A Narrative Research Trend Analysis Focused on School-Aged Children

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Purpose : This study aims to analyze studies of school-aged children in academic journals published in the area of language therapy in Korea and present the direction of future school-aged narrative research by organizing school-aged narrative research.
Methods : A total of 28 narrative papers related to school-aged children published from 2010 to 2019 were looked at. Keyword analysis was performed on the title and abstract of each study. Trends were analyzed for 28 research subjects, research areas, research contents, and measurement methods for narrative sample analysis.
Results : As a result of the key word frequency analysis, the high frequency words were reflected in the narrative characteristics of school-age language. In Korea, the trend of studies related to school-aged children by year has been studied in less than four articles. The study subjects were divided into grade level and disorder type. As a result of the grade analysis, most studies were conducted on student in the first to third grades of elementary school with 25 studies; as for the results of the analysis on the type of disorder, 15 studies were conducted on general children. Areas of research included 26 characteristics, 1 diagnosis, and 1 intervention. The research contents were in the order of syntax, semantics, and others. Finally, the measurement method for narrative samples in each paper were in the order of speech sample analysis, answering questions, writing, and others.
Conclusions : In this study, the narrative samples used were categorized and presented by analyzing existing studies. It is thought that it will be possible to accurately identify the characteristics of the subject through more detailed story samples and to collect information for narrative intervention of school-aged children.

Keywords : School-aged children, narrative, trends analysis

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Ⅰ. Introduction

School-aged children with language disorders do not only find it challenging to interact with peers due to defects in their communication skills but they are also more likely to fail academically due to their language use or syntax errors (Kim & Kang, 2005).

School-age children begin to develop conversation skills and acquire the basis of an extended and mature narrative structure. We also learn an effective way to introduce new topics and to engage in conversations consistently and appropriately. On the other hand, they express their opinions in conversation and communicate appropriately with the situation. The vocabulary in the

content of a language continues to grow. Also, the definitions of words presented in the definition of children's words at this time are more dictionary. School-age children will also be able to understand and use non-verbal language.

As interest in language development and language disorder increases in school age, related studies are also increasing compared to the past, and the need or demand for research is increasing. Research on language development and language impairment in school age has been increasing in English-speaking countries since the late 1990s, and the subject matter has also been expanded (Westerveld & Moran, 2013). In Korea, research on language development and language disorders in the school age has been conducted little by little since the 2000s. However, while studies are being conducted in the area of school age, literature studies on language development or language impairment in school age

(Jeong, 2016), and domestic reading impairment (Park et al., 2012). It is limited to reading fluency and reading understanding arbitration analysis for students with learning disorder (Kim, 2017).

We listen and talk to someone in our daily lives, get the information we need for life through narrative, and continue our relationship with other (Park et al., 2012). Narrative are a form of self-initiating, coordinating, and decontextualizing discourse (Kim & Yoon, 2018), an essential means of learning, society, language, and culture (Lee & Lee, 2014). Understanding the narrative is also vital. Narrative comprehension refers to the ability to understand the overall structure and details of the narrative after listening to it (Kim & Yoon, 2018).

Park et al. (2012) said that if the narrative content or composition was not good, one would not accurately convey one's intention to another person. Critical narrative in human life begin to develop in proportion to language development, and this lasts until adulthood. Thus, it can be seen that narrative are essential not only for school-aged children but also for the everyday life of all ages.

For school-age children, narrative are also an essential part of their studies. Lee & Lee (2014) said that the acquisition of expository discourse, a way of restructuring and conveying various information as well as conversations and narrative, became very important during the school age. People can see a variety of discourse in textbooks and in books for school-age learning.

Research has shown that children with language disorders in the early stages of school age are at greater risk of developing language disorders or learning disorders (Westerveld & Moran, 2013), raising interest in studying children with language disorders and learning disorder (Kim & Kang, 2005).

The narrative levels and characteristics of children have been understood through research related to the narrative that have been studied so far, and it has dramatically helped follow-up research.

Many studies have been conducted on school-age narrative, but no studies have been conducted on trends in domestic school-age narrative. Therefore, this study aims to analyze the thesis of school age and academic journal published in the area of speech-language therapy in Korea and present the direction of future school-age narrative research by organizing school-age narrative research.

