Textual production of children without learning difficulties

ABSTRACT

Purpose: To characterize the writing skills of students, to compare the performance of students in public and private schools, and to identify enhancements in the course of the school year. Methods: Three texts (narrative, game rules description, and a note or letter) written by 160 students from public and private schools were analyzed based on a specific protocol. Descriptive statistical analysis was performed. To compare the overall performance by the protocol between school grades, the Kruskal–Wallis and Miller tests were used, and to compare results as to schools (private and public), Mann–Whitney test was used. Results: Median values of aesthetic aspects, coherence, clarity, and concision for game rules description among public school students remained one point below the top score. Students from private schools achieved the highest score at medians. When comparing schools, private institutions had students with better performances, with significant difference. As to grades, statistical difference was found between the fourth and sixth grades of public schools and between the fourth and fifth grades of private schools. Conclusion: Most of the private school children showed consolidation of skills assessed in the different grades. However, public school children had this consolidation only at the sixth grade. Students from private schools had better performances compared to those from public schools. There is tendency to evolution from the fourth to sixth grades in public schools. However, the overall performance is similar in all grades in private schools.

RESUMO

Objetivo: Caracterizar as habilidades de escrita de escolares, comparar o desempenho dos estudantes das escolas pública e privada, e verificar uma possível evolução com o decorrer dos anos escolares. Métodos: 160 estudantes de escolas pública e privada escreveram três textos (narrativa, descrição de regras de jogo e bilhete ou carta) que foram analisados por protocolo específico. Foi realizada análise estatística descritiva. Para a comparação do desempenho geral no protocolo entre os anos escolares, foi utilizado o teste de Kruskal-Wallis e Miller, e entre as escolas (particular e pública), o teste de Mann-Whitney. Resultados: Os valores das medianas dos aspectos estética, coerência, clareza e concisão e descrição de regras de jogo dos estudantes da escola pública mantiveram-se um ponto abaixo da pontuação máxima. Os alunos da escola privada atingiram a pontuação máxima já na mediana. Ao comparar os estudantes de cada escola, os de instituição privada obtiveram melhor desempenho, com diferença significativa. Quanto às comparações entre os anos escolares, diferença estatística foi encontrada entre o 4º e 6º anos da escola pública e entre o 4º e 5º anos da escola privada. Conclusão: A maioria das crianças da escola privada apresentou consolidação das habilidades avaliadas nos diferentes anos, já as da escola pública mostram essa consolidação a partir do 6º ano. O desempenho dos estudantes da escola privada é superior aos da pública. Há uma tendência de evolução do 4º ao 6º ano da escola pública; já na escola privada o desempenho geral é semelhante nos diferentes anos.

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INTRODUCTION

More than mastering techniques or language standards, knowing how to write is to engender a proposal of meaning/reading. Writing presupposes having something to say, reason to say it, establishing oneself as the subject of the topic, and having the mechanisms and strategies to do so. It requires the writer to make decisions at various levels — semantics, pragmatics, discourse, and grammar(1).

Mother tongue teachers regularly complain about the difficulties of students in writing; such difficulty is not limited to Portuguese Language classes, but it seems to be worse in this space, where language disarticulation in the context of its production is more evident(2).

Writing competencies involve different skills, including rapid and accurate production of letters and words, generation of ideas, selection of words, proper use of grammar and punctuation, exact spelling, planning, translation of planning into language sequences, assessment, and review(3). In early school years, the teaching of writing focuses mainly on the written code aiming at writing letters and words. After the acquisition of the mechanism of graph-phonetic correspondences, writing lessons start to focus on the development of more advanced skills, such as production of complex sentences, writing planning, clarity, and concision(4,5).

Clinical practice has faced a significant progress in research on reading investigation, whether on evaluation or the mechanics of graph-phonetic correspondences, writing lessons start to focus on the development of more advanced skills, such as production of complex sentences, writing planning, clarity, and concision(4,5).

Brazilian studies evaluating text production are scarce, and they usually seek to stimulate the Portuguese-speaking elementary school teacher to contemplate one of the language practices suggested by the National Curriculum Parameters (PCN): writing(11-13). A protocol for the analysis of written production was recently launched(14) aiming to fill this gap, but unlike the proposal of this paper, analyses focused on text production among school children. In addition to subtest performance compatible with school years, the student had to be enrolled in elementary school, and could not be repeating or present records of any intellectual, visual, hearing, or physical disabilities. Initially, 170 students were selected; however, 10 were eliminated for not obtaining the score projected for their school grade in the APT.

