Evolution of reading and retelling narrative structure of schoolchildren in the 2ⁿᵈ and 3ʳᵈ years of elementary school

Evolução da leitura e estrutura narrativa no reconto em escolares do segundo e terceiro anos do Ensino Fundamental I

Evolución de la lectura y estructura narrativa en el recuento en escolares del 2° y 3° años de la Enseñanza Fundamental I

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Abstract

Understanding is a complex process which requires the integration of small units of text into larger units, which then combine with the knowledge of the reader. This can be verified by *recall experiments*. This work had as objective to undertake a reading and recall experiment with 2ⁿᵈ and 3ʳᵈ year primary school students. A total of one hundred and one 2ⁿᵈ and 3ʳᵈ year primary school students in public and private schools read and then take a written text. The students then answer questionnaires, each with ten multiple choice questions. Each questionnaire had only one correct answer. The data were analysed

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according to the *understanding of causal structure* model. Descriptive analyses were performed, with association and correlation of data. Analysis shows that there is a statistically significant difference between the performance categories of school years. Interference for recall categories; reconstruction for sex; accuracy did not differentiate between age, questioning performance did not differ for literal inferences. There was no classification for the best category of recall. There is development between the second and third years in respect of narration, making inferences, clause count for recall, and accuracy. The findings contribute to more assertive techniques in the skills evaluated, recognition of when they may be disabled, and identification of more appropriate learning methods.

Keywords: Reading; Comprehension; Cognition; Education, Primary.

Resumo

A compreensão configura um processo refinado, no qual as menores unidades de um texto são progressivamente integradas entre si e com o conhecimento do leitor. É possível verificar essa habilidade por meio do reconto. Este trabalho teve como objetivo realizar estudo da leitura e estruturas narrativas no reconto de escolares do 2º e 3º anos do Ensino Fundamental I. Foi realizada a gravação de leitura e reconto de texto narrativo, em voz alta, de 101 alunos do 2º e 3° anos de escolas pública e particular, seguida de aplicação de questionário de interpretação, contendo 10 questões de múltipla escolha, tendo apenas uma resposta correta para cada questão. Os dados coletados foram analisados segundo o Modelo de Compreensão de Texto de Estrutura Causal, foram realizadas análises descritivas, de associação e de correlação dos dados. A análise permitiu verificar que há associação com significância estatística entre: categorias do reconto e ano escolar; inferência com ano escolar e categorias do reconto; Interferência com categorias do reconto; reconstrução com sexo. As questões corretas não diferiram entre os anos, bem como o desempenho nas questões de inferências não diferiu para questões literais. Não houve classificação na melhor categoria de reconto. Foi possível verificar que há uma evolução entre segundo e terceiro anos em relação à narrativa do reconto, no que diz respeito a inferências, número de cláusulas no reconto, e acurácia. Os achados colaboram para técnicas mais assertivas nas habilidades avaliadas, reconhecimento de quando podem estar defasadas e identificação de métodos de aprendizagem mais adequados.

Palavras-chave: Leitura; Compreensão; Cognição; Ensino Fundamental.

Resumen

La comprensión configura un proceso refinado, en el cual las menores unidades de un texto son progresivamente integradas entre sí y con el conocimiento del lector. Es posible comprobar esta habilidad a través del recuento. Este trabajo tuvo como objetivo realizar estudio de la lectura y estructuras narrativas en el recuento de escolares del 2º y 3º años de la Enseñanza Fundamental I. Fue realizada la grabación de lectura y relato de texto narrativo, en voz alta, de 101 alumnos del 2º y 3 ° años de escuelas públicas y privadas, seguida de aplicación de cuestionario de interpretación, conteniendo 10 cuestiones de múltiple elección, teniendo sólo una respuesta correcta para cada cuestión. Los datos recolectados fueron analizados según el Modelo de Comprensión de Texto de Estructura Causal, se realizaron análisis descriptivos, de asociación y de correlación de los datos. El análisis permitió verificar que hay asociación con significancia estadística entre: categorías del recuento y año escolar; la inferencia con el año escolar y las categorías del recuento; Interferencia con categorías del recuento; reconstrucción con el sexo. Las cuestiones correctas no difirieron entre los años, así como el desempeño en las cuestiones de inferencia no difirió para cuestiones literales. No hubo clasificación en la mejor categoría de recuento. Es posible verificar que hay una evolución entre 2º y 3º años en relación a la narrativa del recuento, en lo que se refiere a inferencias, número de cláusulas en el recuento, y exactitud. Los hallazgos colaboran para técnicas más asertivas en las habilidades evaluadas, reconocimiento de cuándo pueden estar desfasadas e identificación de métodos de aprendizaje más adecuados.

