

The Quality of Motivation Among Elementary School Students¹

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Abstract: Lack of motivation in students to learn is a pressing educational problem. This paper presents the results of an assessment of the quality of motivation of 1,381 elementary school students, with an average age of 11.2 years, through the application of the Elementary School Motivation Scale (Escala de Motivação de Estudantes do Ensino Fundamental). The results revealed that autonomous motivation predominated among the participants. The comparison among variables showed that a lack of motivation and controlled motivation were higher among the male participants in comparison to the females, who obtained higher rates in the evaluation of autonomous motivation. Controlled motivation and lack of motivation increased as students advanced in grades, while autonomous motivation decreased. Students at private schools were less self motivated and depended more on external control to become motivated when compared to students from the public system. The latter were significantly more involved in school for autonomous reasons. The educational implications of these findings are considered in the discussion session.

Keywords: Intrinsic Motivation, Extrinsic Motivation, Elementary Education.

A Qualidade da Motivação em Estudantes do Ensino Fundamental

Resumo: A falta de motivação para a aprendizagem é um problema educacional relevante. Este estudo teve por objetivo avaliar a qualidade motivacional de 1.381 estudantes do ensino fundamental, média de idade de 11,2 anos, mediante a aplicação da Escala de Motivação de Estudantes do Ensino Fundamental (EMEEF). Os resultados revelaram predominância de motivação autônoma entre os participantes. Na comparação entre as variáveis, descobriu-se que a desmotivação e a motivação controlada foram maiores entre os participantes do sexo masculino, quando comparados ao sexo feminino que obteve índices superiores na avaliação da motivação autônoma. Constatou-se que a desmotivação e a motivação controlada aumentaram conforme a progressão nas séries, ao passo que a motivação autônoma diminuiu. Foram também mais desmotivados e motivados por razões controladas externamente os estudantes da rede particular, comparados aos da rede pública de ensino. Estes últimos foram significativamente mais envolvidos na escola por razões autônomas. As implicações educacionais dos resultados são consideradas na discussão.

Palavras-chave: Motivação Intrínseca, Motivação Extrínseca, Ensino Fundamental.

La Calidad de la Motivación en Estudiantes de la Educación Básica

Resumen: La falta de motivación para el aprendizaje es un problema educativo importante. La finalidad de este estudio fue evaluar la calidad de la motivación de 1.381 estudiantes de primaria, con edad promedio de 11,2 años, a través de la aplicación de la *Escala de Motivação de Estudantes do Ensino Fundamental* (EMEEF). Los resultados revelaron el predominio de la motivación autónoma entre los participantes. En la comparación de las variables, se descubrió que la desmotivación y la motivación controlada fueron mayores entre los participantes masculinos en comparación con las estudiantes femeninas, que tenían tasas más altas en la evaluación de la motivación autónoma. Se encontró que la desmotivación y la motivación controlada aumentaron con la progresión de la serie, mientras la motivación autónoma disminuyó. Además, los estudiantes de escuelas privadas estaban más desmotivados y motivados por razones controladas externamente cuando comparados aquellos de la red pública de educación. Los últimos fueron significativamente más involucrados en la escuela por motivos autónomos. Las implicaciones educacionales de los resultados son consideradas en la discusión.

Palabras clave: Motivación Intrínseca, Motivación Extrínseca, Enseñanza de Primer Grado.

Motivation for learning in the school context is a subject that allows discussion not only from the standpoint of students, but also from the perspective of the teacher. Both, when motivated, strive more in the performance of academic activities (Bzuneck, 2005). The studies of Accorsi, Bzuneck

and Guimarães (2007), Boruchovitch and Bzuneck (2004) and Goya, Bzuneck and Guimarães (2008) indicate that, in the case of an underperforming student, lack of motivation to learn can be reversed, given the low investment in their own learning.