Students were asked to write three texts: a narrative, a note or letter (the letter was set for students in sixth and seventh grades, for it requires more features than the note), and a description of game rules. The sheet offered to students in the fourth and fifth grades to write the narrative contained three images — a little girl riding a bicycle, a puppy, and a classroom — to stimulate imagination. The sheet offered to students in the sixth and seventh grades contained the image of a movie theater to stimulate a narrative addressing the activity of going to the cinema, a film, or both.

The children were evaluated in small groups at the school, in a silent room, with few visual stimuli. On completion of tests, the materials were analyzed by an educator with experience in text correction. Texts were assessed based on a Text Production Analysis Protocol (Appendix 1) conceived by the researchers for this study. The protocol was built on concepts of text types and genres.

We used the concepts proposed by Marcuschi(16), in which text types refer to the compositional structure of texts, involving the syntactic, lexical, grammatical, and logical relations, namely narrative, descriptive, expository, and argumentative texts. Text genres are oral or written language concrete achievements, such as a chronic, a novel, game rules, receipts, e-mails, notes, letters, and others. The protocol was applied to 480 texts, each child having produced 3 texts. Doubts concerning writings’ correction were solved by consensus.

The protocol focused on the following skills: aesthetics, coherence, cohesion, clarity and conciseness, language norms, and grammatical and lexical structure, considering two text productions (note/letter and narrative). The analysis of game rules description had a specific topic in the protocol due to its distinctive characteristics (Appendix 1).

The aesthetic ability comprised legibility, absence of erasures, presence of regular margins, use of paragraphs, and capitalization. The letter should be readable in all paragraphs to...
score 1. As to “erasure”, zero was assigned for children who used pencils in their writings and did not bother to erase errors well, leaving superimposed words over the text. Participants in the sixth and seventh grades were assigned zero when their texts were produced with pens and presented more than three erasures. As for the items “regular margins”, “use of paragraphs”, and “capitalization”, students were supposed to present them in all parts of the text to score.

As to coherence, the aspects analyzed were central idea, relationship between title and content, linked ideas, appropriate arguments, adequacy to proposal, and language level compatible with school grades. We verified whether the student could develop an idea when writing and was consistent when exposing it, observing linearity and adequacy; we also analyzed adequacy to title and language consistent with their school year.

Cohesion involved connecting elements of the sentence, such as comma, conjunction, semicolon, period, and connecting elements between sentences and a new paragraph. The criterion “repetition of inappropriate words” such as “so”, “and”, “then”, that is, marks of oral speech, was used in the analysis. To score 1, the student should have at least one situation in which the connecting elements appear between the parts of sentences and between sentences and paragraphs. Those who wrote texts (narrative and note/letter) in a single paragraph did not score.

As to clarity and concision, items checked were use of words in their proper sense, complete sentences, absence of information, and word repetition. Repeated information was marked when facts that had been expressed before were reincluded in the text; at the level of words, we considered the absence of synonyms or pronouns. Using the same information twice (one repetition), the same word three times (two repetitions), two words with inappropriate sense, and building an incomplete sentence equaled no score.

Language standards assessment involved correct spelling, accentuation, and appropriate scores. The criteria for scoring were students in the fourth and fifth grades did not score when they committed three or more spelling, accentuation, and punctuation errors; children in the sixth and seventh grades did not score when they committed an error in different aspects, including the use of language standards in their level of education.

Grammatical and lexical structuring involved the presence of simple and compound periods, subject–verb and noun agreements, and use of pronouns and adverbs. Students scored 1 when they used at least three periods of each type (simple or compound). Subject–verb agreement was identified when the verb was properly conjugated as to the subject, and noun agreement was marked when there was relationship of gender and number between a noun (or pronoun) and the words connecting to them. Both subject–verb and noun agreement scored 1 only when no errors were identified. As to the use of pronouns and adverbs, students scored 1 when both word classes were used at least once.

Finishing the analysis, description of game rules was assessed by use of paragraphs (or markers), scores, linked ideas (sequence of procedures or standards), absence of information, and word repetition.

