Beyond the grade:
defining school success and failure profiles

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Abstract

Based on a set of variables associated with school success / failure, this study analyses how they combine in differentiated school profiles. In a longitudinal design, 140 pupils from 7th to 9th grade were accompanied by repeated measurements of psychological, social and family variables and school grades. In the cluster, analysis three school profiles were identified. The first, called failure profile not involved with school corresponds to the group with low grades, whose personal and socio-family characteristics make learning difficult. The second group also corresponds to a failure profile but has characteristics that cushion these negative effects (engaged school failure profile). The last group, school success profile, includes students with good grades, and whose personal and socio-family characteristics support their good results. These results emphasize the need to go beyond the grade; counteracting the importance it has in defining what is the school success / failure.

Keywords: Academic performance; family; student.

Para más allá de la evaluación: definición de perfiles de éxito y fracaso escolar

Resumen

Partiéndose de un conjunto de variables asociadas al éxito/fracaso escolar, en este estudio se analiza cómo estas se combinan en perfiles escolares diferenciados. En un diseño longitudinal, se acompañó 140 alumnos, del 7.º al 9.º curso, recompilándose medidas repetidas de variables psicológicas, familiares y evaluaciones escolares. En el análisis de *clusters* se identificaron tres perfiles escolares. El primero, denominado por perfil de fracaso no involucrado con la escuela, corresponde al grupo con bajas evaluaciones, cuyas características personales y socio familiares dificultan el aprendizaje. El segundo grupo corresponde, igualmente, a un perfil de fracaso, presentando, sin embargo, características que amortiguan estos efectos negativos (perfil de fracaso escolar involucrado con la escuela). El último grupo, perfil de éxito escolar, integra alumnos con buenas evaluaciones, y cuyas características personales y familiares favorecen sus buenos resultados. Estos resultados enfatizan la necesidad de ir más allá de la evaluación, contrariando el peso que esta tiene en la definición de lo que es el éxito/fracaso escolar.

Palabras clave: Éxito escolar; familia; estudiante.

Para além da nota: definição de perfis de sucesso e fracasso escolar

Resumo

Partindo de um conjunto de variáveis associadas ao sucesso/fracasso escolar, este estudo analisa como estas se combinam em perfis escolares diferenciados. Num design longitudinal, acompanharam-se 140 alunos, do 7.º ao 9.º ano, recolhendo-se medidas repetidas de variáveis psicológicas, sociofamiliares e notas escolares. Na análise de *clusters* identificaram-se três perfis escolares. O primeiro, denominado por perfil de fracasso não envolvido com a escola, corresponde ao grupo com baixas notas, cujas características pessoais e sociofamiliares dificultam a aprendizagem. O segundo grupo corresponde, igualmente, a um perfil de fracasso, apresentando, porém, características que amortecem esses efeitos negativos (perfil de fracasso escolar envolvido com a escola). O último grupo, perfil de sucesso escolar, integra alunos com boas notas, e cujas características pessoais e sociofamiliares favorecem os seus bons resultados. Esses resultados enfatizam a necessidade de ir além da nota, contrariandoo peso que esta tem na definição do que é o sucesso/fracasso escolar.

Palavras-chave: Sucesso académico; família; aluno.

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Introduction

Despite multiple attempts to define and understand school success and failure, these concepts still raise numerous questions (Damasceno, Costa, & Negreiros, 2016; Pozzobon, Mahendra, & Marin, 2017). Such difficulty may be in part due to the multiplicity of factors that influence school learning and its quality, as well as the multiple perspectives considered in its analysis (Almeida, 2002). On the one hand, learning and school success are not reduced to the mere addition of intervening factors, but to the dynamics of their interaction, which translates into unique school trajectories of each student (Almeida, Franco, Soares, Alves, & Gonçalves, 2012). Moreover, we know the cultural, social and political contours in the way the curriculum contents and objectives are defined, how they evaluated and what purposes are present in the assessment of knowledge and skills acquired by students. Sometimes, this assessment takes on purposes that go beyond the monitoring of learning and assume a role of fitting students into school years, providing social schemes of socio-cultural stratification, remitting the blame of not learning to the family or the student (Benavente, 1990).

In the framework of psychology, some emphasis has been placed on students' personal variables. From this perspective, although admittedly reductionist, the impact of cognitive skills, motivations, study methods and personality characteristics is pointed out (Laidra, Pullmann, & Allik, 2007; Soares, Lemos, Primi, & Almeida, 2015). Similarly, the relevance of variables associated with teachers' educational policies, curriculum organization and pedagogical practices, that is to say, the teacher-student relationship has been emphasized in the literature as structuring dimensions in explaining school success / failure, influencing not only school performance, but also the social and emotional functioning of students (Ferreira, Andrade, Ferreira, & Andrade, 2017). As such, the understanding of school success / failure will necessarily have to consider, along with variables more focused on students' social and family characteristics, variables that describe the contexts where learning takes place, whether the school institution or the classroom. (Almeida & Araújo, 2014; Kaulfuss & Boruchovitch, 2016; Pozzobon et al., 2017; Soares, Almeida, & Primi, 2014).

