence) is presented in Section 3.3.

3.1 Teachers' self-assessment Form 1 analysis

In total, nine teachers completed questionnaires were received (in electronic form).

Further in the text, the concept of "mnemotable" occurs. A mnemotable is a series of pictures, images, symbols (usually on 1 sheet of paper) that display the development of the plot, the content of the text (for example, fairy tales, poems etc.).

Question 1. How do you currently assess the language development of children? 8 out of 9 teachers use the "CAT" ("KOT" in Russian) for evaluation 2 times a year. The "CAT" is a part of a monitoring system of 5 developmental domains for assessment of individual development of children (according to the Federal State Educational Standard of Preschool Education). The answer of one teacher called "pedagogical observation" as an assessment tool.

Question 2. What forms of work on the language development do you use now? The most common answer was "games" (6 out of 9, including specifying specific types – didactic games, theatrical, story-role-playing, active, folk games), 7 teachers named communication (conversations, speech activity) with children. Also they named such forms as classes (1), educational situation (2), project activity (2), experiment (1).

Question 3. What forms of storytelling skills development are you using now? 8 out of 9 teachers named storytelling with using of pictures (including mnemotables), toys and/or by plot, plan, algorithm. This also includes children producing such stories about themselves. Also among the tools retelling (5), memorizing (for example, poems) (4), as well as playing (1), reading (1), and "in verbal form" (1) were mentioned.

Question 4. What games do you use for children's language development? Finger games and the development of fine motor skills in general (4) were named, as well as "What's in the bag?" (2), description of objects (3), "Finish the sentence" (3), articulation gymnastics (2). Teachers also used a variety of names for other games ("Vice versa", "Talking on the phone",

"Say it differently", "I'll start, and you finish", etc., as well as general characteristics of the games used (story-role-playing games, "for the development of hearing", "word games").

Question 5. What exercises do you use for children's language development? 4 teachers named articulation gymnastics, 3 teachers mentioned exercises for the breath development and finger gymnastics (fine motor skills). Also they called "clean-talkings" (a folk-poetic joke that consists of the deliberate selection of words which are difficult for correct articulation with rapid repetition) (1), didactic games (2), general exercises (2).

Question 6. What visual materials do you use for children's language development? 8 out of 9 teachers named pictures (on various topics) as visual material. Also they mentioned mnemotables (4), other types of images (posters, paintings, sketches, diagrams, illustrations – 3), objects and toys (3) and presentations (1).

Question 7. What digital technologies (video materials, interactive class boards, programs for personal computers) do you use for the children's language development? 5 out of 9 teachers told about the use of video materials (including cartoons, gif-animations). Presentations were named by 4 participants of the study. 3 teachers named the technical equipment used in the work (projector, ICT, interactive class boards), without specifying the demonstrated material.

Question 8. What props (incentive materials) do you use in the work for children's language development? Pictures and cards (subject, plot) were the most common example of the props used – they were named by 7 out of 9 teachers. Didactic games were named by 3 teachers, 2 more teachers called "visual material" and "demonstration material" without clarification. The use of real objects was noted by 2 teachers.

Question 9. What aspects of children's language development do you have difficulties assessing? The majority of teachers did not note any difficulties in the assessment (6 out of 9). "The sound culture of speech", "the general psychophysiological development of the child" and the criteria for distinguishing "high, medium and low levels of language development" mentioned respectively by 3 different teachers once.

Question 10. Which of the practices you use for the children's language development do you consider effective? Joint (including project) activities are called an effective practice by 3 teachers, mnemotables - by 2 teachers, as well as articulation gymnastics. Also teachers called stories (1), the use of real objects (1), game libraries (1), excursions (1), finger gymnastics (1), "magnetic fantasy" (magnetic board with subject and plot pictures - 1), didactic games (1) and theatricalization (1). 2 teachers noted that an integrated approach is important when working with language development.

Question 11. Which of the applied practices is it desirable to change/modify? The majority of teachers did not mention the need to improve or change any of the practices used (6

out of 9). 1 teacher wrote about the improvement of mnemotables, 1 – “digital technologies” (without clarification), 1 teacher wrote “More often to compare objects with each other together with the child”. One answer consisted of the word “many”.

Question 12. What techniques/methods/tools for the children's language development would you like to introduce into your work? ICT was most common answer (5 out of 9), “Bloom’s cubes” were called 1 time, as well as training in cooperation, mind maps and excursions in the external environment (city, cultural places).

Most teachers use the same tool for the children’s language development assessment and the majority did not have difficulties in this assessment. Visual materials and games were the most popular forms of work on the language development. 8 out of 9 teachers mentioned that they use digital technologies for the children's language development and 5 out of 9 teachers said that they would like to use it more. For this research it was indicative that the majority of teachers use in their work some methods of developing narrative competence.

3.2 The results of the primary assessment of children's narrative competence

For pilot study of the FANC the primary assessment of children's narrative competence was carried out by teachers in April, 2022. In total, 200 children were assessed in 7 classes by 8 preschool teachers. One class out of seven was a speech therapy class for children with language impairments.

The received data was uploaded to .xlsx format. The data obtained required preliminary cleaning due to the peculiarities of the site where the form was filled out. In some cases, copies of records relating to the same object made at different times were automatically created during the upload. There were 332 records overall, while there were only 222 unique records. Duplicate rows with records were deleted, as well as 3 rows with “0” in every column (their origin is unclear and may be of a technical issues) and 3 rows with “0” in more than 7 columns (overall, there were 1.35% of outliers – 3 children assessments that were excluded from the analysis).

After these procedures, the number of remaining entries was 216 each presenting a preschool teacher’s responses to the FANC for each child. There were 183 children in 6 typical classes (102 girls and 81 boys): 2 “middle” classes (aged 4-5 years), 2 “senior” classes (aged 5-6 years) and 2 “pre-school” groups (ages 6-7 years). In speech therapy class 16 children were assessed by the teacher 1 (with speech development specialization) and the same 16 children plus 1 child additionally were assessed by the teacher 2.

The data was then converted to .csv format for processing in JASP program software (ver. 0.16.0.0 for Windows x86).

Data from typical groups was used for further analysis. Data analysis for two speech therapy groups is presented in the end of the section.

Exploratory Factor Analysis (EFA) was used to identify clusters of variables and to make conclusions about the structure and validity of the questionnaire (the FANC).

The results of Bartlett's test of sphericity indicated that the correlation matrix was not random, $\chi^2(66) = 2590.75$, $p < .001$, and the KMO statistic was .96, well above the minimum standard for conducting factor analysis. Therefore, it was determined that the correlation matrix was appropriate for factor analysis. Parallel analysis and scree all suggested that only 1 factor should be retained. Factor Loadings are presented in the Table 1.

Table 1. Factor Loadings for Exploratory Factor Analysis

	Factor 1 Uniqueness	
Question 5	0.91	0.17
Question 1	0.91	0.17
Question 9	0.90	0.19
Question 11	0.89	0.20
Question 6	0.89	0.21
Question 3	0.88	0.22
Question 4	0.88	0.23
Question 7	0.87	0.24
Question 2	0.85	0.28
Question 10	0.82	0.32
Question 8	0.78	0.38
Question 12	0.76	0.43

Note. Applied rotation method is promax.

Single test reliability was conducted also. Average Inter-Item Correlations (AIIC) and Cronbach's α indexes were used to explore internal consistency, results are presented in the Table 2. Considering the values above .20 as acceptable for the AIIC and values above .7 as acceptable for Cronbach's α .

Table 2. Reliability Statistics for the FANC

Estimate	Cronbach's α	Average interitem correlation
Point estimate	0.97	0.74
95% CI lower bound	0.97	0.68
95% CI upper bound	0.98	0.79

Given all these results, the one-factor solution was accepted. The hypothesis is accepted that all questions in the FANC are related to the measurement of narrative competence.

A correlation check between the questions was also carried out. The data in answers on questions is ordinal so the non-parametric alternatives to Pearson's correlation coefficient should be used. The alternatives are Spearman's (rho) or Kendall's (tau) correlation coefficients and Spearman's rho is usually used for ordinal scale data. The sizes of correlations with significance level are given in Table 3 (p. 49).

Table 3. Spearman's correlation for the FANC questions

Variable	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10	Question 11	Question 12
1. Question 1	Spearman's rho	—										
	p-value	—										
2. Question 2	Spearman's rho	0.88 ***	—									
	p-value	< .001	—									
3. Question 3	Spearman's rho	0.82 ***	0.81 ***	—								
	p-value	< .001	< .001	—								
4. Question 4	Spearman's rho	0.76 ***	0.72 ***	0.82 ***	—							
	p-value	< .001	< .001	< .001	—							
5. Question 5	Spearman's rho	0.81 ***	0.75 ***	0.83 ***	0.85 ***	—						
	p-value	< .001	< .001	< .001	< .001	—						
6. Question 6	Spearman's rho	0.80 ***	0.72 ***	0.75 ***	0.75 ***	0.80 ***	—					
	p-value	< .001	< .001	< .001	< .001	< .001	—					
7. Question 7	Spearman's rho	0.74 ***	0.66 ***	0.72 ***	0.75 ***	0.78 ***	0.83 ***	—				
	p-value	< .001	< .001	< .001	< .001	< .001	< .001	—				
8. Question 8	Spearman's rho	0.73 ***	0.63 ***	0.67 ***	0.69 ***	0.75 ***	0.78 ***	0.77 ***	—			
	p-value	< .001	< .001	< .001	< .001	< .001	< .001	< .001	—			
9. Question 9	Spearman's rho	0.79 ***	0.69 ***	0.72 ***	0.74 ***	0.77 ***	0.75 ***	0.74 ***	0.76 ***	—		
	p-value	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	—		
10. Question 10	Spearman's rho	0.73 ***	0.64 ***	0.70 ***	0.74 ***	0.73 ***	0.71 ***	0.71 ***	0.73 ***	0.86 ***	—	
	p-value	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	—	
11. Question 11	Spearman's rho	0.84 ***	0.78 ***	0.76 ***	0.70 ***	0.77 ***	0.77 ***	0.72 ***	0.79 ***	0.81 ***	0.77 ***	—
	p-value	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	—
12. Question 12	Spearman's rho	0.62 ***	0.57 ***	0.68 ***	0.62 ***	0.64 ***	0.61 ***	0.66 ***	0.70 ***	0.65 ***	0.64 ***	0.64 ***
	p-value	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001

* p < .05, ** p < .01, *** p < .001

All the data show a strong correlation and factor loading. This may indicate both the operational nature of the applied evaluation scale (the FANC), and the strong multicollinearity of the data, which may arise, for example, due to sampling, restricted range of the answers, etc. (discussed in more detail in Chapter 4). So far, we accept the hypothesis that questions measure parameters similar to each other (different aspects of narrative competence).

Further analysis is carried out using the data in the “Overall score” column, which shows the sum of the points received for all 12 questions for each child.

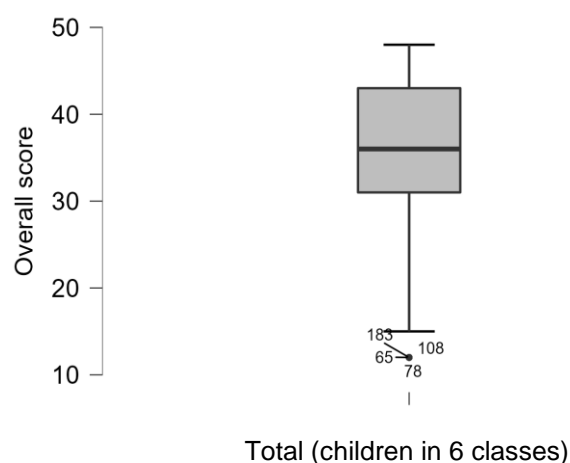
Of all the cases, the teachers chose option 0 (“I find it difficult to answer”) only 4 times (out of 2196).

The results of the descriptive analysis for typical classes’ overall scores are presented below in Table 4 and Figure 1.

