# ARTICLE BELIEFS OF TEACHERS ABOUT GRADE RETENTION 1

VANDA MENDES RIBEIRO 1; 2 \*\*

PAULA REIS KASMIRSKI<sup>2</sup>; 3 \*\*

JOANA BUARQUE DE GUSMÃO 2 \*\*\*

ANTÔNIO AUGUSTO GOMES BATISTA <sup>2</sup> \*\*\*

MÁRCIA APARECIDA JACOMINI <sup>4</sup> \*\*\*\*

MARCEL CRAHAY <sup>5</sup>; 6 \*\*\*\*\*

ABSTRACT: This article aims to analyze the beliefs of basic education teachers about grade retention. To that end, it discusses possible relations between beliefs about grade retention, beliefs about justice and evaluation principles, and teachers' knowledge about the findings of research on the effects of grade retention. We also present teacher profile characteristics that can influence teacher adhesion to grade retention. The relationship between the beliefs mentioned, and between them and knowledge of research, was analyzed by correlation and the identification of characteristics associated with retention was done by regression analysis. We used primary data concerning almost 5.5 thousand teachers that teach Portuguese Language. We found that teachers

<sup>&</sup>lt;sup>1</sup> University of São Paulo City, São Paulo, SP, Brasil.

<sup>&</sup>lt;sup>2</sup> Center for Studies and Research in Education, Culture and Community Action, São Paulo, SP, Brasil.

<sup>&</sup>lt;sup>3</sup> Getulio Vargas Foundation, School' Economics of São Paulo, São Paulo, SP, Brasil.

<sup>&</sup>lt;sup>4</sup> University of São Paulo's, School of Education, São Paulo, SP, Brasil.

<sup>&</sup>lt;sup>5</sup>Universitie of Geneva, Geneva, Switzerland.

<sup>&</sup>lt;sup>6</sup> Universitie of Liege, Liege, Belgium.

<sup>\*</sup>Holds a PhD in Education from FEUSP. She is an Research Assistant Coordinator at the CENPEC (2013-2016), a Professor and Vice-Coordinator at the Academic Master's Program in Education at UNICID and a Professor at the Professional Master's Degree Program in Educational Management at the same university; a head researcher for the CNPq Research Group on Education and Socially Vulnerable Areas. E-mail: < vandaribeiro2@gmail.com > .

<sup>&</sup>quot;Holds a Master's Degree in Economics From FEA-USP. She is a PhD student at the EESP-FGV and a Researcher at the CENPEC (2013-2017). E-mail: < prkasmirski@gmail.com > .

<sup>\*\*\*</sup> Holds a Master's Degree in Education from the University of São Paulo (USP). A project head at the CENPEC Research Coordination Office. E-mail: < joana.buarque@cenpec.org.br > .

<sup>\*\*\*\*</sup> Holds a PhD in Education from the UFMG. He is a Research Coordinator at the CENPEC. E-mail: < antonio.batista@cenpec.org.br > .

<sup>\*\*\*\*</sup> Holds a PhD in Education from the University of São Paulo's School of Education. She is a Professor at the Education Department of the Federal University of São Paulo's School of Philosophy, Letters and Humanities. A member of the Research Group on Education Policy and School Management (GEPPEGE). E-mail: <marciajacomini@uol.com.br > .

<sup>······</sup> Holds a PhD in Educational Psychology. He is an Honorary Professor at the Universities of Geneva (Switzerland) and Liege (Belgium). E-mail: < Marcel.Crahay@unige.ch > .

who adhere to retention tend to also adhere to a meritocratic principle of justice and to normative assessment. Having more experience in teaching, not teaching in initial years of basic education, a greater knowledge of research of the subject, and holding a Master's or a Ph. D. degree characterize the teachers who are less likely to agree with grade retention.

**Keywords:** Grade retention. Teacher education. Teachers' beliefs. Assessment. Principles of justice.

### CRENÇAS DE PROFESSORES SOBRE REPROVAÇÃO ESCOLAR

RESUMO: Este artigo analisa crenças de professores da educação básica sobre reprovação escolar. Para tanto, discute possíveis relações entre crenças sobre reprovação, crenças acerca de princípios de justiça e avaliação e o conhecimento de professores a respeito de resultados de pesquisas sobre efeitos da reprovação. Explicita características do perfil dos professores que podem influenciar sua adesão à reprovação. A relação entre as crenças e entre estas e o conhecimento de pesquisas foi analisada por meio de correlação e a identificação das características associadas à adesão à reprovação foi feita com análise de regressão. Foram usados dados primários de quase 5,5 mil professores que lecionam Língua Portuguesa. Conclui-se que professores que aderem à reprovação tendem a aderir ao princípio de justiça meritocrático e à avaliação normativa. Ter maior tempo de experiência docente, não lecionar nos anos iniciais do ensino fundamental, maior conhecimento de pesquisas sobre o tema e mestrado e doutorado caracterizam os professores que concordam menos com a reprovação.

Palavras-chave: Reprovação escolar. Formação de professores. Crenças de professores. Avaliação. Princípios de justiça.

### INTRODUCTION

This article analyzes basic education teachers' beliefs about grade retention. To that end, we estimate beliefs about grade retention, beliefs about justice and evaluation principles, and knowledge of the effects of grade retention, based on a sample of teachers who teach Portuguese in schools in the public education system, showing how such beliefs and knowledge interrelate. We also identify characteristics of teacher profile and policy contexts that may be affecting those beliefs.

Studies aimed at understanding grade retention adhesion by teachers, through the investigation of a set of beliefs that rely on concepts of education development, are based on the knowledge of the fact that, to act on the educational situation, the teacher mobilizes knowledge and beliefs. What kind of beliefs and knowledge are mobilized in a given situation, how they interrelate, what profile characteristics and what context situations interfere, whether such

beliefs and knowledge change over time, are questions indicated by Crahay and his collaborators (2010) as relevant to establish effective teacher education strategies.

These authors understand beliefs as social representations in that they are mental contents, compilations of concepts and meanings that are socially originated. They imply individuals' adherence, but they do not rely on a rigorous validity system. Their legitimacy lies in the fact that they are largely known and recognized. This last characteristic is, according to the authors, what differentiates beliefs from knowledge. The latter requires a rigorous validity system, empirical evidence that comes from research.

Research on beliefs and the relationship between beliefs and knowledge are rare in our country – although they are common worldwide. In Brazil, such studies present a predominantly qualitative approach. Student failure is a theme of the highest relevance to be extensively researched given its direct relationship with the major problem of school inequality in our country.

### TEACHERS' BELIEFS AND GRADE RETENTION

To discuss beliefs on grade retention, we found it important to briefly review the subject of grade retention in order to allow the formulation of hypotheses about teachers' adherence to the practice.

Researchers say that there is a relationship between student failure and some student characteristics, including social and racial origin (ALVES; ORTIGÃO; FRANCO, 2007; MACHADO; GONZAGA, 2007; LOUZANO, 2013). According to Souza et al (2010), Brazil's high grade retention rates are an obstacle to the universalization of access to and completion of secondary education at the adequate age in the country, as well as an old problem in the national education. In the 1960's and 1970's, states like Santa Catarina, Minas Gerais and Rio de Janeiro adopted policies aimed at reversing the high grade retention rates (ARELARO, 1988). Having had no continuation, those proposals still helped to get the debate about grade retention into the agenda.

In the 1980's, state education systems in São Paulo, Minas Gerais, Pará, Paraná and Goiás implemented the Basic Literacy Cycle with social promotion from the first to the second year (MAINARDES, 2007). In the early 1990's, a study produced change in the way grade retention was understood in the country: Ribeiro (1991) found that this was a more serious problem than school dropout, as from the first to

the second grade, the grade retention rate was 52.5%, while the dropout rate was 2.3%. New experiences in non-grade retention policy were then implemented. The São Paulo municipal education system organized its fundamental education in three cycles with social promotion in 1992, prior to the current National Education Guidelines and Framework Law (LDB/1996), which foresees different forms of organizing education (BRASIL, 1996). But it was especially after the enactment of that law that Brazil had the greatest number of experiences in organizing education in cycles. However, by 2014, according to data from the School Census, only 30.14% of Brazilian schools in the public and private systems had organized education in cycles.