II. Methods

1. Subjects Research

This study is an analysis of the trends of school-age narrative research published in Korea. In order to explore the flow of narrative research with school-age students, papers were collected in the following ways. First, the search was conducted based on a computer database. Using the Korean research information sharing service (riss), a Korean academic journal search site, he searched for papers published in Korea and found papers related to school-age narrative in the journals of degree papers, speech hearing impairment studies, and speech-language therapy. A total of 42 papers were collected using the words "narrative", "school-age", "narrative grammar", and "narrative evaluation". Among them, a paper that meets the criteria below was selected. Second, domestic papers published from 2010 to 2019 were research. Finally, characteristic studies, intervention studies, and diagnostic studies, excluding literature studies were included. Finally, degree papers and overlapping papers in the research paper were excluded around the research paper.

This study reviewed the contents of the papers that met these selection criteria, and a total of 28 articles that fit the literature collection criteria of this analytical paper was finally selected (Table 1).

Table 1. Number of research by year

Year	2010	2011	2012	2013
N (%)	2 (7.2)	1 (3.6)	3 (10.7)	3 (10.7)
Year	2014	2015	2016	2017
N (%)	2 (7.2)	2 (7.2)	7 (25.0)	5 (17.6)
Year	2018	2019	Total	
N (%)	2 (7.2)	1 (3.6)	28 (100)	

2. Data Analysis

This study conducted research object analysis, research design analysis, and research content analysis with 28 selected papers.

Key word frequency analysis was conducted on 28 studies. The research title and abstract data were saved as text documents. Pre-processing of the thesis data was carried out. For data deletion, numbers, punctuation

marks, blanks and articles, prepositions, Be verbs, and auxiliary verbs were treated as stop words.

In the analysis of the study subjects, the grade of the study was analyzed and the type of disorder was included in the study. The students were classified as elementary school students for one to three years, elementary school students for four to six years, and more than middle school. Disorder were classified as general children, language learning disorder, language development delay. In the area of research were categorized by characteristics, diagnosis, and intervention. In the analysis of the contents of the study, the analysis method and narrative sample were assessed. Whether the paper corresponded to language reception and expression was analyzed. The analysis methods used in each study were classified. Then, the analysis methods of the selected papers were categorized into syntactic, semantic, and other domains. A sample of narrative used in each study was classified. The narrative samples were selected by speech analysis, question answering, writing, and others.

3. Result Processing

Frequency analysis was conducted for age, disorder type, area of research, comprehension/expression, analysis method, and narrative samples.

If more than one domain is applicable in one study, one analyzes each analysis region with the same inclusion.

III. Results

1. Frequency Analysis of Key Word

Key word frequency analysis was conducted for 28 studies on narrative of school-age children from 2011 to 2019. A total of words were 1,022 selected through the preprocessing process. Table 2 lists 50 key vocabulary words in order of frequency. The high frequency core words for school-age narrative can be seen as a words that reveals the characteristics of school-age narrative. In particular, it was confirmed that the characteristics of 'narrative', 'cohesion markers', 'syntax', 'written language', 'C-unit' were emphasized.

Table 2. Frequency of key words

Keyword	Freq.	Keyword	Freq.
Narrative	432	Fictional	28
Child	125	Specific language disorder	27
Use	73	Sentence	27
School-age-children	68	Accuracy rate	27
Cohesion markers	66	Topic	27
Grade	64	Effect	27
Language learning disorder	62	Instance	26
Concoction	54	Use rate	26
Evaluation	54	Picture book	25
School age	54	Ability	25
Syntax	53	Response	24
Characteristic	51	Post-test	24
Subject	46	Collection	24
Production	46	Data	24
Written language	45	Reading	24
Normal group	45	Understanding	23
Group	43	Lower grade	23
Score	42	Expression	23
Difference	42	Writing	22
Task	38	Suggest	22
Spoken language	35	Learning readers	22
Speaking	33	Letter	21
Form	33	Development	21
C-unit	32	Inference error	21
Elementary school	32	Discourse	20

2. Study Subject Analysis

1) Grade

The age of each paper was analyzed by classifying it as 1st to 3rd grade (62.5%), 4th to 6th grade (32.5%), and more than middle school students (5%) (Table 3).

Among the subjects, six studies looked at the entire grade of elementary school, even grades, and more than the number of elementary and middle school students put together, which were calculated as duplicates.

Table 3. Research status by grade of research subjects

Subject grade	N (%)
1~3 grade	25 (62.5)
4~6 grade	13 (32.5)
More than middle school	2 (5.0)
Total	40 (100)

Note. Duplicate analysis based on analysis criteria.

2) Disorder Types

In each paper, the frequency of disorder types was analyzed by classifying them as general children (53.6%), language learning disorders (25%), language development delays (21.4%, Table 4). This study was not limited to the school-age language characteristics of the disorder group with a specific organic etiology.