Many theories are used to comprehend motivation in the school context, among them, two may be cited that give more emphasis to the contemporary study of motivation, namely, the achievement goal theory and the self-determination theory (Boruchovitch, 2007). In this study, the self-determination theory will be adopted as the theoretical framework, however,

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in summary, it can be said that both seek to comprehend the motives or reasons why a student engages in or performs any activity. In the case of the achievement goal theory, the goals would be the expression of the many intentions of the involvement of the student in the task, being a set of perceptions, intentions and perceptions that are reversed in the action aimed at learning (Anderman & Maehr, 1994; Bzuneck, 2004; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002; Zenorini & Santos, 2010).

In the case of the self-determination theory (Reeve, Deci, & Ryan, 2004; Ryan & Deci, 2000a, 2000b), it is proposed that all behavior is intentional, i.e. directed towards some objective. However, the results of empirical studies and the theoretical refinement have indicated that intentional conduct can be autonomous or controlled. A person may intend to act due to their initiative and autonomous regulation when, for example, they decide to compose a poem of their own pleasure or, by contrast, they may compose this poetry controlled by an intention, because the teacher requested the task, because there are rewards in sight, or for any other form of external or intrapsychic pressure. The autonomous decisions came to be called self-determined and, reciprocally, self-determination is the subjective experience of autonomy, which culminated in the current adoption of the term *autonomous motivation* (Reeve & Jang, 2006; Reeve, Jang, Hardre, & Omura, 2002).

From a theoretical perspective (Deci & Ryan, 1985; Reeve, Nix, & Hamm, 2003), autonomous motivation consists of the three components of self-determination: internal locus, psychological freedom and possibility of choice. The internal locus of causality, according to DeCharms (1984), means realizing that intentional conduct has a personal origin and regulation, while the external locus of causality refers to the perception of being a “puppet” in the face of external demands. The sense of psychological freedom can be comprehended as the will of the person to perform behavior, when it is coherent and aligned with the personal interests, preferences and needs not presented due to obligation or some form of pressure. Finally, the perception of choice (Deci & Ryan) reflects the flexibility in making decisions about what to do, how to do or even the possibility of not doing.

In other words, autonomous motivation occurs when, in relation to given behavior, there is personal agreement, low pressure and high flexibility in its implementation, in terms, respectively, of internal locus of causality, perception of psychological freedom and of choice (Levesque, Zuehlke, Stanek, & Ryan, 2004; Reeve & Jang, 2006; Reeve et al., 2003, 2004). Conversely, controlled motivation is characterized by external regulation, i.e. the person acts as a function of external events such as pressures, even introjected, obligations, deadlines, rewards, penalties and threats. Therefore, this corresponds to the poorest forms of

regulation, which are the external and introjected ones. In this direction, it can be said that the quality of motivation can influence the learning of the school contents.

Consequences of Autonomous Motivation in the School

The concern of every teacher should be for the best learning results for the students, which occurs as a function of engagement in the activities. Engagement is defined here as the intensity of the behavior, enthusiastic participation with emotional quality of the active involvement in a task (Reeve et al., 2004). This concept has been used in studies on the quality of the motivation (Reeve et al., 2002), which is the most salient aspect of autonomous versus controlled motivation, in which behaviors are self-determined or under external regulation, respectively.

According to the self-determination theory (Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Deci, 2000a, 2000b; Ryan & Stiller, 1991), the internalization process of the regulation of the behavior is basically intra-individual and spontaneous, in the sense that people have a natural tendency to perform it. However, at the same time, there is a tendency toward the explanation that this process is also a function of social context, i.e. environmental factors can both facilitate and hinder this process. Furthermore, according to the self-determination theory, the autonomous forms of regulation of behavior are the result of social interactions that support or satisfy the three basic psychological needs: competence, autonomy and belonging (Deci et al., 1991; Ryan & Deci, 2000b). In other words, to the extent that the social environment fails to meet any one of these three needs, the self-determined motivation for an activity will be compromised. However, the promotion of autonomy, in particular, is what has a decisive role regarding self-determination and autonomous motivation. Thus, strategies that promote autonomy, as opposed to those that control, were the preferred object for educational studies that investigated how teachers can meet these three basic needs.

