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Education and Attachment: Guidelines to Prevent School Failure

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Abstract: Portuguese schools have high student failure and early school leaving rates (Pordata, 2017) giving rise to a number of initiatives aimed at their reduction. The "Alternative Curricular Course" (ACC) promotes the learning of basic skills, specifically in Portuguese language and Mathematics, to support logical reasoning and artistic, vocational, and professional development. Its main goal is the fulfilment of compulsory schooling and the reduction of academic failure. Research based on attachment theory (Bowlby, 1969) suggests that different internal working models of attachment are associated with different characteristics of social, academic, emotional, and behavioural competencies that may interfere in the quality of relationships that young people establish in school, especially with teachers, and also influence their academic performance. This study evaluates the relationship between internal working models of students, their perceptions of the quality of their relationships with teachers, and their academic performance using three measures: (i) the "Inventory of Attachment in Childhood and Adolescence" (IACA) measure, (ii) the "Inventory of Parent and Peer Attachment" (IPPA) measure—concerning the attachment to teacher", and (iii) a socio-demographic questionnaire on a sample of 305 students from the 8th grade of regular education (RE) and the ACC. The results reveal that students on the ACC exhibit a less secure internal working model than students in RE, and that the perception of the quality of the student-teacher relationship, regarding the dimension of acceptance and understanding by the teachers, is associated with a better academic performance. These results align with those of other recent studies in support of the conclusion that the process of attachment has a significant influence on educational contexts, consistent with attachment and related theories.

Keywords: alternative curricular course; internal working models of attachment; student-teacher relation; school performance; early school leaving

1. Introduction

Obtaining a high school diploma is an important developmental marker in the transition from adolescence to adulthood [1]. Completing a school education is a major event in the academic, personal, and professional life of an individual and is the culmination of a process of learning, and developing competencies and self-realization; withdrawing from school represents the negative opposite [2]. Individuals who do not complete high school with a credential increase their susceptibility to numerous detrimental life outcomes, e.g., they are more likely to experience unemployment, to obtain welfare, to have lower lifetime salaries, to participate in substance abuse and delinquent or criminal behavior [3,4], and to experience mental health problems [5]. The "early school leaving" rate of school students in Portugal (and in Madeira specifically) is high (currently 14%, the fourth highest in Europe–Pordata, [6]), and this has triggered the concern of policy makers, various organizations, and actors involved in the educational context of Portugal. Europe's 2020 strategy sets the target of 'reducing the share of early

leavers of education and training' to less than 10%, and this target has been adopted by educational decision makers in their daily work.

Benavente et al. [7] argue that several dimensions should be considered when analyzing academic failure such as cultural and family factors or the educational system itself. Academic success or failure occurs within the teaching–learning process, and may reflect the impact of several internal or external variables such as personality, cognitive and emotional processes, teacher– student relationships, peer relationships, family structure and dynamics, and the school as an institution among others [8]. At school, a comprehensive approach of tackling low educational accomplishment should include measures that are appropriate for all students, while integrating underachieving students in particular. Evidence shows that taking into consideration students' educational needs, in terms of student–teacher relationships, internal working models, and individual educational profiles, has a positive influence on engagement and accomplishment [9–11]. "Teachers and school staff, as well as other significant adults in the lives of children/young people, can become especially significant relationships, for those who have suffered trauma during their developmental period and who are not equipped with the right "tools" for their stage of schooling [12,13]. Providing positive educational experiences to those children not only leads to improved learning and cognitive development, but also to emotional, social, and resilience growth [14]. For Bombèr [14], supportive practice and the quality of the relationship reinforces the successful education of all children, especially those who are socially and emotionally disadvantaged by early negative parenting experiences. In addition, teachers are increasingly acquainted with students who demonstrate social, emotional, and behavioural difficulties that ultimately impact their academic performance. Tackling challenging student behavior is an increasingly serious problem for teachers. Labels such as "at-risk," "vulnerable," "undisciplined ", and "disruptive" [14] are often heard in school meetings. In the specific case of the sample of students used for this study, these labels are stigmatic. The Alternative Curricular Course (ACC) is an educational measure specifically directed to students 15 years of age or younger who have (i) repeated academic failure; (ii) risk of discrimination; (iii) risk of social exclusion or early school leaving; and (iv) high lack of motivation and absenteeism [15]. Many times, these classes are referred to by the teachers as especially challenging.