Based on the multiplicity of configurations that school success and failure can assume, this work intends to investigate the diversity of school success / failure profiles, because of the combination of students' personal and contextual characteristics.

The study of school profiles can be carried out from two theoretical perspectives. By adopting a *variable-centered approach* logic, we intend to find out which variables best associate or predict school outcomes (Magnusson & Bergmann, 1988). Understanding school success / failure implies, according to this approach, to encompass a plurality of predictors associated with school performance, using a set of indicators such as school grades, number of retentions or formative options considered (Castejón & Vera-Muñoz, 1996). In this sense, psychological and contextual variables, such as the characteristics of the family (Ou & Reynolds, 2008), the community (Patto, 1999; Perrenoud, 2003), the characteristics of teachers and teaching methods and the characteristics of the school itself (Kaulfuss & Boruchovitch, 2016) tend to be equated in the analysis of school success / failure. The literature on the multiplicity of potential predictors of success / failure is extensive, focusing on both cognitive (Lemos, Almeida, & Primi, 2008; Soares et al., 2015) and non-cognitive (Pintrich & Schunk, 2002) variables. In addition to variables associated with students' personal characteristics, their socio-family contexts may influence their school trajectories (Prata, Barbosa-Ducharne, & Gonçalves, 2013; Soares et al., 2014).

In other aspects, the study of students' school profiles can be performed following a *person-centered approach* methodology. In this approach, the focus shifts from the variable itself to the person and their response pattern (Magnusson & Bergmann, 1988). This typology of studies emphasizes subjects' developmental patterns as well as the associated processes (Magnusson & Bergmann, 1988). Recently, several studies have been developed following this approach, using diverse methodologies, such as cluster analysis (Hayenga & Corpus, 2010) or latent class analysis (Marsh et al., 2009). Frequently, in the literature, both methodologies are articulated. In the study by Marsh et al. (2009), after identifying five groups of students with different combinations of self-concept, their correlation with the school performance obtained by the adolescents analyzed. Hayenga and Corpus (2010), in turn, found four distinct motivational profiles, also with different associations with school performance. Combining personal, family and school dimensions, Fortin et al. (2006) presented a typology of dropout, with the definition of four profiles of students at risk, with different levels of correlation with academic performance. Although these studies do not focus on school profiles as a whole, they present methodologies aimed at analyzing individual patterns and the processes that underlie variables such as motivation and academic self-concept, both determinants of adolescents' school success.

Based on the literature on the subject and the conclusions of investigations reconciling both perspectives *(person and variable centered approach)*, this study aimed to analyze the diversity of school profiles of students in basic education. Specifically, we studied how the combination of variables traditionally associated with learning and school success differed in school profiles. The achievement of this objective implied the use of a longitudinal research design as well as a person-centered data analysis methodology (cluster analysis). Due to their theoretical relevance, the student's personal variables and variables of their life and education contexts were included. Regarding the former, cognitive (intelligence) and non-cognitive variables (specifically academic goals for learning and academic achievement and self-concept) were included. In the context of contextual variables, emphasis had placed on the socio-family dimensions, especially parental schooling, parental acceptance and monitoring, parental involvement with the school, and parental expectations regar-

ding the educational background of the students. The academic grades obtained by the students were considered as indicators of their academic performance (school variables).

Method

Participants

A total of 140 Portuguese students from a 2nd and 3rd cycle elementary school participated in this study. These students were followed throughout the 3rd cycle of basic education, being evaluated in the 7th and 9th grade.

In relation to the characterization of this group of participants, it is divided evenly in relation to gender, being 47.1% male and 52.9% female. Regarding age, in the 7th grade, these adolescents were, on average, 12.8 years old (standard deviation of 1.13), ranging from 11 to 16 years old. Concerning socioeconomic status, most adolescents come from a low social class, with 91.2% of fathers and 92.6% of mothers working in a low or unskilled profession. With the respect to the father's educational attainment, the average is in the 6th grade, with a standard deviation of 2.26. In turn, the number of years of schooling of the mother is not much different, with an average of 6th grade and standard deviation of 2.17.

Instruments

Data collection regarding the variables under study implied the application of an extensive evaluation protocol, whose instruments are adapted to the Portuguese population.

The Reasoning Tests Battery BPR7 / 9 (Almeida & Lemos, 2007) was applied, specifically the subtests Abstract Reasoning (AR), Verbal Reasoning (VR) and Numerical Reasoning (NR), calculating a total grade (INTEL). This questionnaire presents good internal consistency indices for each subtest considered, with *Cronbach's alpha* values of 77, 83 and 73 for AR, NR and VR, respectively. A single general factor was able to explain about 50 to 60% of the variance of the results obtained in the five subtests (Almeida & Lemos, 2007). Confirmatory factor analyzes corroborate the existence of this general factor common to the various subtests (Lemos et al., 2011). The authors obtained adequate adjustment indices, with $\chi2 = 15.7$, CMIN / DF = 3.1, RMSEA = .033, CFI = .99.