A significant number of studies with students, described by Reeve (2004), show the benefits of autonomous motivation for learning, when compared with controlled motivation. In this line of studies, Flink, Boggiano and Barrett (1992) and Miserandino (1996) found significant relationships between autonomous motivation and academic performance. Moreover, according to data from Patrick, Skinner and Connell (1993), the perception of autonomy by the children is the factor that most strongly predicts effort, attention, persistence, and active participation behaviors, as well as positive emotions. The willingness to stay in the school also appeared to be more associated with this form of motivation among high school adolescents (Hardre & Reeve, 2003; Vallerand, Fortier, & Guay, 1997). More recently, in

a manipulative study with students who were preparing for teaching, the perception of autonomy correlated significantly with interest, satisfaction and engagement (which included attention, effort and persistence in the task), and performance level (Reeve & Jang, 2006). Conversely, evidence has revealed that when exclusively using controlled motivation, the students regularly tend to avoid challenges, to lose initiative, to be content with mere reproductions of the contents or simply to reach the end of the task, without concern for the quality (Lepper & Hoddell, 1989; Reeve, Bolt, & Cai, 1999; Ryan & Deci, 2006). In summary, according to these authors, the students in this condition learn less, especially when the learning is complex and requires deep processing.

The results of the studies on student motivation confirm a belief based on common sense that, as they advance in grades, the students become progressively less motivated to study (Harter, 1981; Lepper, Corpus, & Iyengar, 2005) especially in specific content areas such as science and mathematics. Ryan and Deci (2000a) affirm that there is an evident decrease in the intrinsic motivation of the students throughout the first eight school years. For Lepper et al. (2005), regarding the extrinsic involvement of the students with the school, the opposite occurs, i.e. with the advance in the grades, external pressures, competition and the search for rewards are more evident in the school environment, which, by assumption, increase the extrinsic motivation.

In Brazil there are few studies on the topic, especially involving elementary school students. The results of some studies on the intrinsic motivation of students (Arcas, 2003; Martini, 1999; Neves & Boruchovitch, 2007), using different data collection techniques, have raised questions about this motivational decline, as they indicate the preference of students for intrinsic motivation. More research is necessary to clarify the problem, as the authors of these works have pointed out themselves. From this perspective and given the considerations above, this study aimed to evaluate the motivational quality of a group of elementary school students. The possible relationships between gender, grade and school system were also investigated.

Method

Participants

The participants were 1,376 students enrolled in the 4th (8.3%, $n = 115$), 5th (24%, $n = 331$), 6th (23.7%, $n = 326$), 7th (18.2%, $n = 251$) and 8th (25.6%, $n = 353$) grades of public (51.9%, $n = 715$) and private schools (48.1%, $n = 661$), of the state of Parana. Males represented 50.2% ($n = 691$) of the sample, and females, 48.6% ($n = 669$), with 1.2% ($n = 16$) of the students not providing this information. With regard to age, this was divided into age groups. The first encompassed

students 8 to 10 years (13.9%, $n = 192$), the second those from 11 to 12 years (37.6%, $n = 518$), the third those from 13 to 14 years (40, 3%, $n = 555$) and the fourth those from 15 to 16 years (6.4%, $n = 88$), with 1.7% ($n = 23$) of the students not answering this question.

Instruments

Motivation Scale for Elementary School Students (MSESS). Designed by Rufini, Bzuneck and Oliveira (2011), contemplating the qualitatively different types of motivation, according to the precepts of the self-determination theory. From the initial question “Why do you go to school?” statements are presented, in a Likert type scale of five points, for the participant to indicate their degree of agreement. In this instrument, the scale was presented with a drawing of geometric figures of increasing sizes, followed by the numbers 1 through 5, as suggested by Lepper et al. (2005), in order to facilitate the comprehension of the children. The study of the psychometric properties of the scale (Rufini et al., 2011) revealed five factors: demotivation, extrinsic motivation by external regulation, introjected, identified and intrinsic motivation. Examples of evaluation items are: (a) lack of motivation “I do not want to go to school”, (b) extrinsic motivation by external regulation “I go to school to sign the register”, (c) introjected regulation “I go to school because it makes my parents happy”, (d) identified regulation “I go to school to learn”, (e) intrinsic motivation “I go because I am happy when I am at school”. Each subscale was composed of five items the internal consistency of which, evaluated using Cronbach’s alpha, varied from 0.75 to 0.88.