Palabras claves: Lectura; Comprensión; Cognición; Educación Primaria.

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Introduction

It is through reading, cognitive skills, linguistic and world knowledge that we attain understanding, which is important in the learning process for later use of the knowledge attained[1]. Word identification is a necessary part of reading; there are no good readers who have a poor level of word identification. However, word identification alone is not sufficient to understand a text. Reading proficiency is defined as the combination of two necessary components, the accuracy and speed (accuracy and fluency) of word recognition. On one hand, a good level of automation of these processes will allow the reader to devote the most cognitive resources to the comprehension process; on the other hand, it is also necessary to have the cognitive and linguistic skills necessary to understand a written message[2].

In general, comprehension is a more complex process that involves the way that the reader relates to the text. It is a process of interaction with the text through the use of prediction strategies, self-questioning, relationship building, word function identification, control, summary and evaluation[1].

The ability to comprehend configures a refined process in which the smallest parts of a text will progressively integrate with the reader's knowledge. This mental task results in the final representation of the text retained in the reader's mind. Comprehensive reading is not a copy of the text, but a mental representation that results in establishing internal relationships of the text, selecting relevant content, mentally explaining inferences, and integrating textual information with previous knowledge structures of the reader, forming new knowledge[3].

Cognitive models of textual reading comprehension show the role of memory language, world knowledge, and the ability to make inferences. The most viewed models in current literature are the Kintsch and Van Dijk model[4]; Kintsch[5,6] and Trabasso and Van Den Broek[7,8].

The text comprehension model proposed by Trabasso and Van Den Broek[7], emphasizes that the causal structures of texts influence the way they are processed[7].

The Causal Structure or problem solving model proposes that it is the causal inferences that connect the clauses (units of narrative discourse). Thus, the narrative text is represented as a causal network of categorized clauses and the relationships between them. The clauses are categorized as settings, initiating events, objectives, actions, results and reactions - and are all connected through causal links between them[8].

In this model, understanding is conceived as an active process of building a highly interconnected network of causal links between the protagonist's objectives, the events of the story and their outcome, with an emphasis on problem solving[9].

The analysis of the causal structure of the text then supposes it's decomposition into events, which correspond to clauses. All events are considered and one event is considered the cause of another, if in the context of the story, one could not have happened without the other. In the network-like causal structure nodes (meeting points of causal relationships) correspond to clauses (events). It has already been shown that remembering a clause is related to both the number of connections it presents - the more connections arrive and depart from the node, the better the clause is remembered - as to its participation in the main chain - It is the nodes that are part of the causal chain that are best remembered[8].

The fact that reading comprehension characterizes multiple cognitive processes, which probably act in an integrated manner, causes difficulties in the evaluation process of this ability. Therefore, there are many comprehension research studies in which the evaluation is performed through two tasks: retelling (free recall) and the multiple choice questionnaire. The use of both methods is considered to offer a broader investigation into assessing the ability of the level of understanding of a text[10].

A study already conducted found that reading comprehension develops between 4 and 8 years of age[11]. Younger children were found to be less faithful to what they read, including elements of other stories during the retelling process[12]. Although there is a consensus that the level of reading comprehension increases as the child progresses in age and schooling[9], an analysis of the narrative structures contained in the retelling abilities of children at the beginning of their schooling contributes to knowledge about the development of textual comprehension.

This study aims to describe the narrative structure contained in the retelling ability of second and third year children attending public or private primary schools of Belo Horizonte, and to investigate the performance of the participants in reading and

comprehension tasks in relation to their school year and gender, as well as the type of school attended.