The ACC establishes a training programme to produce alternative curricula that is adapted to children and adolescents, who are vulnerable to drop out or be excluded from school, whose needs the current curricula and programmes have not met [15]. In this framework, these curricula are designed to deal with the problem of enduring academic failure, aiming to reduce the lifetime and occurrence of problematic cases. They comprise a range of general and specific training that enables the acquisition of knowledge and the promotion of skills in technological, scientific, artistic, and sports-related fields [16]. For such a group of students, the task of the teacher is multifaceted, requiring adaptive and creative skills to face challenging situations, creating a positive learning environment and citizenship, and supporting young people in completing an alternative training that enables them to lead a dignified life where they feel useful from a social perspective [17].

1.1. Conceptual Models of Early School Leaving and Engagement

Researchers have proposed several models to clarify the process of early school leaving, and the consequences of repeated academic failure. Some models focus specifically on early school leaving, while others attempt to clarify student outcomes in general, with early school leaving representing just one factor [3,18–20]. Most of the models concentrate on an individual viewpoint and identify a number of general categories of factors including: previous school experiences, academic performance (results, test scores, grades, etc.); school-related behavior (e.g., undertaking homework), cognitive processes (e.g., efforts toward academic goals), social environment (e.g., good relationship with teachers and classmates), and psychological conditions (e.g., self-esteem and identification with school). While there are several overlaps in the models, they diverge in respect to the specific factors that are assumed to exert the highest influence on early school leaving and school failure.

Finn's models are among some of the most cited that explains "early school leaving" [3]. The "frustration-self-esteem" model suggests that the initial antecedent to school disengagement is primary school failure, which, in turn, contributes to low self-esteem and then to problematic behaviors (such as failure to attend class, disorderly behavior). Reoccurrence of these behaviors further deteriorates school performance, which results in further reduction in self-esteem and an escalation of disorderly behaviors. Ultimately, students either leave school willingly or are excluded from school due to their inappropriate behavior. The "participation–identification" model points to the absence of participation in school events (e.g., classroom participation, homework, and sharing in the social, extracurricular parts of the school) as the initial antecedent to disengagement, which, in turn, predisposes students to poor academic performance and then to reduced identification (i.e., awareness of "belonging" and "appreciating") with school. With time, the lack of identification with school leads to lower participation, poorer academic performance, even lower identification with school, and eventually to leaving school.

The model of Wehlage et al. [19] states that student results are cooperatively influenced by two comprehensive factors: school membership (attachment to adults and classmates, compliance with school norms, participation in school activities, and confidence in the school's legitimacy and competence) and educational engagement. Based on Tinto's research [21], Wehlage et al. [19] identified four common inhibitors to school membership: change to a new, and often bigger and more impersonal, school context; difficulty in doing more demanding school work; incongruence among pupils' values, experiences, and anticipated futures, and the aims and rewards of the school; and isolation from teachers and classmates in both academic and social activities [19]. The same authors also identified several inhibitors of educational engagement: (i) schoolwork is not extrinsically inspiring for many pupils, as achievement is not linked to any explicit and appreciated goal; (ii) the general learning process in school is too abstract, verbal, passive, individualistic, and competitive (imposed by others and consequently not intrinsically inspiring) as opposed to concrete, problem-oriented, dynamic, kinesthetic, supportive, and self-governing; and (iii) schoolroom learning is often boring because teachers are preoccupied with the subject material, leading to superficial knowledge that is not inspiring. Rosenberg and Simmons [18] have proposed that school grades are significant to a student's self-esteem because they are an objective basis for a student's evaluation. In this understanding, low grades may foster a student's sense of incompetence, since they may interpret grades as a subjective judgement from their teachers. For these students, being given low grades may be interpreted as representing the teacher's individual state of mind toward them.

In addition to taking into account school-wide variables, a diverse set of teaching variables (such as autonomy or emotional support towards the students and acceptance of their individual characteristics) may be considered to increase a student's sense of belonging to a supportive learning context and to promote an increase in student engagement [20]. These aspects take place in the practice of cooperative teaching and learning approaches, positive student-teacher relationships, and the promotion of mutual respect and acceptance within the teaching space.

Fredricks, Blumenfeld, and Paris [22], after a large-scale review of the literature, conclude that engagement is related to positive academic results as well as achievement and perseverance in school. Students show a higher engagement (behavioral, emotional, or cognitive) in the context of supportive teachers and colleagues, stimulating and authentic tasks, an open space for options, and adequate structure.