Procedure

Data Collection

The scale was applied by the researchers and by scientific initiation undergraduate students in elementary schools, after the signing of the authorization to conduct the study by the parents of the children and the directors. In the classroom and in groups, the students were shown how to complete the scale, using an example item with the following question: “Why do you go to the cinema?”. Similar to the items of the scale that evaluate constant motivation, the students were instructed to mark the cartoon, corresponding to the numbers 1 to 5, which corresponded to their level of agreement for the statements: “I go to the movies to eat popcorn” and “I go to the movies because it is fun”. Doubts were resolved, then the items evaluating the quality of the motivation were marked individually, with the time used for the activity being approximately 30 minutes.

Data Analysis

The data were treated in a comprehensive manner without identifying the students or the institutions involved, coded and analyzed using the *Statistica 7* program. The descriptive statistics and correlations were calculated for the dependent variables – demotivation, extrinsic motivation by external regulation, introjected, identified and intrinsic motivation in groups defined by the independent variables: gender, age, grade, school system.

Ethical Considerations

The project was approved by the Human Research Ethics Committee of the Universidade Estadual de Londrina (Protocol No. 031/2007). The ethical concerns adopted were supported in the Resolution 196/96 of the National Health Council and its complements (Ministry of Health, 1996). Initially the authorization of the directors and teachers of

the schools involved in the development of the study was obtained and then parental consent for the participation of the children, in writing, was sought. Furthermore, when the questionnaire was presented to the children, it was stated that their participation was voluntary.

Results

As can be seen in Table 1, the performance of the participants in the evaluation subscales indicated higher levels of autonomous motivation (extrinsic motivation by identified regulation and intrinsic motivation). In the evaluation of extrinsic motivation by identified regulation, 649 of the 1,361 participants who responded to the five evaluation items strongly agreed with the statements indicating identification with the values or standards of the school. Furthermore, regarding the evaluation items for intrinsic motivation, there was complete concordance by 188 students.

Table 1

Performance of the Students based on the Factors of the Motivation Scale for Elementary School Students

Variables	M	n	Median	Mode	Minimum	Maximum	SD
Demotivation	9.38	1357	8	5	5	25	4.71
External regulation	11.21	1355	10	9	5	25	4.67
Introjected regulation	13.07	1357	13	9	5	25	5.40
Identified regulation	22.41	1361	24	25	5	25	4.02
Intrinsic motivation	18.51	1359	20	25	5	25	5.27

In another line of analysis, using Analysis of Variance (ANOVA), it was sought to discover differences in the types of motivation of the students according to the variables gender, grade and school system. As can be seen in Table 2, statistically significant differences were found between gender and performance, in the evaluation of the five types of motivation.

The male participants scored higher than the females in the evaluation of demotivation and the controlled types

of extrinsic motivation. Conversely, the female participants performed better in the evaluation of extrinsic motivation by identified regulation and intrinsic motivation. In the comparison between grade and motivational quality, statistically significant differences were found in relation to four types of motivation. There was an exception for the relation between grade and extrinsic motivation by introjected regulation (Table 3).

Table 2

Comparison of Gender and Performance of the Participants based on the Factors of the Motivation Scale for Elementary School Students through Analysis of Variance (ANOVA)

Types of Motivation	Male			Female			F	p
	n	M	SD	N	M	SD		
Demotivation	679	9.99	4.89	663	8.65	4.34	28.43	0.001
External regulation	678	11.87	4.77	661	10.50	4.45	29.48	0.001
Introjected regulation	679	14.16	5.42	662	11.91	5.09	61.03	0.001
Identified regulation	681	22.11	4.12	665	22.71	3.88	7.60	0.005
Intrinsic motivation	683	17.92	5.42	661	19.14	5.04	18.10	0.002

Table 3

Comparisons between the Performance of the Participants in the Evaluation of the Five Types of Motivation and the Grade according to the Motivation Scale for Elementary School Students