Qualitative research indicates that, in the society and among basic education teachers, experiences with cycles and social promotion produced more opposition than support to non-retention (SOUSA; BARRETTO, 2004; PARO, 2001; GLÓRIA; MAFRA, 2004; ARAÚJO, 2006).

The association between non-retention and a worsening in education quality in the population's view and, at times, among teachers "is owing to the culture of retention, which seems deeply internalized in everyday school life and in families' imagery as something necessary and beneficial to the student who fails" (GLÓRIA; MAFRA, 2004, p. 235). Ferrão, Beltrão and Santos (2002) and Alavarse (2007) did not find evidence that students attending schools with grade retention have a better performance than those attending schools with social promotion.

In analyzing accounts of basic education teachers about social promotion, particularly in the state of São Paulo, Jacomini (2004) categorized the arguments and explanations that opposed social promotion into material, ideological and institutional-pedagogical determinants. Material determinants refer to pedagogical work conditions (number of students per teacher, didactical material, school facilities, hours of collective activities at school and time for adequate class planning). Ideological determinants comprise concepts of schooling and of school-society relationship. Two common arguments for grade retention are: it gives the teacher the power to control students' discipline, as well as conditions to demand dedication to study; the society operates its selection by means of merit, therefore, the school should infuse in students the idea of merit and selection, grade retention being the main form of doing so. Institutionalpedagogical determinants are, according to the author, related to the school's conditions of functioning. Teachers say that the school was not organized in terms of curriculum, school hours and space, or evaluation and teaching methods, according to the prerequisites of an education organized in cycles and with social promotion as expressed in the literature and the law, which hinders a new pedagogical practice.

These determinants, the researcher says, are mutually reinforced, thus creating a series of resistance points to the overcoming of school selection and exclusion processes. Pressed by material and institutional-pedagogical conditions inadequate to develop an educative process that provides learning to all students, most teachers rely on ideological determinants to justify their opposition to social promotion and to say it is inadequate to the Brazilian school.

According to the Brazilian studies mentioned, the solution most teachers have been resorting to is to criticize social promotion and blame it for the difficulties they have been experiencing in the profession, particularly in aspects related to discipline and learning.

Various studies indicate that the Basic Education Development Index (Ideb) – which is based on the Prova Brasil test – has heavily influenced policy in Brazilian states and municipalities (BAUER; ALAVARSE; OLIVEIRA, 2015; CENPEC, 2015; SOUZA; ARCAS, 2010). The Ideb has the embedded notion that children should learn along with the adequate school flow (OLIVEIRA, 2007). The adoption of educational policies to improve the Ideb necessarily implies pressure for non-retention.

International and national research indicates that grade retention is one of the main obstacles to entering secondary education, in addition to disrupting learning trajectories, being expensive, and generating negative results, therefore leading to further retention and less learning (BORAITA; MARCOUX, 2013; XIA; GLENNIE, 2005; SOUZA et al, 2012). Moreover, in Brazil, data from the Prova Brasil test indicate that there are more black people, boys and workers among repeaters, which reinforces evidence that grade retention is a practice that generates and/or reinforces school inequality. Correa, Bonamino and Soares (2014) investigated data from the GERES 2005<sup>2</sup> to determine whether students who were retained showed proficiency gains, and found that repeaters showed lower average grades and that, in situations denoting some gain, that gain was not pedagogically relevant and did not last over time.

Draelants (2008) analyzed the effects of non-retention policies in Belgium and found that teachers continue to believe in the positive effect of grade retention, despite evidence to the contrary. Crahay, Marbaise and Issaieva (2013) sought to understand what kind of belief contributes to justify the practice of grade retention among teachers in francophone Belgium. They start from the hypothesis that beliefs behave logically, causing, for example, those who advocate grade retention to also advocate the principle of meritocratic justice,<sup>3</sup> as well as to believe

in the idea of gift and in the normative concept of evaluation.<sup>4</sup> On the other hand, it would be logical to imagine that teachers who adhere to a corrective notion of justice (equality of acquired knowledge) would also adhere to a formative notion of evaluation and, therefore, would not believe in the virtues of grade retention, particularly if they are well informed about scientific research on the subject. Two relevant results emerged from the study: awareness of research on grade retention effects tends to influence teachers' beliefs about that practice; and, contrary to the hypotheses proposed, teacher's beliefs can contain notions that are logically inconsistent with each other. Crahay, Issaieva and Monseur (2014) also conducted the same type of study with primary teachers in the canton of Geneva. The findings were similar: knowledge of research positively affects beliefs and there was not the expected consistency between beliefs.

To Crahay and collaborators (2010), beliefs form from experiences and information, knowledge, models of thought received and transmitted by tradition, education and social communication. They relate with the teacher's culture, action and experience, with the relationship between the individual, the constitution of his identity and his context. According to the researchers, beliefs would provide a practical view of how to proceed, allowing some mastery over the world. In order to be in a context, individuals seek balance, and beliefs would provide a framework for understanding what occurs. Defending a belief can mean to defend one's social belonging. Beliefs have, still, the role of determining what is legitimate (i.e., what is acceptable in a given context) and shared, therefore, what "should" be defended. Beliefs can also be mobilized by way of self-defense, to justify actions or behaviors. In their teaching position, teachers usually resort to beliefs or knowledge, indistinctly, to solve their practical problems.

The discussion conducted by Crahay and collaborators (2010) points us to the complexity of the relationship between beliefs, knowledge and practice. The influence of beliefs and knowledge over teaching situations is not something that occurs directly. Influenced by the context, identity building processes, legitimacy questions and their experience, teachers make use of their beliefs and knowledge to act. And the more experienced they are, the more that usage can denote procedural situations that can simplify forms, facilitate memory. According to the authors, nothing indicates that change in teachers' beliefs moves necessarily towards fairer situations. Evolution will depend on teaching situations to be faced, but also on emotional aspects, personal memories and the roles that beliefs and knowledge play in the context, in terms of identity building, production of

legitimacy and directioning of general conducts.

### METHODOLOGICAL PROCEDURES

We administered a questionnaire with 189 items which the teacher was required to agree or disagree with, regarding questions implied in the teaching and learning process (see Table 1) in a 6-point Likert scale. The questionnaire was developed under direction of Marcel Crahay at the University of Geneva, based on previous studies. The instrument was translated from French into Portuguese by a professional translator and revised by the authors and by an external researcher. Questions about teacher profile were adapted to the Brazilian context.<sup>5</sup> The questionnaire was tested with eight teachers and persons with experience in teacher education, in June 2014.<sup>6</sup> No instrument validation procedures were employed. That limitation should be considered in analyzing our results.

CHART 1. Studies that Originated the Questionnaire

| Themes the questions referred to   | Source                               | Number of<br>Items |
|--|--------------------------------------|--------------------|
| Beliefs referring to grade retention, its effects, reasons to decide for grade retention | Boraita; Marcoux (2013)              | 47                 |
| Knowledge of research on grade retention and its effects                                 | Boraita; Marcoux (2013)              | 8                  |
| Concepts of intelligence   | Issaieva; Crahay (2014)              | 41                 |
| Learning-related beliefs   | Crahay's study, still<br>unpublished | 28                 |
| Concepts of evaluation   | Issaieva; Crahay (2010)              | 14                 |
| Beliefs referring to different justice principles  | Unpublished                          | 15                 |
| Teachers' concepts on managing students'<br>heterogeneity                                | Wanlin (2011)                        | 15                 |
| Teachers' perception of their ability to manage class and learning                       | Wanlin (2011)                        | 21                 |
| Total  |                                      | 189                |

Source: Crahay et al. Authors' own translation.

The instrument was administered to teachers participating in the [program, omitted name].<sup>7</sup> Our choice was due to the following facts: (i) the individuals are mobilized by their relation with the program and, therefore, would be more likely to answer in a more thoughtful, reliable way; (ii) because the program provides teacher education via online distance learning, respondents have access and enough knowledge to deal with the form in which the questionnaire was available; (iii) they are from all Brazilian states.

The universe considered in the study consists of all teachers registered in the 2014 program who teach at primary and secondary levels. Once the 5,996 questionnaires were answered (6% of the 95,056 teachers registered in the program), the final sample comprised 5,493 teachers.