1.2. Conceptual Definition of Attachment

The attachment relationship is defined as a deep emotional connection between the child and a significant figure, where both opt for an attitude that contributes to physical and affective closeness in order to allow adequate development [23], which tends to continue throughout life [24,25]. Internal working models are the individual's representations about the self (encompassing the conceptions of personal and social competences), of others (of their availability and support), and of the world,

resulting from attachment experiences [25,26]. This internal working model is, thus, a forerunner of later (dis)adaptive developmental scripts in relation to the subject's new contexts and interactions [27].

Children develop secure attachments with significant figures as a result of caregivers who are more sensitive to their wider emotional needs [7]. Therefore, the child develops an unconditional trust in the availability of the reference figure, showing greater interest in exploring the world around them and in engaging in new learning, proving to be more socially adapted [28]. Additionally, they also show better skills that are required to control their emotions and regulate their impulses [29]. Otherwise, those with insecure attachment have a history of frustrating and unhappy experiences with unavailable and unresponsive caregivers, leading to subsequent difficulties with emotional control and impulse regulation [30], and opting for instant gratification at the cost of long-term goals [31]. Complementary to the above-mentioned internal working models, Main and Solomon (1986, quoted by Minnis et al. [32]) later proposed what they called disorganized attachment, corresponding to a random mix of avoidant and ambivalent (attachment) patterns, frequently related to abusive caregiving experiences.

Lately, the conceptual framework of attachment has attracted particular attention from researchers in the field of pedagogy, making it possible to understand how relationships are established, what modifies and influences them, how they are expressed, and what repercussions they lead to throughout life [33]. Attachment theory has been a core perspective for the motivational processes that lead to non-collaboration, non-identification, and school failure [3]. It provides greater clarity to the significance and implications of the behaviour of students under emotional and social strain, thus, empowering teachers as well as other educational actors to integrate it into teaching strategies [14].

Numerous students start school with a lower level of the social competencies required for success in a school setting [34]. Early in life, students acquire valuable competencies that set the groundwork for future learning [34]. Throughout infancy, students develop an attachment with their caregivers. In a healthy setting, students learn how to communicate their requests to their caregivers. In due course, students start to imitate, identify with, and internalize the behavior and ideals of their caregivers and others with whom they bond [34]. These primary relationships are the foundation upon which students develop the physical, social, emotive, moral, and cognitive competencies. Unfortunately, many students from socially deprived backgrounds arrive at school poorly equipped to learn, as they have not built secure trusting relationships. In contrast to students who have positive developmental experiences prior to school, students from socially deprived backgrounds have not assimilated beliefs, ideals, and behaviors that promote achievement in school [34]. Such children have not acquired fundamental social competencies, such as negotiation and cooperation [34]. Deficient basic social and interpersonal competencies can result in these children being rejected by schoolboards and teachers, and as a consequence, they are at risk for school failure. There is increasing evidence that interpersonal relationships are a significant factor in a student's choice to continue in school or to leave [35,36]. Positive social relationships with teachers can be influential in encouraging students to go to school [9,37].

1.3. Student–Teacher Relationship

The quality of early attachment relationships determines the quality of academic, emotional, and social competence. In other words, internal models will shape the way the child interprets the world, behaves in relationships with others (e.g., with the teacher), and represents him/herself [38]. In compliance with attachment theory, the child's capacity to apply these newly acquired skills in goal-corrected collaboration depends on the caregiver's skill to appropriately assist or support the child's metacognitive development. This capacity to share goals and plans develops within the framework of attachment relationships, and includes the development of cognitive skills that are progressively more complex, for instance, taking the perspective of another and negotiating a cooperative task [39].

Learning begins with the interaction with objects from the outside world, through play and the presence of a significant figure [40]. The competence to engage with external objects with curiosity

and creativity is the basis of the competence to engage in learning. In each of these circumstances, it is essential to tolerate frustration and the doubt of "not knowing" until it is perceived [41]. This is the experience that the student transfers to the educational task, and the nature of that experience will possibly affect the involvement [41]. Therefore, attachment is related with exploration, task engagement, and cognitive skills [42]. Exploration enhances cognitive competence as children learn from contacts with people and objects [43,44]. Engagement is related to the superior cognitive processes of agency, attention, and determination; all are required for the learning, processing, and understanding of concepts [45–47]. In summary, to be able to learn, students need to be motivated and focus on what the teachers are attempting to teach. A student's preparedness to learn depends profoundly upon his/her capacity to have confidence in the teacher and the school [35].