Table 4. Research status by type of disorder

Type of disorder	N (%)
General children	15 (53.6)
Language learning disorder	7 (25.0)
Language development delay	6 (21.4)
Total	28 (100)

3. Area of Research

The frequency of each paper's area of research was analyzed by classifying it into characteristics (92.9%), diagnostics (3.6%), and interventions (3.6%, Table 5).

Table 5. Area of research

Area of research	N (%)
Characteristic	26 (92.8)
Diagnostic	1 (3.6)
Intervention	1 (3.6)
Total	28 (100)

4. Study Content Analysis

1) Reception/Expression

The types of expression and reception in each paper were classified as reception (23.5%), expression (76.5%), and frequency (Table 6). Three studies apply both expression and reception, which are calculated as duplicates.

Table 6. Research status based on reception and expression

Area of language	N (%)
Reception	8 (23.5)
Expression	26 (76.5)
Total	34 (100)

Note. Duplicate analysis based on analysis criteria.

2) Analysis Method

The types of analysis methods in each paper were classified as syntax, semantics, and others. As for the syntax type, there was a T-unit, a conjunction case, an internal plan, a response, and a grammar sign (including a clause, a clause, a grammar form, and NDW). Other domains included narrative inference error detection and narrative inference error correction, LSSC question checking, mind theory task, and representation refinement score system (composition, background, evaluation, Table 7).

Table 7. Details items by type of analysis method

Analysis method	Detail items	N (%)
Syntax	T-unit	7 (16.3)
	Cohesion markers	6 (14.0)
	Narrative grammar	6 (14.0)
	C-unit	4 (9.3)
	Clause	3 (7.0)
	Grammar morphemes	3 (7.0)
	Word order	1 (2.3)
	Mages ratio	1 (2.3)
	Syntax complexity	1 (2.3)
Semantics	NDW	4 (9.3)
	TTR	1 (2.3)
	Narrative reception test	1 (2.3)
	Number of tubular joints per C-unit	1 (2.3)
Others		4 (9.3)
Total		43 (100)

Note. Duplicate analysis based on analysis criteria.

5. Measurement Method for Narrative Samples

Measurement method for narrative samples in each paper were classified as speech analysis, answering questions, writing, and others.

The most detailed items of speech analysis were to calculate the narrative by looking at the picture and recalling, tell the experience, explain, and calculate the narrative by looking at the captured picture after watching the video. Details of the writing items were written by recalling narrative from pictures, organizing narrative from rabbits and turtles, and answering questions after reading meta-fiction narrative. The question answering items included listening to the narrative and telling the wrong part, freely answering the researcher's questions, and listening to the narrative and answering the questions. Other details were arranged in sentence order, LSSC standardization checks, paragraph reading, and schematic filling (Table 8).

Table 8. Measurement method for narrative sample

Type	Detail items	N (%)
Speech sample	Describing a picture	11 (34.4)
	Recalling pictures	4 (12.5)
	Speaking of experience	3 (9.4)
	Explain	2 (6.3)
	After watching the video, produce the narrative by looking at the picture.	2 (6.3)
Answer questions		4 (12.5)
Writing		3 (9.4)
Others		3 (9.4)
Total		32 (100)

Note. Duplicate analysis based on analysis criteria.

IV. Conclusion

In this study, 28 school-age children narrative research published from 2010 to 2019 were selected to conduct frequency analysis on the subjects (grade, disorder type), area of research, research content analysis (expression and reception, analysis method) and measurement method for narrative samples.

Key word frequency analysis was conducted for 28 studies on narrative of school-age children from 2011 to 2019. The high frequency core words for school-age narrative can be seen as a words that reveals the characteristics of school-age narrative. In particular, it was confirmed that the characteristics of 'narrative', 'cohesion markers', 'syntax', 'written language', 'C-unit' were emphasized.

Research on school-age children's narrative was conducted in less than three school-age narrative per year. In particular, seven research were published in 2016 and five in 2017. The research analysis of age and disorder types shows that 25 (62.5%) studies of elementary school students were conducted, and 15 (53.6%) studies of ordinary children were conducted of disorder types. As children enter school age, they begin to produce spoken language based on higher language skills (Lee et al., 2013), and most of the narrative develop and continue in more sophisticated and diverse forms from lower grades. Lee (2006) said that it would be necessary to establish a definition of school-age language disorder based on the characteristics and contents of school-age language disorder reported in the literature, conduct a survey on school-age children's language disorder, and establish a concept suitable for practice. This study also confirmed that the most significant number of studies were conducted on ordinary children. Therefore, subsequent studies suggest that identifying the characteristics of different types of disorder will be necessary.