We used convenience sampling and contacted the teachers in the population via e-mail to ask for their voluntary collaboration and provide the link to the questionnaire. To encourage teachers' return, we offered books about findings of research on family, school and teacher education to the first one hundred who fully responded. The questionnaire was available to respondents for 24 days (from June 30 to July 24, 2014).

To check the data collected for compatibility with the instrument's conceptual structure, all items related to a given topic, such as grade retention, were examined using exploratory factor analysis, factors being extracted using principal components analysis with oblique rotation. Based on this procedure, we identified the number of beliefs per theme and selected the items used to estimate them.

That estimation was conducted using item response theory (IRT)<sup>10</sup> since 56% of the questionnaires have at least one unanswered item among the 189 belief-related items.<sup>11</sup> With IRT, we were able to estimate a teacher's score even when he had not answered all belief-related items.

Although the 189 questions also referred to other beliefs (Chart 1), in this article we dealt only with beliefs relating to "concepts of evaluation", "justice principles" and "grade retention" and about knowledge of research on the negative effects of grade retention. The relationship between such beliefs, and between them and knowledge of research, was analyzed by means of correlation; moreover, we identified characteristics associated with retention adhesion using regression analysis. Details of those analyses are presented in the following sections.

### PRESENTATION AND DISCUSSION OF RESULTS

SAMPLE PROFILE

In Table 1, we present the profile of teachers registered in the program, teachers included in the sample, teachers who teach Portuguese for the grades comprehended in the program (5<sup>th</sup> to 9<sup>th</sup> grade of primary education and 1<sup>st</sup> to 3<sup>rd</sup> grade of secondary education) and all Brazilian teachers.

**TABLE 1.** Characteristics of Teachers in the Population, in the Sample and Teachers in the Public System in General

| Characteristic  | Teachers<br>Registered<br>in the<br>Program -<br>2014 | Sample -<br>2014 | Public System<br>Teachers<br>Who Teach<br>Portuguese<br>for grades in<br>the Program -<br>2014** | All<br>Teachers in<br>the Public<br>System -<br>2014 |
|---|---|------------------|--|--|
| Average Age   | 40.2  | 40.1             | 41.2   | 40.5   |
| Female  | 86.9  | 84.4             | 85.6   | 80.1   |
| Living in State Capitals*                               | 12.0  | 15.0             | 16.5   | 17.6   |
| Completed Higher Education                              | 7.7   | 2.7              | 10.1   | 14.7   |
| Completed Secondary Education                           | 39.4  | 32.7             | 45.7   | 44.7   |
| Completed Post-Graduation                               | 52.9  | 67.3             | 54.2   | 55.2   |
| Average Number of Students                              | 126.2   | 157.3            | 139.9  | 134.7  |
| Registration School Is / Teaches in Federal School      | 0.5   | 2.7              | 0.5  | 1.5  |
| Registration School Is / Teaches in State<br>School     | 43.9  | 55.8             | 52.5   | 41.8   |
| Registration School Is / Teaches in<br>Municipal School | 55.6  | 54.3             | 60.9   | 63.8   |
| Teaches in Private School                               | -   | 9.6              | 6.9  | 5.2  |
| Average Years of Teaching Experience                    | 13.9  | 14.3             |  |  |
| Total   | 94,954  | 5,493            | 316,935  | 1,787,410  |

Source: Program (2014); data from our sample; School Census/Inep.

A remarkable fact is that the program was able to encompass almost 30% of teachers who teach Portuguese in the country's public

<sup>\*</sup>In the School Census, this variable has around 20% of non-response.

<sup>\*\*</sup> Includes the 4th grade of secondary regular, integrated and teaching vocational education.

system in the grades specified. In relation to the total of teachers in the public system, Portuguese teachers represent 18%. By comparing the profile of the teacher registered in the program to that of Portuguese teachers in the public system for the same grades, it is worth noting that the former has more education and that teachers in the sample have even more education.

As shown in Table 2, most teachers in the sample are female, from 30 to 49 years old, have a mother who is illiterate or did not complete primary education, have a monthly net household income of 2 to 10 minimum wages, have completed higher education and attended a non-degree post-graduate program, have tenure and over 10 years of teaching experience. Teachers of all regions of Brazil answered the questionnaire.

**TABLE 2.** Characteristics of Teachers in the Sample

| Characteristic                                     | %    |
|--|------|
| Female   | 83.7 |
| Male   | 15.5 |
| Under 25 Years Old                                 | 3.7  |
| From 25 to 29 Years Old                            | 10.1 |
| 30 to 39 Years Old                                 | 34.2 |
| 40 to 49 Years Old                                 | 34.6 |
| 50 to 59 Years Old                                 | 14.5 |
| 60 Years or older                                  | 2.0  |
| White  | 49.9 |
| Black  | 46.5 |
| Yellow or Indigenous                               | 2.7  |
| North  | 5.8  |
| Northeast  | 35.3 |
| Southeast  | 36.1 |
| South  | 14.4 |
| Central-West                                       | 7.9  |
| Mother – Illiterate/Incomplete Primary Education I | 29.4 |

| Mother – Primary Education I/Incomplete Primary Education II | 34.8 |
|--|------|
| Mother – Primary Education II/Incomplete Secondary Education | 12.9 |
| Mother – Secondary Education/Incomplete Higher Education     | 21.7 |
| Income - until R\$ 1,356                                     | 12.6 |
| Income - R\$ 1,357 to R\$ 3,390                              | 42.2 |
| Income - R\$ 3,391 to R\$ 6,780                              | 33.6 |
| Income - Over R\$ 6,781                                      | 10.9 |
| Until Higher Education                                       | 32.4 |
| Refresher or Specialization                                  | 60.7 |
| Masters' Degree or Ph.D.                                     | 6.2  |
| Degree in Letters  | 67.2 |
| Multiple Subject Degree                                      | 34.6 |
| Degree in Other Areas  | 13.8 |
| No Licensure   | 4.5  |
| Licensure  | 94.5 |
| Teaches in the Federal System                                | 2.7  |
| Teaches in the State System                                  | 55.5 |
| Teaches in the Municipal System                              | 54.0 |
| Teaches in the Private System                                | 9.6  |
| No Tenure  | 26.5 |
| Tenure   | 72.7 |
| Until 5 Years of Experience                                  | 22.4 |
| 5 – 10 Years of Experience                                   | 16.1 |
| 10 – 20 Years of Experience                                  | 32.5 |
| Over 20 Years of Experience                                  | 26.3 |
| Teaches at Primary I   | 33.0 |
| Teaches at Primary II  | 58.6 |
| Teaches at Secondary   | 39.4 |

Source: the authors' own elaboration.

Table 3 shows that almost 30% of teachers say they have been retained during their school life; over half affirms that peers and superiors agree with grade retention; and only 13% say they have the same opinion on grade retention as they had before they started teaching.

TABLE 3. Teachers' Experience with Grade Retention

| Characteristic  | %     |
|---|-------|
| Peers and superiors agree with grade retention                                    | 54.58 |
| Believes to have kept the same opinion on grade retention since start in teaching | 12.93 |
| Was not retained in basic education   | 70.47 |
| Was retained in basic education   | 27.73 |

Source: the authors' own elaboration.

### RELATIONSHIPS BETWEEN BELIEFS AND BETWEEN BELIEFS AND KNOWLEDGE OF RESEARCH ON GRADE RETENTION

In this article, the beliefs we selected for analysis concern grade retention, justice and evaluation. In addition, we also analyze knowledge of research on the effects of grade retention (see Chart 2). The questionnaire items pertaining to each belief are presented in Appendix 1.