The Family Relations, School Scale and Academic Motivation Scale (REFEMA-57; Barca-Lozano, Almeida, Porto-Rioboo, Peralbo-Usquiano, & Brenlla-Blanco, 2012) allowed the collection of information regarding parental academic expectations (Acad.Expec._7 / 9), parental involvement with the school (Par.Involv._7 / 9), academic self-concept (Acad.Self-conc._7 / 9) and academic goals (learning goals – Learning Goals_7 / 9 and performance goals – Perf.Goals_7 / 9). This scale reveals acceptable Cronbach's alpha values ranging from 63 to 71 and has a factor structure of between three and four factors, explanatory of 46% to 63%, as well as acceptable values of internal consistency (Barca-Lozano et al., 2012)

The Parental Education Styles Questionnaire (QEEP; Barbosa-Ducharne et al., 2006) reported about the variables acceptance (Acept_7 / 9) and parental monitoring (Monit_7 / 9). This instrument has good psychometric qualities, namely in terms of sensitivity, allowing discrimination between subjects and satisfactory levels of internal consistency in both subscales (α = .81 for parental acceptance and α = .85 for parental monitoring). Factor 1 explains 27.7%, corresponding to the Monitoring dimension and the second, explaining 14.4% of variance refers to the Acceptance dimension.

Parent's school qualification (Parent sch. quali) was collected through a sociodemographic questionnaire designed for this purpose. The grades obtained by the students in the 7th, 8th and 9th grade were also collected, and the academic average for each student was calculated (AGA7, AGA8 and AGA9).

Data Collection Procedure

Following a longitudinal investigation design, the psychological, social, family and school variables were collected at two moments of the students' school career, specifically in the 7th and 9th grades, and there are therefore repeated measures for each of these variables. Exception is the Battery of Reasoning Tests and the sociodemographic questionnaire applied only in the 7th grade. Regarding the school performance, the classifications obtained in the 3 years that compose the 3rd Cycle of Basic Education in Portugal were considered. (7th, 8th and 9th grade).

In both moments of evaluation the protocol was applied collectively in each class during a teaching time. Care was taken to ensure confidentiality of data, voluntary adherence of students and formal authorization of parents to participate in the study.

Data Analysis Procedure

A cluster (or group) analysis was performed following the steps proposed by (Bergman, 1998). This is a multivariate statistical technique that "allows to group subjects (or variables) into homogeneous groups with respect to one or more common characteristics" (Maroco, 2010, p.419). Each observation belonging to one element of this group is similar to the other elements of the same group, and different from the observations of the other groups.

The use of this methodology allowed, as intended, the identification of different subgroups of students, starting from the variables collected in the two assessment moments, both in the psychological domain (cognitive and non-cognitive), as well as at the socio-family and school level. Specifically, the following variables were considered for the analysis: cognitive skills (7th grade), learning goals (7th and 9th grade), per-

formance goals (7th and 9th grade), academic self-concept (7th and 9th grade), parental schooling, parental acceptance (7th and 9th grade), parental monitoring (7th and 9th grade), parental involvement in school (7th and 9th grade) 9th grade), parental academic expectations (7th and 9th grade) and average school performance (7th, 8th and 9th grade).

Testing of the study hypothesis took place in two essential steps: the first referring to more exploratory and preliminary analyzes, and the second describing the *cluster* analysis itself. In a first step, a correlation analysis was performed among the variables, in an attempt to verify if there was multicollinearity among them. *Outliers* and *missings* were also analyzed. The latter had replaced by the averages. That said, the cluster analysis was performed. In this type of analysis, groupings of subjects or variables can be made from measures of similarity or dissimilarity (distance) between initially two subjects and then between two observation clusters using hierarchical and non-hierarchical clustering techniques of *clusters* (Maroco, 2010). In the specific case of this study, this analysis was performed using the *hierarchical clustering algorithm*, one of the most appropriate statistical techniques to obtain homogeneous groups of cases (Maroco, 2010). This method starts from each case (i.e., each student) as a separate *cluster*, having as many *clusters* as the number of subjects analyzed. It progressively combines case by case, *cluster* by *cluster*, a function of its similarity or distance. To evaluate the distance between each cluster, the *Ward* method was used. This method, through analysis of variance, is associated with smaller errors in the evaluation of similarities and distances between groups (Maroco, 2010). Note also that given the different metric of the variables, the *cluster* analysis was performed starting from the standardized scores.

To identify clusters, three steps were followed: the first corresponded to the analysis of the dendrogram and the clustering coefficients. In this case, we chose to present the dendrogram (*hierarchical tree diagram)* by graphically illustrating the links between clusters and more easily supporting decision making. The second step included the theoretical interpretation of each cluster, using the descriptive analysis of the variables of each cluster. Finally, the third step already referred to the determination of the variables that significantly differentiate the groups, a task that implied the analysis of variance. For the multiple comparison between the means of the different groups, the Turkey test (1953) was chosen because it is one of the most robust to deviations from normality and homogeneity of variances (Maroco, 2010). With this test, it was possible to verify in which groups the difference of means was statistically significant.

Results

Table 1 presents information on the descriptive statistics of each of the variables considered in this study, namely the minimum-maximum, mean and standard deviation values, as well as the asymmetry and kurtosis coefficients of the distribution of results.

