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EDUCATIONAL POLICIES AND STUDENTS LEARNING IN PORTUGUESE EDUCATIONAL SYSTEM

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Abstract

This research aims to study the role that some variables might have for the improvement of student learning. The following variables were considered for the research, namely, students' engagement, school educational projects and some educational policies, such as the national curriculum, a class-size reduction or the commitment to continuous teacher training, trying to understand the role that they might have in the improvement of learning and personal and social skills of the students in the Portuguese educational system. This presentation is part of a larger research that is still under development and presents some results from a research model proposed by the authors. Regarding the methodology, the research is qualitative, in the line of an interpretative paradigm, although using quantitative techniques of data collection and analysis. The data were obtained through an online survey developed by the authors to evaluate the different dimensions of the proposed research model, using for this purpose a sample of convenience constituted by 1,320 teachers and school directors of non-higher education, public and private, from the first cycle to the high school, of the Portuguese territory. The email addresses were obtained from the official database available on the "Portal of Schools". In the treatment of quantitative data, a structural equation model (SEM) was used through the SPSS software (Statistical Package for the Social Sciences), to investigate the possible relationships between the different dimensions incorporated in the model. The main conclusions of the study, considering the conceptions of the respondents, point towards that the students' school improvement was significantly influenced by the students' study methods and it is also possible to underline the relevance of school educational projects and school-based teacher training. The results of this research will contribute to the definition of new educational policies by identifying the main variables that might contribute to the students' learning.

Keywords: Educational policies, Students learning, Class-size reduction, Teacher training, School educational projects.

1 INTRODUCTION

This research aims to study the role that some variables might have for the improvement of student learning in the Portuguese educational system. The variables considered for this research where, students' engagement, school educational projects and some educational policies, such as the national curriculum, a class-size reduction and continuous teacher training, trying to understand the role that they might have in the improvement of learning and personal and social skills of students.

2 THEORETICAL FRAMEWORK

The literature is relatively consensual in considering the core role of different educational policies in promoting students' school success and that they do not act isolated. In this study, particular attention will be given to the role that class-size reduction, the age and experience of teachers, the continuous teacher training and school educational projects may have in promoting the improvement of students' learning.

Regarding a class-size reduction policy, it should be seen in the framework of wider sets of educational policies, demonstrating a significant number of studies a statistically significant relationship between smaller classes and significant learning, particularly when facing economically and culturally disadvantaged classes [1-3]. Despite the class-size reduction implies a possible increase in the hiring of teachers and in the construction and equipment of new classrooms, must be assumed a set of direct and indirect returns for the State [4-6], not to mention several medium and long-term positive externalities for society [7-8].

On the other hand, teacher training, in general, continues to be an important factor, among others, in order to promote educational success, ultimately measured by improved student learning [9]. Although it is a permanent professional imperative, the (re) definition of educational policies should be accompanied by investing in the continuous teacher training, periods and spaces – formal and/or informal – which can contribute to teachers' professional development, in particular, focusing on the real context and educational projects on schools in which teachers operate [10-11].

Ten Dam and Blom [12] consider the investment in school-based teacher training as one of the most significant and notable changes in the recent history of teacher's training. School-based teacher training institutionalizes in its context a process of continuous learning, looking at reflexive and formative initiatives that allow teachers to question their practices, and can contribute to the quality of the education and, therefore, ultimately, for the effective learning of students. In addition to this teacher professional development, which may arise as a result of this investing on contextualized training, there is also the possibility of collective learning of the entire organizational structure [9; 13].

The literature is consensual in giving teachers a nuclear role in fostering better student outcomes, strengthening their personal and social knowledge and skills. Improvements in initial and continuous training and increases in teacher performance contribute to the success of the educational system, and this can be measured by the improvement of student learning [9].

