ALTERATIONS IN WRITTEN LANGUAGE BY STUDENTS IN THE LITERACY CYCLE, AS VIEWED BY TEACHERS

Alterações da linguagem escrita de escolares em fase de alfabetização na visão de professores

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ABSTRACT

Purpose: the overall goal is to characterize the major alterations in learning existent in the students. The specific goals is characterized, from the answers provided by the teachers, changes in learning that judge be present in students and identify complaints regarding written frequently detected by teachers. Methods: this research is a transverse sectional quantitative individuated study. 21 teachers from the literacy cycle (from the 1st to the 3rd school year) who work at schools have participated in this study, seven from de first year, six from the second year and eight from the third year. Those groups were divided into two subgroups: G1 – early literacy (1st and 2nd school year) and G2 – end of the literacy (3rd school year). A formulated questionnaire was answered by the teachers. Fisher’s test was used as a statistic instrument. Results: there was a difference in the historical changes proportion of language before schooling, being bigger in the final school year. According to the year attended, the facility in the text comprehension was greater among younger students. Regarding the ability to express ideas through writing the proportion of students is bigger (0,0389) among those that studies in the afternoon. Conclusion: the delay in the acquisition of the language can damage the process of literacy what includes the pragmatic ability and expressive function.

KEYWORDS: Language; Writing; Education; Learning; Speech Disorders

INTRODUCTION

According to data from last school census conducted in 2012, Brazil has almost 51 million students enrolled in education, distributed as follows: 83.5% in public networks and only 16.5% of students in private schools. It was found in the Index of Basic Education Development (IDEB) that in the early years of elementary school, private schools scored higher when compared with public schools. Within this context, we emphasize that children need to be literate by 8 years of age and are monitored through periodic evaluations, according to the guidelines established in Decree No. 6094/07.

To be considered literate, the student should be able to master the alphabetic writing system, read and write independently, and understand texts related to their family universo. Para both subjects, the subject needs to develop essential skills or knowledge, such as: building alphabetic hypotheses, dominating grapheme positions in the graphic space, having visuospatial mastery, understand the notion of tone in relation to syllables, segmenting blocks of sounds in words and the reverse, knowing that speech and writing are different and understanding multiple representations, identifying alternatives in writing, and establishing a conventional form, among others. For satisfactory performance on reading and decoding, the individual should have the linguistic ability to transform graphemes into phonemes, and the reverse, match letters and sounds, as well as organize, sequence, and connect this sound chain.

Teachers are the key players in the literacy process, because through the strategies used in the classroom and their perceptions of student
performance, they allow the students to develop written language. However, according to Oliveira and Natal, educators show a lack of basic knowledge for pedagogical practice with regards to the literacy process, such as the stages of development of written language, the strategies for its appropriation, the identification of difficulties in this process, and how to proceed in light of them⁷.

The lack of such basic knowledge may cause learning problems in school because students are being taught through inadequate strategies or insufficient stimuli. Therefore, it is important to train educators so that they can create satisfying strategies for the development of writing, and for identifying signs of alterations in language in order to make the pertinent referrals⁸.

The following describes some characteristics of the diagnoses involving writing, such as learning disorders, Dyslexia, Dysorthographia and Dysgraphia. In addition to these learning difficulties, the questionnaire from this study involves the development of reading and writing and when flaws occur in the process of reading and writing acquisition in order to characterize some of these alterations.

Learning disorders correspond to “disorders in which the normal patterns of learning are altered from the earliest stages of development. The problem is not only the consequence of the lack of opportunity to learn or mental disability, and is not due to an injury or brain disease”⁹. Instead, learning difficulties are directly related to the history of a delay in language acquisition. The same refers to alterations in the oral/ written expression and reception development process¹⁰.

In dyslexics, the difficulty is present in the relationship of the graphic symbols with the sounds they represent, and organizing them mentally in a temporal sequence. While in dysorthographia, the problem lies in expressing themselves through written language, with features such as hypo/ hypersegmentation, misspelled words, organization of words, and punctuation errors. These changes persist after the initial years of education¹¹.