Descriptive statistical analysis was performed with mean, median, and standard deviation values. To compare the overall performance by the protocol between school grades, we used the Kruskal–Wallis and Miller tests. There was no need to implement any type of correction for multiple comparisons, as the Miller test maintains the level of significance at 5%. To compare groups — public and private schools —, the Mann-Whitney test was applied.

In addition to statistical significance tests when comparing school types, effect size (d) by Cohen(17) was verified, with the following cutoff points: ≥0.8=large effect size; from 0.8 to 0.2=medium effect size; and <0.2=small effect size. Significance level was 5% (p<0.05).

RESULTS

Tables 1 and 2 show the performances of students in public and private schools as to their writing skills.

Tables 3 and 4 expose the descriptive measures of performances of students from public and private institutions in each of the assessed skills.

Figure 1 depicts the comparison of total score (overall performance) between school grades, with significant difference between the fourth and sixth grades in private schools and between the fourth and fifth grades in public schools. Measures “d” in Table 5 point large (greater than 0.80) or too large effect size (greater than 1.30) between school grades in both public and private schools.

Comparing the two groups of each school, those from private institutions had better performances than those in public schools, with significant difference (Table 6). Measure “d” for skills evaluated based on the protocol pointed medium effect size for “grammatical/lexical structure” and “game rules”; as for the others, effect size was large (greater than 0.80) or too large (greater than 1.30).

DISCUSSION

Characteristics of texts

The characterization of texts by students can help Portuguese language elementary school teachers to check students’ text production and assist speech pathologists in the evaluation of texts by their patients. This study analyzed 480 texts written by 160 children from the fourth to seventh grade of basic education to establish a writing profile for students of private and public schools.

On the basis of the genres and their essential characteristics as to subject matter and compositional mode (structure), the protocol (Appendix 1) was aimed at aesthetics, cohesion, coherence, clarity and concision, language standards, grammatical structure, and some aspects of game rules description.
### Table 1. Performances of students from public schools as to writing skills

<table>
<thead>
<tr>
<th>Skills assessed</th>
<th>Public (n=80)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean±SD</td>
<td>Median</td>
<td>Minimum</td>
<td>Maximum</td>
<td>Lower Quartile</td>
<td>Upper Quartile</td>
<td>Quartile Range</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>3.55±1.19</td>
<td>4.00</td>
<td>1.00</td>
<td>5.00</td>
<td>3.00</td>
<td>4.50</td>
<td>1.50</td>
</tr>
<tr>
<td>Coherence</td>
<td>4.28±1.90</td>
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<td>6.00</td>
<td>3.00</td>
<td>6.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Cohesion</td>
<td>1.48±1.03</td>
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<td>3.00</td>
<td>1.00</td>
<td>2.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Clarity/concision</td>
<td>3.08±1.06</td>
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<td>1.00</td>
<td>4.00</td>
<td>2.50</td>
<td>4.00</td>
<td>1.50</td>
</tr>
<tr>
<td>Language standards</td>
<td>0.56±0.82</td>
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<td>3.00</td>
<td>0.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Grammatical and lexical structuring</td>
<td>5.66±0.64</td>
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<td>3.00</td>
<td>6.00</td>
<td>5.00</td>
<td>6.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Game ACC</td>
<td>3.35±1.25</td>
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<td>5.00</td>
<td>3.00</td>
<td>4.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Total score</td>
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<td>31.00</td>
<td>18.00</td>
<td>26.00</td>
<td>8.00</td>
</tr>
</tbody>
</table>

Caption: Game ACC = Game rules aesthetics, coherence, and clarity; SD = standard deviation