**CHART 2.** Beliefs Estimated by Selected Topic

| Topic                       | Belief                                     |   | Description/Interpretation   |  |  |  |  |
|-----------------------------|--|---|--|--|--|--|--|
| B1  B2  Grade Retention  B3 | B1   | General position about grade retention  | The higher the score, the more the teacher adheres to grade retention                                      |  |  |  |  |
|                             | Socio-affective effects of grade retention | The higher the score, the more the teacher believes that grade retention has negative socio-affective effects |  |  |  |  |  |
|                             | В3   | Effects of early grade retention  | The higher the score, the more the teacher believes that grade retention should occur early in school life |  |  |  |  |
|                             | B4   | Knowledge of research<br>on the effects of grade<br>retention   | The higher the score, the less the teachers proves to know research  |  |  |  |  |

|  | B5  | Formative Evaluation | The higher the score, the more the teacher adheres to the formative concept of evaluation |  |  |  |
|--|-----|----------------------|---|--|--|--|
| Evaluation   | В6  | Summative Evaluation | The higher the score, the more the teacher adheres to the summative concept of evaluation |  |  |  |
|  | В7  | Normative Evaluation | The higher the score, the more the teacher adheres to the normative concept of evaluation |  |  |  |
| Justice –  | B8  | Meritocratic         | The higher the score, the more the teacher adheres to the meritocratic perspective        |  |  |  |
| the Role<br>of School<br>regarding<br>Social<br>Inequalities | В9  | Corrective           | The higher the score, the more the teacher adheres to the corrective perspective          |  |  |  |
|  | B10 | Equal treatment      | The higher the score, the more the teacher adheres to the perspective of equal treatment  |  |  |  |

Source: the authors' own elaboration.

The beliefs were correlated. Results indicate consistency between them (see Table 4) and differ somewhat than those found by Crahay, Marbaise and Issaieva (2013) and Issaieva and Monseur (2014). In those studies, data of teachers from Belgium and from the canton of Geneva, respectively, do not denote a very clear consistency between teachers' beliefs.

TABLE 4. Correlations between Beliefs and Knowledge

|     | B1      | B2      | В3     | B4+     | B5     | В6     | В7     | В8     | В9     | B10    |
|-----|---------|---------|--------|---------|--------|--------|--------|--------|--------|--------|
| B1  | 1.0000  |         |        |         |        |        |        |        |        |        |
| B2  | -0.3466 | 1.0000  |        |         |        |        |        |        |        |        |
| В3  | 0.5760  | -0.2281 | 1.0000 |         |        |        |        |        |        |        |
| B4+ | 0.6016  | -0.5381 | 0.4336 | 1.0000  |        |        |        |        |        |        |
| В5  | 0.0924  | 0.1630  | 0.0926 | -0.1497 | 1.0000 |        |        |        |        |        |
| В6  | 0.1809  | 0.1401  | 0.1584 | -0.0834 | 0.6857 | 1.0000 |        |        |        |        |
| В7  | 0.4348  | 0.0139* | 0.3301 | 0.2678  | 0.1028 | 0.2156 | 1.0000 |        |        |        |
| В8  | 0.2999  | 0.0220* | 0.2400 | 0.1841  | 0.0903 | 0.1375 | 0.5034 | 1.0000 |        |        |
| В9  | 0.1209  | 0.2154  | 0.1253 | -0.0744 | 0.3909 | 0.3549 | 0.2022 | 0.1809 | 1.0000 |        |
| B10 | 0.0281  | 0.1238  | 0.0783 | -0.0771 | 0.3102 | 0.3224 | 0.0913 | 0.0536 | 0.1735 | 1.0000 |

Source: the authors' own elaboration.

**Note:** correlations are significant at 5%, except for the ones with an asterisk. The + signal indicates knowledge. The meaning of each belief is presented in Chart 2.

The correlation between B1, B2 and B3 shows that the more the teacher agrees with grade retention (B1), the less he believes that it causes negative socio-affective effects (B2) and the more he believes that it should occur early in school life (B3).

The positive correlations between the teacher's general position on grade retention (B1), his normative concept of evaluation (B7) and his meritocratic view of the school's role (B8) also denote consistency between beliefs: the more the teacher agrees with grade retention, the more he adheres to the normative concept of evaluation and the meritocratic concept of justice.

There is also a positive consistent correlation between adhesion to the meritocratic principle (B8) and normative evaluation (B7). In other words, the teacher who believes in evaluation as a means of selecting the best also tends to bet on the meritocratic principle as a means of knowledge distribution. Considering that sociology of education affirms the correlation between social inequality and academic achievement (BROOKE; SOARES, 2008), the results of this study indicate that it is important to develop teachers' understanding of what the meritocratic principle of justice in basic

educative means, i.e., according to Dubet (2009) and Crahay (2000), a form of knowledge distribution that is incompatible with the notion of compulsory and subjective right.<sup>12</sup>

Another instigating result is that believing that grade retention has negative socio-affective effects (B2) or that grade retention should occur early in school life (B3) appears negatively correlated to knowing research on the negative effects of that practice (B4). These results corroborate the relevance of investments in teacher education so that teachers can expand their knowledge about the effects of grade retention.

This fact becomes even more relevant in view of the argument of Crahay and collaborators (2010) that there is a relationship between the teacher's action and his beliefs. Working in teacher education processes with scientific evidence on the harms of grade retention can result in substituting pro-retention beliefs. This can positively affect his action: in a teaching situation, the teacher will resort to beliefs he feels will work. Even though the substitution of beliefs may not ensure change in the teacher's practices, it means an expansion of the set of beliefs and knowledge that teachers can use to act. Obviously, according to the authors, this possibility of change in practice increases to the extent that there are also situations, in the context, that favor fairer actions in teaching processes.

### CHARACTERISTICS OF CONTEXT AND TEACHER PROFILE THAT CAN INTERFERE IN BELIEFS ABOUT GRADE RETENTION: REGRESSIONS

To understand the position of teachers on grade retention based on their context, socioeconomic profile and knowledge of research on the effects of grade retention, we used regression analysis.<sup>13</sup> We estimated linear models by ordinary least square with robust errors, in the following form:

$$C_{ii} = \alpha + \beta P_i + \gamma D_i + \varepsilon_i$$

Where  $C_{ji}$  denotes the belief j (j = 1,2,3) of teacher i (score estimated by IRT based on questionnaire items as described in the methodological procedure section) standardized (with zero mean and standard deviation 1);  $P_i$  is the score of knowledge of research on grade retention effects (also standardized);  $D_i$  denotes the set of context and teacher profile characteristics;  $\varepsilon_i$  is an error term. We examined teacher characteristics that might bring information

about elements that, according to Crahay and collaborators (2010), can influence teachers' beliefs. Considering this literature, the characteristics present indications about personal and teacher personal and professional identity, context and education. The regression's explanatory variables are detailed in Chart 3.

**CHART 3.** Description of Regressions' Explanatory Variables

| Characteristics                                     | Description  |
|---|--|
| Ignorance of<br>Research                            | Score estimated by IRT based on questionnaire items.   |
| Sex   | Binary variable: 1 for male.   |
| Age   | Age in years – age and squared age.  |
| Race  | Binary variables: 1 if the teacher declared himself black (black or brown) or yellow/indigenous. The omitted category is white.  |
| Residence<br>Region                                 | Binary variables: 1 if the teacher lives in the North, Northeast, South or Center-West region. The omitted category is Southeast.  |
| Mother's<br>Education                               | Binary variables: 1 if the teacher reported his mother's education to be Illiterate/Incomplete Primary I, Complete Primary I/Incomplete Primary II, Complete Primary II/Incomplete Secondary. The omitted category is Complete Secondary/Higher.   |
| Net Family<br>Income                                | Binary variables: 1 if the teacher reported his family income to be in the following brackets: until R\$ 1,356, from R\$ 1,357 to R\$ 3,390, and from R\$ 3,391 to R\$ 6,780. The omitted category is over R\$ 6,781.  |
| History of Grade<br>Retention in<br>Basic Education | Binary variable: 1 if the person reported to have ever repeated during basic education.  |
| Education   | Binary variables: 1 if the teacher reported to have attended refresher or specialization courses, or holds a Master's or Ph.D. degree. The omitted category is undergraduate degree.   |
| Education<br>System the<br>Teacher Is in            | Binary variables: 1 if the teacher teaches in state or municipal system. The omitted category is federal and private.  |
| Position Status                                     | Binary variable: 1 if the teacher has tenure.  |
| Teaching<br>Experience                              | Binary variables: 1 if the teacher's experience is in the following segments: 5 to 10 years, 10 to 20 years, or over 20 years. The omitted category is until 5 years. The experience was measured based on the year the person began to teach, and was obtained by subtracting the teacher's response from 2014. |

| Teaching<br>Level                                  | Binary variables: 1 if the teacher teaches in the initial years of primary education, in the final years of primary education, or in secondary education. Here, there is no omitted category, as these are not mutually excluding categories. |
|--|---|
| Degree   | Binary variables: 1 if the teacher holds a degree in letters or a multiple subject degree. The omitted category is other degrees.   |
| Experience with non-retention policy in the 1990's | Binary variable indicating whether the teacher entered the profession until 2000 and whether he works in an education system that implemented non-retention policy over the 1990's according to Barretto and Mitrulis (2001).                 |
| Experience with current non-retention policy       | Binary variable indicating whether the teacher works in a school that reported, in the 2014 School Census, to have organized secondary education in cycles.   |

Source: the authors' own elaboration.