Area of research was characteristic (92.9%), diagnosis (3.6%), and intervention (3.6%) with 26 studies except for two. This shows that most of the areas of school-age narrative research are focused on characteristic research. Subsequent studies are believed to require research on diagnostic and intervention methods used in clinical practice.

Twenty eight papers were classified as understanding and expression (23.5%), and expression (76.5%), indicating that this study was based on the narrative theme. The analysis methods were analyzed by classifying them into syntax, meaning, and others, with the most significant number of syntax areas accounting for 71.9%. A more in-depth analysis showed that T-unit had 16.3%, cohesion markers 14.0%, narrative grammar 14.0%, C-unit 9.3%, clause 7.0%, and grammar morphemes 7.0%, with others including word order, mages ratio and syntax complexity. It refers to the need for syntactic structural analysis and general analysis, such as the productivity of syntax, to identify the development of syntactic abilities in school-aged children. To this end, T-unit and C-unit are commonly used in several studies (Kwak, 2014) and are results in the same context as prior studies. Kim (2017) said that school-age children use basic grammar and syntax knowledge to produce more complex syntax structures. These complex syntactic structure properties can be explored through syntactic productivity and syntactic complexity, measured by the total number of T-units of discourse produced by children (Kim, 2017). The measures that can determine syntactic complexity are the average utterance length (MLT) and low density (CD) per T-unit (Kim & Kim, 2011). For the same reason, most of the narrative studies looked at the syntax development through narrative production (Jeong & Bae, 2010; Kim et al., 2018; Kwak, 2017; Kwak & Kwon, 2013; Lee & Lee, 2016; Park, 2016).

The type of narrative sample was analyzed by speech analysis, answering questions, writing, and others 66.7% of the time. According to an in-depth evaluation of ignition analysis, 34.4% of the total studies showed that drawing and narrative calculation were the most common, while recollection formed 12.5%, speaking formed 9.4%, and drawing and narrative calculation after explaining and watching videos formed 6.3%. It is believed that ignition analysis was used significantly because the characteristics that appear in the narrative calculation can be analyzed

with more precision and granularity through ignition analysis.

In this study, the current status of narrative research of school-age children published in Korea over the past 10 years was an overview. Classification by age and type of study showed that the study was conducted with various ages and groups.

In this work, existing studies were analyzed, and used narrative samples were presented by categorizing them. Concerning this, it is believed that in subsequent studies, more detailed narrative samples will enable accurate identification of the subject's characteristics, and information for narrative mediation in school-aged children can be collected.

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이야기 연구 동향 분석: 학령기 아동을 중심으로

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목적: 본 연구에서는 국내 언어치료 분야의 학위논문 및 학술지에 발표된 학령기 이야기 논문을 분석하고 학령기 이야기 연구를 정리하여 추후 학령기 이야기 연구 방향을 제시하고자 한다.
방법: 본 연구에서는 2010년부터 2019년까지 발표된 학령기 아동 대상 이야기 논문 28편이었다. 연구의 제목과 초록을 대상으로 핵심어 분석을 실시하였다. 또한, 28편의 연구 대상, 연구 영역, 연구 내용, 이야기 샘플 분석을 위한 측정 방법 등에 대한 경향성을 분석하였다.
결과: 핵심어 빈도 분석 결과 고빈도 어휘는 학령기 언어의 이야기 특성을 반영한 어휘들이었다. 국내에서 학령기 아동 이야기 관련 연구의 연도별 동향은 한 해당 4편 미만으로 연구 되었다. 연구 대상은 학년, 장애유형으로 나누었다. 학년 분석 결과는 초등학교 1-3학년을 대상으로 한 연구가 25편으로 가장 많이 이루어졌으며, 장애 유형 분석 결과는 일반아동을 대상으로 한 연구가 15편이었다, 연구 분야는 특성 26편, 진단 1편, 중재 1편이었다. 연구내용은 구문, 의미, 기타 순이었다. 마지막으로, 이야기 샘플 분석을 위한 특정 방법은 발화분석, 질문에 대답하기, 쓰기, 기타 순으로 나타났다.
결론: 본 연구에서는 기존의 연구를 분석하여 사용된 이야기 샘플을 범주화하여 제시하였다. 이를 참고하여 후속 연구에서는 보다 세부적인 이야기 샘플을 통해 대상자의 특성을 정확히 파악하고, 학령기 아동의 이야기 중재를 위한 정보를 수집할 수 있을 것으로 사료된다.

검색어 : 학령기 아동, 이야기, 동향 분석

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