Motivación para leer y comprensión lectora de estudiantes brasileños[1]

Motivation to read and reading comprehension of Brazilian students

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Resumen:

La motivación para leer y la comprensión lectora son factores esenciales para mantener el éxito escolar de los estudiantes y para afianzar su realización personal y profesional en sociedad. El objetivo del presente estudio fue analizar las relaciones posibles entre estas variables educacionales. Se seleccionaron 245 estudiantes brasileños de cuarto y quinto años de educación primaria (segundo ciclo) de dos escuelas públicas de la ciudad de Jundiaí, Provincia de São Paulo, Brasil. Como procedimientos de investigación, utilizamos la Escala de Motivación para la Lectura (EML), el test *Cloze* de comprensión lectora y las notas finales de lectura existentes en las escuelas. Los resultados indican el predominio de los tipos más autónomos de motivación entre los estudiantes, aunque no existiera correlación de esos tipos

Abstract:

Motivation to read and reading comprehension are important factors to assure the academic success of students, as well as to benefit their personal and professional fulfillment in the social sphere. The purpose of this study was to analyze the possible relationships between these educational variables. The sample consisted of 245 Brazilian students taking the 4th and 5th grades of the Elementary School in two public schools in Jundiaí, São Paulo. Data were collected by means of a Reading Motivation Scale (RMS), a Cloze test for reading comprehension and the final reading scores, made available by the school units. Overall, when it comes to reading results show the prevalence of the most autonomous types of motivation. However, they do not correlate significantly with regard to reading comprehension. Significant

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de motivación con el test *Cloze*. Las correlaciones fueron negativas y significativas para relación entre la Motivación Extrínseca Controlada y la comprensión lectora y para la relación entre Motivación Extrínseca Controlada y la nota final en Lectura. Además, hubo correlación positiva significativa para la relación entre el test *Cloze* y la nota final anual. En comparación con los niños, las niñas tuvieron notas finales significativamente mayores. Por último, discutimos los datos para obtener un mejor diagnóstico de las dificultades escolares con miras a la implementación de una intervención psicoeducacional más adecuada en cada caso analizado.

and negative correlations were found between Controlled EM, reading comprehension, and reading final grades. Significant and positive correlations also emerged between the Cloze test and reading final grades. Moreover, girls scored significantly higher in Intrinsic Motivation to read and Reading Comprehension. They also had higher final reading grades than boys. Data are discussed in terms of the need for a better diagnosis of learning difficulties as a basis for the implementation of the most adequate psycho-educational intervention for every single situation.

Palabras clave:

Keywords:

Résumé:

Le goût de la lecture et la compréhension de textes littéraires sont des facteurs importants pour assurer la réussite scolaire des élèves et afin de promouvoir leur épanouissement personnel et professionnel dans la société . Le but de cette étude a été d'analyser la relation possible entre ces variables éducatives. Cette dernière a été effectuée dans deux écoles publiques de Jundiaí et de São Paulo, grâce à la participation de 245 élèves brésiliens de 4ème et 5ème années du primaire. Pour mesurer ces facteurs, nous avons utilisé l'Échelle de Motivation à la Lecture (EML), un test *cloze* pour la compréhension et les notes finales de lecture, fournies par les unités scolaires. Les résultats ont montré la prédominance des types plus autonomes de motivation chez les élèves, quoique sans corrélation entre ces types de motivation et la moyenne générale annuelle. Les corrélations étaient négatives et significatives entre la Motivation Extrinsèque Contrôlée et la compréhension, ainsi que la note finale en lecture. Nous avons observé une corrélation positive significative entre le test *close* et la note finale annuelle. En outre, les filles ont obtenu des scores significativement plus élevés en ce qui concerne la Motivation Intrinsèque à lire, la Compréhension en Lecture et la note finale en lecture, par rapport aux garçons. Les données ont été analysées afin d 'obtenir un meilleur diagnostic des difficultés d'apprentissage en vue d'une intervention psycho-éducative plus appropriée à chaque situation.