The variable "experience with non-retention policy in the 1990's" was based on social promotion policies mentioned in Barretto and Mitrulis (2001): Rio de Janeiro (capital); state of Rio de Janeiro; state of São Paulo; state of Minas Gerais; São Paulo (capital); Belém; Belo Horizonte; Porto Alegre; Blumenau; state of Ceará.

The variable "experience with current non-retention policy" was based on data from the 2014 School Census and identifies the teacher who works in a school that implements non-retention policy. Both variables aim to determine whether the teacher has had any contact with such policies. Slightly more than 12% of the sample entered the teaching profession until 2000 and work in an education system that implemented non-retention policies over the 1990's. 34% of the sample were working in a school that reported, in the 2014 School Census, to have organized secondary education in cycles.

The regressions allow identifying variables associated to beliefs, however, their coefficients do not indicate a causal relationship. Coefficient size informs change of belief in function of change in characteristic, in standard deviation units. What is of greatest interest to us concerning coefficients is their signals and significance, which indicate whether the respective explanatory variables are associated to an increase or reduction in the adhesion to a belief, and whether such relationship has statistical significance.

Table 5 shows the models estimated to explain the three beliefs about grade retention. In the first column of each belief, the model does not include the variables of experience with non-retention policy; in the second column, the model includes such variables. With regard to the general position belief (B1), we can see that the teacher who disagrees

with grade retention tends, on average, to know more of research on retention grade effects, to hold a Masters or a Ph.D. degree, not to teach in early grades of primary education, to have more than 20 years of teaching experience, to be older, male, black, to live in the South region, <sup>14</sup> to have a mother who is illiterate or did not complete primary education, to have a higher net family income, and to have tenure.

The more the teacher knows research, the less he agrees with grade retention. Although it is not possible to determine if the teacher who agrees least with grade retention seeks to learn more about research, or if it is the other way around, the fact that this association exists can be a sign that contact with research promotes the substitution of pro-grade retention beliefs.

The correlation between holding a post-graduation degree and the grade retention scale could, theoretically, reinforce the importance of research to form the teacher's opinion. After all, it is primarily in courses of this type that contact with and production of research are more present, not least because research, particularly frontier research, is not accessible to everybody (since it is in a foreign language or in fee-charging databases). However, when we regress research knowledge in the same covariates described in Chart 2 (not reported), holding a Master's or a Ph.D. degree is not related to knowledge of research. Despite the logical relationship between frontier research and post-graduation, the themes that are dealt with in such programs do not necessarily refer to the negative effects of grade retention itself. If knowledge of this type of research is correlated to fairer positions on grade retention, then the substitution of teachers' beliefs on retention may be reinforced by promoting, in post-graduation programs, the approach of knowledge of research on the subject. The findings that knowing about research on grade retention effects and holding a Master's or a Ph.D. degree are associated to smaller adhesion to retention are an indication that teacher education affects their beliefs on grade retention.

Teaching in the first stage of primary education is a context factor that affects teachers' adhesion to grade retention: it is the teachers in the initial years of basic education that tend to agree most with this practice. Maybe they face a greater expectation from the society as they deal with the learning of well-demarcated and, therefore, more visible knowledge: students' mastery of the writing system, reading skills and text production, as well as mathematics basic knowledge. Another possible explanation is that these professionals feel more strongly the effects of school massification

(almost 100% of children in school age are enrolled), which may reinforce tensions affecting teachers, according to Jacomini (2004): for example, the evidence that they see themselves situated between the need to educate everybody, their adverse working conditions and the difficulty to generate learning homogeneity.

To check whether the contact with social promotion policy influences grade retention beliefs, we introduced the last two variables of Chart 2 in regressions, Column 2 of Table 5 shows the model with the policy variables, and we can see that they explain the general position when we include both and the interaction between them. In this case, the teachers are divided in four categories: (i) no contact with policy (omitted); (ii) contact only with the 1990's policy; (iii) contact only with policy in 2014; and (iv) contact with policy in both periods. What the regression shows is that the teacher who had contact only with the 1990's policy is more likely to agree with grade retention. Considering the qualitative studies that argue that social promotion policies can favor pro-retention positions, one would expect the contact with policy in 2014 to also determine a proretention position compared to the group that was not exposed to the policy. This suggests that the latest experience with policy may have generated some change in the beliefs of those who experienced the policy in the past, as having had contact with policies in both periods does not imply greater adhesion. 15 Based on our knowledge of the relationship between context and beliefs, of Ideb's influence on latest educational policy and of the pressure for regularizing the flow in the Ideb, we can raise the hypothesis that, for some reason to be investigated, this present context would be generating environments that are more favorable to anti-retention beliefs.

In the sub-sample by stage (Table 6), we have the same pattern of results regarding the policy variables for first stage of primary education; in second stage of primary education, there is only the relationship between "1990's Policy" and belief when we also control by "2014 Policy" and interaction; in secondary education, the policies variables are not associated to B1. These results suggest that the policies have some influence on the general position concerning grade retention for the primary education teacher, but not for secondary education teachers. This was expected, since primary education is the stage that is most exposed to interventions aimed at preventing grade retention.

Regressions indicate that teacher experience is a factor that affects two of the teachers' beliefs about grade retention (B1 and B2). This finding corroborates Crahay and collaborators (2010)

when they say that time brings conflict to teachers' beliefs. Based on that, further research could question the reasons why, as teachers accumulate experience, they progressively come to believe that non-retention is more efficient to deal with teaching situations. Could it be that, among professionals who are already more strengthened in terms of professional identity, the possibility to express their anti-retention beliefs would acquire more weight? The fact that tenured teachers, i.e., those who have greater career stability, are likely to position themselves against grade retention strengthens this possible relationship between a strengthened professional identity and the possibility to express a contrary position to grade retention.

Results in Table 6 (columns 4 and 5) indicate that, in function of personal experiences with grade retention, there can be distinct situations of adhesion to belief in grade retention. When the teacher reports to have repeated, factors such as experience, race, mother's education, tenure or the lack thereof, and the stage of basic education the teacher teaches for, no longer prove relevant to influence the belief in grade retention. And new relations seem to emerge: teachers who have repeated, but have a higher income and attend refresher or specialization programs adhere less to grade retention.

Results for the other beliefs about grade retention are shown in columns 3 to 6 of Table 5. In regressions for the belief concerning socio-affective effects of grade retention (B2), we did not include knowledge of research, as the items of both beliefs are very close. We can see that teachers with over 10 years of experience, who are black and multisubject are more likely to believe that grade retention has negative socio-affective effects; older teachers who live in the Southeast region adhere less to the belief. Louzano (2013) says that, in Brazil, from 2001 to 2011, black boys are more prone to academic failure, understood as an expression of grade retention and dropout. If this is a pattern that goes back to previous years, then we could raise the hypothesis that today's black teachers may have experienced grade retention more often, which may have allowed them to question its effectiveness based on their own personal experience. It is worth mentioning that the R squared of the model for B2 is significantly lower than those of the other models. This indicates that, in the sample, a smaller part of the variance of B2 is explained by regression.

The more the teacher knows research, the less he adheres to the idea that grade retention should occur early in school life. The same holds for teachers who are male, have a higher income, hold a Master's or a Ph.D. degree, have tenure and do not teach in Primary Education I.