### Table 2. Performances of students from private schools as to writing skills

<table>
<thead>
<tr>
<th>Skills assessed</th>
<th>Private (n=80)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean±SD</td>
<td>Median</td>
<td>Minimum</td>
<td>Maximum</td>
<td>Lower Quartile</td>
<td>Upper Quartile</td>
<td>Quartile Range</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>4.63±0.70</td>
<td>5.00</td>
<td>3.00</td>
<td>5.00</td>
<td>4.50</td>
<td>5.00</td>
<td>0.50</td>
</tr>
<tr>
<td>Coherence</td>
<td>5.91±0.40</td>
<td>6.00</td>
<td>3.00</td>
<td>6.00</td>
<td>5.00</td>
<td>6.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Cohesion</td>
<td>2.59±0.74</td>
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<td>3.00</td>
<td>2.00</td>
<td>3.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Clarity/concision</td>
<td>3.88±0.37</td>
<td>4.00</td>
<td>2.00</td>
<td>4.00</td>
<td>4.00</td>
<td>6.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Language standards</td>
<td>2.1±1.07</td>
<td>3.00</td>
<td>0.00</td>
<td>3.00</td>
<td>1.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Grammatical and lexical structuring</td>
<td>5.99±0.11</td>
<td>6.00</td>
<td>5.00</td>
<td>6.00</td>
<td>5.00</td>
<td>6.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Game ACC</td>
<td>4.23±1.20</td>
<td>5.00</td>
<td>0.00</td>
<td>5.00</td>
<td>4.00</td>
<td>6.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Total score</td>
<td>29.40±3.08</td>
<td>31.00</td>
<td>17.00</td>
<td>32.00</td>
<td>28.00</td>
<td>32.00</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Caption: Game ACC = Game rules aesthetics, coherence, and clarity; SD = standard deviation

### Table 3. Mean, median, and standard deviation of students from the fourth to seventh grades in public school

<table>
<thead>
<tr>
<th>Skills assessed</th>
<th>Public (n=80)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean±SD</td>
<td>Md</td>
<td>Mean±SD</td>
<td>Md</td>
<td>Mean±SD</td>
<td>Md</td>
<td>Mean±SD</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>2.85±1.18</td>
<td>3.00</td>
<td>4.15±0.93</td>
<td>4.00</td>
<td>3.70±1.08</td>
<td>4.00</td>
<td>3.50±1.24</td>
</tr>
<tr>
<td>Coherence</td>
<td>4.25±2.07</td>
<td>5.00</td>
<td>3.85±2.28</td>
<td>5.00</td>
<td>4.90±1.33</td>
<td>5.50</td>
<td>4.10±1.74</td>
</tr>
<tr>
<td>Cohesion</td>
<td>0.75±0.85</td>
<td>1.00</td>
<td>1.30±0.92</td>
<td>1.00</td>
<td>2.05±0.89</td>
<td>2.00</td>
<td>1.80±1.01</td>
</tr>
<tr>
<td>Clarity/concision</td>
<td>2.60±0.94</td>
<td>3.00</td>
<td>3.10±1.07</td>
<td>3.00</td>
<td>3.65±0.59</td>
<td>4.00</td>
<td>2.95±1.32</td>
</tr>
<tr>
<td>Language standards</td>
<td>0.20±0.41</td>
<td>0.00</td>
<td>0.50±0.69</td>
<td>0.00</td>
<td>0.50±0.89</td>
<td>0.00</td>
<td>1.05±1.00</td>
</tr>
<tr>
<td>Grammatical and lexical structuring</td>
<td>5.55±0.83</td>
<td>6.00</td>
<td>5.60±0.68</td>
<td>6.00</td>
<td>5.85±0.37</td>
<td>6.00</td>
<td>5.65±0.59</td>
</tr>
<tr>
<td>Game ACC</td>
<td>2.75±1.59</td>
<td>3.00</td>
<td>3.25±1.12</td>
<td>3.00</td>
<td>4.15±0.59</td>
<td>4.00</td>
<td>3.25±1.16</td>
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<tr>
<td>Total score</td>
<td>18.95±5.49</td>
<td>20.00</td>
<td>21.75±5.75</td>
<td>23.00</td>
<td>24.80±3.16</td>
<td>25.00</td>
<td>22.30±5.63</td>
</tr>
</tbody>
</table>

Caption: Md = median; SD = standard deviation; Game ACC = Game rules aesthetics, coherence, and clarity