Grade	Demotivation			External regulation			Introjected regulation			Identified regulation			Intrinsic motivation		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
4 th	113	7.41	3.78	112	11.74	5.06	112	13.83	5.18	112	23.89	3.06	112	22.09	4.24
5 th	327	9.06	4.72	326	11.38	4.66	327	13.20	5.29	329	22.82	3.78	326	19.04	5.12
6 th	318	9.47	4.80	320	11.55	4.79	319	13.27	5.51	321	22.41	4.05	322	18.96	4.99
7 th	250	9.38	4.67	249	11.20	4.64	249	12.97	5.50	248	22.67	3.81	250	17.95	5.12
8 th	349	10.20	4.72	348	10.56	4.38	350	12.58	5.35	351	21.34	4.35	349	16.50	5.20
<i>F</i>		8.13			2.60			1.46			11.52			31.84	
<i>p</i>		0.001			0.03			0.21			0.001			0.001	

In the evaluation of the relationship between demotivation and grade [$F(4.1357) = 8.13, p \leq 0.001$], the scores obtained by the students in the fourth grade were significantly lower than the performance of students in the other grades. Moreover, the scores of the fifth grade students were significantly lower than those achieved by students of the eighth grade. The Tukey's post-hoc test was used to determine the differences between the groups of scores. The results showed a statistically significant difference between the students of the fourth grade ($M = 7.41$) and those of the fifth ($M = 9.06$), considering $p = 0.01$, the sixth ($M = 9.46$; $p = 0.005$), the seventh ($M = 9.38$; $p = 0.001$) and the eighth ($M = 10.20$; $p = 0.001$) grades. In all cases, the students in the fourth grade scored lower in the evaluation of demotivation. It was also possible to observe a statistically significant difference ($p = 0.01$) between the students of the fifth ($M = 9.06$) and the eighth ($M = 10.20$) grades. Students in the fifth grade also scored lower in the evaluation of demotivation, when compared to students of the eighth grade.

The comparison was performed between the scores obtained in the evaluation of extrinsic motivation by external regulation and the grade of the participants [$F(4.1355) = 2.60, p = 0.03$]. The Tukey's post-hoc test revealed a statistically significant difference ($p = 0.04$), with the performance of the students of the sixth grade ($M = 11.55$) being higher than that obtained by the eighth grade students ($M = 10.56$). In

the case of extrinsic motivation by introjected regulation, it was not possible to obtain statistically significant differences when comparing the grade, considering [$F(4.1357) = 1.46, p = 0.21$].

When comparing the scores of the students in the evaluation of extrinsic motivation by identified regulation, considering [$F(4.1361) = 11.52, p \leq 0.001$], the Tukey's post-hoc test revealed that the scores obtained by the students of the eighth grade, compared with the performance of students in the other grades, were significantly lower. The differences in performance between the students of different grades, in the evaluation of intrinsic motivation, were observed according to the Tukey's post-hoc test, considering [$F(4.1359) = 31.84, p \leq 0.001$]. The performance of the students of the fourth grade was significantly higher than that obtained by the students of the other grades. The performance of the eighth grade students was significantly lower than that obtained by those of the other grades, the performance of fifth grade students was higher than those of the seventh grade.

Figure 1 supports the hypothesis that demotivation increases, and controlled motivation shows a slight tendency to decrease, with the school progression. In Figure 2, it is possible to explore the hypothesis that there is a decrease of extrinsic motivation by identified regulation and of intrinsic motivation, according to the grade.