TABLE 5. Regressions to Explain Beliefs about Retention

| Covariates   | positio  | position about effects of grade early |          | effects of grade |           | fects of<br>grade<br>ntion |
|--|----------|---------------------------------------|----------|------------------|-----------|----------------------------|
|  | 1        | 2                                     | 3        | 4                | 5         | 6                          |
| Ignorance of research  | 0.481*** | 0.485***                              | -        | -                | 0.390***  | 0.401***                   |
| 5 – 10 Years<br>of Experience                                      | -0.031   | -0.029                                | 0.023    | 0.025            | 0.007     | 0.000                      |
| 10 – 20 Years<br>of Experience                                     | -0.054   | -0.073*                               | 0.126*** | 0.118**          | 0.031     | 0.033                      |
| Over 20 Years<br>of Experience                                     | -0.105** | -0.118**                              | 0.146*** | 0.137**          | -0.004    | -0.018                     |
| Age  | -0.017** | -0.012                                | -0.019** | -0.023***        | -0.023**  | -0.013                     |
| Squared age  | 0.000**  | 0.000                                 | 0.000*** | 0.000***         | 0.000***  | 0.000**                    |
| Has repeated in basic education                                    | -0.001   | -0.003                                | -0.030   | -0.039           | -0.018    | -0.041                     |
| Male   | -0.055*  | -0.062*                               | 0.058    | 0.047            | -0.126*** | -0.152***                  |
| Black  | -0.058** | -0.061**                              | 0.065**  | 0.085**          | -0.067**  | -0.053                     |
| Yellow or indigenous   | -0.108*  | -0.109                                | 0.123*   | 0.127            | -0.082    | -0.107                     |
| North  | -0.025   | -0.008                                | 0.257*** | 0.282***         | -0.026    | -0.033                     |
| Northeast  | 0.005    | 0.018                                 | 0.289*** | 0.291***         | 0.004     | 0.02                       |
| South  | -0.066*  | -0.044                                | 0.082**  | 0.103**          | -0.027    | -0.014                     |
| Central-West   | 0.034    | 0.034                                 | 0.145*** | 0.174***         | -0.028    | -0.063                     |
| Mother – Illiterate/<br>Incomplete Primary<br>Education I          | -0.062*  | -0.070*                               | 0.046    | 0.07             | -0.06     | -0.092**                   |
| Mother – Primary<br>Education I/Incomplete<br>Primary Education II | -0.035   | -0.043                                | 0.019    | 0.003            | -0.026    | -0.064                     |
| Mother – Primary<br>Education II/Incomplete<br>Secondary Education | -0.06    | -0.085*                               | -0.001   | 0.014            | -0.037    | -0.067                     |

| Income - until<br>R\$ 1,356        | 0.124**   | 0.115*    | 0.075    | 0.087   | 0.283***  | 0.307***  |
|------------------------------------|-----------|-----------|----------|---------|-----------|-----------|
| Income - R\$ 1,357<br>to R\$ 3,390 | 0.056     | 0.022     | 0.007    | -0.007  | 0.210***  | 0.190***  |
| Income - R\$ 3,391<br>to R\$ 6,780 | 0.086**   | 0.057     | 0.026    | 0.017   | 0.139***  | 0.113**   |
| Refresher or<br>Specialization     | -0.042    | -0.049    | 0.014    | 0.031   | -0.015    | -0.011    |
| Masters' Degree<br>or Ph.D.        | -0.251*** | -0.234*** | -0.013   | -0.004  | -0.209*** | -0.155**  |
| Degree in Letters                  | 0.011     | 0.011     | -0.004   | -0.002  | -0.053    | -0.042    |
| Multiple Subject<br>Degree         | -0.007    | -0.017    | 0.100*** | 0.090** | -0.024    | -0.007    |
| Licensure                          | -0.001    | 0.005     | -0.007   | -0.02   | -0.034    | -0.048    |
| Teaches in the<br>State System     | -0.054    | -0.067*   | 0.057    | 0.038   | -0.026    | -0.038    |
| Teaches in the<br>Municipal System | -0.034    | -0.035    | 0.035    | 0.01    | 0.018     | -0.017    |
| Tenure                             | -0.083**  | -0.101*** | -0.018   | -0.004  | -0.111*** | -0.138*** |
| Teaches at Primary I               | 0.076*    | 0.103**   | -0.045   | -0.028  | 0.124***  | 0.120**   |
| Teaches at Primary II              | 0.031     | 0.067*    | -0.009   | 0.014   | -0.023    | -0.035    |
| Teaches at Secondary               | 0.046     | 0.049     | 0.000    | -0.03   | -0.024    | -0.022    |
| 1990's Policy                      |           | 0.231**   |          | 0.083   |           | -0.034    |
| 2014 Policy                        |           | -0.207**  |          | -0.013  |           | 0.051     |
| Interaction: only<br>2014 policy   |           | 0.247**   |          | 0.015   |           | -0.006    |
| Observations                       | 4974      | 4063      | 4984     | 4072    | 4974      | 4063      |
| R squared                          | 0.385     | 0.388     | 0.046    | 0.046   | 0.220     | 0.230     |

 $\textbf{Source:} \ the \ authors' \ own \ elaboration.$ 

Notes: \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1; robust standard errors; all models have a constant.

**TABLE 6.** Regressions to Explain Beliefs regarding the General Position on Grade Retention (B1) – Heterogeneous Effects by Stage and Grade Retention in Basic Education

| Covariates   | Primary<br>Education I | Primary<br>Education<br>II | Secondary<br>Education | Has Not<br>Repeated | Has<br>Repeated |
|--|------------------------|----------------------------|------------------------|---------------------|-----------------|
|  | 1                      | 2                          | 3                      | 4                   | 5               |
| Ignorance of research  | 0.495***               | 0.493***                   | 0.478***               | 0.498***            | 0.460***        |
| 5 – 10 Years of Experience                                       | -0.046                 | -0.02                      | -0.03                  | -0.04               | -0.008          |
| 10 – 20 Years of Experience                                      | -0.046                 | -0.094*                    | -0.131*                | -0.094*             | -0.016          |
| Over 20 Years of Experience                                      | -0.086                 | -0.145**                   | -0.097                 | -0.186***           | 0.015           |
| Age  | -0.012                 | -0.021**                   | -0.007                 | -0.018*             | 0.008           |
| Squared age  | 0.000                  | 0.000**                    | 0.000                  | 0.000               | 0.000           |
| Has repeated in basic education                                  | -0.019                 | 0.011                      | -0.002                 |                     |                 |
| Male   | -0.110*                | -0.010                     | -0.046                 | -0.035              | -0.092          |
| Black  | 0.011                  | -0.083**                   | -0.146***              | -0.064*             | -0.07           |
| Yellow or indigenous   | -0.091                 | -0.087                     | -0.001                 | -0.170*             | 0.036           |
| North  | 0.011                  | 0.007                      | -0.061                 | 0.044               | -0.07           |
| Northeast  | 0.075                  | -0.008                     | 0.022                  | 0.041               | 0.005           |
| South  | -0.014                 | -0.071                     | 0.006                  | -0.048              | -0.016          |
| Central-West   | 0.076                  | 0.011                      | -0.02                  | 0.062               | 0.000           |
| Mother – Illiterate/Incomplete<br>Primary Education I            | 0.051                  | -0.121***                  | -0.03                  | -0.093**            | 0.015           |
| Mother – Primary Education I/<br>Incomplete Primary Education II | 0.128**                | -0.133***                  | -0.046                 | -0.045              | -0.005          |
| Mother – Primary Education II/<br>Incomplete Secondary Education | -0.034                 | -0.150***                  | 0.06                   | -0.101**            | -0.031          |
| Income - until R\$ 1,356   | 0.088                  | 0.058                      | -0.041                 | 0.019               | 0.330***        |
| Income - R\$ 1,357 to R\$ 3,390                                  | 0.002                  | -0.004                     | -0.083                 | -0.018              | 0.138           |

**TABLE 6.** Regressions to Explain Beliefs regarding the General Position on Grade Retention (B1) – Heterogeneous Effects by Stage and Grade Retention in Basic Education (continuation).