Table 4. Descriptive Statistics for the overall score

	Overall score
Valid	183
Missing	0
Median	36.00
Mean	36.05
Std. Deviation	8.12
MAD	5.00
Skewness	-0.55
Std. Error of Skewness	0.18
Kurtosis	0.28
Std. Error of Kurtosis	0.36
Shapiro-Wilk	0.95
P-value of Shapiro-Wilk	< .001
Minimum	12.00
Maximum	48.00

Figure 1. Boxplot for the overall score



The data are marginally negatively skewed and leptokurtic, but the p-value of Shapiro-Wilk test is significant. This may be due to sampling, restricted range of the answers, etc. (it is discussed in more details in Chapter 4).

The subject of our interest is also a comparison of the assessment of the narrative competence of children in three age groups (middle, senior and pre-school).

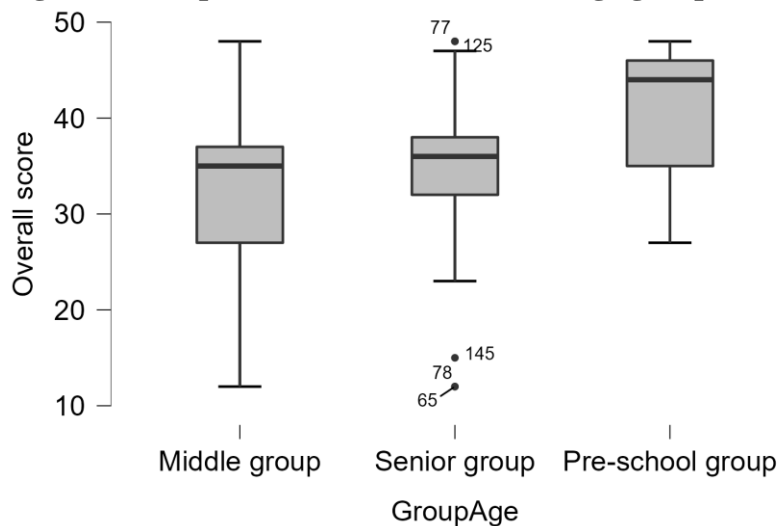
The results of the descriptive analysis are presented below in Table 5 and Figure 2.

Table 5. Descriptive Statistics for overall score of the age groups

	Overall score		
	Middle group	Senior group	Pre-school group

Table 5. Descriptive Statistics for overall score of the age groups

	Overall score		
	Middle group	Senior group	Pre-school group
Valid	63	67	53
Missing	0	0	0
Median	35.00	36.00	44.00
Mean	33.75	34.42	40.85
Skewness	-0.11	-1.01	-0.51
Std. Error of Skewness	0.30	0.29	0.33
Kurtosis	-0.09	1.48	-1.14
Std. Error of Kurtosis	0.59	0.58	0.64
Shapiro-Wilk	0.94	0.91	0.88
P-value of Shapiro-Wilk	6.75e-3	< .001	< .001

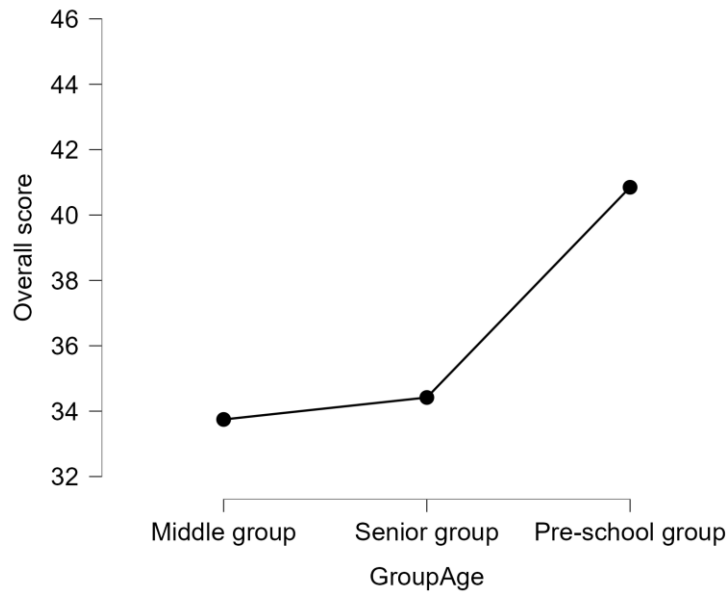
Figure 2. Box-plot for overall score of the age groups

ANOVA was used to compare these three groups. The dependent variable was not normally distributed and only shows linearity in the middle of the Q-Q plot, although the assumptions of homogeneity of variance was not violated (Levene's test ($F(2, 180) = 1.55$, $p < .22$)).

Considering this and the fact that the dependent variable is based on summation of ordinal data the use of a non-parametric alternative for ANOVA was selected.

Three age groups significantly differed in narrative competence $H(2) = 22.55$, $p < .001$ (Kruskal-Wallis Test). Descriptive plot is presented below in Figure 3.

Figure 3. Descriptive plot for age groups differences



Post hoc comparisons showed that pre-school group ($N = 53$, $M = 40.85$, $SD = 6.29$) significantly differs from middle ($N = 63$, $M = 33.75$, $SD = 8.54$) and senior ($N = 67$, $M = 34.42$, $SD = 7.49$) groups ($p < .001$, using Bonferroni correction). There were no significant differences between middle and senior groups ($p = .58$). Results of Dunn's Post Hoc Comparisons are presented in Table 6.

Table 6. Dunn's Post Hoc Comparisons for age groups

Comparison	z	W _i	W _j	p	p _{bonf}	p _{holm}
Middle group – Senior group	-0.86	76.24	84.23	0.19	0.58	0.19
Middle group – Pre-school group	-4.50	76.24	120.56	< .001 ***	< .001 ***	< .001 ***
Senior group – Pre-school group	-3.74	84.23	120.56	< .001 ***	< .001 ***	< .001 ***

*** $p < .001$

According to the results of the analysis, the older by age preschool group had predictably higher scores on narrative competence than the middle and senior, which did not significantly differ from each other.

The next step was to analyze the differences between classes within age groups.

The middle group consists of the class №4 ($N = 34$, $M = 36.29$, $SD = 8.72$) and the class №6 ($N = 29$, $M = 30.76$, $SD = 7.40$). Data for both classes is not normally distributed (the p-value of Shapiro-Wilk test was .02), therefore the Mann-Whitney U test as the equivalent non-parametric independent test was used. Levene's test shows that $F(1) = .26$, $p = .61$ and there is no difference in the variance, therefore, the assumption of homogeneity of variance is not violated. A Mann-Whitney test showed that class №4 had narrative competence score higher

(Mdn = 36) compared to class №6 (Mdn = 31), $U = 675.00$, $p = .01$ with $rB = .37$ (medium effect size).

The senior group consists of the class №3 ($N = 34$, $M = 32.50$, $SD = 8.78$) and the class №5 ($N = 33$, $M = 36.39$, $SD = 5.31$). The p-value of Shapiro-Wilk test for class №5 data was $< .001$ and Levene's test showed that the homogeneity of variance is significant ($F(1) = 13.01$, $p = < .001$). A Mann-Whitney test was used. Class №3 had narrative competence score lower (Mdn = 35) compared to class №5 (Mdn = 37), $U = 386.50$, $p = .03$ with $rB = -.31$ (medium effect size).

The pre-school group consists of the class №1 ($N = 29$, $M = 44.90$, $SD = 3.31$) and the class №2 ($N = 24$, $M = 35.96$, $SD = 5.52$). Data for both classes is not normally distributed (the p-value of Shapiro-Wilk test was $< .001$ and $.01$ respectively) and Levene's test showed that the homogeneity of variance is significant ($F(1) = 4.57$, $p = .04$). A Mann-Whitney test was used. Class №1 had narrative competence score higher (Mdn = 46) compared to class №2 (Mdn = 34.5), $U = 634.00$, $p = < .001$ with $rB = .82$ (large effect size).

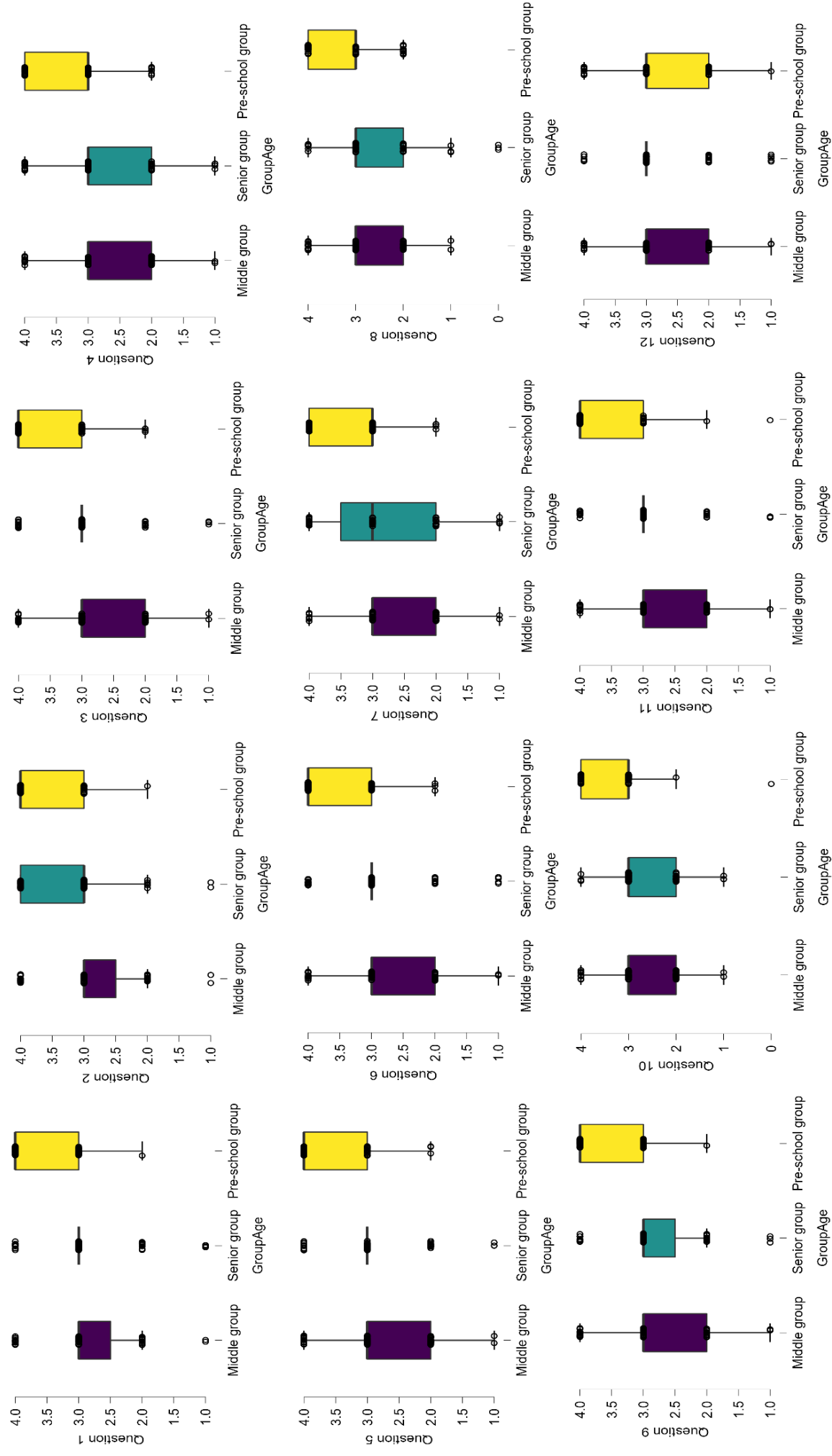
Analysis of differences between classes showed that classes differed from each other with medium or large effect size in all three age groups.

The next task was to evaluate the distribution of the scores for each of the questions separately in older and middle groups.

Descriptive analysis for each question separately is presented in Figure 4 (p. 53). It shows that almost for every question pre-school group scored higher than middle and senior ones (10 out of 12 questions) and, in general, it shows patterns that can be explained by age differences.

The distribution in question 12 ("Independence") is different, demonstrating a similar distribution in the middle and preschool groups. It is discussed in more detail in the Section 4.2.