However, students' learning is dependent on many other factors, not always easy to identify and measure. From Charlot's perspective [14], in order for significant learning to occur the student has to attribute meaning to the study, be mobilized for what is expected as a result of the study action. Learning ideally expected by teachers will only come true when the reason that leads the student to perform a certain intellectual activity is the genuine interest in knowing more and better the contents studied. Nevertheless, it is recurrent for teachers to find that the students' motives and objectives are far from what would be expected and desirable. The author also warns that schools are currently being seen by pupils and their families as a simple way to employment and not assuming their nuclear function, that is, as a privileged place of knowledge [14].

3 METHODOLOGY

Regarding to methodology, this research is of a qualitative nature, although using quantitative techniques, being the data obtained through the application of a survey elaborated by the authors to evaluate the different dimensions of the proposed conceptual model [15].

The data were obtained through the application of a digital survey developed by the authors to evaluate the different dimensions of the proposed research model, using for this purpose a sample of convenience constituted by 1,320 teachers and school principals of non-higher education, public and private, from the first cycle to the high school, of the Portuguese territory. The email addresses were obtained from the database available on the "Portal of Schools".

In the treatment of quantitative data, a structural equation's model (SEM) was used to investigate the possible relationships between the different dimensions incorporated in the model. The structural equations model is part of a technique of analysis widely used in recent years in the social sciences researches, because it allows to approach the phenomena as a whole, assuming their complexity [16].

The internal consistency of the items belonging to each construct was verified by calculating Cronbach's Alpha. Developed by Cronbach, it measures to what extent the answers of the items correlate with each other. Values above 0.70 are considered high or acceptable, which was found in this analysis [17]. Our structural equations model consists of latent variables (constructs): Class-size Reduction, School Curriculum, School Educational Project, Teacher Training, Students' Engagement and Students' Performance. These variables are not observable, they are measured using items from a survey. For the items in the questionnaire, a Likert scale of five points was used.

4 RESULTS

According to the methodological framework, the results of the investigation are presented, resulting from a descriptive analysis of the data obtained with the application of the survey. The following Table 1 presents the sociobiographical characterization of the respondents.

Table 1. Sociobiographical characterization.

GENDER	***Fr.***	***%***
Female	959	72,7
Male	359	27,2
Other	2	0,1
AGE	Fr.	%
Between 20 - 30 years old	1	0,1
Between 31 - 40 years old	136	10,3
Between 41 - 50 years old	489	37,0
Between 51 - 60 years old	585	44,3
More than 61 years old	109	8,3
ACADEMIC DEGREE	Fr.	%
Bachelor	28	2,1
Graduation	959	72,7
Master's Degree	287	21,7
Doctoral Degree (Ph.D.)	46	3,5
TEACHING EXPERIENCE	Fr.	%
Less than 5 years	11	0,8
More than 5 years - 10 years	40	3,0
More than 10 years - 15 years	98	7,4
More than 15 years - 20 years	162	12,3
More than 20 years – 25 years	288	21,8
More than 25 years - 30 years	245	18,6
More than 30 years - 35 years	280	21,2
More than 35 years	196	14,9
POSITION	Fr.	%
Teaching	1211	91,7
School Principal	109	8,3

n= 1,320

As can be seen, most respondents were female between 51 and 60 years old, with a graduation degree and the data also reveal that they had a significant professional experience, since about 75% of respondents have more than 20 years of teaching experience. As for the position performed, 91.7% were teachers and only 8.3% assumed, in the 2017/2018 school year, management functions as school principal.

Then, in a generic way, some statistical analyses necessary for the development of the structural equation model are evidenced. In this sense, in view of the verification of the reliability and internal consistency of the variable group, Cronbach's Alpha test was used, as shown in Table 2.

Cronbach's Alpha values of the items of our theoretical model were calculated, and all of them exceed 0.70, which reveals a good internal consistency of the items within each dimension (Table 2), thus enabling the Confirmatory Factor Analysis (CFA) [17].