Research indicates that the student with secure relationships can establish other meaningful relationships, and are apt for positive resolutions [12,41]. This translates into being able to relate to both teachers and others, and to the educational task [14]. In contrast, students with insecure attachment reveal a "distorted" version of this relationship that expresses a different expectation of the teacher, and a response to the educational task in line with the student's own experience of attachment [41]. The harmony between the student, the teacher. and the educational task can be disturbed by previous experiences, which affect the expectations of the teacher as well as the commitment to the task. According to Bombèr [14], insecure attachment is related to impairment of the following dimensions in students: (i) executive function (difficulty in organizing actions, monitoring, evaluating, planning actions, and abstract thinking); (ii) initiation (difficulty in starting work or a task with or without requests); (iii) working memory (difficulty remembering what is known or has been learned recently); (iv) transitions (difficulty changing their attention or switching between different tasks); (v) inhibition of inappropriate behaviors (difficulty blocking distractions or controlling their impulses).

In short, learning happens in a relational context [14,46]. This implies the development of a dialectical attitude between teacher and student to promote collaborative engagement that will foster learning outcomes. In this perspective, teaching is clearly bidirectional [48]. Given the neuronal plasticity (the capacity of the central nervous system to alter its own structural system and activity) of the brain, the child/youth is able to adapt in response to new experiences in the environment [49,50]. Children who have failed to create secure bonds with their significant figures at an early stage may later develop significant ones with their teachers [28]. Some authors recommend that the improvement of relationships between teachers and pupils can be a cost-effective path to enhance the success of students [51]. The connection between teacher and student can even play a significant role as a protective factor for young people experiencing school distress, family crises, or who are at risk for exclusion [52,53]. Teachers who demonstrate confidence and acceptance to their students are promoting the foundations for establishing positive relationships and learning experiences [12]. This form of positive esteem improves the student's motivation to do their best, and contributes to the progress of a secure attachment between the teacher and the student [54]. Positive relationships with teachers can operate as a motivational resource when students are confronted with difficulties and obstacles in a school setting [55]. Several studies support a positive correlation between teacher support and indicators of behavioral, emotional, and cognitive engagement [55–57].

The quality of the relationship with the caring figures has been signalled as a determinant of student academic success [58], adaptation to the school context [59], a good climate of learning within the classroom [13], and healthy peer relationships [60]. Rumberger's [5]. Analysis of NELS data (National Educational Longitudinal Survey of 1988, USA) concludes that students who acknowledged that they had caring teachers were less prone to drop out of school.

The affective elements between teacher and student, and their various consequences in the student's life, have been recognised by educational actors. They are beginning to value this relationship as a significant factor in the life of current and future generations [14].

2. Methodology

The "Alternative Curricular Course" (ACC) intends to constitute a response to educational action that adapts to the needs of schooling and training, taking into account the characteristics of the students. In this context, it was considered pertinent to study students in ACC compared to students in "Regular Education" (RE), examining aspects related to their internal working models and student-teacher relationships, and how these are associated with school performance. In Portugal, research about attachment and learning is lacking [61]. This study aims to contribute in providing decision makers and actors (psychologists, teachers, leaders, etc.) in the field with scientifically proven information regarding this relational dimension. We propose to characterize the relational dimension of this educational response and how it is associated with school performance, developing an investigation based on two constructs: the attachment and the student-teacher relationship. More specifically, it is intended explore the following questions:

1. Are there differences between the internal working model of the ACC students and RE students?
2. What are the differences in the representations of student-teacher relationships between ACC students and RE students?
3. Are the internal working models related to the representations of student-teacher relationships?
4. Are the representations of the student-teacher relationship related to school performance?
5. Are students' internal working models related to school performance?

2.1. Study Design

To address the aims of the study, a non-experimental, cross-sectional and quantitative approach was developed. It was quantitative as it represented data numerically, and association between variables was determined through correlation [62]. The approach taken was systematic, rigorous, and objective, using statistical methods to analyze the results [63].

The present study was an exploratory descriptive study, since we intended to characterize the relationship between internal working models of attachment, student-teacher relationship, and school performance. In addition, the study presented a transversal character because the evaluation was done in a single moment and was correlational, and since the objectives of the study were to analyze the associations between variables.