Mots clés:

Reading is the object of teaching and the means of learning other curricular subjects at school. The importance of reading remains during the post-academic life, enabling individuals to fully use the different languages present in their socio-cultural environment and in the personal and professional scope (Coutinho & Lisbôa, 2011). In addition, the schooling and literacy processes increase the means of social and political participation of citizens in a democratic society. In Brazil, however, the schooling process has been unable to assure to alumni the ability to comprehend and interpret the texts and to become proficient and critical readers. Unfortunately, the same can be said among adult and schooled people; many of them do not like to read, others do not read very frequently or are poor readers (Esteve, 2009; Gomes & Boruchovitch, 2009). Institutional assessments and international exams such as *Programme for International Student Assessment* (PISA) confirm the low achievement of Brazilian students and highlight the importance of reading motivation as a variable that can predict their performance (OECD, 2009; 2013).

Motivation to read

Investigations on motivation concentrate their efforts on what drives people to act (Pintrich, 2003; Wigfield, Eccles, Schiefele, Roeser & Davis-Kean, 2007). Cognitive and Socio-cognitive theories consider motivation as a multidimensional construct that involves cognitions, convictions, self-perceptions and beliefs of individuals, such as the notion of self-efficacy, competence, control of their own actions, expectations, fulfilling goals, in addition to interests related to need, value and usefulness of the action (Wigfield et al., 2007). Despite the advances from Psychology over the last decades, we still have not gotten to a general theory on motivation (Bzuneck, 2009).

There are several theoretical perspectives regarding motivation to read that fit the theories of human motivation (general), motivation to learn (contextual motivation) or even motivation for specific activities (situational), such as those related to reading, leisure or arts. Some authors emphasize only one or few components to describe and evaluate motivation to read, including: intrinsic motivation, the value attributed to reading, self-efficacy, self-concept as a reader, as well as attitudes of approximation and rejection of children and adolescents in relation to

recreational or school reading activities (Gambrell, Palmer, Codling & Mazzoni, 1996; McKenna, Kear & Ellsworth, 1995; Melnick, Henk & Marinak, 2009).

Guthrie et al. (1998) describe the motivation to read as a multidimensional construct that is progressively more complex along the development and the schooling process. It is a conceptual model that integrates cognitive, motivational and social aspects in an engagement perspective, considering the following aspects: Importance (the Value) and Curiosity, Intrinsic and Extrinsic Motivation, Social Recognition, Social Reasons, Pleasure, and the Self-perception of Competence, from a perspective of commitment and motivation of the reader towards achievement (Backer & Wigfield,1999; Wigfield & Guthrie, 1997).

For the Self-determination Theory (SDT), human motivation manifests its dynamism from the satisfaction of three basic needs: autonomy, relatedness and competence (Deci & Ryan, 1985; Vallerand & Lalande, 2011). Differently from many of the traditional theories that show a dichotomy-based view between Intrinsic Motivation (IM) and Extrinsic Motivation (EM), SDT defends a motivational continuum constituted by amotivation characterized by the lack of purpose and intention to act, four types of Extrinsic Motivation, and Intrinsic Motivation (Gillet, Vallerand & Lafrenière, 2012; Guay, Marsh, Dowson & Larose, 2005; Guay, Vallerand & Blanchard, 2000).

Thus, individual motivation varies according to the level of autonomy shown by the person in each context and situation (Vallerand & Ratelle, 2002; Vallerand & Lalande, 2011). In relation to reading, the motivational continuum may be exemplified as follows: a) "*Not being fond of reading*" (Amotivation); b) "*Reading, at school, not to be punished*" (EM by External Regulation); c) "*Reading to please parents, teachers or friends*" (Introjected EM); d) "*Reading to learn interesting subjects*" (Identified EM); e) "*Reading as a means for professional update*" (Integrated EM); f) "*Reading for pleasure*" (Intrinsic motivation).

SDT distinguishes a growing level of autonomy and self-determination within that continuum. Therefore, EM by External Regulation and Introjected EM are not self-determined, since the person acts under external pressure (reward, punishment) or internal pressure (self-love, fear, guilt). Identified EM shows a certain degree of autonomy, since it reveals the internalization of cultural values, and in Integrated EM, these values are incorporated to the self. The most autonomous motivation reflects a

greater sense of choice, and with less internal conflicts (Ratelle, Guay, Vallerand, Larose & Senécal, 2007). The self-determined motivational level is IM, because the subject shows a sense of competence, autonomy and relatedness to act (Vallerand & Lalande, 2011).