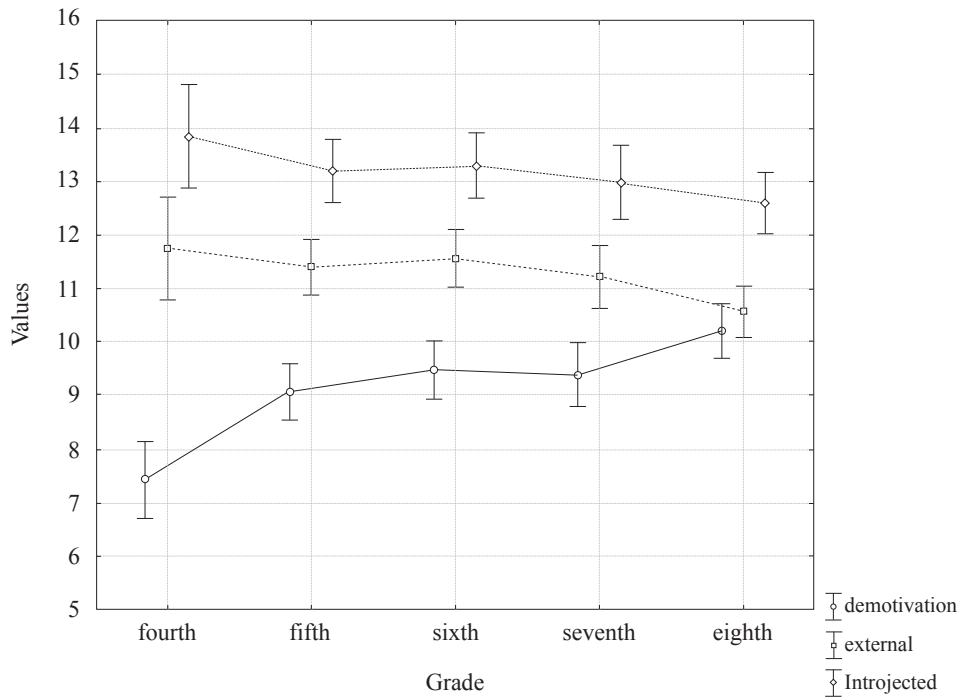


Figure 1. Distribution of extrinsic motivation by introjected regulation, extrinsic motivation by external regulation and demotivation of the students according to the Motivation Scale for Elementary School Students.

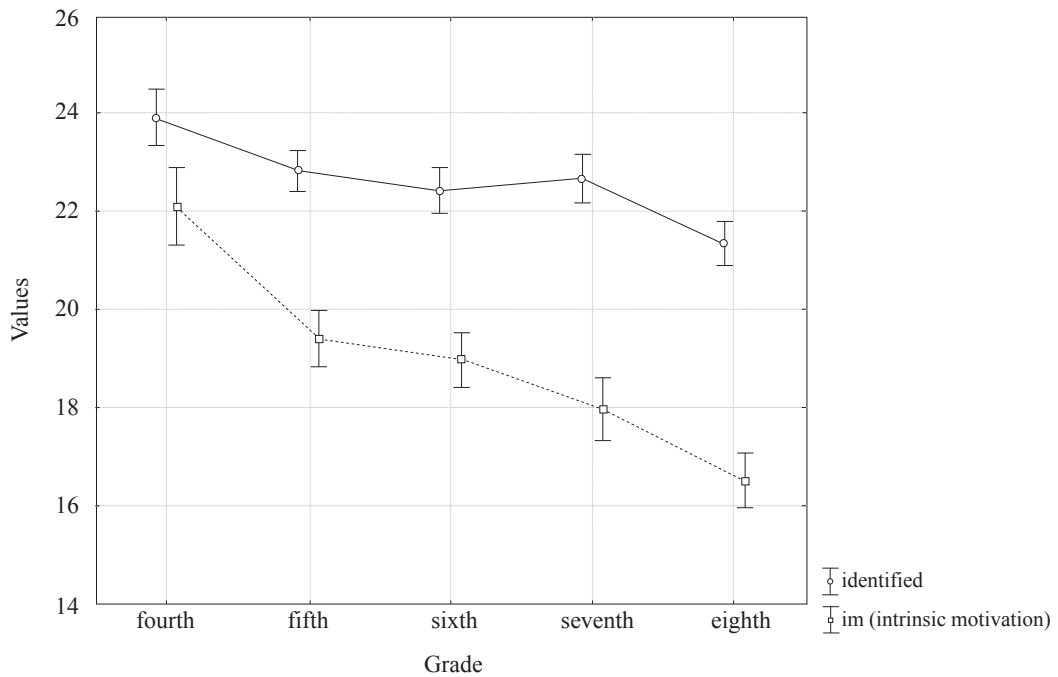


Figure 2. Distribution of extrinsic motivation by identified regulation and intrinsic motivation of the students according to the Motivation Scale for Elementary School Students.