2.2. Procedures

The study required: (i) authorization from the Regional Director of Educational Administration, and (ii) authorization from the respective authors for the use of their instruments. After the approval of the local ethical committee (Regional Educational Administration), various informative meetings were held with the schools selected to explain the study aims. The selection of the schools was carried out through non-probabilistic convenience sampling, based on their integrating of the educational curriculum "Alternative Curricular Course" of the 8th grade students, and prior interest in participating in this study. After obtaining the schools' permission and informed consent from the students' parents, the instruments were applied during school hours by the first author. Following this, the objectives of the study were explained to the students, as well as the requirements, e.g., the need to be sincere in filling in the questionnaires, the possibility of clarifying any doubts that might arise during their application, and highlighting its voluntary, anonymous, and confidential nature. Finally, the collected data were processed through the SPSS software (version 23).

2.3. Instruments

The research design of the present study was based on the use of three instruments:

I. Socio-demographic questionnaire (completed by the head of education or by the class tutors) that covered information about the students such as age, gender, school performance, type of educational

course (RE or ACC), and child protective measures applied in the previous school year. School performance in this study corresponded to the final grade for each subject in the last school term.

II. Inventory on Attachment in Childhood and Adolescence (IACA) (Carvalho, Soares & Baptista, [64]). The IACA is a self- and parental-response questionnaire about a set of behaviours and attachment representations in childhood. In this study, the self-response version was used. The instrument revealed three factors associated with different internal working models: secure attachment, ambivalent attachment, and avoidant attachment.

III. Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987) is a self-response instrument, validated for the Portuguese population by Machado and Figueiredo in 2010 [65]. It addressed the perception of the quality of the relationships established between students and their parents, peers and teachers. This study intended to evaluate the quality of student-teacher attachment. The instrument integrated the following factors: "Communication and Affective Proximity", "Mutual Acceptance and Understanding", and "Alienation and Rejection".

2.4. Sample

The sample Table 1 included 8th grade students (year of schooling attended by 38% of students in ACC) in the Autonomous Region of Madeira in the 2017–2018 academic year, divided into two groups:

(1) "ACC" group: all classes of the 8th year of "ACC", corresponding to 15 classes in 12 schools of Madeira, with a total of 127 students.

(2)"RE "group: 12 classes of the 8th year, one in each school with "ACC", a total of 178 students.

From each school, an "RE" group and an "ACC" group of 8th graders were included, thereby guaranteeing the homogeneity of the two groups regarding the geographical distribution of the students. The group of students in the RE in each school was randomly selected.

Table 1. Sample description.

Type of Education		"RE"	"ACC"	Total
Gender	Male	86 (48.3%)	74(58%.3)	160
	Female	92 (51.7%)	53 (41.3%)	145
	Total	178 (59%)	127(41%)	305
Geographical area	Urban	99 (55.6%)	67 (52.8)	166
	Rural	79 (44.4%)	60 (47.2%)	139
	Total	178 (54.4%)	127(45.6%)	305
Age	12	12	1	13
	13	100	3	103
	14	50	29	79
	15	15	46	61
	16	1	38	39
	17	0	7	7
	18	0	3	3
	12	12	1	13
	M = 14	14DP = 1253	Mín = 12	Máx = 18

The total sample consisted of 305 students between 12 and 18 years of age (M = 14.14 years) from 12 public schools of the autonomous region of Madeira (Portugal). Of the participants, 160 students (52.5%) were males, which constituted the majority of the sample, and 145 (47.5%) were females.

3. Discussion of the Results

All data were analyzed with the SPSS statistical package (version 23). In this section, we intend to present the results obtained, resulting from the statistical analyzes carried out. For this, the most indicated statistical tests were used in order to respond to the previously mentioned objectives. In this way, we proceed to the descriptive and inferential analysis of the data. To examine the students' internal working models and representations of student-teacher relationships, we carried out the

Mann–Whitney test to compare two independent samples (ACC students and RE students) when the assumption of the normal distribution was not fulfilled (Tables 2 and 3). The correlation between the internal working models and the student–teacher relationship was determined using Spearman's correlation coefficient, as we were investigating two interval variables (Tables 4 and 5). Subsequently, the correlation between the internal working models of attachment and the school performance was determined with the Spearman test, as we were investigating an ordinal variable and an interval variable (Tables 6 and 7), and the correlation between the representations of the student-teacher relationship with the school performance (Tables 7 and 8) was determined with the Pearson test.

3.1. Does the Internal Working Model Differ between the Alternative Curricular Course (ACC) Students and Regular Education (RE) Students?

The data obtained, which are summarized in Table 2, indicated a statistically significant difference between students of RE and ACC. The students of the RE (M = 30.69) presented a higher value of secure attachment, compared to the ACC (M = 28.71).