Methodology

This is a cross-sectional, descriptive study with correlational and comparative delineation. This study included students from the second and third years of primary schools from both public and private schools of Belo Horizonte. One hundred and one samples of reading aloud, retelling and completion of a textual interpretation questionnaire containing ten multiple choice questions were collected for further reading and comprehension evaluation. The data collection took place between June and July of 2017. This study was approved by the Research Ethics Committee of Izabela Hendrix University, under number 38861914.4.0000.5096.

The students included in this study did not have any form of speech, hearing or writing impairment and a consent form had to be signed by both the parents or guardian and the students themselves to be included in the study.

The choice of the school years was made based on the period in which the children had already overcome the initial difficulties of decoding and, therefore, had better developed their reading and comprehension skills. The material used was a text entitled "The Thing" [9], which was read aloud by the children. First, the child was asked to read the text in silence and also informed about the post-reading activities (retelling and questionnaire). As soon as the student was ready he/she began reading the story, shortly after, the participant performed the retelling (free recall) of the text and later answered the interpretation questionnaire of the text read. The retelling was done immediately after reading the text, so that the child would not be influenced by the clues contained in the multiple choice questionnaire. The present work focuses on the narrative structure of retelling; however, when addressing the development of reading comprehension, we prefer not to treat it as an isolated research resource. Therefore, the questionnaire composed the procedures as it is part of the protocol used and to better investigate the ability to understand texts by these two forms.

The reading and ability to retell was recorded directly on a laptop computer, using a unidirectional microphone and processed using Praat acoustic analysis software which had been previously installed on the computer.

The ability to retell the story was analyzed according to the Causal Structure Text Comprehension Model7. The story had been subdivided into 22 clauses, 11 of which were part of the main story chain, all connected in a seven-level network, corresponding to episodes or parts of the story[8]. We analyzed the number of clauses present in each retell, as well as at which levels they fitted. The retells were classified into one of five performance categories[11]: 1- disconnected reproductions of phrases or stories other than the one read, or narratives that are limited to phrases that mark the opening and closing of stories; 2- reproductions that, although involving some characters and some events present in certain blocks of the original story, include additions (reconstructions) or redefinitions (interferences) of information, being unfaithful to the original story - this is the only classification that welcomes these events (reconstructions and interferences), so it leaves no room for doubt that in differentiating performance. 3- reproductions that are limited to events of some blocks, being disjointed and missing the relevant causal chains; 4- global reproductions with some articulation between clauses, but incomplete - there is reference to the central problem and the outcome, but the causal chain is not fully reproduced; 5-complete reproduction, in which the central ideas and inferences are reproduced in an articulated manner; The narrative follows an axis where the problem is presented and solved, reproducing the means for that, and the important causal relations are present[8,10]. The whole process of analysis and classification of the recall ability was performed individually by two evaluators, and after the classifications were completed, the results were cross checked between them for greater reliability.

According to what is described in this paper, and because it is a problem-solving model, it can be said that the most important variables to identify the characteristics of evolution of the retell are the memorisation of the events of the main chain of the story (greater number of retold clauses) and the increase of inferences.

Concerning the questionnaire, the questions and corresponding alternatives answers were read aloud by the examiner, which the child could follow both visually and audibly. After listening to the questions and possible answers, the student

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could choose which alternative he/she considered to be correct. The ten questions about the text were equally divided into literals (the answers were explicit in the text) and inferential (corresponding to facts present in the story, but absent in the text)[10].

In addition to this data, the WCPM rates (words read correctly per minute (accuracy) were quantified by listening to the recordings of each student.

To meet the objective of the study, a descriptive analysis and data association was performed. Questionnaire scores (total answers, literal and inferential questions), retelling category and WCPM (accuracy measure) were considered. For the descriptive analysis, the frequency distribution of the categorical variable was performed and the central tendency and dispersion measures were analysed for continuous variables. For the analysis of association, the Pearson Chi-square, Mann-Whitney and Kruskal-Wallis tests (considering the sample asymmetry) were used and were considered as statistically significant associations with p values ≤ 0.05. For the correlation analysis, the Spearman correlation coefficient was used, following the following parameter[13]: weak = 0.0-0.4; moderate = 0.4-0.7; and strong = 0.7-1.0, considered statistically significant those with p value ≤ 0.05. For data entry, processing and analysis, the software used was SPSS version 21.0.