Several factors may determine a type of motivation, according to each context and situation and, similarly, certain effects and consequences correspond to each type of motivation (Guay et al. 2010; Vallerand & Lalande, 2011). Accordingly, Intrinsic Motivation offers the most positive results, and they will be gradually less effective the closer they get to Amotivation (Vallerand & Ratelle, 2002). Researchers have shown the superiority of IM over EM, in relation to good academic performance (Guay et al., 2010; Guthrie, Wigfied & You, 2012; Wormington, Corpus & Anderson, 2011). A bulk of studies, however, report the decrease of IM along age and school grade level (Gillet et al., 2012; Lepper, Corpus & Iyengar, 2005). A major contribution of SDT is to clarify that Identified EM and Integrated EM can also be valuable for the teaching and learning process, since they indicate more autonomy than other forms of extrinsic motivation (Gillet et al., 2012; Guay et al., 2010).

Reading comprehension from a cognitive and interactionist perspective

Reading comprehension is a complex process that occurs in the interaction between the reader and the author, mediated by the text in a certain situation, and resulting in the production of meanings. When writing, with specific objectives and intentions, the author used his/her knowledge, worldview, and the most appropriate linguistic resources and materialized them into a textual structure (Kleiman, 2007; Koch & Elias, 2006).

The text may be presented over several types of support and with similarly varied graphic characteristics. It is composed by linguist elements (lexical, syntactic, semantic and structural elements) that are cohesively and coherently organized into a significant unit, produced by the author in a certain context, with a communicative intention. The content of the text reveals, in addition to the knowledge, the beliefs and other personal and contextual characteristics of those who wrote it (Spinillo, 2013).

On the other hand, each reader, when reading, attributes meanings to the text due to cognitive, affective, social and situational conditions:

due to their knowledge and worldview (socio-cultural universe), background and reading experience, linguistic abilities and cognitive processing; motivational aspects that are translated into reading objectives and expectations (Kleiman, 2007; Koch & Elias, 2006; Spinillo, 2013).

Textual comprehension, therefore, involves different levels of processing. Initially, the decoding and the analysis of linguistic components occur. Then comes the semantic analysis of combined words formally structured into ideas or propositions, on the text's *microstructure*. The inferences and recognition of semantic interrelations between proposition units, in the *text's macrostructure or global structure*, are other cognitive processes that occur during textual processing. Finally, on the most abstract level, the reader delineates a mental representation, the *situational model* of the text. Then, the construction of meanings involving images, emotions and personal experiences implied in-between the lines occurs (Kintsch & Rawson, 2005/2013). This mental model is, therefore, *built by the reader* in integration with his/her previous knowledge and reading objectives (Kintsch, 1988; Kintsch & Van Dijk (1983). The text basis processing (micro- and macrostructure) allows the reader to understand what is explicit in words and sentences, but it is still a superficial comprehension, based on the apprehension and reproduction of information, and not on a deep understanding, as happens in the *situational model* (Kintsch & Rawson, 2005/2013).

The reading processing may occur from the *bottom up* or from the *top down*, depending on the textual characteristics (support and type) and the own reader (reading objectives, or even the proficiency level). In bottom up processing, in order to comprehend, the reader gives the priority to decoding and follows visual, phonetic and lexical tips to identify words and phrases (processing on the linguistic level); then, the reader observes the syntactic and semantic relations that are established by propositions, propositional units, topics and sub-topics that constitute the micro- and macrostructure, up to the situational model.

The reading processing may, on the other hand, occur from the top down, that is, the search for comprehending the texts begins by activating previous knowledge (on the theme, author and textual structure). The reader, then, guided by his/her reading objectives, establishes expectations, formulates hypotheses and questions from his/her previous reading experiences and, paying attention to the cohesion and coherence of the text, examines propositions, makes inferences to complete gaps and build meanings without being restricted by words and isolated phra-

ses, unless imprecisions and incoherence are detected. Kintsch and Van Dijk (1983); Kintsch and Rawson (2005/2013) explain that, in order to understand, during the reading process, the reader needs to combine the pertinent cognitive strategies to each one of the textual levels. Among the higher comprehension factors are the sensitivity to the textual structure, inference and monitoring (Kintsch & Rawson, 2005/2013).