Oliveira Cardoso and Capellini carried out a study using the Protocol for the Evaluation of Reading Processes (PROLEC), noting that students with learning disabilities had poorer overall performance compared to students with dyslexia. While students with dyslexia showed poorer performance in the lexical, syntactic and semantic processes, the performance of students with learning disability was low on the tasks for the processes of identification of letters, lexical, syntactic and semantic, due to alterations in visual identification ability along with other altered skills¹². In another study, they used the Simplified Dysgraphia Scale, which consisted of assessing writing through dictation of a note, and finding that over 80% of dyslexic students and the entire group of students with learning disorders presented with dysgraphia. However this may or may not occur in students if changes are made to the learning process¹³.

Based on the above, this study aimed to characterize, from the answers offered by teachers, the alterations in written language they feel are present in their students, as well as identify the most frequent complaints of these professionals regarding this ability.

METHODS

It is an individuated, cross-sectional, quantitative study and was approved by the Ethics in Research Committee at the José Andrade University Campus at UNIANDRADE, Curitiba, Parana, under protocol number 222,069. The head of the Department of Education in Cajati, SP authorized the site as the research location. A consent form was signed by all subjects (teachers).

The data collection for this study was conducted at the end of the second semester of the school year. It is made up of teacher interviews, of both genders, who taught the first to the third year of primary education in municipal schools in Cajati, SP, considering the literacy cycle, as defined by the Ministry of Education, to occur during the first three years of primary education (first cycle)⁴.

The inclusion factors were that teachers work in a classroom in municipal schools in Cajati. Being excluded from the sample were those teachers who did not teach or refused to sign the consent form, per Resolution 466/2012.

Participating in this survey were 21 teachers from five local schools, distributed between the first and third grade, of both genders, and who were divided into two groups:

• Group 1 (G1): composed of seven teachers who taught in the first grade and six teachers from second grade;
• Group 2 (G2): composed of eight teachers who taught third grade.

The average work experience in the field was 13 years and 6 months and the standard deviation was 6 years and 7 months. The analytical method was based on the constructivist theory is used by teachers in the literacy process.

All teachers answered a questionnaire (Figure 1) consisting of thirteen questions, 11 dichotomous and 2 multiple choice questions, but both types addressing the development of writing and the major complaints in relation to alterations in learning of writing. As no previously validated questionnaires

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for the purposes of this study were found, a specific questionnaire was created based on specific skills as described by Zorzi.

The questionnaire was handed out after a Collective Pedagogical Work Period (HTPC), and the teachers returned the completed forms. To verify the adequacy of the questionnaire, a pilot project was implemented with ten teachers and subsequently the necessary modifications were made for better understanding of the research subjects.

The results were statistically analyzed using descriptive methods (mean, standard deviation, figures and table) and inferential methods (Fisher’s test), adopting a significance level of 0.05 (5%).

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**QUESTIONNAIRE**

DATE: _______________ TEACHER: ______________________

TEACHING EXPERIENCE: ___________ SCHOOL: ______________ YEAR/GRADE ______

CLASS: _____ PERIOD: _____ NUMBER OF STUDENTS: _______

In a general analysis of students, choose the predominant characteristics in the class:

1. Are there any of the following alterations present?
   - neurological (  ) cognitive (  ) sensory (  ) emotional
2. Was there a history of language alterations before enrollment?
   - (  ) Yes (  ) No
3. Do they know all the letters of the alphabet?
   - (  ) Yes (  ) No
4. Do they have difficulty corresponding sounds and letters?
   - (  ) Yes (  ) No
5. In what stage of writing is the class currently?
   - (  ) Pre-syllabic (  ) Syllabic (  ) Syllabic-Alphabetic (  ) Literate
6. Is the current reading level below what would be expected for this grade?
   - (  ) Yes (  ) No
7. Do they have difficulty in organizing sentences?
   - (  ) Yes (  ) No
8. Do the students understand the meanings of words?
   - (  ) Yes (  ) No
9. Do they understand reading context easily?
   - (  ) Yes (  ) No
10. Do they have the ability to manipulate syllables and sounds?
    - (  ) Yes (  ) No
11. Can they satisfactorily recount an oral story in writing?
    - (  ) Yes (  ) No
12. Are they able to express ideas through writing?
    - (  ) Yes (  ) No
13. Is it necessary to repeat instructions many times for them to understand?
    - (  ) Yes (  ) No

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Figure 1 – Questionnaire regarding development and alterations in reading and writing
RESULTS

In this study, there were five participating schools, with 21 teachers being surveyed, seven of whom were teaching the first year, six in the second year, and eight in the third year. The average teaching experience was 13.6 years with a standard deviation of 6.7 years.