In general terms, it appears that the variables present acceptable averages compared to what would be expected, given the minimum and maximum values of each of the variables, to refer to income goals and self-concept (both referring to the 7th grade) with values already close to 4. In addition, from the 7th to the 9th grade, the average of the results for the non-cognitive variables (psychological and socio-family) seem to decrease. We also highlight the results obtained in the reasoning tests, presenting a greater variability, visible in the higher values of standard deviation. Finally, a note on symmetry and kurtosis values, particularly high in father's and mother's educational attainment variables, 7th grade achievement targets and 9th grade average.

In respect of the correlation between the variables under study (to verify the possibility of multicollinearity) it is found that the academic average of the 7th grade and the 8th grade are highly correlated (r = .80). Thus, it would be advisable to aggregate both variables, creating one variable (academic average of 7th and 8th grade). However, it had decided to keep both variables in order to better understanding how they were phase to the other variables under study. The correlation between father's and mother's level of education is also correlated, in which case a new variable was created, corresponding to the average between parental educational attainment. Similarly, a new variable related to cognitive skills was created, aggregating the results obtained at the level of AR, VR and NR subtests. Table 2 shows the entire correlation matrix among the variables under study.

The following are the results for cluster analysis. This analysis began by considering each subject as a separate *cluster / * group. Progressively, due to the similarity with the other subjects, increasingly large and heterogeneous groups are constituted. The analysis ends with a single global group, aggregating all subjects. The dendrogram or *hierarchical tree diagram* (figure 1) graphically represents the distance / similarity among clusters. Seeing this diagram alone does not allow you to decide on the number of groups to consider. However, its graphical representation helps in this decision-making.

The final decision on the number of *clusters* to consider is, above all, a decision at the theoretical level, after interpreting the idiosyncratic characteristics of each group. In terms of statistical analysis, this implies performing analysis of variance in order to understand how the variables behave in each of the distinct groups.

Table 3 presents the results obtained in the analysis of variance ANOVA, describing in which groups the differences are statistically significant.

Similarly, Figure 2 graphically represents these differences, making it possible to perceive the three distinct patterns that characterize the different groups considered.

The consultation of table 3, aided by the analysis of the graph in figure 2, allows us to conclude that there are three distinct groups. Each characterized by a specific combination of variables. Group 1 (*cluster* represented in blue) includes the students with the lowest results in almost all the variables under study, presenting values close to cluster 2 in the parents' educational attainment variables and grades 7

Table 1: *Descriptive statistics of the variables under study.*

	N	Min	Max	Average	PD	Symmetry	Curtose
Father's sch.quali	136	3	14	5,76	2,26	1,64	2,58
Mother´s sch.quali	136	3	14	5,70	2,17	1,60	2,41
AR	136	1	21	11,27	3,94	-,03	-,24
VR	136	3	22	11,32	3,68	,24	-,01
NR	136	1	16	5,50	3,59	,96	,43
Accept_7	136	2,17	4	3,30	,45	-,50	-,45
Monit_7	136	1,60	4	3,11	,57	-,34	-,58
Accept_9	100	2,14	4	3,19	,41	-,18	-,58
Monit_9	99	1,40	4	3,00	,57	-,31	-,26
Par Invol_7	136	1	5	3,48	,80	-,85	,62
Par Expect_7	136	1	5	3,88	,68	-,82	1,43
Lear.Goals_7	136	1,80	5	3,87	,70	-,69	,25
Perf.Goals_7	136	1	5	3,97	,82	-1,02	1,45
Acadm sef-concep_7	136	1	5	4,07	,62	-,88	1,06
Par Invol_9	103	1	4,60	3,08	,86	-,68	-,30
Par Expect_9	102	1	5	3,54	,68	-,89	1,74
Lear.Goals_9	103	1,80	5	3,62	,67	-,39	,20
Perf.Goals_9	103	1,40	5	3,60	,75	-,57	,15
Acad Self-concep_9	102	2,33	5	3,78	,54	-,11	,03
AGA7	132	2	5	3,01	,68	,70	,26
AGA8	132	1,91	5	2,83	,68	,86	,64
AGA9	132	2,50	4,88	3,24	,48	1,27	1,35

Caption: Father's Sch. Qual.i: Father's school qualification; Mother's Sch. Quali.: Mother's school qualification; AR: Abstract Reasoning; VR: Verbal Reasoning; NR: Numerical reasoning; Accept_7: Parental acceptance in 7th grade; Monit_7: Parental monitoring in 7th grade; Accept_9 .: Parental acceptance in 9th grade; Monit_9: Parental monitoring in 9th grade; Par.Involv_7: Parental involvement with school in 7th grade; Par.Expect_7: Parental academic expectations in 7th grade; Learn.Goals_7: Learning goals in 7th grade; Perf.Goals_7: 7th grade income targets; Acad. self.concep_7: academic self-concept in 7th grade; Par Involv_9: Parental involvement with school in 9th grade; Par Expect_9: Parental academic expectations in 9th grade; Learn. goals_9: 9th grade learning goals; Perf.goals_9: 9th grade income targets; Acad. self-concept _9: academic self-concept in the 9th grade; AGA: 7th academic grade average; AGA 8: 8th academic grade average; AGA: 9th academic grade average.

and 8. Group 2 (*cluster* represented in green) describes the students who obtained average results in most of the psychological, socio-family and academic dimensions considered. It is also found that over time their results tend to remain stable, with little variation from 7th to 9th grade. Finally, group 3 (*cluster* represented in gray) comprises the students who obtained the highest results in terms of psychological and socio-family variables. Similarly, their school performance over the three years of primary education is also the highest. Thus, in general terms, each *cluster* represents a certain performance (high, medium and low), therefore, groups 1 and 3

can be highlighted as opposite (lowest and highest results) and group 2 with intermediate results.