In short, it can be said that the textual processing that results in the production of meanings depends on cognitive, metacognitive and affective resources. Through the proficient reading, the content of the text is assimilated, elaborated, organized and integrated to the cognitive structure, restructuring the previous knowledge (Koch, 2002). The efficient processing requires motivation and the use of cognitive and metacognitive strategies previously, during and after the act of reading, such as anticipation and formulation of hypotheses on the text, self-questioning, planning, monitoring, and reading regulation (Dembo, 2000). The good reader knows when and how much is comprehended, makes inferences to figure out implied contents, reads again when he/she realizes he/she does not understand it, revisits the text and synthetizes the main ideas when reading for learning purposes (Gomes & Boruchovitch, 2011; Hacker, 1998).

Relationships between cognitive and contextual factors, academic achievement, motivation to read and reading comprehension

According to Spinillo (2013), intelligence may assist the comprehension, in the sense that the reader applies his/her cognitive abilities to decode, infer, contextualize, and monitor the comprehension. Oliveira, Boruchovitch and Santos (2013) found a positive and significant correlation between intellectual verbal coefficient and reading comprehension.

Regarding the relationships between motivation and reading comprehension, Guthrie et al. (2012); Guthrie et al. (1998) consider that the intrinsically motivated reader is actively involved and engaged in the reading, making use of strategies. In that sense, his/her performance as a reader is highly satisfactory. In a research with students from elementary school, Logan, Medford and Hughes (2011) categorized 111 children from the 4th to the 6th grades, as good or poor readers through a compre-

hension test. The scores obtained were used to investigate whether the inter-relationships between verbal IQ, motivation to read and reading comprehension were similar in both groups. Results revealed that the verbal IQ significantly explained the variance between the participants with high ability in reading comprehension; between the readers with lower comprehension, the variance was explained by the decoding abilities, followed by the level of intrinsic motivation. Moreover, intrinsic motivation showed a significant variance in comprehension gains, evaluated nine months later, among readers with lower ability; the same did not happen to those considered good readers. Taboada, Tonks, Wigfield, & Guthrie (2009) explain that the role of motivation must be considered not only in relation to the performance manifested by the student, but also as a powerful factor to strengthen the development of future comprehension abilities, by stimulating students to put more cognitive effort into reading tasks.

Pelletier, Fortier, Vallerand, and Brière (2001); Vallerand and Lalande (2011) point out that there are relationships between environmental conditions at home and at school that act as facilitators or obstacles to motivation, that, in turn, are able to promote or hinder the academic performance and success.

Other SDT theorists, when evaluating the situational aspects of academic motivation related to writing, reading and mathematics, verified that there is a correlation between the type of motivation perceived by the student and the self-concept of each one of them (Corpus & Wormington, 2011; Guay et al., 2010). Therefore, older students are more able to identify the prevailing type of motivation in each area; which may represent a predictive factor for their performance, confirming several premises of SDT (Guay et al., 2000; Guay, Marsh, Dowson & Larose, 2005; Guay et al., 2010).

Though the importance of reading comprehension and motivation to read for both good performance in school and quality of learning are well acknowledged by research (Gambrell, Palmer, Codling & Mazzoni, 1996; Guthrie et al., 1998; McKenna, Kear & Ellsworth, 1995; Melnick, Henk & Marinak, 2009), there is a reduced number of Brazilian studies concerning this theme. In consonance, this study is aimed at investigating the relationships between these variables among Brazilian students.

Method

Participants

The sample was composed by 245 students from the 4th and 5th grades of the Elementary School from two schools of the Municipal Public School of Jundiaí, State of São Paulo, Brazil. The ages ranged from 8 to 11 years old and 134 (55%) were females, while 111 (45%) were males; in relation to schooling, 133 (54%) were in the 4th grade, and 112 (46%), in the 5th grade.

Instruments

In order to evaluate the motivation to read, the Reading Motivation Scale (RMS) was used, targeted to this schooling level. This scale was constructed and validated by Gomes and Boruchovitch (2013) based on the Self-determination Theory (Deci & Ryan, 1985). It is composed by 39 items in the form of a likert scale with three alternatives. The first one, "It has everything to do with me", is worth three points; the second one, "It has somehow to do with me", is worth two points, and the third one, "It doesn't have anything to do with me", is worth one point.