In accordance with the answers provided by the teachers, nine teachers total and six third-year teachers had classes of students with a history of language disorders. Only one first-year class showed difficulty in recognizing letters of the alphabet and in grapheme/phoneme correspondence, with five stating difficulty observed for this area, consisting of three first-year and two third-year teachers (Figure 2).

While rating satisfactory reading, only three classes, two from third year and one first-year, reported that reading levels were lower than expected, however one also presented difficulty in organizing sentences, bringing the total to four classes, two first year and two third year classes.

In the analysis, it is evident that everyone understood the meanings of words, however, four of the five third-year classes complained of not understanding the context easily.

We found that 100% of the teachers reported that students have the ability to manipulate syllables and sounds. And through writing, only four have difficulty retelling narratives, most in the first year of the cycle of literacy.

Regarding the expression of ideas through written language, sixteen teachers reported that the students can perform this type of activity. However, practitioners need to repeat the commands several times so they can understand what was requested.

It was observed that of the alterations present in the school, the most common was cognitive, with seven teachers citing this problem. Next, being cited by five teachers, were emotional alterations, while neurological was cited in two cases. There was one class with neurological, cognitive and emotional alterations. Other teachers reported only one type of alteration (Figure 3).

Regarding writing phase, there was a preponderance of teachers reporting alphabetic alterations, 81% (17), with seven classes from the third year and ten from other years. In the syllabic-alphabetic phase, there were accounts for every class, and one teacher could not identify the predominant phase of writing in her class (Figure 4).

![Figure 2 – Questions referring to development and alterations in reading and writing](chart)

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The relationships between the characteristics of reading and writing and the school year, length of teaching experience, and school attendance were established.

For Fisher's test to be applied to the statistical analysis, the data was merged from teachers who worked in the first and second years. This was because they correspond to the years that these students are in the literacy process. As the questionnaire was applied at the end of the school year, the third year was considered to be the end of the process. The symbol, NSA, refers to a test not being applicable, since in two categories responses were 100% in one of the items (Table 1).

Regarding the class load that teachers teach, the morning and full-time periods were merged, remembering that with full-time groups, classes take place in the morning and the afternoon period consists of workshops. Teaching experience was broken into two categories, one of teachers with less than 10 years experience and the other with teachers who had over 10 years of experience.

All questions were crossed with the class year, what time period the children were studying, and teaching experience.

According to reports on the history of language delay, before entering school, there were three groups within the process of the literacy cycle and six in the final phase of the literacy cycle. With regard to the time period at school, six are from the full-time classes and the rest from morning groups, and finally seven teachers with an average of more than 10 years of experience reported children with a history of language delay.

In the statistical analysis a significant difference was detected in the relationship of a history of alterations that preceded language schooling and the school level attended by students.

A difficulty in understanding reading context was found in five classes, four in the final stage of the literacy cycle and most studying in the morning period, with all teachers having more than 10 years of experience in the field.

Still referring to statistical analysis, there were differences when comparing the groups who understand the reading context with ease and number of years they had studied, i.e., the proportion of students who understand context is significantly higher among students from the early years.

Through writing, five groups of students, according to teachers, cannot express ideas satisfactorily, and two of those groups are in the final phase of the literacy cycle. However, three groups attend classes in the morning and all classes have teachers with more than 10 years experience.

Regarding these skills, statistical analysis indicated a significant difference compared with the time of day that students go to school, showing that the proportion of students who can express ideas through writing is significantly higher among students in the afternoon.

The following results showed no statistically significant differences, however, their analyses are important for knowledge and discussion.

Only one class does not know all the letters of the alphabet, this being one from the first year. These children attend class in the afternoon and the teacher has over 10 years experience.

Difficulty in matching grapheme-phoneme was present in three first-year classes and two in the third year, with three studying in the morning and the other two in the afternoon. The three cases were reported by teachers with more experience.
DISCUSSION

The results of this study demonstrated that, in the literacy process, students can meet the prerequisite for learning to write, such as: knowledge of the letters of the alphabet, grapheme-phoneme association, syntactic and phonological skills, understanding word meanings, preparation of narratives through recall and information processing. In contrast, at the end of the literacy process, the complex processes of writing are impaired, as with the example of expressive and pragmatic functions.

Alterations present in classes in general were cognitive (7), neurological (2) and emotional (5). This result may have been a consequence of the lack of stimulation in the environment they live in, when considering the fact that children in these schools come from low-income families and parents are not always literate, which can generate cognitive delay.