Figure 4. Descriptive analysis for 12 questions (separately) by age

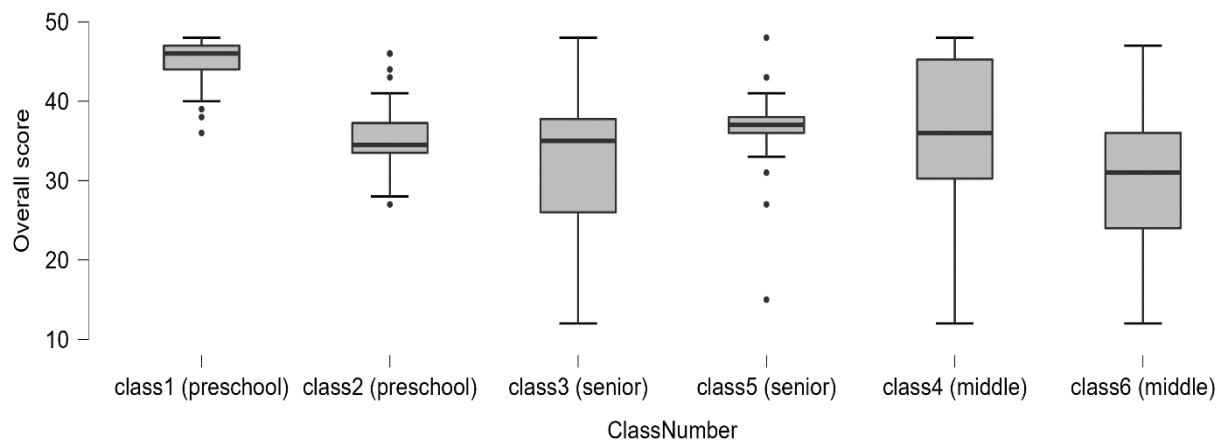


The evaluation of the assessment of narrative competence in classes was assessed. Descriptive analysis is presented below in Table 7 and boxplots are presented in Figure 5.

Table 7. Descriptive Statistics for the scores by class

	Overall score					
	class1 (preschool)	class2 (preschool)	class3 (senior)	class5 (senior)	class4 (middle)	class6 (middle)
Valid	29	24	34	33	34	29
Missing	0	0	0	0	0	0
Mean	44.90	35.96	32.50	36.39	36.29	30.76
Std. Deviation	3.31	5.52	8.78	5.31	8.72	7.40
Skewness	-1.32	0.66	-0.45	-1.89	-0.35	-0.20
Std. Error of Skewness	0.43	0.47	0.40	0.41	0.40	0.43
Kurtosis	0.86	-0.37	0.08	8.10	0.13	0.12
Std. Error of Kurtosis	0.85	0.92	0.79	0.80	0.79	0.85
Shapiro-Wilk	0.82	0.89	0.95	0.81	0.92	0.91
P-value of Shapiro-Wilk	< .001	0.01	0.17	< .001	0.02	0.02
Minimum	36.00	27.00	12.00	15.00	12.00	12.00
Maximum	48.00	46.00	48.00	48.00	48.00	47.00

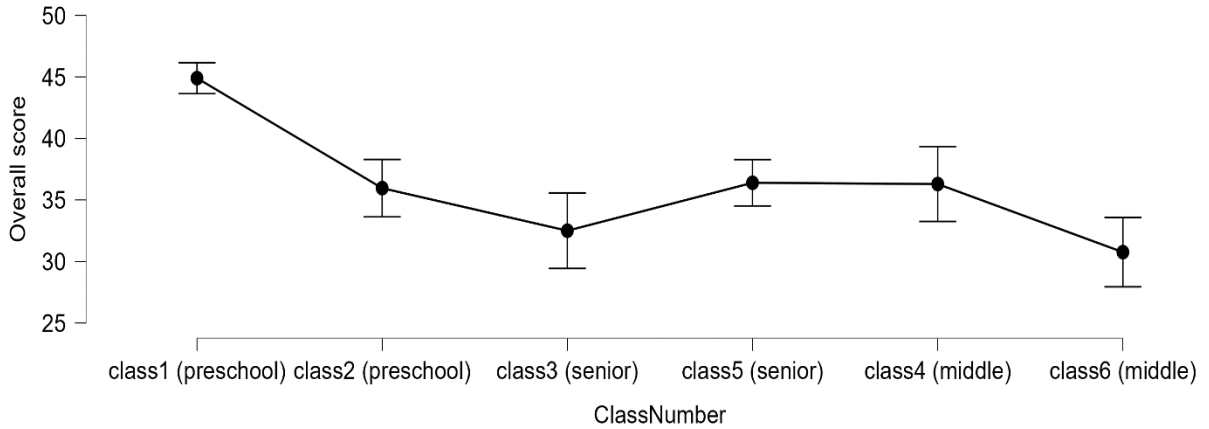
Figure 5. Boxplot for the scores by class



To analyze the differences between classes, it was supposed to use ANOVA. But the dependent variable was not normally distributed. Also the data had not met the assumptions of homogeneity of variance as seen by the significant Levene's test ($F(5, 177) = 7.644, p < .001$). Considering this and the fact that the dependent variable is based on summation of ordinal data the use of a non-parametric alternative for ANOVA was selected.

Groups significantly differed in overall narrative competence $H(5) = 57.22, p < .001$ (Kruskal-Wallis Test). Descriptive plot is presented in Figure 6 (p. 55).

Figure 6. Descriptive plot for the scores by class.



Post hoc comparisons showed that class1 significantly differs from classes 2-6 ($p < .01$, using Bonferroni correction) and class5 is significantly differs from class6 ($p = .02$, using Bonferroni correction). Possible explanations for this are discussed in the Section 4.2. Overall results of Dunn's Post Hoc Comparisons are presented in Table 8.

Table 8. Dunn's Post Hoc Comparisons for classes 1-6

Comparison	Z	W_i	W_j	p	p_{bonf}	p_{holm}
class1 (preschool) – class2 (preschool)	4.88	152.79	81.60	< .001 ***	< .001 ***	< .001 ***
class1 (preschool) – class3 (senior)	6.11	152.79	71.28	< .001 ***	< .001 ***	< .001 ***
class1 (preschool) – class5 (senior)	4.11	152.79	97.58	< .001 ***	< .001 ***	< .001 ***
class1 (preschool) – class4 (middle)	4.55	152.79	92.10	< .001 ***	< .001 ***	< .001 ***
class1 (preschool) – class6 (middle)	6.86	152.79	57.64	< .001 ***	< .001 ***	< .001 ***
class2 (preschool) – class3 (senior)	0.73	81.60	71.28	0.23	1.00	0.68
class2 (preschool) – class5 (senior)	-1.13	81.60	97.58	0.13	1.00	0.65
class2 (preschool) – class4 (middle)	-0.75	81.60	92.10	0.23	1.00	0.68
class2 (preschool) – class6 (middle)	1.64	81.60	57.64	0.05	0.75	0.35
class3 (senior) – class5 (senior)	-2.04	71.28	97.58	0.02 *	0.31	0.17
class3 (senior) – class4 (middle)	-1.63	71.28	92.10	0.05	0.78	0.35
class3 (senior) – class6 (middle)	1.02	71.28	57.64	0.15	1.00	0.65
class5 (senior) – class4 (middle)	0.42	97.58	92.10	0.34	1.00	0.68
class5 (senior) – class6 (middle)	2.97	97.58	57.64	1.49e-3 **	0.02 *	0.01 *
class4 (middle) – class6 (middle)	2.58	92.10	57.64	4.92e-3 **	0.07	0.04 *

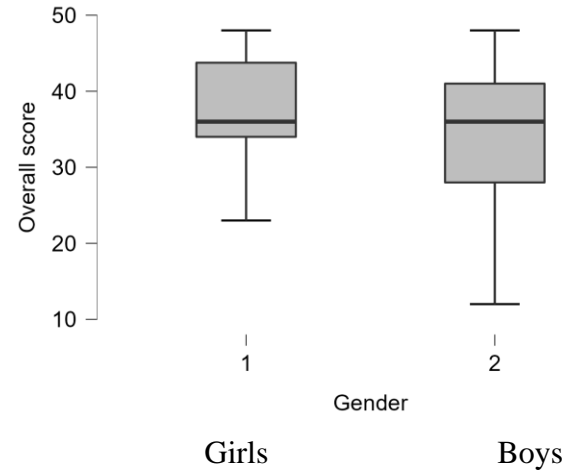
* $p < .05$, ** $p < .01$, *** $p < .001$

The analysis of gender differences in narrative competence was also conducted. The results of the descriptive analysis are presented below in Table 9 and Figure 7.

Table 9. Descriptive statistics for gender differences

	Overall score	
	1	2
Valid	102	81
Missing	0	0
Median	36.00	36.00
Mean	37.25	34.54
Std. Deviation	6.92	9.25
MAD	5.00	7.00
Skewness	-0.17	-0.54
Std. Error of Skewness	0.24	0.27
Kurtosis	-0.62	0.02
Std. Error of Kurtosis	0.47	0.53
Shapiro-Wilk	0.95	0.94
P-value of Shapiro-Wilk	< .001	< .001
Minimum	23.00	12.00
Maximum	48.00	48.00

Figure 7. Boxplot for gender differences



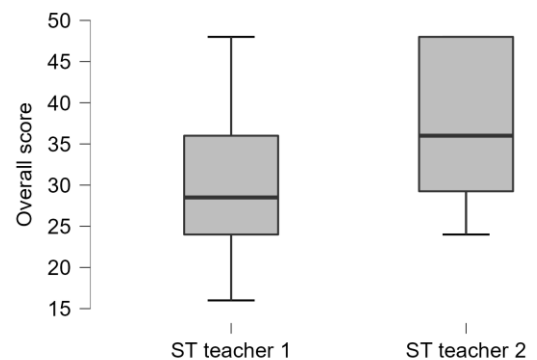
As the p-value of Shapiro-Wilk test was significant ($p < 0.01$ for both groups), so a Mann-Whitney test was used. It showed no significant difference in group medians (with equal $Mdn = 36$), $U = 4785.00$, $p = .07$ with $r_B = .16$. These results are discussed in the Section 4.2.

Data on speech therapy class were analyzed separately. The results of the descriptive analysis for assessment made by two teachers are presented below in Table 10 and Figure 8. The comparison was made only for 16 children, whose assessment was made by both teachers. 1 child, who was additionally evaluated by teacher 2, was not included in the analysis.

Table 10. Descriptive statistics for the speech therapy group (teachers 1 and 2)

	Overall score	
	ST teacher 1	ST teacher 2
Valid	16	16
Missing	0	0
Median	28.50	36.00
Mean	31.13	37.25
Std. Deviation	9.75	9.80
MAD	4.50	12.00
Minimum	16.00	24.00
Maximum	48.00	48.00

Figure 8. Boxplot for the speech therapy group (teachers 1 and 2)



For Shapiro-Wilk $p = .69$ suggesting that the pairwise differences are normally distributed. Paired sample t-test showed that the difference in teacher's assessment is significant

($t(15) = -2.53$, $p = .02$). Cohen's $d = -.63$ suggests that this is a large effect. This difference may be due to the specifics in the work of each of the two teachers. It is discussed in the Section 4.2.

There was no significant difference in group medians for overall scores of typical classes ($Mdn = 36$) and speech therapy class, assessed by the teacher 2 ($Mdn = 36$), Mann-Whitney test showed $U = 1320.00$, $p = .30$ with $r_B = -.15$. Teacher 2 has a more general specialization in work with children (mathematics, art etc.) without the specific speech development work, unlike teacher 2. Therefore, the comparison of typical groups was made with the assessment of the speech therapy group by teacher 2. Also, in this analysis, it is necessary to take into account the difference in the sample ($N = 183$ for typical classes overall, $N = 17$ for speech therapy class). The results are discussed in more detail in the section 4.2.

3.3 Teachers' self-assessment Form 2 analysis

In total, five preschool teachers completed questionnaires were received (in electronic form).

Question 1. Describe the situation (cases) in the group that require solutions. Three teachers mentioned incoherence and confusion in children's stories. One noted that children need teacher's help (e.g. leading questions) and that there are filler words in child's speech. One teacher noted difficulties with sentences (Russian is not a native language for this child). Another answer pointed to the child's use of "the phrases from TV".

Question 2. Formulate possible reasons for situations that require solutions. Two teachers named problems with language development and with comprehension as possible reasons. Also inattention (1) and problems with thoughts articulation were mentioned. One teacher mentioned lack of proper level of attention and communication from parents to the child. In one case, the difficulties were explained by the fact that Russian is not the native language of the child, and the family speaks their native language at home.