The 39 items of the scale are subdivided into four subscales, in agreement with the motivational continuum described by Deci and Ryan, 1985, from Amotivation_up to Intrinsic Motivation. The first subscale, called *Amotivation to Read* has six items (scores between 6 and 18 points); the second one corresponds to *Controlled Extrinsic Motivation* and has 10 items (scores between 10 and 30 points) that characterize non-autonomous actions, governed by external and internal pressures. The third one, *Autonomous EM to Read* is composed by 15 items (scores between 15 and 45 points) that represent the types of Identified EM and Integrated EM, with a certain level of autonomy. Finally, the fourth subscale, *Intrinsic Motivation to Read,* has eight items (scores between 8 and 24 points) and represents the self-determined form of motivation, since it assumes a feeling of self-competence, autonomy and relatedness. Therefore, the results from RMS describe a profile of students with these four types of motivation to read. The factorial analysis of the scale identified a four-factor structure, in agreement with the theoretical framework, whose Cronbach's alphas were, 0.83; 0.86; 0.87; and 0.80, respectively, for the

subscales, and 0.83 for the total scale, thus, revealing good precision and reliability indexes of the instrument (Gomes & Boruchovitch, 2013).

The reading comprehension evaluation was conducted using two *Cloze* tests that, according to Taylor (1953), consist of a text with gaps at every five terms, marked by a line corresponding to the size of the omitted word. Every right answer corresponds to one point. The text used was "Coisas da natureza", with 233 words and 40 gaps. The correction was literal and the comparisons were made through the percentage of right answers.

The final scores of the participants in Portuguese Language (Reading and writing) were obtained from the School Institution.

Procedures

After the approval of the project by the Research Ethics Committee from UNICAMP and after the authorization to access the school units had been obtained, the objectives of the research were explained to the principals from two schools that work with children from the first up to the fifth grade.

The RMS application session was collective for the participants whose parents or tutors authorized their participation by signing a consent term, and it lasted for approximately 30 minutes. Students were assured that the answers would not influence their academic evaluation. The items were read by the researcher, one by one, and they were given time to think and choose an answer. There was a teacher assistant at all times together with the researcher to assist students who had any difficulties.

The data obtained were codified into a SPSS spreadsheet. Descriptive analysis of the data, followed by a comparative analysis between the groups, through the Mann-Whitney test, were conducted. Then, the correlation between the types of motivation to read, reading comprehension and the final reading scores, through Spearman's correlation coefficient, was estimated. The results found are described and discussed in the next sections.

Results

Table 1 presents the general results of the sample, regarding text comprehension, reading performance and the subscales of the motivational continuum of RMS, in relation to gender.

Table 1. Means and Standard deviation of scores in Cloze, for reading scores and RMS subscales in the total sample, by gender.

Gender	Scores	N	Means	Dp	Min.	Max.	p-value*
Female	Amotivation	119	7.97	2.52	6.00	18.00	0.322
	Controlled EM	119	16.56	5.07	10.00	30.00	**0.034**
	Autonomous EM	119	40.22	4.87	17.00	45.00	0.198
	Intrinsic M	119	20.70	2.96	12.00	24.00	**<0.001**
	Cloze	126	27.82	7.42	0.00	38.00	**0.001**
	Final grade	134	7.19	1.82	2.00	10.00	0.127
Males	Amotivation	86	8.53	3.22	6.00	18.00	
	Controlled EM	86	18.09	5.45	10.00	30.00	
	Autonomous EM	86	39.62	4.90	20.00	45.00	
	Intrinsic M	86	18.47	3.92	8.00	24.00	
	Cloze	102	23.51	9.91	0.00	38.00	
	Final grade	111	6.67	2.33	1.00	10.00	

Considering the means and the minimum and maximum values of each reading motivation subscale, and according to the description of the instruments, we can see in Table 1 that among boys and girls the Autonomous Motivation prevails, followed by Intrinsic Motivation to read, with a significant gender difference regarding intrinsic motivation towards female students (**p<0.001**). The means for Controlled Extrinsic Motivation to read were significantly higher for male students when compared to those obtained by females (p= **0.034**). However, the Controlled EM mean was below the means obtained on the two more autonomous types of motivation to read (IM and Autonomous EM). The Amotivation means were low for both groups.

In the Cloze test, the percentages of right answers between 44% and 57% are considered an average level, above this percentage, the reading level is considered good. In the test employed in this research, the maximum score was 40 points. The mean obtained by female students was significantly higher than the one from males, (27.87 points; Dp=7.42; p=**0.001**), and corresponded to 70% of right answers. In the male group, the mean was 23.51 points (Dp=9.91), and corresponded to 57.8% of right answers. The group as whole can be considered good, in terms of textual comprehension. Nevertheless, the minimum percentage of right answers was 0.0%, which indicates that there are students with difficulties regarding comprehension, from both genders.