Table 2. Alpha Cronbach's by Dimension.

DIMENSION	QUESTION	NUMBER OF ITEMS	ALPHA CRONBACH
Class-Size Reduction	Q12, Q13, Q14, Q15	4	0,765
School Curriculum	Q16, Q17, Q18, Q19	4	0,724
School Educational Project	Q20, Q21, Q22, Q23, Q24	5	0,900
Teacher Training	Q25, Q26, Q27, Q28, Q29	5	0,735
Students' Engagement	Q30, Q31, Q32, Q33, Q34	5	0,890
Students' Performance	Q35, Q36, Q37, Q38	4	0,928

Through standardized estimates and their degrees of significance, we are able to respond to the hypotheses elaborated for this study.

Thus, the class-size reduction positively influences the school's educational project (H2a), the national curriculum positively influences the school's educational project (H2b), the educational project positively influences teachers continuous training (H4) and students' performance (H3), the study methods positively influence students' performance (H6). The constructs class-size reduction (H1a), national curriculum (H1b) and teacher education (H5) were not significant in the performance of the students. Table 3 highlights the different research hypotheses and their standardized coefficients.

Table 3. Research hypotheses and standardized coefficients.

HYPOTHESES	STANDARDIZED COEFFICIENTS
H1a: Educational policies, including the class-size reduction, enhance students' performance	-
H1b: Educational policies, including school curriculum, enhance students' performance	-
H2a: Educational policies, including the class-size reduction, enhance revisions in school educational projects	0,261
H2b: Educational policies, including school curriculum, enhance revisions in school educational projects	0,299
H3: Reviews and implementation of school educational projects enhance students' performance	0,258
H4: Reviews and implementation of school educational projects enhance continuous teacher training	0,506
H5: Teachers' training enhances students' performance	-
H6: Students' study methods enhance students' performance	0,623

Finally, through Figure 1, the factor analysis of the model is presented.