Alterations in language and learning can have many causes, and many studies associate the teacher with neurological factors. The work involving the programmatic content and the affective factor provides for effective school learning with better acceptance for students' frustrations, thus reducing anxiety and improving self-image, since errors in teaching strategies generate demotivation on the part of the student for failing to succeed in activities. For this, there is a need to rethink pedagogical teaching practices in order to avoid student demotivation child, which is caused by a lack of teacher knowledge on proper practices in class.

Table 1 – Relationship between reading and writing and grade, period, and teaching experience

<table>
<thead>
<tr>
<th>Question</th>
<th>Grade</th>
<th>Period</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of language alterations before enrollment</td>
<td>0.0294*</td>
<td>0.0713</td>
<td>0.4768</td>
</tr>
<tr>
<td>Knowledge of all the letters of the alphabet</td>
<td>0.6190</td>
<td>0.4286</td>
<td>0.7143</td>
</tr>
<tr>
<td>Difficulty in corresponding sounds and letters</td>
<td>0.6557</td>
<td>0.6471</td>
<td>0.4499</td>
</tr>
<tr>
<td>Current stage of writing for the class</td>
<td>0.6561</td>
<td>0.5758</td>
<td>0.6807</td>
</tr>
<tr>
<td>Current reading level below expected for this grade</td>
<td>0.3158</td>
<td>0.1654</td>
<td>0.6579</td>
</tr>
<tr>
<td>Difficulty in organizing sentences</td>
<td>0.4982</td>
<td>0.4135</td>
<td>0.6842</td>
</tr>
<tr>
<td>Students understand the meanings of words</td>
<td>NSA</td>
<td>NSA</td>
<td>NSA</td>
</tr>
<tr>
<td>Understand reading context easily</td>
<td>0.0475*</td>
<td>0.6471</td>
<td>0.1476</td>
</tr>
<tr>
<td>Have the ability to manipulate syllables and sounds</td>
<td>NSA</td>
<td>NSA</td>
<td>NSA</td>
</tr>
<tr>
<td>Satisfactorily recount an oral story in writing</td>
<td>0.5018</td>
<td>0.0827</td>
<td>0.2281</td>
</tr>
<tr>
<td>Able to express ideas through writing</td>
<td>0.6557</td>
<td>0.0389*</td>
<td>0.1476</td>
</tr>
<tr>
<td>Necessary to repeat instructions many times for understanding</td>
<td>0.0900</td>
<td>0.5279</td>
<td>0.5903</td>
</tr>
</tbody>
</table>

*Values statistically significant (p≤0.05) – Fisher Test

All students understand the meanings of the words and have the ability to manipulate syllables and sounds. Statistical analysis was not possible because there was only one type of response.

In observing the predominant writing phase for the groups, ten are working on the alphabet and two are in the syllabic alphabet, in the alphabetical cycle process. One teacher could not answer and the children at the end of the cycle (seven) are on the alphabet and one group in the syllabic-alphabet. In the mornings, there are thirteen classes, nine are in the afternoon, and of these classes, fifteen are taught by teachers with experience of over 10 years.

Of the three classes with complaints about reading at levels below that expected for the school level, there were two in the third year, all studying in the morning, having a teacher with 10 years or less of experience.

Regarding alterations in the organization of sentences, there was balance of the four cases cited, with two in the final phase of the cycle and two still in the cycle, with the majority attending school in the morning, and all teachers with over 10 years of experience.

The alteration in the retelling of narratives using writing was a complaint from four teachers, and most are in the literacy process. All study in the morning with more experienced teachers.

Eight teachers reported the need to repeat several times so that students were able to understand commands, with five classes from the morning and six teachers with classroom experience of over 10 years.
One of the strategies teachers can use is including activities on the computer to generate student interest for literacy. Certainly, not all schools offer this kind of tool, and the poorest homes are in no position to acquire computers, even if they are widely used by the population at large. The statistical analyses also compared the abilities with the school level and the time that teachers were teaching, as well as work experience of these professionals. It was observed that the third-year classes presented language alterations with greater frequency prior to enrollment when compared to the other school levels. The number of referrals increases with the level of education, and in the same proportion, showing the increased gap between school performance and expectations. It is believed that the availability of information is increasingly accessible through the media, assisting in the early identification of language problems, allowing targeted strategies to suit the abilities impaired in early grades.