Results

The descriptive data of narrative structure in the retell presented by the sample of this study are presented below, according to the variables: gender, school year and school type.

Retelling examples of each category are presented in Scenarios 1.

Scenarios 1. Retell examples of each category.

	Retelling examples in each of the analyzed categories
Category I	"I understood from the story that everyone was afraid of going down to the basement because of something".
Category II	"From what I understood the story took place in the basement of their house which was very old and had two floors. Peter's grandfather saw a ghost in the basement when he was going to get some skates, then everyone started laughing after which Peter's grandmother went down and opened all the windows and it was just a mirror, and everyone started laughing ".
Category III	"From what I understood the boy was going down with a torch to get some skates, then he had a fright because he had pointed the torch at the mirror which reflected the light and it appeared as if there was a ghost with a light shining out of his tummy, then he shouted and went back up. His grandfather went to see what had happened, he saw something tall with bright white eyes, that looked like they were glass. Because he was tall and his glasses were reflecting in the mirror. Then they both went back up screaming. Then the grandmother went down opening all the windows to see, she showed them that it was a mirror and that with each step they took down the staircase they had seen a different reflection, reflecting several times ".
Category IV	"Pedro's grandfather's house was a small old house, Pedro went to the basement to get his skates and saw something and ran out and said to his grandparents: - There´s something scary down there! A scary thing with a light shining out of it´s tummy. - A light shining out of it´s tummy? Peter's grandfather said and went to see what it was. Peter's grandfather went down to the basement and saw the thing. He went upstairs and said in a scared voice - There´s something scary! with very large and bright eyes that look like glass. And then Pedro's grandmother went to see what was happening and everyone followed behind her scared, she opened the windows as she went down and at the end when she opened the last window, everyone started laughing in shame because the scary thing was actually a mirror ".

Table 1 analyzes the association between retelling categories and sociodemographic data, using Pearson's chi-square test. The analysis showed that there is an association with difference between categories of retell and school year (p = 0.023). Third year students performed better in retell than second year students in this survey. The other associations did not reveal results with statistical differences.

Table 1. Association between retell categories and sociodemographics.

Variables	Categories of retell				p-value
	Disconnected/ different stories (I)	Not very true to the original story (II)	Disjointed (III)	Incomplete globals (IV)	
	N (%)	N (%)	N (%)	N (%)	
Sex					
Male	13 (46.4)	12 (54.5)	20 (58.8)	6 (35.3)	
Female	15 (53.6)	10 (45.5)	14 (41.2)	11 (64.7)	0.416
Total	28 (100.0)	22 (100.0)	34 (100.0)	17 (100.0)	
School year					
Second year	21 (75.0)	12 (54.5)	14 (41.2)	6 (35.3)	
Third year	7 (25.0)	10 (45.5)	20 (58.8)	11 (64.7)	0.023*
Total	28 (100.0)	22 (100.0)	34 (100.0)	17 (100.0)	
School type					
Public	16 (57.1)	19 (86.4)	24 (70.6)	12 (70.6)	
Private	12 (42.9)	3 (13.6)	10 (29.4)	5 (29.4)	0.169
Total	28 (100.0)	22 (100.0)	34 (100.0)	17 (100.0)	

Pearson's chi-square test

Legend: N = number of individuals; *= p≤0.05 value

Table 2 analyzes the association between the retell structures with sociodemographic data and retell categories using the Mann-Whitney and Kruskal-Wallis tests. The analysis showed that there is an association with statistical significance between inference with school year (p = 0.030) and retell categories (p≤0.001). Interference with retell categories (p = 0.030), the lowest average of interferences occur in retorts classified in category I, while the largest number of them occurs in retells of category III, where most of the sample is classified; Reconstruction with sex (p≤0.001) Reconstructions occur more in males. The other associations did not present results with statistical differences.