It should also be mentioned that all the variables under study differentiate the groups (significant F test), but not all groups contrast significantly with each other. In fact, only the acceptance and monitoring variables in grade 9, academic self-concept in grade 7 and grade 9, and learning goals in grade 9 significantly contrast the three groups in that the results of group 3 are higher than those of group 2 and these with those of group 1. It is also verified that groups 1 and 2 do not differ significantly in the variables average educational

Table 2. Correlation among the variables under study.

	Fath SchQ	Moth. SchQ	AR	VR	NR	Accep_ 7	Monit_ 7	Accep_ 9	Monit_ 9	Par Inv_7	Par. Exp_7	Lear Goal_7	Perf Goal_7	AcSelf. Conc_7	Par. Inv_9	Par. Exp_9	Lear AGoal_9	Perf Goal_9	AcSelf. Conc_9	AGA 7	AGA 8	AGA 9
FathSchQ	-																					
MothSchQ	,58***	-																				
AR	,05	,15	-																			
VR	,13	,16	,56***	-																		
NR	,05	,08	,50***	,54***	-																	
Accep_7	,11	,09	,03	-,08	,01	-																
Monit_7	,15	,06	,07	-,02	-,14	,52***	-															
Accep_9	,22*	,10	,23*	,22*	,16	,47***	,38***	-														
Monit_9	-,02	-,05	,17	,12	,03	,17	,45***	,38***	-													
Par Inv_7	,15	,04	-,01	-,11	,16	,32***	,36***	,28**	,15	-												
Par Exp_7	,13	,07	,02	,07	,02	,51***	,20*	,29**	,00	,14	-											
Lear Goal_7	,13	-,01	,00	-,01	-,06	,29**	,24**	,137	,056	,22*	,43***	-										
Perf Goal_7	,04	,05	-,02	-,02	-,11	,27**	,27**	,14	,09	,18*	,25**	,38***	-									
AcSelfCon_7	,21*	,19*	,16	,08	,02	,41***	,33***	,28***	,12*	,33***	,38***	,44***	,25**	-								
Par Inv_9	,08	-,09	,03	-,02	-,04	,14	,32*	,25*	,44***	,36***	-,01	,04	,25*	,08	-							
Par Exp_9	,01	-,07	,04	,02	,05	,24***	,09	,39***	,05	,10	,21*	-,07	,19	,01	,39***	-						
Lear Goal_9	,19*	,08	,19*	,11	,14	,03	,22*	,25**	,21*	,18	,11	,43***	,22*	,18	,36***	,25**	-					
Perf Goal_9	,05	-,03	-,05	-,21*	-,07	,15	,12	,08	,13	,15	,05	,26**	,14	,17	,28**	,23*	,38***	-				
AcSelfCon_9	,23*	,26**	,08	,14	,09	,15	,23*	,43***	,09	-,02	,09	,06	,09	,30**	,01	,26**	,28**	,20*	-			
AGA7	,37***	,29**	,38***	,46***	,48***	,13	,05	,19	,05	-,07	,18*	,11	-,07	,42***	-,20*	,01	,12	-,18	,21*	-		
AGA8	,38***	,34***	,32***	,44***	,44***	,19*	,09	,27**	,05	-,09	,17*	,07	-,06	,40***	-,14	,06	,16	-,17	,32**	,80***	-	
AGA9	,32*	,19*	,20*	,35**	,39***	,13	,10	,30**	,02	-,04	,19*	,11	-,03	,26**	,02	,19	,33**	-,01	,34**	,67***	,69***	-