Question 3. What you have already done to solve these situations? Three teachers named individual work, two of them noted choosing easier texts. One teacher listed leading questions. Theatrical activity and related games, memorization of poems, and speech development games were listed once. Mnemotables were named twice.

Question 4. What new methodological/pedagogical techniques do you plan to implement? Two teachers choose macrostructure learning (main structural elements and their symbols, similar to "Tales Toolkit" program). One teacher chooses change plots and to add to stories new characters "that are interesting to children nowadays" to increase child's interest. Bloom's cube, ICT and home assignments for teamwork with parents were mentioned once.

Question 5. Describe the plan for the implementation of new techniques (times a week, duration of activity, etc.). One teacher planned a speech development activity once a week and

theatrical activity once a week. Other teacher chose a speech development activity and artistic activity once a week for 30 minutes. The third teacher planed two activities a week (one to study new material and one for revision). The fourth teacher chose 10-minutes classes twice a week. The program of the fifth teacher became the most intense: daily classes of 20 minutes.

Question 6. How do these techniques differ from those that you used previously? Two teachers mentioned using symbols of structural elements of the story instead of illustrations. Using of modern characters interesting for children, using ICT and “more systematic” were mentioned once.

Question 7. What other aspects of children's development require attention in the context of the narrative competence development? Three teachers named “communication with parents”, including revising the material at home with parents. Also “natural environment”, “pictures and toys”, “sounds pronunciation” were mentioned without additional information.

The answers to the questions of the self-assessment form showed, in general, the lack of consistency and consensus among teachers on these points. Among other things, attention is drawn to incoherence in children's stories, to the macrostructure of the story, as well as to the role of parents. These issues are discussed in more detail in the Section 4.3.

4. DISCUSSION AND CONCLUSIONS

Early childhood is a critical period of development in a person's life, since it plays an important role in further development and well-being, and there are developmental changes that can have profound and lasting effects. Language development plays a special role here as it is a fundamental life skill, a cornerstone of cognitive and socio-emotional development. Early language skills are combined into higher-order verbal and mental functioning and therefore have prognostic significance for the development of speech, reading, academic achievements. Language skill is a highly conserved and robust individual-differences characteristic. Considering lagging language skills as a risk factor for child development, it is suggested that this issue should be addressed early in life, including preschool education. The consequences of language development disorders can have a negative effect on later life. They can cause difficulties with learning, in mastering the skills necessary for successful communication with peers and literacy, problems with establishing social contacts.

Storytelling and narrative interventions showed positive results on the language development of children. Storytelling and narrative competence development seems to be a promising direction in the preschool development of children. Given the key importance of language development at an early age, working with the narrative competence of children in preschool educational organizations can be one of the methods of such development, and its specificity allows you to include narrative elements in everyday work with children.

Thus, the development of narrative competence in preschool children seems to be an effective way to develop language skills as one of the most important components of overall development. The research data indicate the key role of the storytelling method in the development of narrative competence. At the same time, storytelling and programs using it are recommended for use in preschool institutions. The multi-tier system of supports (MTSS) which seeks to differentiate levels of instructional support provided to students based on their demonstrated needs.

The task of the research work was to review and analyze literature to develop evidence-based guidelines for narrative competence development in preschool and to design and to pilot a brief narrative competence assessment form for preschool teachers.

The main aims were:

1. To analyze literature and evidence-based practice aimed for narrative competence development for preschoolers;
2. Based on the analysis:
 - to develop guidelines aimed at the development of children's narrative competence for preschool teachers in their daily work;

- to develop a brief form for assessing children's narrative competence for preschool teachers (the FANC) and to pilot it.

This chapter provides a discussion of the obtained results.

Section 4.1 discusses the design and pilot approbation of the recommendations for the children's narrative competence development. Section 4.2 is dedicated to the design and pilot approbation of the FANC. Section 4.3 presents teacher's self-assessment of the current and planned practices and techniques for the narrative competence development. Sections 4.4 and 4.5 describe the strengths, the limitations of the current study and present future research perspective.

4.1 Designing of the Guidelines for the children's narrative competence development

The task of the research and methodological work was to develop, based on the analysis of evidence-based literature, guidelines that will help to create conditions for the children's narrative competence development for use by teachers and other specialists of preschool education in their daily work.

Literature analysis was conducted on one hundred and twenty-five articles, including storytelling/narrative interventions with significant effectiveness and/or methods for assessing (measuring) children's narrative competence, as well as systematic literature reviews and meta-analyses. Fifty-six articles covering studies from 2002 to 2022 were selected for further work, including those where children with language impairments were considered.

Based on the analysis of the literature by generalization and counting, 10 main thematic items were identified, the consideration and use of which in the work can have a positive impact on the development of narrative competence. This includes both methodological provisions and specific techniques and techniques, as well as algorithms of work.

Item 1. Teaching the macrostructure of the story. Purposeful learning to work with the structure of the story is used in many narrative programs. Sometimes it is precisely macrostructure training that is the main content of the entire narrative intervention. The difficulty here was to identify the main elements characteristic of the macrostructure, since different researchers offer different structural elements and characteristics. So, the number of structural elements can be from 3 to 11 in the analyzed articles. By counting and comparing, it was determined that the most common elements (under different names) are place (setting), hero (character), problem, solution, completion (consequences). Also, the macrostructure of the story is characterized by Coherence (what makes the text semantically significant – in a sequential text, ideas are logically and consistently linked to obtain a final meaning. Chapter 2.3.2 also provides possible examples of working with the macrostructure of the story in the classroom. When the structure and logic of the story is organized (macrostructure), it is recommended to

proceed to microstructure – the actual language used in storytelling. Interestingly, the focus on macrostructure also leads to the development of individual elements of the microstructure of the story

Item 2. Teaching the microstructure of the story. The importance of the gradually introducing of new grammar, new words, conjunctions is noted here, as well as the special role of words forming a sequence in time (e.g. "before", "after", "then", "when", etc.) and forming causal relationships ("therefore", "to", "because", etc.).

Item 3 describes the importance and diversity of “Visual materials”. Photographs, books, illustrations, pictures, drawings, flashcards, pictograms, images, symbols and other visual materials can be used both in teaching storytelling and retelling, and as hints on the content or the structure of the story. Examples and possible forms of working with them are given.

Item 4 reveals the formats and meaning of “Using the props”.

Item 5. Digital technologies can offer a positive environment for children's development and education

Item 6. Play activities. Studies show that the integration of storytelling and play activity (role-playing games, the use of toys, gestures and movements related to the story) increases children's language results. Possible formats of work are also noted (for example, children's theater), as well as the importance of such activities for consolidating the studied material about the macrostructure of the narrative.

Item 7. Equal opportunities – different formats. This item is devoted to the importance of the participation of each child in the work, as well as the description of possible formats of work on the development of narrative competence in large groups. This is especially important, given that the Guidelines are designed for use in real kindergarten groups, where the number of children may be more than 30, and individual work is not always possible.

Item 8. Storytelling, retelling and personal stories reveals the difference between these narrative formats. There is also a theory and research data that support consistent narrative learning from retelling through personal stories to telling fictional stories (from a simpler to a more complex narrative for a child). A possible algorithm of operation is also given.

Item 9 “Feedback and prompts” provides information about their possible use by the teacher in everyday work and in the development of narrative competence in particular.

Item 10 lists Ten principles of narrative intervention that can be taken into account by educators in the work on the development of narrative competence

In general, it seems that the use of these Guidelines, based on an extensive theoretical and practical basis, is possible as a Tier 1 element, since they represent the most general forms of

work suitable for large groups, as well as for children with different levels of language development.

The Guidelines were presented to teachers at seminars held in April 2022, and also sent to them and the kindergarten management in electronic form. Discussion of the format of possible use of Guidelines was conducted online with teachers.

During meetings and seminars, teachers expressed their opinions and gave feedback on the Guidelines for the development of narrative competence.

They noted that the strength of the Guidelines is the structuring of information and the sequence of work on the development of narrative competence. Thus, teachers noted that they already use some individual elements for language development and narrative development, for example, familiarity with the sequence of a story based on mnemonic tables, the use of individual symbols (cards) to indicate some structural elements of the story, the use of props when telling a story, choral storytelling. However, all this has a fragmented character, there is no single system that would combine these elements. Teachers rated as “useful” and “effective” a consistent learning format from macrostructure to microstructure, as well as from retelling through personal stories to producing children’s own stories.

It is noted that there are specific and accessible algorithms of work, examples and illustrative material that can be adapted and used in the current conditions. Positive opinions were expressed about the possibility of harmoniously fitting the proposed Guidelines into everyday work, as well as general accessibility and feasibility in real kindergarten conditions.

It was also noted that the proposed set of recommendations significantly expands the set of techniques and techniques that can be used when working in the classroom. At the same time, the techniques already used receive theoretical justification and expanded functionality.

4.2 Designing and piloting of the brief form for assessing children's narrative competence for preschool teachers (FANC)

The work on the development of narrative competence involves teaching the child new knowledge and their consolidation. Planning such work becomes more transparent and effective if there is an understanding of the current level of narrative competence, as well as subsequent progress. Various methods and approaches are used in the scientific literature to measure the narrative competence of preschoolers. Unfortunately, they are usually intended for use by specialists, researchers, scientific groups or organizations due to their complexity (number of parameters, time to study methods, complexity of data collection and analysis, time, effort, human and material resources, etc., e.g. in Crawshaw et al. (2020); Favot et al. (2021); Glisson et al. (2019); Ketelaars et al. (2016); Melzi et al. (2013); Peña et al. (2006); Petersen & Spencer (2012); Pinto, Tarchi, & Gamannossi (2018); Safwat et al. (2013); Zanchi & Zampini (2020).The

use of such methods by teachers or speech therapists with the total load in the “field” conditions of a real preschool educational institution has a number of limitations.

Therefore, as part of the Tier 1 development, one of the research objectives was to develop a short questionnaire for educators and other interested preschool education specialists based on the analysis of the available scientifically-based and proven methods for assessing the narrative competence of preschool children. This tool is intended not as a diagnostic tool, but as an auxiliary tool for the teacher for a general understanding of the narrative competence of each child in the classroom for planning and adjusting further work. So the emphasis was placed on its brevity, the format familiar to teachers (therefore, its form resembles familiar to teachers “the CAT” questionnaire), as well as the relative ease in processing and analyzing the results obtained.

However, the starting point for developing the FANC was its evidence-based nature. That is why an analysis of the thematic literature was carried out and, by comparison and counting, common, most common and important parameters were identified. It seems that on their basis it is possible to get an idea of the level of the child's narrative competence.

During my work, I encountered not only the variety and complexity of techniques, but also different conceptual apparatus, when similar structural elements of the narrative or the parameters of narrative competence were called differently.

The theoretical basis of the questionnaire is presented in Section 2.3.3, the questionnaire itself is in the Appendix 1. All the questions by blocks are listed below in text format. A 4-point Likert-type assessment scale (similar to four-point Likert item) is proposed (according to the degree of agreement with the statement, where 1 – disagree, 2 – rather disagree, 3 – rather I agree, 4 – I agree, 0 – I find it difficult to answer/cannot evaluate).