Table 3 analyzed the association between total clauses, correct questions and correct words per minute with sociodemographic data and retell categories using the Mann-Whitney and Kruskal-Wallis tests. The analysis showed that there is a statistically significant association between total clauses and school year, third year students reproduced more clauses, and retell categories (p≤0.001); with correct words per minute with school year (p≤0.001), third year students have better reading accuracy. The other associations did not present results with statistical significance.

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Table 2. Association between retell categories and sociodemographics.

Variables	Inference				p-value
	N (%)	Average	Median	D.P.	
Sex					
Male	51 (50.5%)	1.31	1.00	1.42	0.236[1]
Female	50 (49.5%)	1.08	0.00	1.38	
School year					
Second year	53 (52.5%)	0.96	0.00	1.36	0.030*[1]
Third year	48 (47.5%)	1.46	1.00	1.41	
School type					
Public	71 (70.3%)	1.31	1.00	1.51	0.373[1]
Private	30 (29.7%)	0.93	1.00	1.08	
Retell Categories					
Disconnected/ different stories (I)	28 (27.7%)	0.29	0.00	0.36	
Not very true to the original story(II)	22 (21.8%)	1.00	1.00	0.98	≤0.001[2]*
Disjointed (III)	34 (33.7%)	1.56	1.00	1.33	
Incomplete globals (IV)	17 (16.8%)	2.24	2.00	1.95	

Variables	Interference				p-value
	N(%)	Average	Median	D.P.	
Sex					
Male	51 (50.5%)	0.45	0.00	0.76	0.300[1]
Female	50 (49.5%)	0.56	0.00	0.73	
School year					
Second year	53 (52.5%)	0.43	0.00	0.72	0.215[1]
Third year	48 (47.5%)	0.58	0.00	0.77	
School type					
Public	71 (70.3%)	0.55	0.00	0.75	0.260[1]
Private	30 (29.7%)	0.40	0.00	0.72	
Retell Categories					
Disconnected/ different stories (I)	28 (27.7%)	0.21	0.00	0.50	
Not very true to original story (II)	22 (21.8%)	0.59	1.00	0.59	0.030[2]*
Disjointed (III)	34 (33.7%)	0.71	0.50	0.87	
Incomplete globals (IV)	17 (16.8%)	0.47	0.00	0.88	

Variables	Reconstruction				p-value
	N	Average	Median	D.P.	
Sex					
Male	51 (50.5%)	0.78	0.00	1.15	≤0.001*[1]
Female	50 (49.5%)	0.18	0.00	0.52	
School year					
Second year	53 (52.5%)	0.45	0.00	1.05	0.345[1]
Third year	48 (47.5%)	0.52	0.00	0.83	
School type					
Public	71 (70.3%)	0.37	0.00	0.70	0.106[1]
Private	30 (29.7%)	0.77	0.00	1.33	
Retell Categories					
Disconnected/ different stories (I)	28 (27.7%)	0.54	0.00	1.35	
Not very true to original story (II)	22 (21.8%)	0.50	0.00	0.86	0.334[2]
Disjointed (III)	34 (33.7%)	0.30	0.00	0.75	
Incomplete globals (IV)	17 (16.8%)	0.24	0.00	0.56	

[1]Mann-Whitney test; 2Kruskal-Wallis test
Legend N = number of individuals; * = value of p≤0.05

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Table 3. Association between correctly answered questions and the number of correct words per minute with sociodemographic data and retell categories.