*p<.05; **p<.01; ***p<.001 Caption: Father's Sch.Quali.: Father's school qualification; Mother's Sch.Quali.: Mother's school qualification; AR: Abstract Reasoning; VR: Verbal Reasoning; NR: Numerical reasoning; Accept_7: Parental acceptance in 7th grade; Monit_7: Parental monitoring in 7th grade; Accept_9 .: Parental acceptance in 9th grade; Monit_9: Parental monitoring in 9th grade; Par.Involv_7: Parental involvement with school in 7th grade; Par.Expect_7: Parental academic expectations in 7th grade; Learn.Goals_7: Learning goals in 7th grade; Perf.Goals_7: 7th grade income targets; Acad. self.concept_7: academic self-concept in 7th grade; Par Involv_9: Parental involvement with school in 9th grade; Par Expect_9: Parental academic expectations in 9th grade; Learn. goals_9: 9th grade learning goals; Perf.goals_9: 9th grade income targets; Acad. self-concept_9: academic self-concept in the 9th grade; AGA: 7th academic grade average; AGA 8: 8th academic grade average; AGA 9: 9th academic grade average.
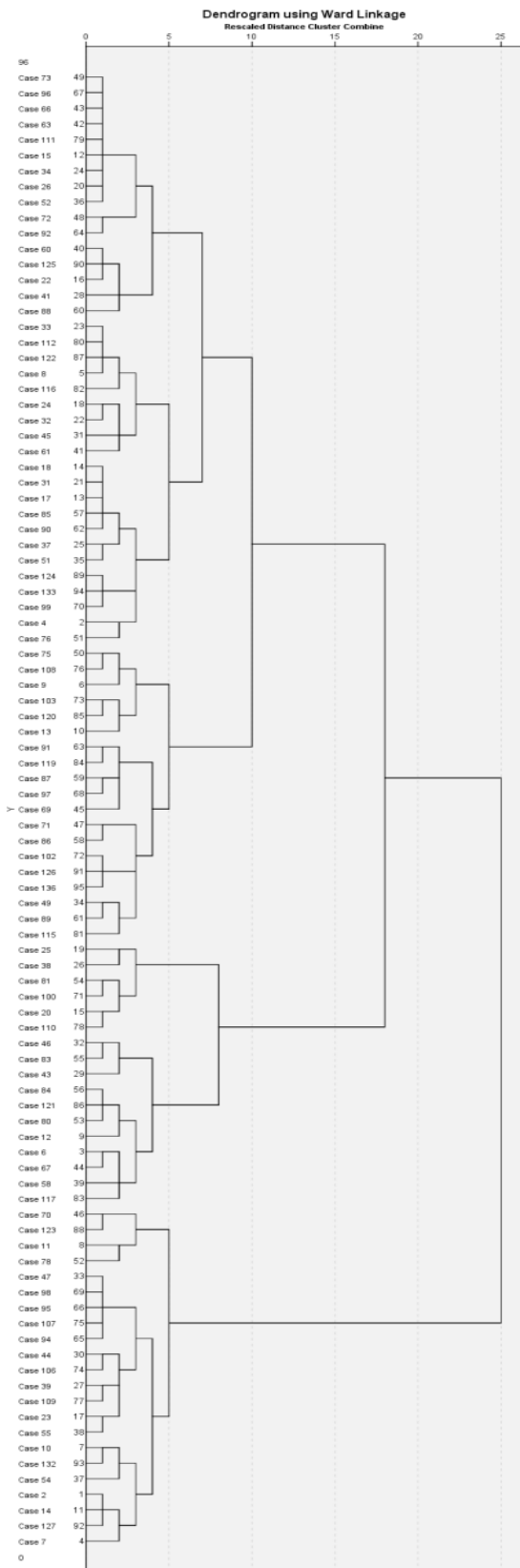
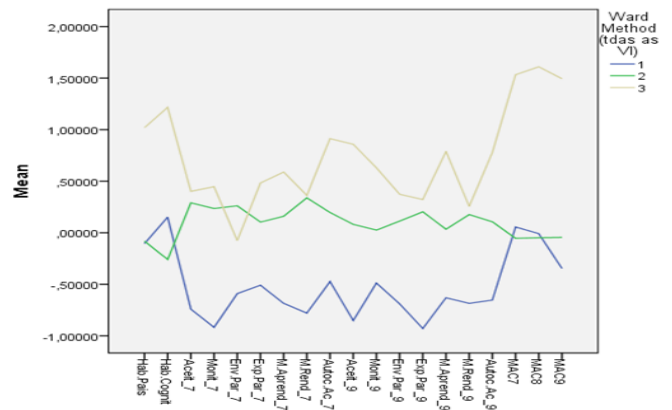**Figure 1**: Graphical representation of distance / similarity among groups.

Figure 2. Graphical representation of the profile of each group considered.

Caption: 1- ParAvEdQual ; 2- AvCogniAb.; 3-Accep_7; 4-Monit_7; 5- Par Invol_7: 6-Par Exp_7; 7-Lear Goal_7; 8-Perf Goal_7; 9-AcSelfConc_7; 10-Accep_9; 11-Monit_9; 12-Par Inv_9; 13-Par Expec_9; 14-Lear Goal_9; 15-Perf Goal_9; 16-AcSelfConc_9; 17-AGA7; 18-AGA8; 19- AGA9.

attainment of parents, average cognitive skills and academic averages of 7th, 8th and 8th and 9th grade. In turn, the variables parental acceptance in the 7th, parental monitoring in the 7th, learning goals in the 7th, parental involvement in the 7th and 9th, parental expectations in the 7th and 9th. In addition, income targets in the 7th and 9th do not differ significantly between groups 3 and 2.

We now move on to a more detailed description of each of the identified groups. Group 1 presents the lowest values in both psychological and socio-family variables. However, these students have similar school results to those of group 2. Over time, their involvement with the school tends to decrease, as do their parental expectations for their schooling. In addition, these students perceive little support, assistance and monitoring from their parents. They seem to be students little involved with school tasks, while presenting a low academic self-concept.