Form of assessment of narrative competence of preschool children (the FANC)

Macrostructure (narrative structure and coherence)

a. Narrative structure (presence of key elements in the story/retelling: place (setting), hero (character), problem, solution, completion (consequences))

1. The place and/or circumstances in which the action takes place are indicated in the story/retelling

2. In the story / retelling, the main character (hero) / characters are clearly defined

3. The story/retelling identifies a problematic situation (question, event, incentive) that requires a solution

4. The story /retelling traces the hero's solution to a problematic situation independently or with external help (it may contain planning, the action itself, attempts, a new plan, etc. elements)

5. The story / retelling has a logical conclusion (it may contain the outcome of solving the problem, the consequences of the decision, the evaluation of the result by the hero or other characters, the child's reflections on the situation as a whole)

b. Coherence (how consistent and logical is the story/retelling)

6. The events in the story /retelling occur sequentially in time

7. The logic of the narrative, cause-and-effect relationships between events, actions are not violated

Microstructure (the language used in the narrative)

a. Productivity

8. The volume of the story /retelling is adequate to the task, the narration is not perceived as too short, insufficient

b. Complexity and integrity (the variety of language used to create a coherent story)

9. The story/retelling uses a variety of words of independent parts of speech, etc. (verbs, adjectives, nouns)

10. In the story /retelling, various words of service parts of speech are used (subordinate conjunctions: temporary, target, conditional, comparative, causal, etc.) to create a complete story

Emotional Vocabulary

11. The story/retelling uses words that reflect the emotions and feelings of the hero / heroes at any stage of the narrative, and / or the emotional attitude of the child

Independence

12. The story/ retelling was independent, the child did not need visual and verbal prompts (or referring to the prompts corresponds to the current task)

As was mentioned previously, for pilot approbation of the FANC the primary assessment of children's narrative competence was carried out by teachers in April, 2022. In total, 200 children were assessed in 7 classes by 8 preschool teachers, 183 of them were in 6 typical classes (102 girls and 81 boys): 2 “middle” classes (aged 4-5 years), 2 “senior” classes (aged 5-6 years) and 2 “pre-school” groups (ages 6-7 years). In speech therapy class 16 children were assessed by the teacher 1 (with speech development specialization) and the same 16 children plus 1 child additionally were assessed by the teacher 2.

The first part of the analysis was an assessment of the reliability of the FANC, so that on the basis of further analysis it was possible to draw some conclusions. Exploratory factor analysis was used to identify clusters of variables, the structure and validity of the FANC. The results of Bartlett's test of sphericity ($\chi^2(66) = 2590.75, p < .001$), and the KMO statistic (.96) well above the minimum standard allowed to determine that the correlation matrix was appropriate for EFA.

Parallel analysis and scree all suggested that only 1 factor should be retained; factor loadings ranged from .76 to .91. Given all these results, the one-factor solution was accepted.

The overall test reliability was high (Cronbach's $\alpha = 0.97$). 95% confidence intervals (.97 for lower bound and .98 for upper bound) supported the significance of the findings. Average interitem correlation (AIIC) was .74. Considering that the values above .20 as acceptable for the AIIC and values above .7 as acceptable for Cronbach's α , it is suggested that the FANC is reliable tool to measure children's overall narrative competence.

However, checking the correlation between the questions demonstrated high Spearman's rho p-value (ranged from .57 to .88 with all the $p < .001$). Considering that all the data show a strong correlation and factor loading, this may indicate both the operational nature of the FANC, and the strong multicollinearity of the data, which may arise, for example, due to sampling, restricted range of the answers (4-point Likert type with 0 as "cannot answer"), the very fact of the child's assessment by one teacher (when approximately the same points are given to different questions) etc.

Further research and analysis to verify the reliability of the scale is necessary (described in Sections 4.4. and 4.5). So far, the hypothesis that questions measure parameters similar to each other (different aspects of narrative competence) is accepted.

Further analysis is carried out using the data in the "Overall score" column, which shows the sum of the points received for all 12 questions for each child.

Descriptive statistics for the typical classes' overall score showed that for $N = 183$ $M = 36.05$ with $SD = 8.12$, minimum 12 and maximum 48. The data are marginally negatively skewed (-.55) and leptokurtic (.28), but the p-value of Shapiro-Wilk test is significant ($p < 0.001$). This may occur because of the restricted range of the answers too, as well as because of the ordinal nature of the initial data or because of the reliability of the FANC. It is difficult to estimate all the obtained values, since this is a pilot testing of the scale and there are no data to compare with other studies.

Then a comparison of the children's narrative competence in different age groups was conducted.

For pre-school classes $N = 53$, $M = 40.85$, $SD = 6.29$, for senior classes $N = 67$, $M = 34.42$, $SD = 7.49$ and for middle classes $N = 63$, $M = 33.75$, $SD = 8.54$. The data for all groups are marginally negatively skewed and the p-value of Shapiro-Wilk test is significant ($p < 0.001$). Kruskal-Wallis test showed that three age groups significantly differed in narrative competence $H(2) = 22.55$, $p < .001$.

Post hoc comparisons showed that pre-school group significantly differs from middle and senior groups ($p < .001$, using Bonferroni correction), while there were no significant differences

between middle and senior groups ($p = .58$). These data are partly consistent with the objective distribution of children in age groups. The overall result of children in preschool classes is expected to be higher than in the younger ones. However, such a significant difference can also be explained by the specifics of one of the classes in the preschool group. Preschool class 1 has a cultural and historical specific. In this class, more emphasis is placed on working with texts, proverbs, sayings. Such an additional contribution to language development can influence higher assessments of narrative competence. The differences between classes within age groups are analyzed in more detail below.

Preschool class №1 showed significantly higher narrative competence score ($Mdn = 46$) compared to class №2 ($Mdn = 34.5$), $U = 634.00$, $p = <.001$ with $rB = .82$ (large effect size). As noted above, this can be explained both by the specifics of the work in the class and the subjectivity of the teacher's assessments. This parameter can have a significant impact on the overall results of the assessment.

In middle and senior age groups differences between classes were assessed also with Mann-Whitney test. They were significant with medium effect size ($p = .01$ with $rB = .37$ for two middle classes and $p = .03$ with $rB = -.31$ for two senior classes). The orientation (thematic specificity) of the work in each class, the composition of the class, the subjectivity of the teacher, the peculiarity of the FANC - all these factors can influence the presence of such differences within groups.

Descriptive analysis was conducted to see the distribution of the scores for each of the questions separately in age groups. Boxplots shows interesting patterns. For Questions 1-7 (macrostructure), in general, it corresponded to the age distribution, when the results increased from the middle group to the senior and further to the preschool group. The same is for the Question 11 ("Emotional vocabulary"). There was a mixed trend for Questions 8-10 (microstructure), where the assessment of the preschool group is higher than the others, but the distribution in the middle and senior groups shows a similar to each other pattern.

The distribution of answers for Question 12 ("Independency") is almost identical for middle and preschool groups. It can be assumed that in this sample, age differences do not affect the overall average result in this groups. Also, teachers may have their own subjective criteria for understanding independence for each age.

Considering that all 6 classes differ both in age and in the work orientation, as well as in teachers, a separate analysis of narrative competence was carried out between classes. The number of children assessed in each class differed significantly ranging from 24 to 34 (some children were absent during the assessment due to illness or other circumstances). Due to not normally distributed data, significant Levene's test ($F(5, 177) = 7.644$, $p < .001$) and considering

the fact that the overall score was based on summation of ordinal, Kruskal-Wallis Test was used, which showed that groups are significantly differed in overall narrative competence score $H(5) = 57.22, p < .001$. Post hoc comparisons showed that class1 significantly differs from classes 2-6 ($p < .01$, using Bonferroni correction) and class5 (senior) is significantly differs from class6 (middle) ($p = .02$, using Bonferroni correction). The possible reasons for class1 specificity are described above. The differences between classes 5 and 6 may be due, among other things, to the age factor.

The analysis of gender differences in narrative competence was also conducted. Girls seem to perform significantly better than boys on narrative composition (Berninger and Fuller, 1992, Mäki et al., 2001, in Bigozzi & Vettori, 2016). This may be explained by the link between narrative competence and language development. Magnuson et al. (2016) in meta-analysis noted that girls tend to have faster vocabulary growth and demonstrate better language outcomes relative to boys in early childhood. Girls have an early advantage in verbal abilities (e.g., Burman, Bitan, & Booth, 2008, in Wei et al., 2012) and for reading trajectories girls outperform boys in both initial status and positive growth rate starting the baseline measurement (Wei et al., 2015). In Reilly's (2020) study data show that there are moderately sized gender differences in reading achievement favoring girls and women ($d = -0.19$ to -0.44 across age groups), and substantially larger gender differences in writing ($d = -0.42$ to -0.62), spelling ($d = -0.39$ to -0.50), and grammar ($d = -0.39$ to -0.42). The difference could also occur because of children's different narrative styles (e.g. the different ways of using structural elements), as suggested Nicolopoulou (1996).

Mann-Whitney test showed no significant difference between girls' ($N=102$) and boys' ($N=81$) narrative competence assessed by teachers (with equal $Mdn = 36$), $U = 4785.00, p = .07$ with $r_B = .16$. These results do not agree with mentioned above examples, but they are consistent with those of Safwat et al. (2013), which study did not reveal differences between boys and girls in terms of narrative skills, or with study of Peña et al. (2006), where main effects for gender were not significant in narrative competence assessment and total story scores were similar for boys and girls. Nevertheless, the boys' minimum is lower than girls' (12 and 23 respectively) and interquartile range shows bigger spread.

Speech therapy class's data was analyzed separately. The assessment was made by two teachers who works with this class. Teacher 1 is a specialized teacher for speech development and Teacher 2 has general specialization in work with children (mathematics, art etc.) without the specific speech development work.

The comparison was made for 16 children, whose assessment was made by both teachers. The difference in teacher's assessment is significant ($t(15) = -2.53, p = .02$) and Cohen's $d = -.63$

suggests that this is a large effect. Speech therapy group was evaluated by Teacher 1 significantly lower on narrative competence than by Teacher 2. This difference may be due to the mentioned specific of the teachers' work.

This case shows that using the FANC in the same conditions to evaluate the same sample can give very different results. This issue requires further study. Also, such a discrepancy in assessments should be the subject of professional reflection and it appeals to discussion and the development of common approaches in the work of teachers.

The comparison of typical classes and speech therapy class was made. Data from Teacher 2 was used as this teacher has a general specialization, like teachers in typical classes). There was no significant difference between this groups ($Mdn = 36$), Mann-Whitney test showed $U = 1320.00$, $p = .30$ with $rB = -.15$. The difference in the sample ($N = 183$ for typical classes overall, $N = 17$ for speech therapy class) could significantly affect the results of the analysis, as well as the subjectivity of assessments, as shown in the previous paragraph.

In general, it seems that the use of the FANC is also possible as a Tier 1 element, since it is able to help the teacher to conduct a quick assessment of the child's narrative competence in a familiar format and, based on the results obtained, see the overall picture of narrative competence in the classroom and individually. This can help the teacher to adjust the work in the classroom in terms of language development.

4.3 Teacher's self-assessment of the current and planned practices and techniques for the narrative competence development

The analysis of teachers' responses in the questionnaire for the teacher's self-assessment of the current practice of working in a group for the development of children's language skills (Form 1) revealed the following common points.

That most teachers (8 out of 9) use the "CAT" (according to the Federal State Educational Standard of Preschool Education) for the assessing the children's language development and the majority (6 out of 9) did not note any difficulties in the assessment of its any aspects.

The most popular forms of work on the language development were "games" and "visual materials" (9 out of 9, including theatrical, role-playing, finger dolls etc.), communication (conversations, speech activity, 7 out of 9) and articulation gymnastics (4 out of 9). 8 out of 9 teachers mentioned that they use digital technologies for the children's language development, including materials, presentations, projector, ICT, interactive class boards. The majority of teachers did not mention the need to improve or change any of the practices used (6 out of 9). At the same time, 5 out of 9 teachers answering Question 12 said that they would like more introduction of digital technologies.

There was no consistency on which of the practices used for the children's language development are considered effective (most common answer "Joint (including project) activities" mentioned 3 out of 9).

It is noteworthy that the vast majority of teachers (8 out of 9) already use in their work certain methods of developing storytelling skills, narrative competence, e.g. using pictures, props, narrative structure, retelling.

Analysis of the five completed questionnaires about the work planned for creating environment for the development of children's narrative competence (Form 2) allowed to find out the following. Most often, teachers mentioned incoherence in children's stories as a problem that needs to be solved. Among the possible causes of its occurrence, problems with language development and with comprehension were most often mentioned.

Probably, the choice of techniques for implementation is also connected with this: for example, two teachers chose to teach children the macrostructure of the story (its main elements) using visual symbols. It is expected that this should increase the coherence and structure of the story. It can also make work "more systematic" as mentioned one of the teachers.

Four out of five teachers chose a low-intensity work format (twice a week) and the fifth teacher chose most intense program: daily classes of 20 minutes.