Variables	Total clauses				p-value
	N	Average	Median	D.P.	
Sex					
Male	51	8.16	9.00	2.33	0.9211
Female	50	8.00	8.00	1.71	
School year					
Second year	53	7.85	9.00	2.21	0.0011*
Third year	48	8.33	9.00	1.83	
School type					
Public	71	8.07	9.00	2.04	0.9111
Private	30	8.10	9.00	2.08	
Retell Categories					
Disconnected/ different stories (I)	28	7.61	8.00	2.23	
Not very true to original story (II)	22	8.32	8.00	1.46	≤0.0012*
Disjointed (III)	34	8.24	9.00	1.94	
Incomplete globals (IV)	17	8.24	9.00	2.53	
Variables	Questions correctly answered				p-value
	N	Average	Median	D.P.	
Sex					
Male	51	8.16	9.00	2.33	0.1401
Female	50	8.00	8.00	1.71	
School year					
Second year	53	7.85	9.00	2.21	0.4291
Third year	48	8.33	9.00	1.83	
School type					
Public	71	8.07	9.00	2.04	0.8191
Private	30	8.10	9.00	2.07	
Retell Categories					
Disconnected/ different stories (I)	28	7.61	8.00	2.23	
Not very true to original story (II)	22	8.32	8.00	1.46	0.5202
Disjointed (III)	34	8.24	9.00	1.94	
Incomplete globals (IV)	17	8.24	9.00	2.54	
	Number of correct words per minute				p-value
	N	Average	Median	D.P.	
Sex					
Male	51	75.03	76.00	28.16	0.6811
Female	50	76.80	76.50	29.38	
School year					
Second year	53	64.43	66.00	26.26	≤0.0011*
Third year	48	88.58	89.50	25.88	
School type					
Public	71	78.75	77.00	26.41	0.1571
Private	30	69.20	63.00	32.85	
Retell Categories					
Disconnected/ different stories (I)	28	63.07	57.50	33.25	
Not very true to original story (II)	22	82.68	81.00	24.58	0.0612
Disjointed (III)	34	78.59	78.50	26.66	
Incomplete globals (IV)	17	83.00	90.00	24.12	

[1]Mann-Whitney test; [2]Kruskal-Wallis test
Legend N = number of individuals; SD = standard deviation; * = value of p≤0.05

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Table 4 performed the correlation analysis using the Spearman coefficient between the retell structures and WCPM and correct answers. When checking the analysis, it can be seen that there is a positive correlation of moderate magnitude (0.47) with statistical significance (p≤0.05) between WCPM and correct answers, i.e, by increasing the number of WCPM (accuracy) there is a tendency to increase the number of correct answers (better understanding). The other correlations were not correlated with statistical significance.

Table 4. Correlation between retelling structures, correct words per minute and number of questions answered correctly.

Variables	Inference	Interference	Reconstruction	Correct words/min.	Correct answers
Inference	1.00	0.14	0.04	0.11	0.14
Interference		1.00	0.00	0.10	0.13
Reconstruction			1.00	-0.19	-0.08
Correct words / minute				1.00	0.47*
Correct answers					1.00

Spearman correlation
Legend: min.= minutes; *= p≤0.05

A correlation analysis was performed using the Spearman coefficient between correctly answered inferential questions, correctly answered literal questions and total clauses. According to the results, there is a positive correlation of moderate magnitude (0.44) with statistical significance (p≤0.05) between correct answers of inferential questions and correct answers of literal questions, i.e, by increasing the number of correct answers of inferential questions, we also tend to see an increase in the number of correct answers of literal questions. The other correlations were not correlated with statistical significance.

Discussion

This study and other studies with the purpose of researching this type of subject can describe the evolution of the narrative in the retell abilities of children from the second and third years of primary school. Among the limitations of the study, is a lack of research in the area to discuss the findings. There are only a few articles on retell analysis, according to Trabasso's problem-solving text comprehension or causal structure model[7]. Most retell studies are analyzed according to the Kintsch[1-4] model, which emphasises the use of working memory and long-term memory in the comprehension assessment process. Both evaluate the same ability but emphasise different resources to achieve understanding. Another limiting factor is the relatively small sample researched from the same municipality, and not a generalized study of the population as a whole.

In general, there was a higher average of inferences in the retells in relation to the narrative structure and good performance in the multiple choice questionnaire. In regard to the total number of clauses, on average few clauses were reproduced in the retellings and WCPM was below the expected. The recommended value, according to a Brazilian study of reading fluency (utilizing a different methodology), is an accuracy rate of 96.1 for the school ages researched in this study[14]. Second year students had a higher occurrence of classification in category I retells and a lower occurrence of retell inferences; reproduced fewer clauses and correctly answered questions in the interpretation questionnaire, even though for these two there is no statistical difference, in relation to school year; and lower reading accuracy.