| Covariates                      | Primary<br>Education I | Primary<br>Education<br>II | Secondary<br>Education | Has Not<br>Repeated | Has<br>Repeated |
|---------------------------------|------------------------|----------------------------|------------------------|---------------------|-----------------|
|                                 | 1                      | 2                          | 3                      | 4                   | 5               |
| Income - R\$ 3,391 to R\$ 6,780 | 0.009                  | 0.039                      | 0.053                  | 0.04                | 0.117           |
| Refresher or Specialization     | -0.081*                | -0.035                     | -0.098*                | -0.006              | -0.149***       |
| Masters' Degree or Ph.D.        | -0.371***              | -0.224***                  | -0.206**               | -0.152**            | -0.522***       |
| Degree in Letters               | 0.024                  | -0.029                     | -0.022                 | 0.030               | -0.020          |
| Multiple Subject Degree         | -0.063                 | 0.035                      | 0.043                  | -0.006              | -0.038          |
| Licensure                       | 0.045                  | 0.067                      | -0.065                 | -0.028              | 0.078           |
| Teaches in the State System     | -0.012                 | -0.050                     | -0.079                 | -0.072              | -0.055          |
| Teaches in the Municipal System | 0.060                  | -0.049                     | -0.045                 | -0.032              | -0.032          |
| Tenure                          | -0.073                 | -0.107**                   | -0.211 * * *           | -0.117***           | -0.066          |
| Teaches at Primary I            |                        |                            |                        | 0.119**             | 0.089           |
| Teaches at Primary II           |                        |                            |                        | 0.052               | 0.096           |
| Teaches at Secondary            |                        |                            |                        | 0.053               | 0.058           |
| 1990's Policy                   | 0.287**                | 0.207*                     | 0.238                  | 0.299**             | 0.132           |
| 2014 Policy                     | -0.271*                | -0.160                     | -0.216                 | -0.250*             | -0.139          |
| Interaction: only 2014 policy   | 0.347**                | 0.171                      | 0.192                  | 0.293**             | 0.169           |
| Observations                    | 1522                   | 2516                       | 1292                   | 2894                | 1169            |
| R squared                       | 0.400                  | 0.395                      | 0.428                  | 0.399               | 0.377           |

Source: the authors' own elaboration.

**Notes**: \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1; robust standard errors; all models have a constant.

Each column contains the estimates for the sub-sample identified. For example, column 1 shows results for the sub-sample of teachers who teach in Primary Education I, column 2 for teachers in Primary Education II, and so on.

### POSITION ABOUT GRADE RETENTION

The three IRT scales (beliefs) about retention (B1; B2; B3) and knowledge of research (B4) were submitted to latent class analysis using the Mplus<sup>16</sup> software to check for the existence of groups of people with a certain position on grade retention. The adjustment rates and the conceptual meaning of classes suggested the adoption of three latent classes. Each teacher was included in the latent class he was most likely to belong to. Based on the interpretation of IRT scale means relating to beliefs and knowledge of research, the three latent classes were named: Disagrees with Retention; Partially Agrees/Disagrees; Agrees with Retention. Table 7 shows the distribution of teachers over the three latent classes and the IRT scale means.

**TABLE 7.** Teachers' Position about Grade Retention and Their Knowledge of Research on Its Effects

| Position  | Disagrees   | Partially<br>Agrees/<br>Disagrees | Agrees     |
|---|-------------|-----------------------------------|------------|
| Number of teachers (percentage in parentheses)                        | 702 (12.8%) | 4,270 (77.8%)                     | 518 (9.4%) |
| B1 – General position about grade retention                           | -1.24       | 0.06                              | 1.01       |
| B2 - Grade retention has negative socio-affective effects on students | 0.80        | -0.09                             | -0.30      |
| B3 – Early grade retention  | -1.47       | 0.04                              | 1.77       |
| B4 · Knowledge of research on the effects of grade retention          | -0.93       | 0.06                              | 0.38       |

Source: the authors' own elaboration.

As shown in Table 7, a smaller percentage of teachers (9.4%) clearly agrees with grade retention. These teachers are characterized by ignorance of research on the effects of this measure. In turn,

the majority (almost 78%) takes an intermediary position, partially agreeing or disagreeing with the practice. This majority, as the IRT scale's mean (close to zero) shows, ignores research on the negative effects of grade retention. Those who reject grade retention have good knowledge of investigations on the subject. And their belief pattern proves consistent, as besides disagreeing with grade retention (-1.24), they are also aware of its social and emotional harm (0.80) and oppose early grade retention (-0.93). Those who support grade retention also denote a consistent pattern which is the reverse of the one above.

With regard to the massive number of teachers who did not take a clear position concerning grade retention, it is also necessary to make this consideration: it is possible that a censorship effect may have influenced respondents. In a context of policies that oppose grade retention, the teachers may have avoided to demarcate their opinions on the subject. When it came to mentioning the opinion of others, respondents did not balk at indicating adhesion: over 50% of teachers said their peers agree with retention. In other words, few openly admit they agree, but they say that their peers do.

### FINAL CONSIDERATIONS

Based on a sample of over 5,000 people registered in the 2014 Portuguese Language Olympics, we investigated teachers' beliefs concerning grade retention, evaluation and justice, and identified profile and context characteristics that may be influencing these teachers' beliefs on grade retention.

Unlike the studies conducted with Belgian teachers by Crahay, Marbaise and Issaieva (2013) and with Genoese teachers by Crahay, Issaieva and Monseur (2014), the beliefs estimated for Brazilians proved consistent with each other: those who support meritocratic criteria of knowledge distribution, for example, tend to bet on normative evaluation and believe in grade retention as a form of dealing with teaching situations. It would be of interest to check whether there are elements in the countries' contexts which allow such difference in findings.

Among the relevant factors to understand grade retention adhesion is classroom experience: the more experienced the teacher, the less he adheres to grade retention. Considering the theory that argues that, over time, teachers progressively adopt the beliefs they consider capable of solving teaching situations, it would be important to investigate the facts in their trajectory that were capable to generate the perception that grade retention is not efficient to deal with such situations.

Experience with social promotion policies and teaching in the initial years of primary education are elements that influence teachers' adhesion to grade retention. Those who only had contact with cycle policies in the 1990's are more likely to adhere; in contrast, those who dealt only with more recent policy are less likely to adhere. Would the influence of Ideb (which, in essence, opposes retention) on current policy be a context element that contributes to disseminate anti-retention concepts? As for the fact that teachers who teach in initial years of primary education adhere more to grade retention, one explanatory hypothesis is that they are under greater pressure from social progression policies, and that they teach a type of knowledge that is quite concrete and the object of social expectation: learning of reading and writing.

One important result of this study is that holding a Master's or a Ph.D. degree and knowing more about results of research on grade retention effects are associated with a smaller adhesion to that practice. Therefore, teacher education is related to teachers' positions concerning grade retention. Considering also the consistency found between beliefs about evaluation, grade retention and principles of justice in knowledge distribution, the study reinforces the importance of including in teacher education courses knowledge provided by research about the effects of grade retention on students.

Continuing this path of research which investigates elements that affect teachers' beliefs can offer, in the medium term, more accurate leads for educational policy.

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## **APPENDIX 1.** QUESTIONNAIRE ITEMS THAT FORM THE BELIEFS ANALYZED IN THE ARTICLE

B1 – general position concerning grade retention (the higher the factor, the more the teacher adheres to grade retention). Items comprised:

- The student's awareness that he can repeat motivates him to study more.
- Grade retention is necessary to keep the demand levels characteristic of each class.
- Grade retention allows giving more time to the students who are still not mature enough.
- Grade retention allows relocating the student with difficulties to a group that suits his level, which is beneficial to him.
- Grade retention is a second opportunity offered to students with school difficulties.
- To the repeater, seeing program contents again is usually beneficial to his school learning.
- Grade retention is an effective way of helping the immature student to catch up with others.
- Grade retention is an effective way of helping the student in school when he gets no help at home.
- The threat of grade retention encourages students to behave well

B2 – the belief that **grade retention has negative socio-affective effects on students** (the higher the score, the more the teacher believes that grade retention has negative socio-affective effects). Items comprised:

- Grade retention negatively influences the trust the student should have in his own capacity.
- Grade retention affects the student's self-esteem.
- Grade retention gives the student a bad image of himself.

B3 – belief in **early grade retention** (the higher the factor, the more the teacher believes that grade retention should occur early in school life). Items comprised:

- In initial years, we wait too long to have students repeat a grade.
- If the student should repeat a grade, this should occur quite early in the initial years of primary education.
- Grade retention during initial years is an effective way of preventing failure on a more advanced education level.