Table 2. Quality of attachment in childhood (IACA); according to the type of education.

	Type of Education	N	Mean	Standard Deviation	m–M	Mann–Whitney Test
Secure Attachment	RE	178	30.69	4512	16–10	$Z = -3.061$; $p = 0.002$ *
	ACC	127	28.71	5743	16–40	
Ambivalent Attachment	RE	178	20.83	6019	9–37	$Z = -1.817$; $p = 0.069$
	ACC	127	19.77	5975	10–37	
Avoidant Attachment	RE	178	22.24	4698	10–34	$Z = -1.025$; $p = 0.306$
	ACC	127	21.95	5839	11–39	

* $p < 0.01$.

3.2. Does the Representation of Student–Teacher Relationships Differ between ACC Students and RE Students?

The significance of the difference in the perception of the quality of the student–teacher relationship between the two groups was tested using the Mann–Whitney test. According to the data presented in Table 3, there was only one statistically significant difference ($p < 0.05$), between RE (M = 81.9) and ACC (M = 80.9), regarding the subscale of "Acceptance/Understanding". In short, the "RE" students (M = 32.66) of our sample presented a higher perception of "Acceptance/Understanding of the teachers' relationship, compared to the ACC (M = 30.49).

Table 3. Subscales and the total value of the Teachers attachment scale (IPPA) according to the type of education.

	Type of Education	N	Mean	Standard Deviation	m–M	Mann–Whitney Test
Communication/ Affective Proximity	RE	178	26.44	7369	9–44	$Z = -0.844$ $p = 0.399$
	ACC	127	27.12	7388	9–42	
Acceptance/ Understanding	RE	178	32.66	6223	15–45	$Z = -2.639$ $p = 0.008$ *
	ACC	127	30.49	6933	9–45	
Alienation/Rejection	RE	178	22.88	4467	14–35	$Z = -1.220$ $p = 0.223$
	ACC	127	23.31	4431	10–3	
IPPA-total	RE	178	81.98	14566	9–45	$Z = -1.424$ $p = 0.154$
	ACC	127	80.92	14598	9–45	

* $p < 0.05$.

3.3. Are the Internal Working Models Related to the Representations of Student–Teacher Relations?

Table 4 shows the presence of a statistically positive correlation between the secure attachment subscale and quality in the student–teacher relationship in the RE, but not in the ACC group (Table 5). In the RE group (Table 4), the factor "secure attachment" exhibited a significant positive correlation with the factors "Communication and affective Proximity" and "Mutual Acceptance and Understanding". According to attachment theory, when children have a secure and trusting relationship with caregivers, there is space for open communication [26], and the same can be applied to teachers [66]. Moreover, in the RE, the factor "ambivalent attachment" revealed a negative correlation with the factor "Alienation/Rejection" of teachers, which corroborates the description of the learning triangle conceptualized by Geddes [41]. According to this, ambivalent students are constantly seeking verbal attention in order to protect the relationship with their teachers [28]; when their dialogue and questions are answered by their teachers, this may lead to a perception of lower "alienation/rejection" from teachers. Moreover, RE students with "avoidant attachment" factor presented a negative correlation with the factor "Communication/Proximity "and "Mutual Acceptance/Understanding". Geddes [41] proposes that avoidant students appear to be independent of their teachers and seek to respond to their own needs because they have not acquired the capacity to trust. That can provide a possible explanation for the result of lower perceived trust and acceptance. Those students are, in the same way, focused on their tasks and are emotionally distant from teachers. This may lead to a devaluation of this type of proximity behaviour, which may possibly justify the perception of a lower withdrawal and rejection [12,41].

Table 4. Childhood-Attachment subscale (IACA) and the student–teacher relations subscale (IPPA), regarding the RE.

		Communication/ Affective Proximity	Acceptance/ Understanding	Alienation/ Rejection	IPPA Total
Secure Attachment	Spearman's Correlation	0.332 **	0.443 **	0.146	0.363 **
	Sig. (bilateral)	0.000	0.000	0.054	0.00
	N	178	178	178	178
Ambivalent Attachment	Spearman's Correlation	0.055	−0.110	−0.391 **	0.083
	Sig. (bilateral)	0.462	0.142	0.000	0.272
	N	178	178	178	178
Avoidant Attachment	Spearman's Correlation	−0.159 *	−0.190 *	−0.273 **	−0.100
	Sig. (bilateral)	0.034	0.011	0.000	0.182
	N	178	178	178	178

* $p < 0.05$; ** $p < 0.01$.