Three teachers named "communication with parents", including revising the material at home with parents, answering the question "What other aspects of children's development require attention in the context of the narrative competence development?". Other mentioned lack of proper level of attention and communication from parents to the child and planned home assignments for teamwork with parents were mentioned once answering other questions. All this can indicate a high level of attention that teachers show to this aspect, and perhaps to be an indicator of a parenting communication deficit. Potentially this aspect should be given special in further research work on this topic.

4.4 Strengths and limitations of the current study

The strengths of the current study include:

- the analysis of the literature and the elaborated theoretical basis on the basis of which Guidelines and a short form of evaluation were formed;
- practical orientation, orientation to the possibility of using the developed tools by teachers in kindergartens on a regular basis;
- pilot testing of tools in real conditions, including use in classes of different orientation (including speech therapy class), for different age groups and by different teachers.

Several limitations of the present study should be mentioned. First of all, the reliability of the FANC.

It is necessary to check the FANC more accurately and thoroughly, conduct additional research and analysis. The assessment was carried out by the teachers themselves and only one teacher, which can affect the results (for example, grades can be set subjectively). To test the scale, it would probably be more efficient to collect data by a researcher(s) or several educators. I also consider the lack of inter-rater reliability check as a significant limitation.

An additional limitation is imposed by the use of a specific assessment scale, with further research it can be replaced by the traditional Likert scale (5-point).

Another important limitation is the sample size and only one participating kindergarten. The study population in the sample may not be sufficient to make enough generalization.

Also among the limitations of the study is the lack of analysis of the relationship between children's narrative competence and their language development (at least on the baseline).

Lastly, the lack of a specific program for the long-term application of these Guidelines and the lack of secondary data with an assessment of children's narrative competence after guidelines' application does not allow to draw any conclusions about their effectiveness, and about the characteristics of the scale for measuring narrative competence in dynamics.

4.5 Conclusions and future research

In the present study an attempt was made to develop within Tier 1 such tools for the development of narrative competence of preschool children that could be used by teachers in a real kindergarten, ecologically fitting into their daily work and complementing the usual curriculum. Overall, the implementation of this research project can contribute to professional reflection of preschool teachers in the domains of children language development, narrative competence and can strengthen the practice of informed decision-making in terms of planning daily activities in the class. The feedback received from teachers inspires optimism, but the topic should be explored in future studies.

First of all, it is necessary to conduct an additional analysis of the reliability of the FANC, including inter-rater reliability. It is also desirable to carry out a correlation analysis of narrative competence and language skills, e.g. in dynamics, as well as an analysis narrative competence for age and gender characteristics.

Among the possible further areas of work may be the clarification and adjustment of the Guidelines and the FANC based on feedback received from teachers, as well as their subsequent testing in a large number of kindergartens.

Also the Guidelines could be expanded with specific materials: ready-to-use stories, symbols, pictures, etc. It is also promising to create an intervention program based on the prepared Guidelines and an assessment scale for the development of narrative competence in

preschool children for use in kindergartens. In this case, a pilot approbation of this program may be a likely direction of research work.

Additionally, it may be interesting to explore the actual impact of the methods and techniques used (or the whole narrative program, if developed) on the language abilities of children. Such research can contribute to the understanding and further application of narrative practices in preschool educational institutions.

REFERENCES

- Agosto, D. (2013). If I Had Three Wishes: The Educational and Social/Emotional Benefits of Oral Storytelling. *Storytelling, Self, Society*, 9, 53–76. <https://doi.org/10.13110/storselfsoci.9.1.0053>
- Aprillina, I., Simaibang, B., & Mulyadi. (2021). *Improving Kindergarten Pupils' Speaking Skills Through the Storytelling*. 698–701. <https://doi.org/10.2991/assehr.k.210716.131>
- Baumer, S., Ferholt, B., & Lecusay, R. (2005). Promoting narrative competence through adult–child joint pretense: Lessons from the Scandinavian educational practice of playworld. *Cognitive Development*, 20, 576–590. <https://doi.org/10.1016/j.cogdev.2005.08.003>
- Beck, I. L., McKeown, M. G., & Kucan, L. (2013). Bringing Words to Life: Robust Vocabulary Instruction. Second Edition. In *Guilford Press*. Guilford Press.
- Bigozzi, L., & Vettori, G. (2016). To tell a story, to write it: Developmental patterns of narrative skills from preschool to first grade. *European Journal of Psychology of Education*, 31, 461–477. <https://doi.org/10.1007/s10212-015-0273-6>
- Bornstein, M. H., Davidson, L., Keyes, C. L. M., & Moore, K. A. (Eds.). (2003). *Well-being: Positive development across the life course* (pp. xv, 601). Lawrence Erlbaum Associates Publishers. <https://doi.org/10.4324/9781410607171>
- Bornstein, M. H., Hahn, C.-S., Putnick, D. L., & Pearson, R. M. (2018). Stability of core language skill from infancy to adolescence in typical and atypical development. *Science Advances*, 4(11), eaat7422. <https://doi.org/10.1126/sciadv.aat7422>
- Botting, N. (2002). Narrative as a Tool for the Assessment of Linguistic and Pragmatic Impairments. *Child Language Teaching & Therapy*, 18, 1–21. <https://doi.org/10.1191/0265659002ct224oa>
- Catala, A., Theune, M., Gijlers, H., & Heylen, D. (2017). *Storytelling as a Creative Activity in the Classroom*. 237–242. <https://doi.org/10.1145/3059454.3078857>
- Cekaite, A., & Bjork-Willen, P. (2018). Enchantment in storytelling: Co-operation and participation in children's aesthetic experience. *Linguistics and Education*, 48, 52–60. <https://doi.org/10.1016/j.linged.2018.08.005>
- Channell, M. M., McDuffie, A. S., Bullard, L. M., & Abbeduto, L. (2015). Narrative language competence in children and adolescents with Down syndrome. *Frontiers in Behavioral Neuroscience*, 9. <https://www.frontiersin.org/article/10.3389/fnbeh.2015.00283>
- Chard, D. J., Harn, B. A., Sugai, G., Horner, R. H., Simmons, D. C., & Kame'enui, E. J. (2008). Core features of multi-tiered systems of reading and behavioral support. In *Schoolwide prevention models: Lessons learned in elementary schools* (pp. 31–58). Guilford Press.

- Chentsova-Dutton, Y., Leontyeva, A., Halberstadt, A. G., & Adams, A. M. (2021). And they all lived unhappily ever after: Positive and negative emotions in American and Russian picture books. *Emotion (Washington, D.C.)*, 21(8), 1585–1598. <https://doi.org/10.1037/emo0001021>
- Collins English Dictionary. (n.d.). Retrieved May 26, 2022, from <https://www.collinsdictionary.com/dictionary/english/a-level>
- Colozzo, P., Gillam, R. B., Wood, M., Schnell, R. D., & Johnston, J. R. (2011). Content and form in the narratives of children with specific language impairment. *Journal of Speech, Language, and Hearing Research: JSLHR*, 54(6), 1609–1627. [https://doi.org/10.1044/1092-4388\(2011/10-0247\)](https://doi.org/10.1044/1092-4388(2011/10-0247))
- Conti-Ramsden, G., & Durkin, K. (2012). Language Development and Assessment in the Preschool Period. *Neuropsychology Review*, 22(4), 384–401. <https://doi.org/10.1007/s11065-012-9208-z>
- Crawshaw, C., Kern, F., Mertens, U. J., & Rohlfing, K. (2020). Children’s Narrative Elaboration After Reading a Storybook Versus Viewing a Video. *Frontiers in Psychology*, 11, 569891. <https://doi.org/10.3389/fpsyg.2020.569891>
- Davies, P., Shanks, B., & Davies, K. (2004). Improving narrative skills in young children with delayed language development. *Educational Review*, 56(3), 271–286. <https://doi.org/10.1080/0013191042000201181>
- Dobson, S. (2005). NARRATIVE COMPETENCE AND THE ENHANCEMENT OF LITERACY: SOME THEORETICAL REFLECTIONS. *Undefined*. <https://www.semanticscholar.org/paper/NARRATIVE-COMPETENCE-AND-THE-ENHANCEMENT-OF-SOME-Dobson/2c08099677704ac38c1fad9cb9d6198cbf1bbc03>
- Duncan, G., Dowsett, C., Claessens, A., Magnuson, K., Huston, A., Klebanov, P., Pagani, L., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., & Japel, C. (2007). School Readiness and Later Achievement. *Developmental Psychology*, 43, 1428–1446. <https://doi.org/10.1037/0012-1649.43.6.1428>
- Erickson, E. (2018). Effects of Storytelling on Emotional Development. *Undefined*. <https://www.semanticscholar.org/paper/Effects-of-Storytelling-on-Emotional-Development-Erickson/64a28fa7d042539991983cddaad994206a6e89f2>
- Favot, K., Carter, M., & Stephenson, J. (2021). The Effects of Oral Narrative Intervention on the Narratives of Children with Language Disorder: A Systematic Literature Review. *Journal of Developmental and Physical Disabilities*, 33. <https://doi.org/10.1007/s10882-020-09763-9>

- Feldman, H. M., Dollaghan, C. A., Campbell, T. F., Kurs-Lasky, M., Janosky, J. E., & Paradise, J. L. (2000). Measurement properties of the MacArthur communicative development inventories at ages one and two years. *Child Development*, 71(2), 310–322. <https://doi.org/10.1111/1467-8624.00146>
- Fiestas, C. E., & Peña, E. D. (2018). The Dynamic Assessment of Narratives: A Bilingual Study. *Journal of Cognitive Education and Psychology*, 17(1), 97–111. <https://doi.org/10.1891/1945-8959.17.1.97>
- Flynn, E. (2018). Ideas in Dialogue: Leveraging the Power of Child-Led Storytelling in the Multicultural Preschool Classroom. *Language in Society*, 47(4), 601–633. <https://doi.org/10.1017/S0047404518000593>
- Gardner-Neblett, N., & Iruka, I. U. (2015). Oral narrative skills: Explaining the language-emergent literacy link by race/ethnicity and SES. *Developmental Psychology*, 51(7), 889–904. <https://doi.org/10.1037/a0039274>
- Gazella, J., & Stockman, I. J. (2003). Children's story retelling under different modality and task conditions: Implications for standardizing language sampling procedures. *American Journal of Speech-Language Pathology*, 12(1), 61–72. [https://doi.org/10.1044/1058-0360\(2003/053\)](https://doi.org/10.1044/1058-0360(2003/053))
- Gersten, R., Compton, D., Connor, C., Dimino, J., Santoro, L., Thompson, S., & Tilly, W. (2009). *Assisting students struggling with reading: Response to intervention and multi-tier intervention in the primary grades* (pp. 121–190).
- Gil, M., & Sylla, C. (2022). A close look into the storytelling process: The procedural nature of interactive digital narratives as learning opportunity. *Entertainment Computing*, 41, 100466. <https://doi.org/10.1016/j.entcom.2021.100466>
- Gillam, S., & Gillam, R. (2016). Narrative Discourse Intervention for School-Aged Children With Language Impairment. *Topics in Language Disorders*, 36, 20–34. <https://doi.org/10.1097/TLD.0000000000000081>
- Gillam, S., Olszewski, A., Fargo, J., & Gillam, R. B. (2014). Classroom-based narrative and vocabulary instruction: Results of an early-stage, nonrandomized comparison study. *Language, Speech, and Hearing Services in Schools*, 45(3), 204–219. https://doi.org/10.1044/2014_LSHSS-13-0008
- Gillam, S., Olszewski, A., Squires, K., Wolfe, K., Slocum, T., & Gillam, R. (2018). Improving Narrative Production in Children With Language Disorders: An Early-Stage Efficacy Study of a Narrative Intervention Program. *Language, Speech, and Hearing Services in Schools*, 49, 197–212. https://doi.org/10.1044/2017_LSHSS-17-0047