B4 – Knowledge of research (the higher the score, the less the teacher proves to know about research). Items comprised:

- Most of research corroborates that grade retention does not affect the repeat student's self-esteem.
- Research indicates that grade retention is beneficial for students who face difficult family conditions over the school year.
- Most of research says that grade retention produces more negative than positive effects on the repeat student.
- Most of research says that repeat students gain more in terms of school results than those who are promoted.

B5, B6, B7 – Beliefs concerning evaluation

B5 – **belief in formative evaluation** (the higher the score, the more the teacher adheres to the formative concept of evaluation). Items comprised:

- Evaluations allow to identify students who need supplementary explanation.
- Tests allow to determine whether the teacher can move further into the program or should resume certain concepts or exercises.
- Evaluations allow to identify what must be worked on again with students.
- The analysis of students' evaluation results allows to adjust teaching in function of their difficulties.

B6 – **belief in summative evaluation** (the higher the score, the more the teacher adheres to the summative concept of evaluation). Items comprised:

- Evaluations allow to check whether the program's goals were achieved.
- Evaluations allow to check whether students master the contents that were taught.

- In the end of a year or cycle, it is necessary to evaluate the extent to which students sufficiently master minimum competencies.
- Evaluations allow to evaluate the effects of the education offered.

B7 – **belief in normative evaluation** (the higher the score, the more the teacher adheres to the normative concept of evaluation). Items comprised:

- Students' evaluation results allow to identify those who lack a natural aptitude.
- Evaluations punish students who did not study.
- Evaluations allow to identify the good and the bad students.
- Evaluations are the occasion for students to show what they are worth.
- A good evaluation must allow to identify strong students. B8, B9, B10 Beliefs concerning principles of justice for school

B8 – **belief in meritocratic justice** - denotes the belief in the meritocratic criterion of knowledge distribution (the higher the score, the more the teacher adheres to the meritocratic perspective). Items comprised:

- Intelligence development is owing, to a good extent, to hereditary factors.
- Some people are more intelligent than others since birth.
- Intelligence is defined in birth.
- Each person is born with a certain intelligence potential which develops through of a biological maturing phenomenon.
- The school must offer quality education to everybody, and then identify the most gifted students in order to require the most from their capacity.
- Students who present a good performance deserve special attention.

**B9** – belief in corrective justice (the higher the score, the more the teacher adheres to the corrective perspective) – expresses the belief in the idea that it is necessary to correct inequalities in school due to the correlation between social background and performance, so that

everybody can have access to the same knowledge, offering more to those who have more difficulty or need more time to learn. Items comprised:

- We are all born with approximately the same intellectual capacity. It is the environment that makes the difference.
- Intelligence needs a favorable affective environment to develop.
- A child will increasingly develop his potential if adults believe he is intelligent.
- The more the teacher shows trust in a child's capacity, the more the child will develop his intelligence.
- Intelligence develops mainly because of stimuli from the environment.
- The school should correct inequalities, i.e., to give more to those who have less.
- It is legitimate for teachers to give more attention to students with difficulties.

**B10 – belief in equal treatment** (the higher the score, the more the teacher adheres to the equal treatment perspective) - expresses the belief that there is a correlation between social and school inequality, therefore, everybody must have egalitarian access and treatment in order to learn. Items comprised:

- The teacher must dedicate the same energy to every student, without distinction.
- It is by offering everybody both gifted and less gifted students – the same learning opportunities that a fair school is built.
- Every student should receive the same teaching, regardless of their social background or the school they attend.
- Every teacher should dedicate the same attention to each student.
- The school should provide the same learning opportunities to every student.

#### NOTES

- <sup>1</sup> This article presents the main conclusions of the study titled Beliefs of Teachers about Grade Retention in Brazil. The study was conducted by the CENPEC Research Coordination Office, with funds from the Tide Setubal Foundation, and was coordinated by Vanda Mendes Ribeiro and Antônio Augusto Gomes Batista. The project is part of a broader research led by Marcel Crahay, a professor at the Universities of Geneva and Liege, involving researchers from Belgium, Romania and France.
- <sup>2</sup> A longitudinal study about quality and equality in Brazilian primary education. The study began in 2005 and followed "the same sample of students in the initial years of primary education during four years". It involved "administering cognitive tests of reading and mathematics, as well as context questionnaires to students, teachers and principals in the participant schools" (FRANCO; BROOKE; ALVES, 2008).
- <sup>3</sup> To Crahay, when one adheres to meritocratic ideology, one believes that students should receive according to their talent or merit. The ideology of equal treatment relies on the notion that all should receive the same treatment, regardless of social origin. The ideology of acquired knowledge considers the correlation that has been researched between performance and social origin, as well as knowledge that questions the notion of gift. These concepts are detailed in Ribeiro (2014).
- <sup>4</sup>Normative evaluation uses as a basis the student's performance in relation to his group-class; it has a selective nature and presupposes comparison. Formative evaluation is characterized by providing information to the teacher about students' learning so he can adjust his working plan to students' necessities over the learning process. Summative evaluation also aims to obtain knowledge about learning, however, it focuses on finding whether the goals were achieved, whether students learned what was worked on over a given period. (SCRIVEN, 1967; PERRENOUD, 1999; AFONSO, 2000).
- <sup>5</sup>The adaptations were necessary in view of differences between the Swiss and the Brazilian education systems. For example, there are differences in the designation of grades, stages and teacher positions.
- <sup>6</sup> A total of 67 teacher educators related to omitted were contacted and eight of them voluntarily answered the questionnaire. Their answers were checked for problems with instruction and understanding of items; we also checked whether the form would work well in different internet browsers.
- <sup>7</sup> An initiative of the Itaú Social Foundation, coordinated by the CENPEC in partnership with the Ministry of Education, the PLO is a teacher education program for public school teachers from the whole country that is focused on reading and writing. In even-numbered years, a written composition contest is held to award the best compositions by public education students; in odd-numbered years, teacher education actions through distance and face-to-face learning are conducted, as well as studies and research; educational resources and materials are also designed and produced. (PROGRAMA, 2014). In 2014, teachers and students from the fifth grade of primary education to the third grade of secondary education were able to enter the PLO. In order for a teacher to enter the Olympiad, the state/municipal education department to which his school is connected must have joined the program.

<sup>8</sup> The questionnaire was provided by means of an online form which was built using the JotForm form builder.

<sup>9</sup> By fully responded questionnaire we mean a questionnaire with no items left blank regarding teachers' beliefs or indispensable questions about their socioeconomic level.

<sup>10</sup> We used the generalized partial credit model.

<sup>11</sup> It is worth mentioning that in the sample, a belief-related item has an average 1.4% of missing data, and the item with highest missing rate had an average 2.5%. Our problem was that a given individual's non-response for an item might be used to estimate a belief, as this would prevent calculating his score.

<sup>12</sup>The question of incompatibility between subjective and compulsory right in basic education and the adoption of the meritocratic principle of justice for knowledge distribution in this phase of school life is clearly explained in Ribeiro (2014).

<sup>13</sup>The educational literature recommends using multilevel models to approach educational phenomena, given the very nature of such phenomena. Certainly, teachers' beliefs – which were built in a certain education context, in a certain school of practice, in a given region, over a certain period, and under a set of educational policies, for example – would be a typical object of hierarchical or multilevel analysis. Despite these assumptions, in this article, we used a linear model estimated by ordinary least squares, which may disfavor understanding of the educational factors involved in building teachers' beliefs, although it does not interfere with the apprehension of beliefs and knowledge, or the relationship between those and other beliefs and knowledge.

<sup>14</sup>The other regions do not differ than the Southeast region (omitted).

<sup>15</sup>We do not reject the null hypothesis that the sum of the coefficients of "2014 Policy" and the interaction between policies and the sum of "2014 Policy" and "1990's Policy" equals zero.

<sup>16</sup> Software that can be used to analyze latent classes, a type of statistical procedure that is similar to cluster analysis, but allows identifying the characteristics that describe groups of individuals, as it relates variables through probability. See: Muthén and Muthén (2010).

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Contact:

Vanda Mendes Ribeiro Cenpec R. Minas Gerais, 228 - Higienópolis São Paulo | SP | Brasil CEP 01,244-010