The female group had a slight advantage regarding the reading performance in the annual final score, with a 7.19 mean (Dp= 1.82; p=0.127), while the mean for males was 6.67 (Dp=2.33). However, these differences were not significant. It is interesting to notice that the minimum scores were, respectively, 1.0 and 2.0, which confirms the results from Cloze, that is, that there are students with a reading lag.

The correlations among the four Reading Motivation subscales, the reading comprehension and the final grades were evaluated using Spearman's correlation coefficient and are displayed in Table 2. The magnitude of the correlations was interpreted according to the criteria from the literature (Levin & Fox, 2004).

Table 2. Correlations among the four motivation subscales and the other variables in the total sample.

4th Grade		Amotivation	Controlled Extrinsic M	Autonomous Extrinsic M	Intrinsic Motivation	Final grades
Cloze*	r	-0.08	**-0.38***	0.08	0.04	**0.55***
Final grades*	r	0.18	**-0.38***	0.13	0.13	-
5th Grade		Amotivation	Controlled Extrinsic M	Autonomous Extrinsic M	Intrinsic Motivation	Final grades
Cloze*	r	-0.15	**-0.35***	-0.02	0.14	**0.47***
Final grades*	r	-0.07	**-0.21****	0.08	0.05	-
Total Sample		Amotivation	Controlled Extrinsic M	Autonomous Extrinsic M	Intrinsic Motivation	Final grades
Cloze*	r	-0.12	**-0.37***	0.03	0.09	**0.52***
Final grades*	r	-0.12	**-0.30***	0.09	0.08	-

* r=Spearman's correlation coefficient; ** Correlation is significant at the 0.05; *** Correlation is significant at the 0.001.

It was evidenced that, in the total sample, the correlations were negative and weak in the Amotivation subscale, in relation to the results from the Cloze test and the final reading grades. Regarding the Controlled Extrinsic Motivation subscale, Spearman's correlation coefficients were moderate, negative and significant in relation to the final grades in the 4th grade, and weak, negative and significant for the 5th grade. They were also moderate, negative and significant for the Cloze test.

In the Autonomous Extrinsic Motivation subscale, Spearman's correlation coefficients were practically null both for the final grade variable

and for the Cloze test in the 4th grade, in the 5th grade and the total sample. This same trend occurred in relation to the Intrinsic Motivation subscale regarding the scores and the performance of the Cloze test. The correlation between the final grades in reading and the performance in the Cloze test was moderate, positive and significant in the 4th grade, in the 5th grade and in the total sample.

Discussion

The objective of this descriptive research was to study the relationships between the different types of reading motivation, described by SDT, the results in a comprehension Cloze test, and the reading performance, according to the final grades in reading, in Brazilian students from the 4th and 5th grades.

The negative and significant correlations between Controlled Extrinsic Motivation to read, reading comprehension and reading performance show the qualitative differences among the several types of extrinsic motivation, just as the Controlled EM in relation to Intrinsic Motivation. According to the literature, it is expected that individual results from students with prevailing Autonomous EM (Identified or Integrated) or Intrinsic Motivation would lead to a better performance at school. Guay et al., (2005; 2010) explain that, as opposed to the more autonomous forms of motivation, the lack of a feeling of autonomy, typical of Controlled EM, leads to the incapacity of students who have these characteristics to decide and act on their own. Moreover, it makes them not aware of the relationship between their actions and the respective consequences. They are governed by external (awards or punishments) or internal pressures (fear, self-love or guilt). In Autonomous EM, on the contrary, students act due to more personal reasons, such as by recognizing the need, utility or the value of the action. In Intrinsic Motivation, the trigger is the pleasure of performing the activity. These characteristics favor learning.