Therefore, there is a need for a thorough investigation to identify the subject's characteristics covering all areas, to collaborate with planning activities for developing linguistic skills, and avoiding errors in the learning process of writing. Historical changes in the early stages of development are one of the characteristics present in students with learning disorders and dyslexia. Contrary to the data of this research, the failure of language development affects the linguistic system, causing alterations in reading and/ or writing. It can be observed that the difficulty for students to assimilate that the way we speak is different from how we write, so it is important to have the support of orality in writing.

After the spread of Constructivist Psychology and Cognitive Psychology, the skills of reading and writing began to be seen as complex and specific cognitive abilities. Statistical analysis of the understanding of the context in reading in relation to the students' school level showed differences and that the proportion is higher in the early-year students (first and second years). The result of this research is contrary to the criticism that schools are not able to make first graders literate, and in some, not even the ninth graders understand what they read for not knowing how to think. Seventeen teachers reported that students did not have difficulty in retelling the narratives performed through writing. No difference was shown compared to the variables. However, the findings of another study conducted with students showed there was improvement in narrative structures with advancing age in both public and private schools.

There was a difference between the groups in expressing their ideas through writing and the time of day they attended school, but no significant difference in relation to the level or regarding teachers' experience. In the afternoon, the best performance was identified for written expression in correlation with the time of day that children tend to be more active and not sleepy, as happens with several children who study in the morning. This ability allows a person to write letters, emails, notes and more.

Contrary to this research, Deuschle-Araujo and Souza found the there were students with complaints and students without complaints in writing difficulty and found results below school expectations. In another study, all students with learning disabilities and 80% of dyslexic students showed dysgraphia during the writing of a note. Dysorthographia was characterized as having alterations in the writing of texts.

Of the 21 teachers, 13 reported the need to repeat several times what is said so that the students could understand commands, but there was no significant difference. In other studies, children with the complete inability to read in a test of auditory evoked potentials of medium latency observed an alteration in the speed of processing, justifying the inability to read and write. The relationship between auditory and metathetical skills with changes in blood flow present in the medial region of the temporal lobe has been identified.

**CONCLUSIONS**

From the data obtained in this study, through the responses of teachers, it is concluded that language alterations present before enrollment, generate losses in the literacy process; when the subject is not literate the difficulty is in understanding the reading context; and difficulty in expressing ideas through writing prevents the completion of the literacy cycle. A history of delays in language acquisition may generate losses in the schooling process mainly in understanding reading context and limit the expression of ideas through writing, thus preventing literacy. Often, students perform the readings, but without understanding, or misunderstanding, the importance of writing until the moment they need to write a note, letter, or email.

With this study, we found the need for early intervention to prevent the delay in the acquisition of language that is detrimental to literacy by the age of 8, in the third year of elementary school. It should be noted that the sample in question is not significant compared to the general population, and the data characterize the population studied.
RESUMO

Objetivos: o objetivo geral deste estudo é caracterizar, a partir das respostas oferecidas pelos professores, as alterações de aprendizagem que julgam estar presentes nos alunos e identificar as queixas referentes à escrita frequentemente detectadas pelos professores. Métodos: trata-se de um estudo indivíduado transversal secional quantitativo. Participaram da pesquisa 21 professores que lecionam no ciclo de alfabetização (1º ao 3º ano) nas escolas de Cajati/SP, sendo sete do primeiro ano, seis do segundo ano e oito do terceiro ano. Estes participantes foram subdivididos em dois grupos: G1 – início do ciclo de alfabetização (1º e 2º ano) e G2 – final do processo de alfabetização (3º ano). Foi aplicado um questionário formulado pela autora e respondidos pelos professores. Utilizou-se o teste de Fisher como instrumento estatístico. Resultados: mediante os achados, verificou-se diferença na proporção do histórico de alterações de linguagem anterior à escolarização, sendo maior no ano escolar final. Da compreensão do contexto dos textos com facilidade, relacionada ao ano frequentado pelos alunos é maior entre os escolares dos anos iniciais e a proporção dos escolares que expressam as ideias por meio da escrita é significativamente maior (0,0389) entre os alunos do período da tarde. Conclusão: o atraso na aquisição da linguagem pode prejudicar o processo de alfabetização que inclui a habilidade pragmática e a função expressiva.

DESCRITORES: Linguagem; Escrita; Educação; Aprendizagem; Distúrbios da Fala

REFERENCES