Finally, the examination was performed of the differences in the quality of motivation of the students, according to the school system in which they were enrolled. The ANOVA results indicated statistically significant differences for demotivation [$F(3.652) = 81.12, p \leq 0.001$], with the higher mean for the students of the private system ($M = 10.53$) compared with that obtained by the students of the public system ($M = 8.29$); for extrinsic motivation by introjected regulation [$F(3.651) = 3.86, p \leq 0.04$], the higher mean was obtained by the participants from the private system ($M = 13.37$) compared with the mean of the public school students ($M = 12.79$); for extrinsic motivation by identified regulation, [$F(3.653) = 19.56, p \leq 0.001$], the higher mean was obtained by the participants of the public system ($M = 22.86$), compared with that of private school students ($M = 21.90$), and for intrinsic motivation, the higher mean was obtained by the public school students ($M = 19.41$), compared with that obtained by the students of the private system ($M = 17.52$). In the comparison of the means obtained in the evaluation of extrinsic motivation by external regulation and the school system, no statistically significant difference was encountered.

As can be observed, the performance of the participants from the public system was significantly better in the evaluation of the more autonomous types of motivation. In contrast, the students from the private school system scored higher in the evaluation of demotivation.

Discussion

One of the aims of this study was to compare the motivation of students of different grades of elementary school. What stood out in the results was the apparent decrease in autonomous motivation of the investigated group over the course of the schooling. The literature of the area permits the affirmation that this motivational quality is preferable to the controlled type due to being related to better cognitive and affective outcomes, such as greater conceptual comprehension, better marks, more creativity, persistence and well-being. The studies developed in recent years, based on the assumptions of the theory of self-determination, have revealed that the investment in the school environment conditions that satisfy the basic psychological needs of the students, of competence, autonomy and belonging, promotes the internalization and integration of the external rules and values.

One of the major challenges for education is to help students to discover the value of and to stimulate interest in the school curriculum (Brophy, 1999; Bzuneck, 2010). In this sense, the efforts of educators should be directed toward the search for intervention alternatives which preserve or expand the beliefs of the students in their ability or competence to learn. An example would be the proposition of highly

challenging situations, a little ahead of the current knowledge and aligned to the interests of the students, with positive and informative feedback being subsequently offered. According to Ryan & Deci (2000a, 2000b), feeling competent to perform a certain action encourages the student and facilitates the internalization or the personal identification of the external conditions that they regulate (such as the demands made by the teacher to read a particular chapter or to complete an exercise). Therefore, the activity itself begins to have value or at least there is a personal agreement with the external demands and an integration of them with the self. Another possibility, extracted from the literature, is to strengthen the feeling of belonging. The current knowledge produced about the need to belong, suggests that the results of the student's learning are related to their acceptance experiences in the school environment. When the student is perceived as a person worthy of love, respect, attention, care and genuine interest from their teachers, enthusiasm, motivation, joy and comfort are the probable emotions, resulting from the involvement in the learning activities. This is because the perception of acceptance makes students more motivated and more committed to their own education and, thus, better utilization and better learning results can be expected (Guimarães, 2004; Osterman, 2000).

The decrease in intrinsic motivation in the school and an eventual increase in extrinsic motivation over the course of the elementary school grades are supported in the international literature. Some Brazilian studies, however, found that the intrinsic motivation of students increased or remained unchanged when observed or evaluated by means of some data collection instruments. This inconsistency in the findings should be further investigated and, therefore, this study has provided a survey of new issues that may guide future studies in the area. In relation to the grade, it can be said that, as the students progressed in the school years of formal education, their autonomous motivation decreased. This finding corroborates the results shown in this study, given that the students enrolled in fourth and fifth grades were less demotivated. In addition, in this group of students the concern with external rewards increased (e.g. "I come so I am not marked absent") along with a regulation of behavior of going to school for introjected reasons (e.g. avoiding guilt concerning the parents). In contrast, the identified regulation and the intrinsic or autonomous motivation decreased as the students progressed through the grades, these data are visible in Figures 1 and 2. The decrease in intrinsic motivation over the years of formal education is something already shown previously by Lepper et al. (2005) and Ryan and Deci (2000a, 2000b).