In the studied sample, the negative correlation between Controlled EM and the results in the Cloze test and the final grades were stronger and more evident. Guay et al. (2010) suggest that these data may have been affected by the age or the external pressure imposed by parents and educators, mainly in the beginning of the schooling process. Guay et al.,

(2005) had found the following correlations among the reading results and the three types of motivation contemplated in the study: -**0.19**; 0.05 and **0.18** (p=0.05), respectively related to external regulation (Controlled EM), Identified (Autonomous) EM, and Intrinsic Motivation. These authors state that they expected much higher correlations. On the other hand, Guay et al., (2005) report that the correlations between the realized self-concept and the motivation to read were higher (respectively 0.05; 0.37 and 0.62; p= 0.05). Further investigations are necessary to examine and better understand these aspects in broader samples and in the several segments of schooling.

Corpus and Wormington (2011); Wormington et al., (2011) suggest that, in order to ensure very good levels of academic performance, students´ motivation qualities should be characterized not only by a high level of Intrinsic Motivation, but also by a low index of Controlled Extrinsic Motivation and Amotivation. One must also consider that relationships between motivation and performance change due to age and schooling (Gillet et al., 2012; Guay et al., 2010; Lepper et al., 2005; Ratelle et al., 2007). In this study, the investigated sample included only two consecutive academic grades (the 4th and 5th grades of Elementary School), which are very homogeneous as to age; no significant differences were found in both of these groups, probably due to the small difference between these grades. Guay et al. (2005) and Guay et al. (2010) also conducted a research with students from Elementary School and they suggest that such researches should include students from several schooling grade levels.

In relation to gender, there was a significant difference towards girls, with higher scores in Intrinsic Motivation, and towards boys in Controlled EM. In the Cloze comprehension test, a significant difference was found for the female group, which showed a higher mean than did the males. The small advantage of female students in the Reading final grades, however, was not significant. Guay et al., (2010) report findings of female advantages in reading and writing, while boys excel in math; nonetheless, they highlight that these differences may reflect gender stereotypes in the social and academic environment.

Although this is a preliminary study, limited to students from the 4th and 5th grades of the elementary school, the data obtained show that there are qualitative differences among the types of motivation evaluated and that this factor may lead to different results in reading performance (Guay et al., 2005; Guay et al., 2010). However, a positive association,

even if modest, between reading comprehension, motivation to read and the reading final grades emerged, only with the most controlled extrinsic forms of motivation as also described by Guthrie et al. (2012). Longitudinal studies, starting from the very first years of schooling, and on other schooling segments, are still rare in Brazil, and must be conducted in order to broaden our knowledge on the impact of these variables in the quality of the learning process.

Final Considerations

The focus of this investigation was reading and, more specifically, the relationships between text comprehension, motivation to read and reading performance. It is, therefore, one of the important specific domains of the school's teaching and learning process. The level of motivation to study in general indicates how much effort and persistence a student may invest to learn, while this student's situational motivation may be different for each curricular discipline or teaching and learning activity. This happens because there is an interplay between individual needs, interests, preferences, and abilities, in addition to factors related to the school, family and socio-cultural environment, as motivational antecedents.

Upon a good diagnosis of learning difficulties, it is possible to proceed with the most adequate psycho-educational intervention to each situation. Therefore, it is important to know the students, the several motivational factors that drive them into the different learning tasks, that is, the motivation of students, as to quantitative and qualitative aspects, because it is an important predictive factor for the academic success. In fact, by knowing the academic reality and the subjects of education, administrators and teachers can act to create more favorable conditions to solve difficulties, increment motivation and improve the performance of students in each area of knowledge.

It must also be highlighted that the cognitive, affective and motivational factors of the students may be enhanced intentionally, in the sense of developing cognitions, beliefs, expectations, attitudes, interests, with positive consequences on learning. Similarly, the use of cognitive and metacognitive, general and specific learning strategies may be taught to students in order to promote the reading comprehension. The expected outcome will be the promotion of valuable, quantitative and qualitati-

ve motivational changes in students. Intentional and favorable changes to the teaching and learning environment may increment the students' notion of competence, autonomy and of belonging to a group, creating a more democratic, involving and efficient educational atmosphere, as SDT authors suggest.

It is our hope that studies such as this one be further conducted in larger and more representative samples, with the inclusion of students of all school grade levels and of different regions of the country, as well as be based on other school content areas. Research oriented towards better analyzing the impact of the student's motivational profile in the school achievement is equally important. Furthermore, it is essential to empower educators, educational psychologists and psychologists to both improve students´ performance in all disciplines and increase the academic success indicators, especially in a country whose educational indicators are still very far from the desirable level, as is the case of Brazil (OECD, 2009; 2013).

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