Nevertheless, in the ACC group the factor "secure attachment" exhibited a significant positive correlation with the factor "Communication and Affective Proximity"(Table 5), meaning that the more secure the students are, the more they perceive "Communication/Affective Proximity" with the teacher (according to the literature). On the other hand, it was also possible to find out that the factors "ambivalent" and "avoidant" attachment were negatively correlated with the factors "Acceptance/Understanding" and "Alienation/Rejection" from their teachers.

Table 5. Childhood-Attachment subscale (IACA) and the student–teacher relations subscale (IPPA), regarding the ACC.

		Communication/ Affective Proximity	Acceptance/ Understanding	Alienation/ Rejection	IPPA Total
Secure Attachment	Spearman's Correlation	0.224 *	0.140	0.018	0.152
	Sig. (bilateral)	0.011	0.115	0.843	0.088
	N	127	127	127	127
Ambivalent Attachment	Spearman's Correlation	−0.150	−0.277 **	−0.230 **	−0.084
	Sig. (bilateral)	0.093	0.002	0.009	0.347
	N	127	127	127	127
Avoidant Attachment	Spearman's Correlation	0.140	−0.211 *	−0.303 **	0.152
	Sig. (bilateral)	0.115	0.017	0.001	0.088
	N	127	127	127	127

* $p < 0.05$; ** $p < 0.01$.

Hypothetically, this may be an indication of a disorganized attachment, characterized by the simultaneous tendencies to get closer to and to move away from the attachment figure. (This is something that should be studied in the future.) According to Geddes [41] and Bombér [14], most of the young people with disorganized attachment may feel misunderstood by teachers, expecting the worst and not believing that there is anyone who can truly care about them [14,41]. This could possibly explain why students of the "ACC" group perceived less "Acceptance/Understanding" from their teachers. Nonetheless, through informal feedback from ACC teachers, there seemed to be a greater sensitivity to the emotional needs of these young people. This directs teachers to seek greater closeness and understanding through their interactions, which may possibly justify the fact that these students perceive less "Alienation/Rejection".

3.4. Is the Internal Working Model Related to School Performance?

Table 6 reveals something unexpected and which does not conform with the literature: that the internal working models do not correlate with school performance, regarding RE and ACC.

Table 6. Correlation between the subscales of the quality of childhood-attachment with the average of the total grades, in RE.

		Secure Attachment	Ambivalent Attachment	Avoidant Attachment
Average total grades (ACC)	Pearson's Correlation	0.003	−0.093	−0.009
	Sig. (bilateral)	0.97	0.218	0.908
	N	178	178	178

Table 7. Correlation between the subscales of the quality of childhood-attachment with the average of the total grades, in ACC.

		Secure Attachment	Ambivalent Attachment	Avoidant Attachment
Average total grades (ACC)	Pearson's Correlation	−0.164	−0.009	−0.109
	Sig. (bilateral)	0.066	0.918	0.224
	N	127	127	127

Numerous studies relate the quality of attachment with academic performance [39,67]. These students acquire a more positive self-concept and a sense of security that facilitates the seeking out of new learning experiences, that is, they positively lead to their predisposition to learn, which results in good school performance [68]. To help interpret these results we can offer several hypotheses:

(1) There are numerous variables that were not being accounted for in our study, which may interfere with the school performance, such as personality characteristics [69], existence of a learning disorder [70], and/or other psychopathological conditions [71].

(2) The instrument applied contained sensitivity issues that could have led to an activation of the student attachment system. This may have led the students to answer the questions according to social desirability, or in a random way, in order to evade the issues.

(3) The students adopted false-security—a defense and protection mechanism used by individuals traumatized and suspicious to protect themselves with an image of false security [72]. In this perspective, the ACC students may have tried to convey a more positive image through the instrument.

3.5. Are the Representations of Student–Teacher Relations Related to School Performance?

Finally, we tested if the representations of student–teacher relation was related to school performance. In the RE group (Table 8), a significant correlation was found between school performance and the factor "Acceptance/Understanding "and IPPA total score. In other words, the more secure a student's relationship with their teacher was, the better their school performance. This was a result consistent with literature [73,74].

Table 8. Correlation between the student–teacher relations subscale with the average of the total grades, in RE.

		Communication/ Affective Proximity	Acceptance/ Understanding	Alienation Rejection	IPPA Total
Average total grades	Pearson's Correlation	0.143	0.260 **	0.136	0.16 *
	Sig. (bilateral)	0.058	0	0.07	0.026
	N	178	178	178	178

* $p < 0.05$; ** $p < 0.01$.