At its extreme, group 3 represents students who seem to fulfill all the essential prerequisites for school success, reflecting their high academic performance. These students with higher cognitive abilities believe in their ability and competence to learn and to succeed. They have a high academic self-concept that remains stable throughout the 3rd cycle of basic education. His parents spent more time in school with longer school journeys. Students perceive them as supporters, a perception that increases from grade 7 to grade 9. They are also students involved with the school, guided by more intrinsic academic goals (particularly in 9th grade).

Finally, group 2 represents (as does 1) the students with the most unsatisfactory school performance, however, presenting a combination of more success-promoting variables than this same group. Thus, although these students perform poorly at school, they feel the support and support of their parents, as well as their greater involvement with the

Table 3. *Differences among the three groups (ANOVA results).*

	Group1	Group2	Group 3	Test F	Turkey Test
	M (DP)	M (DP)	M (DP)	(2. 94)	Contrasting Groups
ParAvEdQual	5.52 (1.87)	5.57(1.69)	7.74(3.00)	8.16**	3>2 e 1; 2=1
AvCogniAb.	9.83 (2.66)	8.56(2.68)	13.13(4.22)	15.23***	3>2 e 1; 2=1
Accep_7	2.97 (.45)	3.43(.35)	3.48(.33)	14.03***	3 e 2>1; 3=2
Monit_7	2.58 (.37)	3.24(.55)	3.36(.45)	16.57***	3 e 2>1;3=2
Accep_9	2.84 (.35)	3.22(.36)	3.54(.29)	20.02***	3 > 2 > 1
Monit_9	2.72 (.43)	3.02(.59)	3.36(.46)	6.99**	3 > 2 > 1
Par Invol_7	3.01(.68)	3.69(.64)	3.42(1.04)	6.83**	3 e 2>1; 3=2
Par Exp_7	3.53 (.49)	3.95 (.59)	4.21 (.61)	7.30**	3 e 2>1; 3=2
Lear Goal_7	3.39 (.69)	3.98(.62)	4.28(.64)	10.38***	3 e 2>1: 3=2
Perf Goal_7	3.34 (.83)	4.25(.65)	4.27(.67)	14.74***	3 e 2>1; 3=2
AcSelfConc_7	3.78 (.43)	4.20(.52)	4.64(.32)	16.05***	3 > 2 > 1
Par Inv_9	2.48(.80)	3.18(.86)	3.40(.62)	7.71**	3 e 2 > 1: 3=2
Par Expec_9	2.91(.74)	3.68(.51)	3.76(.74)	14.37***	3 e 2 > 1: 3=2
Lear Goal_9	3.20(.76)	3.65(.55)	4.15(.64)	11.29***	3 > 2 > 1
Perf Goal_9	3.08(.66)	3.73(.76)	3.79(.67)	7.11**	3 e 2 > 1; 3=2
AcSelfConc_9	3.42(.41)	3.83(.53)	4.20(.34)	12.75***	3 > 2 > 1
AGA7	3.05 (.52)	2.97(.54)	4.04(.59)	26.31***	3 > 2 e 1: 2=1
AGA8	2.83(.51)	2.80(.52)	3.93(.65)	30.37***	3 > 2 e 1;2=1
AGA9	3.08(.36)	3.22(.38)	3.96(.59)	24.82***	3 > 2 e 1; 2=1

**p<.01; ***p<.001

Caption: Par. Av Ed.Quali: Parent's average educational qualification; Av.Cognit Ab.: average cognitive ability;Accept_7: Parental acceptance in 7th grade; Monit_7: Parental monitoring in 7th grade; Accept_9 .: Parental acceptance in 9th grade; Monit_9: Parental monitoring in 9th grade; Par.Involv_7: Parental involvement with school in 7th grade; Par.Expect_7: Parental academic expectations in 7th grade; Learn.Goals_7: Learning goals in 7th grade; Perf.Goals_7: 7th grade income targets; Acad. self.concep_7: academic self-concept in 7th grade; Par Involv_9: Parental involvement with school in 9th grade; Par Expect_9: Parental academic expectations in 9th grade; Learn. goals_9: 9th grade learning goals; Perf. goals_9: 9th grade income targets; Acad. self-concept _9: academic self-concept in the 9th grade; AGA: 7th academic grade average; AGA 8: 8th academic grade average; AGA: 9th academic grade average.

school. In addition, parents have higher expectations for their school future. As such, they are students motivated and involved with the school, characteristics that allow with group 3 (associated with school success).