- Glisson, L., Leitão, S., & Claessen, M. (2019). Evaluating the efficacy of a small-group oral narrative intervention programme for pre-primary children with narrative difficulties in a mainstream school setting. *Australian Journal of Learning Difficulties*, 24(1), 1–20. <https://doi.org/10.1080/19404158.2019.1596138>
- Greenwood, C., Bradfield, T., Kaminski, R., Linas, M., Carta, J., & Nylander, D. (2011). The Response to Intervention (RTI) Approach in Early Childhood. *Focus Except. Child.*, 43. <https://doi.org/10.17161/fec.v43i9.6912>
- Greenwood, C., Carta, J., Goldstein, H., Kaminski, R., McConnell, S., & Atwater, J. (2014). The Center for Response to Intervention in Early Childhood: Developing Evidence-Based Tools for a Multi-Tier Approach to Preschool Language and Early Literacy Instruction. *Journal of Early Intervention*, 36, 246–262. <https://doi.org/10.1177/10538151115581209>
- Greenwood, C., Carta, J. J., Atwater, J., Goldstein, H., Kaminski, R., & McConnell, S. (2013). Is a Response to Intervention (RTI) Approach to Preschool Language and Early Literacy Instruction Needed? *Topics in Early Childhood Special Education*, 33(1), 48–64. <https://doi.org/10.1177/0271121412455438>
- Hammer, C. S., Morgan, P., Farkas, G., Hillemeier, M., Bitetti, D., & Maczuga, S. (2017). Late Talkers: A Population-Based Study of Risk Factors and School Readiness Consequences. *Journal of Speech, Language, and Hearing Research*, 60(3), 607–626. https://doi.org/10.1044/2016_JSLHR-L-15-0417
- Hattie, J., & Timperley, H. (2007). *The Power of Feedback*. <https://doi.org/10.3102/003465430298487>
- Hayiou-Thomas, M. E. (2008). Genetic and environmental influences on early speech, language and literacy development. *Journal of Communication Disorders*, 41(5), 397–408. <https://doi.org/10.1016/j.jcomdis.2008.03.002>
- Hayiou-Thomas, M. E., Dale, P. S., & Plomin, R. (2012). The etiology of variation in language skills changes with development: A longitudinal twin study of language from 2 to 12 years. *Developmental Science*, 15(2), 233–249. <https://doi.org/10.1111/j.1467-7687.2011.01119.x>
- Heckman, J., Moon, S. H., Pinto, R., Savelyev, P., & Yavitz, A. (2010). Analyzing social experiments as implemented: A reexamination of the evidence from the HighScope Perry Preschool Program. *Quantitative Economics*, 1(1), 1–46. <https://doi.org/10.3982/QE8>
- Hughes, C., Riccomini, P., & Morris, J. (2018). *Use Explicit Instruction* (pp. 215–236). <https://doi.org/10.4324/9781315176093-20>
- Johanson, M., Justice, L., & Logan, J. A. R. (2016). *Kindergarten Impacts of a Preschool Language-Focused Intervention*. <https://doi.org/10.1080/10888691.2015.1074050>

- Jones, A. (2018). *Using storytelling to promote literacy, communication and socio-emotional development in the early years* [Report]. Tales Toolkit. <https://research.gold.ac.uk/id/eprint/24937/>
- Ketelaars, M., Jansonius, K., Cuperus, J., & Verhoeven, L. (2012). Narrative competence and underlying mechanisms in children with pragmatic language impairment. *Applied Psycholinguistics*, 33. <https://doi.org/10.1017/S014271641100035X>
- Ketelaars, M., Jansonius, K., Cuperus, J., & Verhoeven, L. (2016). Narrative competence in children with pragmatic language impairment: A longitudinal study. *International Journal of Language & Communication Disorders*. <https://doi.org/10.1111/1460-6984.12195>
- Kim, S. J., & Hachey, A. (2021). Engaging Preschoolers with Critical Literacy Through Counter-Storytelling: A Qualitative Case Study. *Early Childhood Education Journal*, 49. <https://doi.org/10.1007/s10643-020-01089-7>
- Kovas, Y., Hayiou-Thomas, M. E., Oliver, B., Dale, P. S., Bishop, D. V. M., & Plomin, R. (2005). Genetic Influences in Different Aspects of Language Development: The Etiology of Language Skills in 4.5-Year-Old Twins. *Child Development*, 76(3), 632–651. <https://doi.org/10.1111/j.1467-8624.2005.00868.x>
- Lenhart, J., Lenhard, W., Vaahtoranta, E., & Suggate, S. (2020). More than words: Narrator engagement during storytelling increases children’s word learning, story comprehension, and on-task behavior. *Early Childhood Research Quarterly*, 51, 338–351. <https://doi.org/10.1016/j.ecresq.2019.12.009>
- Lewontin, R. C. (2005). *The Triple Helix: Gene, Organism, and Environment*. Harvard University Press.
- Liu, C.-C., Liu, K.-P., Chen, G.-D., & Liu, B.-J. (2010). Children’s collaborative storytelling with linear and nonlinear approaches. *Procedia - Social and Behavioral Sciences*, 2(2), 4787–4792. <https://doi.org/10.1016/j.sbspro.2010.03.771>
- Lourenço, I., Rocha, J., Peixoto, V., & Lousada, M. (2019). Effects of the Narrative Intervention Programme for Pre-school Portuguese Children. *Folia Phoniatrica et Logopaedica*, In. <https://doi.org/10.1159/000496793>
- MacGregor, L. J., Pulvermüller, F., van Casteren, M., & Shtyrov, Y. (2012). Ultra-rapid access to words in the brain. *Nature Communications*, 3(1), 711. <https://doi.org/10.1038/ncomms1715>
- Maureen, I., Meij, H., & Jong, T. (2020). Enhancing Storytelling Activities to Support Early (Digital) Literacy Development in Early Childhood Education. *International Journal of Early Childhood*, 52. <https://doi.org/10.1007/s13158-020-00263-7>

- Maureen, I. Y., van der Meij, H., & de Jong, T. (2018). Supporting Literacy and Digital Literacy Development in Early Childhood Education Using Storytelling Activities. *International Journal of Early Childhood*, 50(3), 371–389. <https://doi.org/10.1007/s13158-018-0230-z>
- Mcleod, S., Harrison, L., & Wang, C. (2019). A longitudinal population study of literacy and numeracy outcomes for children identified with speech, language, and communication needs in early childhood. *Early Childhood Research Quarterly*. <https://doi.org/10.1016/J.ECRESQ.2018.07.004>
- Melzi, G., Schick, A., & Bostwick, E. (2013). Latino children's narrative competencies over the preschool years. *Actualidades En Psicología*, 27(115), 1–14. <https://doi.org/10.15517/ap.v27i115.9276>
- Miller, S., & Pennycuff, L. (2008). The Power of Story: Using Storytelling to Improve Literacy Learning. *Undefined*. <https://www.semanticscholar.org/paper/The-Power-of-Story%3A-Using-Storytelling-to-Improve-Miller-Pennycuff/d8b9fe66fbe62f89de63fc2c8349f2efbb774823>
- Mountford, H. S., & Newbury, D. F. (2019). The Genetics of Language Acquisition. In *International Handbook of Language Acquisition*. Routledge.
- Nakhshab, M., Arabpour, M., & Yalda, K. (2014). Narrative assessment methods in children: A systematic review. *Journal of Research in Rehabilitation Sciences*, 10(5), 704–719. <https://doi.org/10.22122/jrrs.v10i5.2090>
- Nelson, K. (1996). *Language In Cognitive Development*. <https://doi.org/10.1017/CBO9781139174619>
- Nicolopoulou, A. (1996, July 1). *Problems, Strategies, and Intentions in Young Children's Narrative Genres*.
- Nicolopoulou, A. (2005). Play and narrative in the process of development: Commonalities, differences, and interrelations. *Cognitive Development*, 20, 495–502. <https://doi.org/10.1016/j.cogdev.2005.09.001>
- Nicolopoulou, A. (2016). *Young children's pretend play and storytelling as modes of narrative activity: From complementarity to cross-fertilization?* (pp. 7–28).
- Normann, A. (2011). Digital storytelling in second language learning: A qualitative study on students' reflections on potentials for learning. *Undefined*. <https://www.semanticscholar.org/paper/Digital-storytelling-in-second-language-learning%3A-A-Normann/7d3c5fb486bc3a98357d975356d04a008d293ae9>

- Paris, A., & Paris, S. (2003). Assessing Narrative Comprehension in Young Children. *Reading Research Quarterly - READ RES QUART*, 38, 36–76. <https://doi.org/10.1598/RRQ.38.1.3>
- Peña, E., Gillam, R., Malek, M., Ruiz-Felter, R., Resendiz, M., Fiestas, C., & Sabel, T. (2006). Dynamic Assessment of School-Age Children's Narrative Ability: An Experimental Investigation of Classification Accuracy. *Journal of Speech, Language, and Hearing Research : JSLHR*, 49, 1037–1057. [https://doi.org/10.1044/1092-4388\(2006/074\)](https://doi.org/10.1044/1092-4388(2006/074))
- Pesco, D., & Gagné, A. (2017). Scaffolding Narrative Skills: A Meta-Analysis of Instruction in Early Childhood Settings. *Early Education and Development*, 28(7), 773–793. <https://doi.org/10.1080/10409289.2015.1060800>
- Petersen, D. (2011). A Systematic Review of Narrative-Based Language Intervention With Children Who Have Language Impairment. *Communication Disorders Quarterly*, 32, 207–220. <https://doi.org/10.1177/1525740109353937>
- Petersen, D., Brown, C. L., Ukrainetz, T. A., Wise, C., Spencer, T., & Zebre, J. (2014). Systematic individualized narrative language intervention on the personal narratives of children with autism. *Language, Speech, and Hearing Services in Schools*, 45(1), 67–86. https://doi.org/10.1044/2013_LSHSS-12-0099
- Petersen, D., Chanthongthip, H., Ukrainetz, T., Spencer, T., & Steeve, R. (2017). Dynamic Assessment of Narratives: Efficient, Accurate Identification of Language Impairment in Bilingual Students. *Journal of Speech, Language, and Hearing Research : JSLHR*, 60, 1–16. https://doi.org/10.1044/2016_JSLHR-L-15-0426
- Petersen, D., & Spencer, T. (2012). The Narrative Language Measures: Tools for Language Screening, Progress Monitoring, and Intervention Planning. *Perspectives on Language Learning and Education*, 19, 119. <https://doi.org/10.1044/lle19.4.119>
- Petersen, D., & Spencer, T. (2014). Narrative Assessment and Intervention: A Clinical Tutorial on Extending Explicit Language Instruction and Progress Monitoring to All Students. *Perspectives on Communication Disorders and Sciences in Culturally and Linguistically Diverse Populations*, 21, 5. <https://doi.org/10.1044/cds21.1.5>
- Petersen, D., & Spencer, T. (2016). Using narrative intervention to accelerate canonical story grammar and complex language growth in culturally diverse preschoolers. *Topics in Language Disorders*, 36(1), 6–19.
- Petersen, D., Staskowski, M., Spencer, T., Foster, M., & Brough, M. (2021). The Effects of a Multitiered System of Language Support on Kindergarten Oral and Written Language: A Large-Scale Randomized Controlled Trial. *Language, Speech, and Hearing Services in Schools*, 53, 1–25. https://doi.org/10.1044/2021_LSHSS-20-00162

- Peterson, C., & Biggs, M. (2001). *"I Was Really, Really, Really Mad!" Children's Use of Evaluative Devices in Narratives About Emotional Events*.
<https://doi.org/10.1023/A:1015692403932>
- Phillips, L. (1999). *The Role of Storytelling in Early Literacy Development*.
- Phillips, L. (2000). *Storytelling: The Seeds of Children's Creativity*.
<https://journals.sagepub.com/doi/10.1177/183693910002500302>
- Pico, D. L., Hessling, P. A., Biel, C. H., Peterson, A. K., Biel, E. J., Woods, C., & Contesse, V. A. (2021). Interventions Designed to Improve Narrative Language in School-Age Children: A Systematic Review With Meta-Analyses. *Language, Speech, and Hearing Services in Schools*, 52(4), 1109–1126. https://doi.org/10.1044/2021_LSHSS-20-00160
- Pinto, G., Tarchi, C., & Accorti Gamannossi, B. (2018). Kindergarteners' Narrative Competence Across Tasks and Time. *The Journal of Genetic Psychology*, 179(3), 143–155. <https://doi.org/10.1080/00221325.2018.1453775>
- Pinto, G., Tarchi, C., & Bigozzi, L. (2015). The relationship between oral and written narratives: A three-year longitudinal study of narrative cohesion, coherence, and structure. *The British Journal of Educational Psychology*, 85(4), 551–569. <https://doi.org/10.1111/bjep.12091>
- Pinto, G., Tarchi, C., & Bigozzi, L. (2016). *Development in narrative competences from oral to written stories in five- to seven-year-old children*.
<https://doi.org/10.1016/J.ECRESQ.2015.12.001>
- Pinto, G., Tarchi, C., & Bigozzi, L. (2018). Is two better than one? Comparing children's narrative competence in an individual versus joint storytelling task. *Social Psychology of Education*, 21, 1–19. <https://doi.org/10.1007/s11218-017-9411-0>
- Pinto, G., Tarchi, C., & Bigozzi, L. (2019). Promoting narrative competence in kindergarten: An intervention study. *Early Childhood Research Quarterly*, 47, 20–29. <https://doi.org/10.1016/j.ecresq.2018.09.003>
- Price, C. J. (2012). A review and synthesis of the first 20 years of PET and fMRI studies of heard speech, spoken language and reading. *NeuroImage*, 62(2), 816–847. <https://doi.org/10.1016/j.neuroimage.2012.04.062>
- Ralli, A. M., Kazali, E., Kanellou, M., Mouzaki, A., Antoniou, F., Diamanti, V., & Papaioannou, S. (2021). Oral Language and Story Retelling During Preschool and Primary School Years: Developmental Patterns and Interrelationships. *Journal of Psycholinguistic Research*, 50(5), 949–965. <https://doi.org/10.1007/s10936-021-09758-3>