Third years were best ranked in the retell categories, with a minority in the worst category and a majority with the best grades found in the study, they produced more inferences in retelling, with more interference and reconstruction than the second year students, but with no statistical difference for them; they reproduced more clauses, answered questions correctly in the interpretation questionnaire and had better reading accuracy.

These findings corroborate a study that compared the performance of second and third year students in oral retelling and interpretation of a questionnaire, in which the second year presented the lowest results in relation to the number of inferences in the oral retelling and correct questions answered in the questionnaire[9]. Regarding accuracy, studies show that, with the advancement of education, there is an evolution in the performance of oral reading and, consequently, accuracy[10].

No students were classified in Category V of the retell. Considering the age of the students sampled, this finding differs from the study, in which the absence of this category occurs only in four year old children (but in the case of the study in question, which differed from the present research, it refers to the retelling of stories related orally). At six years of age, there is a balance of classification in categories III, IV and V, and finally, eight year olds present a high concentration in category V[11]. This finding may be justified by the fact that the children in the research are between seven and eight years old, and had not reached full school age development, since the research was carried out in the middle of the school year, that is, children who had just completed seven or eight years of age.

Retell performance in this research did not differ statistically in relation to gender and type of school, so the descriptive data presented can be used as a reference for children of both sexes and school types. A similar study found no differences in the performance of boys and girls in reading comprehension tasks[10]. Regarding the evolution of the narrative structure in the retelling of a story read by the individual, analyzed according to the problem-solving model, there is a differentiation between the narrative structures from one year to the next. This may be due to the increase in language or metalinguistic skills and cognitive processes, such as memory and attention, during development and education[9].

However, the higher number of clauses, which refers to the recalled events in the recall, will not necessarily result in a better recall rating, since the highest and lowest average total clauses are in the worst recall ratings.

These findings corroborate the initial hypothesis of the research, that the higher the educational level, the more elaborate the narrative structure of the retelling process, which, in fact contains more clauses and are in agreement with other studies by other researchers on the subject. They found the same development with advancement in school age, in which younger children have a more elementary level of performance than the other ages, while older children have more elaborated reproductions[11].

The results differ from others who concluded that there are no statistical differences in retell performance (in any of the variables that were used to evaluate it) in relation to children's education, although children have progressed in reading comprehension performance over the year, with an increase in age, when assessed through the text interpretation questionnaire[10].

The two forms used for the assessment of reading comprehension (story retell and multiple choice questionnaire), in this case, do not correlate with each other, which shows that they have different cognitive requirements, even though both assess a common skill namely reading comprehension of texts. In this study, the correctly answered multiple choice questions did not differ from one year to the other. Likewise, there was no distinction in performance between inferential and literal questions, that is, one who does well on one kind of question, does well on the other.

With regard to the types of questions (literal and inferential), the results of this study were similar to those found in the study[10]. However the study in question, showed differences in the performance of the comprehension questionnaire when comparing the second and third years[10]. The task of answering questions is known to take time. The answer options for a specific question make it easier to execute by activating a recognition process. Recognition tasks are used to detect stored information without the possible variations of an evocation task such as retell[9].

Researchers also report that development in accuracy is partly responsible for the good performance in comprehension assessments, since accuracy and fluency in word recognition are aspects on which reading comprehension itself depends. With the advancement in schooling, the burden of word recognition in reading comprehension ability decreases; additionally, the progress in ability also depends on factors related to the child's cognitive and linguistic development[10]. This fact is made evidently clear in this research through the significant evolution of accuracy and retell.