### Table 4. Mean, median, and standard deviation students from the fourth to seventh grades in private school

<table>
<thead>
<tr>
<th>Skills assessed</th>
<th>Private (n=80)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean±SD</td>
<td>Md</td>
<td>Mean±SD</td>
<td>Md</td>
<td>Mean±SD</td>
<td>Md</td>
<td>Mean±SD</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>4.90±0.45</td>
<td>5.00</td>
<td>4.95±0.22</td>
<td>5.00</td>
<td>4.65±0.75</td>
<td>5.00</td>
<td>4.00±0.79</td>
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<tr>
<td>Coherence</td>
<td>5.90±0.31</td>
<td>6.00</td>
<td>5.95±0.22</td>
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<td>6.00±0.00</td>
<td>6.00</td>
<td>5.80±0.70</td>
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<tr>
<td>Cohesion</td>
<td>2.35±0.81</td>
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<td>2.85±0.49</td>
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<td>2.65±0.67</td>
<td>3.00</td>
<td>2.50±0.89</td>
</tr>
<tr>
<td>Clarity/concision</td>
<td>3.75±0.44</td>
<td>4.00</td>
<td>3.90±0.31</td>
<td>4.00</td>
<td>3.95±0.22</td>
<td>4.00</td>
<td>3.90±0.45</td>
</tr>
<tr>
<td>Language standards</td>
<td>1.85±1.27</td>
<td>2.5</td>
<td>2.50±0.89</td>
<td>3.00</td>
<td>2.00±0.97</td>
<td>2.00</td>
<td>2.40±1.05</td>
</tr>
<tr>
<td>Grammatical and lexical structuring</td>
<td>6.00±0.00</td>
<td>6.00</td>
<td>6.00±0.00</td>
<td>6.00</td>
<td>6.00±0.00</td>
<td>6.00</td>
<td>5.95±0.22</td>
</tr>
<tr>
<td>Game ACC</td>
<td>3.75±1.62</td>
<td>4.00</td>
<td>4.75±0.55</td>
<td>5.00</td>
<td>4.10±1.17</td>
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<td>4.30±1.08</td>
</tr>
<tr>
<td>Total score</td>
<td>28.50±3.24</td>
<td>28.50</td>
<td>30.90±2.15</td>
<td>32.00</td>
<td>29.35±2.41</td>
<td>29.50</td>
<td>28.85±3.88</td>
</tr>
</tbody>
</table>

Caption: Md = median; SD = standard deviation; Game ACC = Game rules aesthetics, coherence, and clarity
Verification of aesthetics was aimed at the abilities of students to express a readable text without erasures and with adequate visual structuring (margin, paragraphs, capital letters). Mean values of children from public schools show that at least three of the five items are met, and, in private schools, at least four (Tables 1 and 2). Aesthetics is essential for the understanding and visual organization of a text(18).

When analyzing qualitatively the items related to aesthetics, public school students showed little aptitude with the use of paragraphs; most of them wrote their text in a single paragraph, although they could develop the main idea with coherence. The expectation was that everyone mastered this aspect because such text rule is taught to students in the early years of schooling(19). The separation into paragraphs facilitates the reader’s understanding and organizes the text(20).

Coherence was also investigated in texts, considering presentation of central idea and chained ideas, relationship between title and content, adequacy to the proposal, arguments, and language level compatible with school year. For a text to be coherent, it must present a logical and harmonious relationship between ideas, which must be ordered and interconnected clearly, thus forming a unit in which the parts make sense(1). Students of private schools (Table 2) had median values equal to the total value of the item (6.0), and those of public schools (Table 1), had values close to it (5.0). Coherence is relevant in PCNs(19) because the school prioritizes and emphasizes the ability to organize ideas; thus, the good performance of students seems to result from it.

Cohesion is one of the constitutive principles of text production that is expressed through language features, giving it continuity, sequence, and a meaning(16,21). Although an incoherent text can be the result of misuse of the elements of cohesion, because a grammatical or lexical error impedes the understanding of the text, cohesion and coherence are different aspects. Half of the students in private schools (Table 2) regardless of their school year (Table 4). In the public school (Table 3), students meet, on average, one item in the fourth and fifth grades, with improvement in two items in the sixth grade. These students wrote their texts, in some cases, in a single paragraph, which impaired the cohesive chain.

Clarity and concision were verified as related to the use of appropriate vocabulary, complete sentences, and absence of repeated information and words. Clarity and objectivity are important aspects in any text and must meet the principle of linguistic economy: to use few words to inform the maximum(2). A competent writing implies selection of words and appropriate use of grammar(3). Most students of all grades in the private

Table 5. Effect size in overall performance (total score) between school years in both types of school