- Reese, E., Suggate, S., Long, J., & Schaughency, E. (2010). Children's oral narrative and reading skills in the first 3 years of reading instruction. *Reading and Writing*, 23(6), 627–644. <https://doi.org/10.1007/s11145-009-9175-9>
- Reilly, D. (2020, July 30). *Gender Differences in Reading, Writing and Language Development*. Oxford Research Encyclopedia of Education. <https://doi.org/10.1093/acrefore/9780190264093.013.928>
- Roch, M., Florit, E., & Levorato, C. (2016). Narrative competence of Italian–English bilingual children between 5 and 7 years. *Applied Psycholinguistics*, 37(1), 49–67. <https://doi.org/10.1017/S0142716415000417>
- Safwat, R. F., EL-Dessouky, H. M., Shohdi, S. S., & Hussien, I. A. (2013). Assessment of narrative skills in preschool children. *The Egyptian Journal of Otolaryngology*, 29(2), 130–135. <https://doi.org/10.7123/01.EJO.0000426472.83521.26>
- Sammons, P., Toth, K., & Sylva, K. (2015). *Pre-school and early home learning effects on A-level outcomes*. 39.
- Sammons, P., Toth, K., & Sylva, K. (2018). The drivers of academic success for 'bright' but disadvantaged students: A longitudinal study of AS and A-level outcomes in England. *Studies in Educational Evaluation*, 57, 31–41. <https://doi.org/10.1016/j.stueduc.2017.10.004>
- Schick, A., & Melzi, G. (2010). The Development of Children's Oral Narratives Across Contexts. *Early Education and Development*, 21(3), 293–317. <https://doi.org/10.1080/10409281003680578>
- Schmerse, D., Anders, Y., Flöter, M., Wieduwilt, N., Rossbach, H., & Tietze, W. (2018). *Differential effects of home and preschool learning environments on early language development*. <https://doi.org/10.1002/BERJ.3332>
- Selzam, S., Dale, P., Wagner, R., DeFries, J., Cederlöf, M., O'Reilly, P., Krapohl, E., & Plomin, R. (2017). Genome-Wide Polygenic Scores Predict Reading Performance Throughout the School Years. *Scientific Studies of Reading*, 21. <https://doi.org/10.1080/10888438.2017.1299152>
- Sharda, N. (2007). *Applying Movement Oriented Design to Create Educational Stories*. <https://doi.org/10.18848/1447-9494/CGP/V13I12/45141>
- Slocum, T. A., & Rolf, K. R. (2021). Features of Direct Instruction: Content Analysis. *Behavior Analysis in Practice*, 14(3), 775–784. <https://doi.org/10.1007/s40617-021-00617-0>
- Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: A comprehensive study. *Smart Learning Environments*, 1. <https://doi.org/10.1186/s40561-014-0006-3>

- Sousa, L. B. de, & Gabriel, R. (2015). Does the mental lexicon exist? *REVISTA DE ESTUDOS DA LINGUAGEM*, 23(2), 335–361. <https://doi.org/10.17851/2237-2083.23.2.335-361>
- Spencer, T., Goldstein, H., Kelley, E., Sherman, A., & McCune, L. A. (2017). *A Curriculum-Based Measure of Language Comprehension for Preschoolers: Reliability and Validity of the Assessment of Story Comprehension*. <https://doi.org/10.1177/1534508417694121>
- Spencer, T., Kajian, M., Petersen, D., & Bilyk, N. (2014). Effects of an Individualized Narrative Intervention on Children's Storytelling and Comprehension Skills. *Journal of Early Intervention*, 35, 243–269. <https://doi.org/10.1177/1053815114540002>
- Spencer, T., & Petersen, D. (2020). Narrative Intervention: Principles to Practice. *Language, Speech, and Hearing Services in Schools*, 51(4), 1081–1096. https://doi.org/10.1044/2020_LSHSS-20-00015
- Spencer, T., Petersen, D., Slocum, T., & Allen, M. (2014). Large group narrative intervention in Head Start preschools: Implications for response to intervention. *Journal of Early Childhood Research*, 13. <https://doi.org/10.1177/1476718X13515419>
- Spencer, T., & Slocum, T. (2010). The Effect of a Narrative Intervention on Story Retelling and Personal Story Generation Skills of Preschoolers With Risk Factors and Narrative Language Delays. *Journal of Early Intervention - J EARLY INTERVENTION*, 32, 178–199. <https://doi.org/10.1177/1053815110379124>
- Spencer, T., Weddle, S., Petersen, D., & Adams, J. (2017). *Multi-tiered Narrative Intervention for Preschoolers: A Head Start Implementation Study | HS Dialog: The Research to Practice Journal for the Early Childhood Field*. <https://journals.charlotte.edu/dialog/article/view/543>
- Suggate, S., Schaughency, E., McAnally, H., & Reese, E. (2018). From infancy to adolescence: The longitudinal links between vocabulary, early literacy skills, oral narrative, and reading comprehension. *Cognitive Development*, 47, 82–95. <https://doi.org/10.1016/j.cogdev.2018.04.005>
- Swanson, L., Fey, M., Mills, C., & Hood, L. (2005). Use of Narrative-Based Language Intervention With Children Who Have Specific Language Impairment. *American Journal of Speech-Language Pathology / American Speech-Language-Hearing Association*, 14, 131–143. [https://doi.org/10.1044/1058-0360\(2005/014\)](https://doi.org/10.1044/1058-0360(2005/014))
- Tarchi, C., Bigozzi, L., & Pinto, G. (2019). The influence of narrative competence on mental state talk in kindergarten and primary school children. *British Journal of Developmental Psychology*, 37. <https://doi.org/10.1111/bjdp.12295>

- Temiz, Z. (2019). Storytelling intervention to improve the narrative skills of bilingual children coming from low socio-economic status. *Early Child Development and Care*, 189(1), 16–30. <https://doi.org/10.1080/03004430.2018.1529033>
- Toseeb, U., & St Clair, M. C. (2020). Trajectories of prosociality from early to middle childhood in children at risk of Developmental Language Disorder. *Journal of Communication Disorders*, 85, 105984. <https://doi.org/10.1016/j.jcomdis.2020.105984>
- Tosto, M. G., Hayiou-Thomas, M., Harlaar, N., Prom-Wormley, E., Dale, P., & Plomin, R. (2016). The genetic architecture of oral language, reading fluency, and reading comprehension. *Developmental Psychology*, 53. <https://doi.org/10.1037/dev0000297>
- Van der Veen, C., & Poland, M. (2012). Dynamic Assessment of Narrative Competence. In *Developmental Education for Young Children: Concept, Practice and Implementation* (pp. 105–119). https://doi.org/10.1007/978-94-007-4617-6_7
- Van Kleeck, A., Lange, A., & Schwarz, A. (2011). The Effects of Race and Maternal Education Level on Children’s Retells of the Renfrew Bus Story-North American Edition. *Journal of Speech, Language, and Hearing Research: JSLHR*, 54, 1546–1561. [https://doi.org/10.1044/1092-4388\(2011/10-0079\)](https://doi.org/10.1044/1092-4388(2011/10-0079))
- Veneziano, E., & Nicolopoulou, A. (2019). *Introduction to Narrative, Literacy, and Other Skills: Studies in Intervention* (pp. 1–18). <https://doi.org/10.1075/sin.25.01ven>
- Vretudaki, H. (2021). Enhancing Young Children Narrative Skills: The Effects of a Self-regulated Instructional Strategy. *American Journal of Educational Research*, 9(3), 91–96. <https://doi.org/10.12691/education-9-3-1>
- Watkins, C., & Slocum, T. (2003). Elements of Direct Instruction. *Undefined*. <https://www.semanticscholar.org/paper/Elements-of-Direct-Instruction-Watkins-Slocum/a7e2fa7d25b15b0811b8454a16cc483b828d6602>
- Weddle, S. A., Spencer, T. D., Kajian, M., & Petersen, D. B. (2016). An Examination of a Multitiered System of Language Support for Culturally and Linguistically Diverse Preschoolers: Implications for Early and Accurate Identification. *School Psychology Review*, 45(1), 109–133. <https://doi.org/10.17105/SPR45-1.109-132>
- Wei, T. (Elaine), Liu, X., & Barnard-Brak, L. (2015). Gender Differences in Mathematics and Reading Trajectories among Children from Kindergarten to Eighth Grade. *Research in Education*, 93, 77–89. <https://doi.org/10.7227/RIE.0015>
- Wei, W., Lu, H., Zhao, H., Chen, C., Dong, Q., & Zhou, X. (2012). Gender Differences in Children’s Arithmetic Performance Are Accounted for by Gender Differences in Language Abilities. *Psychological Science*. <https://doi.org/10.1177/0956797611427168>

- Westerberg, L., Litkowski, E., Finders, J. K., Gerde, H. K., Duncan, R. J., Schmitt, S. A., & Purpura, D. J. (2021). Concurrent predictors of science core knowledge in preschool. *Cognitive Development*, 57, 100981. <https://doi.org/10.1016/j.cogdev.2020.100981>
- Wu, J., & Chen, D.-T. V. (2020). A systematic review of educational digital storytelling. *Computers & Education*, 147, 103786. <https://doi.org/10.1016/j.compedu.2019.103786>
- Xie, E., Yin, Q., Li, K., Nastase, S. A., Zhang, R., Wang, N., & Li, X. (2021). Sharing Happy Stories Increases Interpersonal Closeness: Interpersonal Brain Synchronization as a Neural Indicator. *ENeuro*, 8(6). <https://doi.org/10.1523/ENEURO.0245-21.2021>
- Yang, Y.-T. C., Chen, Y.-C., & Hung, H.-T. (2020). Digital storytelling as an interdisciplinary project to improve students' English speaking and creative thinking. *Computer Assisted Language Learning*, 0(0), 1–23. <https://doi.org/10.1080/09588221.2020.1750431>
- Zanchi, P., & Zampini, L. (2020). The Narrative Competence Task: A Standardized Test to Assess Children's Narrative Skills. *European Journal of Psychological Assessment*, 37, 1–8. <https://doi.org/10.1027/1015-5759/a000569>
- Zanchi, P., Zampini, L., & Fasolo, M. (2020). Oral narrative competence and literacy skills. *Early Child Development and Care*, 190(14), 2309–2320. <https://doi.org/10.1080/03004430.2019.1572132>

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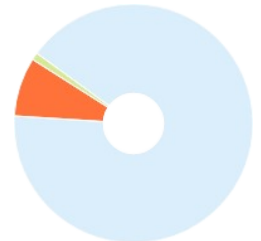
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[69]	<div><div></div><div>0%</div></div>	molotov_n_a_sociokulturnyy-analiz-akcentov-i-dialektov-velikobritanii-20-veka-na-primere-seriala-ostrye-kozyrki.docx	27 Мая 2022	Кольцо вузов	Источник исключен. Причина: Маленький процент пересечения.
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