It is considered that the ideal would be that, throughout the school years, students stay more intrinsically motivated to learn, however, this is not what apparently occurs. When considering that after the student completes the eight years

(currently nine) of elementary school, they still have three years in the high school and approximately four in higher education, it seems plausible to consider that the end of elementary school only represents half of the trajectory associated with a complete formation. Thus, it can be asked how the motivation would be directed, being the predominant goal of high school and higher education students. Would this decreasing trend also be confirmed in these stages of the education? Would there be a specific type of motivation that is predominant in students enrolled in these education levels? In summary, it would be desirable that autonomous motivation associated with behavior such as attention, persistence, and active participation (Patrick et al., 1993) undergoes maintenance, throughout the school years.

With regard to the gender difference, it was shown that boys were more demotivated, being predominantly directed by the controlled types of extrinsic motivation and the girls by autonomous motivation (extrinsic by identified regulation and intrinsic motivation). This result is interesting, however, should be investigated in greater depth, considering that there is a lack of systematic studies that indicate, with a degree of certainty, whether there is a trend or a predominance of the type of motivation due to the gender of the student. Therefore, it would be naive not to mention that there is still no plausible explanation for the differences between the genders which occurred.

Regarding the type of school system, the results showed that public school students were more autonomous. These students scored higher in both the extrinsic motivation by identified regulation and the intrinsic motivation, in relation to those enrolled in private institutions. This finding may perhaps be better comprehended when we refer to the reality of Brazilian public education that offers little support to its students, which in a certain way, albeit negative, often directs the students towards more autonomous behavior as they know that they will not find much assistance from the public system. This fact is unfortunate, however, it could explain the results observed here. Added to this is the fact that teachers have to cope with numerous classes, giving little time to their students (often not through their own choice). In the private institution, the parents often require from the school a certain rigor in the formation of the students, demanding, for example, good performance. Thus it is possible to suggest that these institutions end up reproducing this external control in their students. It is also possible that the public school environment potentially promotes autonomous motivation through situations that lead students to feel competent to learn, autonomous in their decision-making and more included. Clearly, these assumptions should not be considered definitive but seen as issues to be explored in the future.

Therefore, the need should be highlighted for the educational institutions to provide students with the conditions

for them to develop competence, a bond and autonomy, while satisfying their basic needs, as considered by Ryan and Deci (2000b). Thus, the hypothesis is promoted that it is possible that these students are more likely to present self-determined motivation. Another aspect to be highlighted is the question of how the lack of motivation for learning can negatively affect the performance of pupils (Accorsi et al., 2007; Boruchovitch & Bzuneck, 2004; Goya et al., 2008). Thus, the importance of reinforcing institutional environments that allow the exercise and the promotion of autonomous behavior is emphasized. In this sense, ways to take preventive action so that our students feel more motivated to learn should be contemplated, especially considering that the motivational aspect is associated with good academic performance and a better quality of learning.

Conclusions

One of the objectives of the study was to compare the levels of motivation of students of different grades of elementary school. The international literature and informal observation of the involvement of students indicate a decrease in intrinsic motivation in the school. Researchers of the area point out an eventual increase in extrinsic motivation over the course of the elementary school grades. The findings should be further investigated, therefore, this research provides a survey of new issues that may guide future studies in the area.

Another aspect to be evaluated is the fact that the results obtained with the application of the constructed scale as a measure of motivation of the elementary school students could be better investigated by measuring the validity and semantic validation through interviews, as it is possible that some students did not understand the items very well. The data contradicted the more general expectations that students of public institutions perform worse than those of the private institutions, therefore, conducting further studies should be considered in order to explain in greater detail what may have occurred. This is certainly a point that deserves to be carefully explored in future research.

It has to be considered that the results shown are positive, as they can also give certain value to the measure used, and with these results it was possible to get to know better the quality of the motivation of the students participating in elementary education. It is evident that the data collected need to be investigated more thoroughly. It should be added that the present study, despite having shown some limitations, also presents contribution to raising these questions in order to identify possible relationships between motivation and variables such as gender, grade and type of school, as there are still few studies, in our environment, on the motivation of this nature.

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