<table>
<thead>
<tr>
<th>Comparison between grades</th>
<th>Public (n=20)</th>
<th>Private (n=20)</th>
<th>p-value</th>
<th>d</th>
</tr>
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<tbody>
<tr>
<td>4thx5th</td>
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<td>0.87</td>
<td></td>
<td></td>
</tr>
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<td>4thx6th</td>
<td>1.31</td>
<td>0.30</td>
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<td>4thx7th</td>
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<td>0.10</td>
<td></td>
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</tr>
<tr>
<td>5thx6th</td>
<td>0.66</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5thx7th</td>
<td>0.10</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6thx7th</td>
<td>0.55</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Effect size (d) – small: 0.20; medium: 0.50; large: 0.80; very large: 1.30

Table 6. Comparison of mean scores and effect size in public and private school students

<table>
<thead>
<tr>
<th>Skills assessed</th>
<th>Public Mean±SD</th>
<th>Private Mean±SD</th>
<th>p-value</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>3.55±1.19</td>
<td>4.63±0.70</td>
<td>0.000*</td>
<td>1.11</td>
</tr>
<tr>
<td>Coherence</td>
<td>4.28±1.90</td>
<td>5.91±0.40</td>
<td>0.000*</td>
<td>1.03</td>
</tr>
<tr>
<td>Cohesion</td>
<td>1.48±1.03</td>
<td>2.59±0.74</td>
<td>0.000*</td>
<td>1.24</td>
</tr>
<tr>
<td>Clareza</td>
<td>3.08±1.06</td>
<td>3.88±0.37</td>
<td>0.000*</td>
<td>1.01</td>
</tr>
<tr>
<td>Language standards</td>
<td>0.56±0.82</td>
<td>2.19±1.07</td>
<td>0.000*</td>
<td>1.71</td>
</tr>
<tr>
<td>Grammatical and lexical structuring</td>
<td>5.66±0.64</td>
<td>5.99±0.11</td>
<td>0.000*</td>
<td>0.72</td>
</tr>
<tr>
<td>Game rules aesthetics, coherence, and clarity</td>
<td>3.35±1.25</td>
<td>4.23±1.20</td>
<td>0.000*</td>
<td>0.72</td>
</tr>
<tr>
<td>Total score</td>
<td>21.95±5.44</td>
<td>29.40±3.08</td>
<td>0.000*</td>
<td>1.69</td>
</tr>
</tbody>
</table>

*pSignificant result in comparison between groups (Mann-Whitney test). Effect size (d) – small: 0.20; medium: 0.50; large: 0.80; very large: 1.30

Caption: SD = standard deviation
school wrote texts comprising these characteristics (Table 2). In the public school (Table 1), such ability was consolidated in half the students of the sixth and seventh grades (median of both years = 4.00). Failure to use referential cohesion, that is, not using other words to refer to a same referent (synonyms or pronouns), was the item that most impaired clarity and conciseness of the texts.

In the protocol used for this study, language standards involved spelling, punctuation, and accentuation, which were verified as a whole, without classification of misspellings. Analysis of distribution of results per school year indicated that the median in the fourth to sixth grades was zero, reaching 1.00 in the seventh grade (Table 3). In private schools, performance improves every year, but, unlike other skills, the median reaches 3.00 (maximum score) only in the fifth and seventh grades (Table 4).

The poor performance of public school students as to language standards compared to those from private school (Table 6) may reflect the method adopted for the construction and consolidation of reading and writing skills: constructivism. The concept of constructivist adopted in pedagogy assumes that once learners are part of an environment that provides and motivates them to literacy acquisition, they can develop such skills by themselves. The teacher’s role is to observe the student, investigate their prior knowledge, and try to present them various elements so that they build their own knowledge\(^{22}\). Corrections in spelling, accentuation, and punctuation are considered indirect and, therefore, pushed into second place.

The analysis of the grammatical and lexical structure showed that this aspect is consolidated in schools. In the early school years, teaching is focused on graph-phonetic correspondence, but with the advancement of education, the focus changes to the development of more advanced skills such as producing complex sentences\(^{45}\). Although students make use of informal written language in social networks (abbreviations, misuse of agreement rules), this seems not to influence the grammatical structure of formal writing.

The PCNs\(^{19}\) place great emphasis on instructional texts when addressing text genres, whose purpose is to instruct, orient about something. This ability was therefore included in the study protocol. As for the ability to describe game rules, the students from the private school had similar performances in different grades (Table 4). Medians for all school grades were between 4.00 and 5.00 points.