Discussion

Understanding the diversity of students' school profiles and meeting their specificities and needs is the purpose of education and training systems. However, this heterogeneity, although assumed, is not always reflected in the flexibility of educational practices. Students' school performance tends to be studied because of a set of predictors, both cognitive and non-cognitive, such as motivation, self-concept, among others. However, in addition to analyzing which variables are associated with academic success or failure, it is relevant to study the processes established between these factors and how they can be combined into different school profiles or trajectories (Almeida et al., 2012; Damasceno et al. al., 2016). This study aims to understand that school profiles can emerge from the combination of psychological, socio-family and school variables. The analysis showed the existence of three distinct groups, each reflecting a differentiated school profile, thus allowing the confirmation of the two mentioned study hypotheses. Group 1 had lower averages in all psychological, socio-family and school variables. Both psychological and socio-family characteristics seemed to accentuate the

negative effects of school failure (reflected in poor school performance). This group is made up of students with low academic self-concept and who perceive their parents as not very supportive, not involved in school affairs and with some disbelief regarding their educational background. The fluctuation of results over time, showing lower values in the 9th grade, seems to somehow reflect the cumulative impact of school failure. In fact, the transition from the 7th to the 9th grade led to greater distancing and disinvestment with the school of both students and parents, crystallizing in a school path of failure. In this sense, this profile was called the school failure profile resulting from a progressive disinvestment with the school.

In turn, the students in-group 2, despite presenting equally poor school performance, have psychological and socio-family characteristics that seem to function as protective factors of school failure. These students feel the support and support of their parents, as well as their greater involvement with the school. In addition, parents have higher expectations for their future school, regardless of the less positive school performance these students reveal. As such, they are students who identify with the school, an attitude reinforced by their parents' active involvement with the school and the high academic expectations their parents place on them. This profile is, therefore, quite different from the previous one, and may be referred to as a school failure profile with involvement in school life.

Finally, the students in-group 3 are representative of a school success profile, visible not only in good school performance, but also in the constellation of psychological and socio-family characteristics that support or reinforce this success. Indeed, these students seem to fulfill the essential requirements for school success, with higher cognitive skills, high academic self-concept, and an intrinsic motivational orientation, characteristics that remain stable over time. Their parents are also promoters of this success. They are parents who stayed in school later and invested more in their own school qualifications. In addition, they are actively involved with the school and communicate high academic expectations to their children. With the advancement in schooling, in the specific case of these students, their academic success is reinforced, making them even better students. Thus, this group had called the school success profile.

The nomenclature used in the definition of each of the profiles found (school failure profile not engaged with school, school failure profile engaged with school and school success profile) owes its origin to more comprehensive research on the phenomenon of school success. The research conducted by Lee and Shute (2010) refers to the concept of school engagement as a key element in building school success. This concept in itself already reflects a multiplicity of dimensions, psychological, social, family, school and contextual (Eccles & Ming-Te, 2012; Moreira et al., 2013). For this reason, this concept was the basis of the denomination of each of the school profiles, evident in the distinction of the two subgroups that make up the school failure.

The results of this study raise a set of relevant implications for educational practice. Understanding the types of school profiles and how they are constituted over time will alert to the diversity of school profiles and the need for each one of them requires different methodologies and pedagogical strategies. In fact, three differentiated school profiles found and, within the category of school failure, two groups with distinct characteristics were found. Thus, it proved that school failure does not happen in the same way for all students and their families, idiosyncratically affecting each student and each family (Patto, 1999; Soares et al., 2014).

Similarly, another aspect to keep in mind refers to the definition of one's own school success / failure. If only the grades were met, only two profiles would stand out (success and failure), which would result in a far more reductive and simplistic reading. It is also important to note that at the level of the education system (when, for example, when defining educational measures to combat school failure) students' academic success tends to be assessed almost exclusively based on school grades. However, the question is, should academic success be measured only in terms of school grades obtained by students? What is the nature of good school performance, what is the anatomy of school success? It is understood that the most visible part of the good student situation is the grade, but "what's behind the grade"? (Perrenoud, 2003). In this regard, we refer to the conclusions of the OECD report (2013) questioning the "culture of grade" prevailing in education systems and educational discourses as the main way to assess students' skills and knowledge.

Finally, it is important that this reflection is considering a historical and social perspective of educational phenomena and of educational practices and policies themselves (Alves-Mazzotti & Wilson, 2016). Thus, it is recommended to adopt a vision of school success that goes beyond school classifications, integrating the pluralism and multidimensionality that characterizes it. In addition to students' personal, family and social variables, the "reading" of educational phenomena needs a systemic analysis, bringing to the discussion the concrete contexts of the classroom, the teacher / student relationship, the school climate, the educational content and practices and the educational policies themselves (Alves-Mazzotti & Wilson, 2016; Patto, 1999). As such, educational agents are challenged to address this heterogeneity by responding to the complexity of teaching--learning processes and paying due attention to the sociocultural frameworks of the phenomenon of school failure, which affects individuals' personal and social life and development of educational systems.

In summary, the results of the present study need to be framed in this systemic perspective of school success / failure. The different school profiles that emerged from the combination of psychological, school and socio-family variables can be understood as indicators of the complexity and heterogeneity of teaching-learning processes. Moreover, these processes are clearly influenced by school and classroom contexts, teacher education and educational policies, by way of example. It is important, therefore, to consider the heterogeneity of school profiles and the influence that contexts can have on their definition, in order to better adapt

their educational interventions to the unique characteristics of students in context, responding to their needs and weaknesses, as well, as reinforcing their potential in a logic of democratization of access and success to the benefits of education.

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