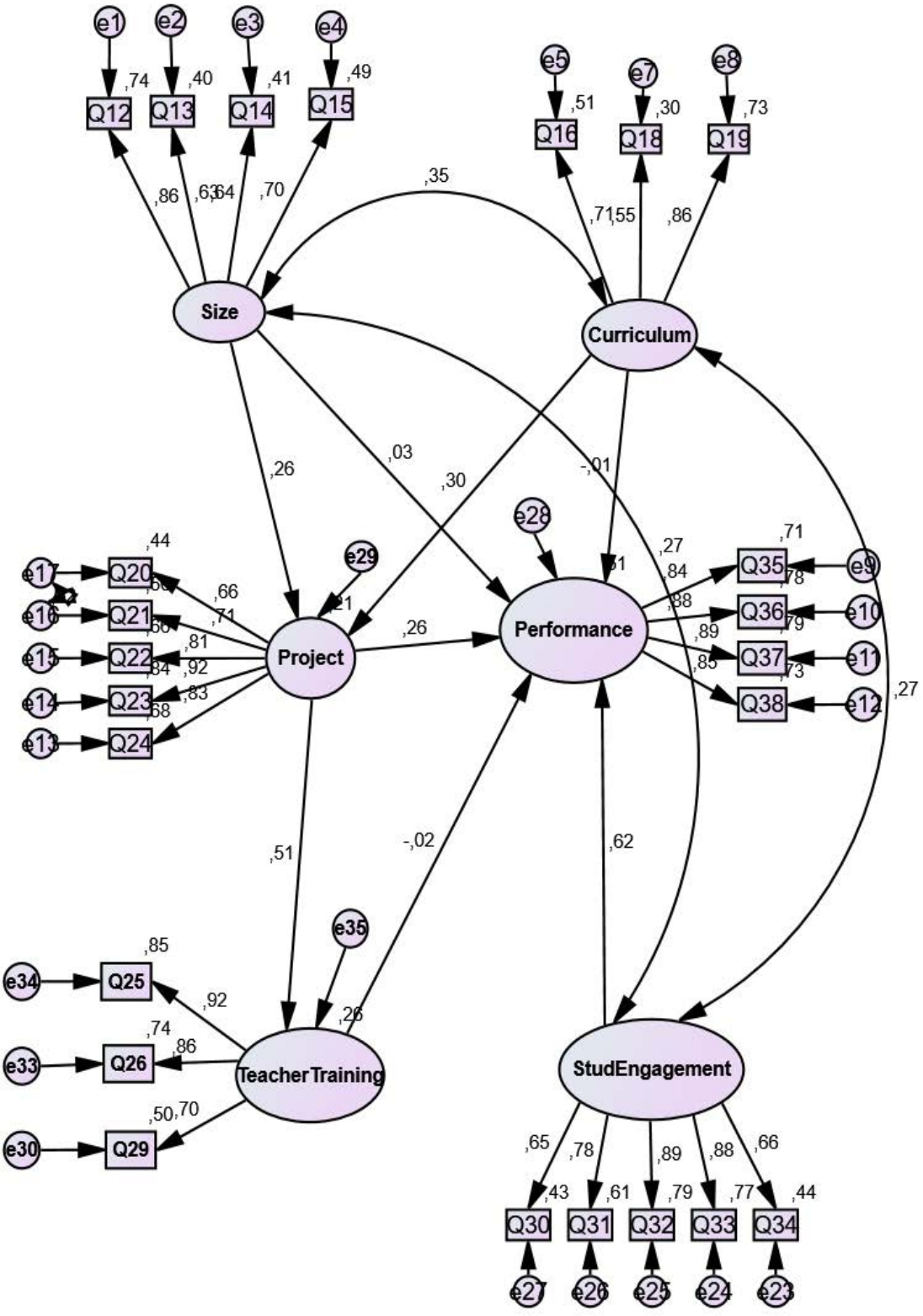

Figure 1: Standardized Regression Weights.

As can be seen, through their factorial weights, despite confirming the hypotheses H2a, H2b, H3, H4 and H6, the students' school results were particularly influenced by the methods of study of students (H6, with a weight factorial of .623) and the (re)construction of educational projects to positively influence the teacher training policy (H4, with a factor weight of .506).

When carrying out a more particular analysis, within the dimension "study methods" of the students, it is possible to verify that, according to the respondents, the factors that most positively contributed to

school performance were the correct adequacy of time and strategies in the autonomous study. On the other hand, there was a lower contribution of cooperative work and participation in the classroom context. Characterizing in detail the dimension "school educational project" and its impacts on "teachers' training", it is worth noting that the promotion of interdisciplinarity of pedagogical practices by the educational project can be one of the predominant factors in (re) definition of teachers' training policy, particularly with regard to continuing training focused on the specific contexts in which teachers operate.

5 CONCLUSIONS

The work presented aims to contribute to the strengthening of this line of research by putting into analysis some educational policies with the students' performance, in particular the increase in the knowledge and skills of non-higher education Portuguese students.

In view of the conceptions of the respondents, the results presented show the predominant role of the methods of work and involvement of students in achieving significant learning, in line with Charlot [14]. On the other hand, the evidence also points to the role of educational projects as enhancers of the continuing training of teachers.

According to respondents, the (re) construction of the educational project can provide and (re) define the policy of continuing teacher training, providing times and spaces – formal and/or informal – that can contribute to teachers professional development, and can acquire particular relevance all the continuous training that may be centred on the reality in which teachers act, meeting the works of several authors [9-13]. It should also be noted that the evidence pointed out in the sense that the class-size reduction and the school curriculum positively influence, but indirectly, the students' learnings through their role in the (re)construction of educational projects.

The results presented may contribute to the increase in levels of effectiveness and efficiency in decision-making by the different managers of the educational system, seeking to increase the educational success of students.

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