Medians of public school students showed that half of students in the sixth and seventh grades scored 1 point above those scored by students in the fourth and fifth grades. We raise the hypothesis that this difference occurs because students from the fourth grade in public institutions have not acquired the habit of reading game manuals. The insertion of oral genres in school routine from the early years can avoid difficulties students face when dealing with situations that require them to write manuals or similar texts\(^{16}\).

As to the total score of public school students, from the sixth grade on their overall performance meets 75% of the protocol, indicating that the skills assessed by the instrument are not consolidated in the early years. Figure 1 shows a tendency to progress from fourth to sixth grades, but the comparison between grades showed no statistical difference, except between fourth and sixth grades, with very large effect size (Table 5).

Half the students of the private school were very close to total score, 31 (Table 2), and of them, 75% reached 28 (more than 85% of the protocol). Students performed well in most aspects evaluated, suggesting that skills comprised by the protocol are consolidated from the fourth year on. The comparison between grades showed no difference either, except between the fourth and fifth grades (Figure 1), with large effect size (Table 5).

Students in the fifth grade of the private school had better performance. According to PCNs\(^{19}\), different writing standards for text production are consolidated in this period, closing a stage of basic education. In the sixth and seventh grades, new content is inserted and students go through a period of grammatical restructuring, which may destabilize the knowledge of other content. On the other hand, there was a decrease in overall performance of students in the seventh grade (Table 4), but it could be limited to this study group, which did not show motivation and interest in producing the texts. Writing a text requires effort, so one can conceive new ideas and, therefore, it demands involvement\(^{23}\). Thus, motivation must always be considered when analyzing text productions, particularly among adolescents.

**Comparison between schools**

Individualized characterization of students’ performance in public and private schools was essential so that data did not provide false values for the sample of students evaluated within a general framework.

Comparison between performances of students from public and private institutions was significantly different in all aspects (Table 6), with better performance of students from the private institution. The effect size (d) pointed out that being in private school is relevant compared to being in public schools in most aspects evaluated, and this medium effect is only aimed to language standards and grammatical and lexical structuring. Exploring the teaching quality gap between private and public network schools in the first phase of basic education, França and Gonçalves\(^{24}\) reported a mean difference of 0.9 standard deviation between networks, and an increasing difference according to socioeconomic status of students’ families and to the average salaries paid to teachers.

The main instruments for assessing the quality of education in Brazil — the National System of Basic Education Evaluation (SAEB), National High School Exam (ENEM), School Performance Evaluation System of the State of São Paulo (SARESP) — showed a huge difference between public and private schools in all States\(^{25}\). The distance between scores obtained by students in both networks increased in the 2003, 2009, and 2012 reviews, according to the Programme for International Student Assessment (Pisa). We have fallen in the international ranking of all areas compared to the last Pisa, in 2009: 57th to 58th position in mathematics, 53rd to
59th position in science, and 53rd to 55th position in language studies(26).

Not only different scores, these numbers indicate different levels of knowledge in reading, mathematics, and science. At the age of 15, students from private schools can read a text and extract its main idea, identifying contradictory arguments. Public network students, on the other hand, can only understand explicit information and are not able to reckon the most important passages. There are exceptions, but they are a small set of excellence islands.

Many factors may have contributed for this difference, including the number of students in class, inappropriate material, physical structure, and working conditions of teachers(27). Discussing these factors is not a purpose of our study, but rather pointing out that when assessing writing skills, the variable type of school should be considered.

All 160 students in this study do not reflect the performance of Brazilian schools, but provide a sample of their behavior when producing texts. Working with texts remains a challenge in the classroom; greater challenge is to assess these tasks considering the cultural and social diversity of the country. A limitation of this study was the fact that we did not carry out an analysis of text production by students from various regions of the country.

CONCLUSION

Most children in private schools present consolidated skills in different grades, but most of those from public schools show this consolidation from the sixth grade on. Performances of private school students were superior to those of public schools in all grades, with significant difference. There is a tendency to enhance general performance among students from fourth to sixth grades of public schools, but those from private schools present a quite similar overall performance in all grades.

The features observed in text production of students without learning difficulties can serve as parameter for analyses of texts by children with learning complaint in clinical practice, and also indicate factors that may be revised and improved as to teaching methodology in writing aiming at a quality public education.