Evolution of reading and retelling narrative structure of schoolchildren in the 2nd and 3rd years of elementary school

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Understanding a text depends not only on memory capacity, but also on the ability to infer facts that are not explicitly present in the text. Therefore, the number of inferences is related to the best classification in the retell categories. Third years' use more inferences than second years. Studies show us something similar to the finding that inferences (evocations that change the meaning of the text's propositions from an association of two elements present in the story, but independently) are more common in the retells of younger children, showing that, with development, children become more faithful to the ideas read when retelling them[9,11,15]. The results of this study show the occurrence of inferences more present in category III recounts, in which the majority of the sample were classified, that is, there is no significant reduction in the occurrence of inferences, despite the increase of inferences with the advancement school years.

The reconstructions (reports of facts not present in the original story) occur more in boys. The studies consulted for the elaboration of this study do not represent substantial data about reconstructions, but present quantitative characteristics for the other structures (interference and inference). However, a study with a group of children compared the performance of boys and girls in the task of oral retelling, in which differences were not found[16,17,18]. Although the first study cited does not specifically address reconstructions, information additions / substitutions, multiple interpretations and repetitions that were considered errors in the retell analysis.

No statistical differences were found between the performance of public and private school students in all variables analyzed and it is worth noting that the public school and the private school that were used in the research have similar teaching evaluation indexes[19]. Most research usually shows that students from private schools demonstrate a better performance compared to students from public schools, regarding the correct answers in literal questions of the interpretation questionnaire[10,20]. Better results were also seen in relation to the inferential questions of the questionnaire, percentage of clauses in the main chain of the story and inferences of retell, as well as superior classifications in retell categories[10].

In a study of children's narrative discourse, differences were highlighted between performances in different types of school, for which they obtained a better result in relation to the amount of information evoked in the partial retelling by private school participants when compared to the public school[21]. Please note that this study was conducted from a story read to children, and not read by the children themselves.

A recent study of narrative development in preschoolers shows us that the ability to produce a clear and coherent narrative depends on the complexity of language development. The narration of a story heard by a child requires remembering, organization of the context, adapting to the listeners, having background knowledge and formulating new utterances. Younger children often omit events from a story that are vital for the listener to understand. Omitting key events as well as random sequence events can make it difficult for a listener to understand a narrative at this age. In preschool a developing child´s sequence shows events within its story; however it is common for children in this period to finish the narrative prematurely. Finally, the classic narrative style, which resembles the structure of an adult narration, develops at the beginning of primary school. The classic narrative style guides a listener into the introductory setting, events through the use of story grammar components, story sequence events to build the climax, and finally resolves and concludes the story[22].

Based on this information, we can see that the evolution of the retell narrative structure is linked to the narrative development in oral language. Therefore, for a student to be successful in one, the student should also be well developed in the other.

When associating such findings with clinical application, it is worth noting that retell is the most direct evaluation of the reader's interaction results with a text. Retell analysis can help a professional to identify non-obvious problems better than when a student is simply asked to answer questions. However, retelling should not be thought of as necessary, but rather more as a good strategy for developing skills in various areas of literacy, also in the context of school. Retelling of children's stories in the classroom with teachers and friends and in a variety of formats should be encouraged. Retelling has the potential to improve and develop skills that can be evaluated (working memory, long-term memory, ability to make inferences, new ideas, problem solving) and should be used for both purposes including broadening how we

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look at reading as a process to convey and recreate meaning[23].

Conclusion

There is an evolution between the second and third years in relation to the retell of a narrative with regard to the inferences - which appear more in the third year - and who have a better recollection of the events of story since third year students reproduced more clauses in the retell process. There is also evolution regarding the accuracy that, in turn, helps the students to better understand what was read and, consequently, to achieve a better performance in the interpretation of the text, as well as a better classification in the retell category. Reconstructions happen more in boys, but overall performance did not differ between genders or school types. With prior knowledge about narrative structuring over the years, it is possible to develop more assertive techniques regarding the improvement of skills evaluated in retelling, recognize when they may be outdated and identify more appropriate learning methods.

Other aspects to be considered in the retell of a story, besides the narrative structure in the elaboration of the retell, areas such as the intonation that the student uses when telling the story, changes in voice for representing different characters or moments of the narrative. These aspects have been little explored in the research area; therefore we suggest that further research should be directed to the study of these areas in greater detail and with more representative samples.

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