REFERENCES

APPENDIX 1

PROTOCOLO DE ANÁLISE DE PRODUÇÃO TEXTUAL
Elaborado por Santos MAG e Hage SRV

Nome: _________________________________________________________________________________________________________
Idade: ______________________ Data de nascimento: ______________________ Data da realização da avaliação: ______________________
Ano: _______________________ Escola pública (  ) privada (  ) Nome: ______________________________________________________________________________
Repetência: (  ) Não (  ) Sim Qual ano? ______________________________________________________________________________

Habilidades avaliadas

Estética - narrativa e bilhete/carta
Letra legível Sim = 1 Não = 0
Sem rasuras Sim = 1 Não = 0
Margens regulares Sim = 1 Não = 0
Utilização de parágrafos Sim = 1 Não = 0
Utilização de letra maiúscula Sim = 1 Não = 0
Total (5)

Coerência - narrativa e bilhete/carta
Ideia central Sim = 1 Não = 0
Relação entre o título e o conteúdo Sim = 1 Não = 0
Ideias encadeadas Sim = 1 Não = 0
Argumentos adequados Sim = 1 Não = 0
Adequação a proposta Sim = 1 Não = 0
Nível de linguagem adequado ao ano Sim = 1 Não = 0
Total (6)

Coesão - narrativa e bilhete/carta
Utiliza elementos de ligação entre as partes da frase Sim = 1 Não = 0
Utiliza elementos de ligação entre frases e parágrafos Sim = 1 Não = 0
Sem repetição inadequada de palavras Sim = 1 Não = 0
Total (3)

Clareza e concisão - narrativa e bilhete/carta
Faz uso de palavras com sentido apropriado Sim = 1 Não = 0
Frases completas Sim = 1 Não = 0
Ausência de informações repetidas Sim = 1 Não = 0
Uso de vocábulos sinônimos, pronomes (sem repetição de palavras) Sim = 1 Não = 0
Total (4)

Norma culta - narrativa e bilhete/carta
Ortografia correta Sim = 1 Não = 0
Acentuação completa Sim = 1 Não = 0
Utiliza as pontuações adequadas Sim = 1 Não = 0
Total (3)

Estruturação gramatical e lexical – narrativa e bilhete/carta
Períodos simples Sim = 1 Não = 0
Períodos compostos Sim = 1 Não = 0
Concordância verbal Sim = 1 Não = 0
Concordância nominal Sim = 1 Não = 0
Uso de pronomes Sim = 1 Não = 0
Uso de advérbios Sim = 1 Não = 0
Total (6)

Estética, coerência e clareza - descrição da brincadeira ou jogo
Utiliza parágrafos ou marcadores para descrever Sim = 1 Não = 0
Utiliza pontuações Sim = 1 Não = 0
Ideias encadeadas Sim = 1 Não = 0
Ausência de informações repetidas Sim = 1 Não = 0
Uso de vocábulos sinônimos, pronomes (sem repetição de palavras) Sim = 1 Não = 0
Total (5)

Pontuação final
Instruções verbais

4º. e 5º. Anos
Narrativa: escolha uma das imagens abaixo. Após escolher, você deve contar uma história ou relatar um acontecimento sobre a imagem. Seu trabalho deverá ter título, começo, meio e fim.

Bilhete: escolha uma pessoa (amigo, mãe, pai, primo) para escrever um bilhete. Você pode deixar um recado para ela ou convidá-la para assistir um filme, brincar, jogar, andar de bicicleta ou outro convite que desejar.

6º. e 7º. Anos
Narrativa: observe a imagem. Se você já foi ao cinema, escreva um texto contando como foi, que filme assistiu, qual as sensações, o que você lembrar e quiser contar. Se ainda não foi, conte sobre um filme que assistiu na TV. Seu trabalho deverá ter título, começo, meio e fim.

Carta: neste trabalho você deverá escrever uma carta contando para uma pessoa (amigo, primo, tio) sobre uma viagem, sua cidade, sua família ou sobre um sonho que você deseja realizar.

Para todos os anos: do 4º. ao 7º.
Regras de jogo ou brincadeira: você já participou de algum tipo de brincadeira como amarelinha, pique-esconde, ou jogou o jogo da velha, xadrez, futebol, queima? Pense em alguma brincadeira ou jogo de sua preferência e escreva no mínimo cinco regras da atividade que você escolher.

Nome da brincadeira ou jogo: __________________________________________
Regras:

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