Harrison, Clarke, and Ungerer [75] emphasize how students' perceptions of being accepted or rejected by their teachers influences the way students deal with the school context. For instance, the feeling of being accepted is positively correlated with school success. This may explain the results of the two groups (RE and ACC students, Table 9) that show significant associations between the dimensions "Acceptance/Understanding" and school performance.

Table 9. Correlation between the student–teacher relations subscale with the average of the total grades, in ACC.

		Communication/ Affective Proximity	Acceptance/ Understanding	Alienation Rejection	IPPA Total
Average total grades	Pearson's Correlation	0.075	0.242 *	0.017	0.169
	Sig. (bilateral)	0.402	0.006	0.854	0.058
	N	127	127	127	127

* $p < 0.01$.

4. Conclusions

Since the "Alternative Curricular Course" has been established as an educational measure aimed at promoting the academic success of young people in situations of academic and social risk, leading to early school leaving and associated with interpersonal and behavioural difficulties, it was considered important to deepen research in this area.

Specialized literature has shown an increasing appreciation for aspects that have been less evident in educational contexts, namely the influence of the processes of attachment. Authors such

as Siegel [76], Mesquita, Formosinho & Machado [77], or Parker & Levinson [78], point out that this factor may have a major impact on school success. Studies demonstrate that children with secure attachment have higher scores than their insecure peers on communication, cognitive engagement, emotional, social, and behavioural school adjustment, and motivation [39,68]. Attachment theory is a framework that may help to promote psychological and social well-being [26], and is relevant to educational success. On this basis, educators from preschool to higher education can be more effective if they understand how attachment impacts their students' learning processes [12].

The present study reveals that RE students have higher scores concerning the subscale "secure attachment" compared to students in ACC. These data indicate that insecure attachment can be a risk factor for academic success [79]. Based on the assumption that the construction of new relationships enables the modification of the internal working model [25], it can be argued that the ACC intervention should have the promotion of the quality of student-teacher relationships as its main goal, which in turn promotes a sense of security, and facilitates the learning process [58,80,81].

In this context, teachers and educational staff gain relevance in the adjustment of young people to the school environment [82]. These additional (attachment) figures may become crucial in the lives of these students, and reduce risk situations (such as dropping out of school), especially in young people with insecure attachment representations (as observed in our study with ACC students). Efforts must be made to support teachers in understanding the significant role they can play, and in improving school conditions to foster teacher–students relations, particularly for at-risk students [34,83]. Through sensitive and caring teachers it may be possible to modify the student's primary insecure internal working models. Promoting corrective attachment experiences and the development of beliefs of self-worth and trust in others [80,81,84] may foster the student's adjustment.

Additionally, the ACC group (M = 30.49) presented a lower level of perception of "Acceptance/Understanding of the teachers' relationship" compared to the "RE" students (M = 32.66); in other words, ACC students "feel" less accepted by their teacher. The notion of sense of futility is a dispositional variable that might explain this result and the impact on school engagement. Sense of futility describes the students' belief that they have no control over their academic achievement and their feelings that the school system is functioning against them [85,86]. Students in contexts of risk (as is the case for ACC students) are more likely to develop a sense of futility, due to the fact that the school community, in general, predicts these students to fail and be less teachable [87,88]. In addition, the perception of being rejected or unaccepted by teachers and class colleagues could reflect the pupil's awareness of belonging or not belonging to an educational context, as proposed by Finn [3]. The perceived rejection by teachers feeds students' emotions of self-derogation within their educational contexts, and reflects perceptions about themselves in terms of their accomplishments, self-efficacy, and their capability to form interpersonal attachment with their teachers and the school boards. This negative perception may influence students' relations with teachers and their participation in school activities [89,90], and is significantly correlated to the pupils' subsequent dropout/nondropout behavior [91,92]. Some scholars have assumed that alienation, or feelings of social isolation, contribute to the dropout problem [3,93]. We find that ACC students, with lower scores for "secure attachment", perceive less acceptance. This is in accordance with Arslan's [94] study, suggesting that when insecure children start school, a perception of being rejected at school may lead to them becoming isolated from the school.

Another notable result in our study is the quality of the teacher–student relationship and its positive influence on school performance. Specifically, the dimension of acceptance and understanding on the part of teachers is associated with better school performance in both ACC and RE. This is in agreement with numerous studies that find rejection (not acceptance) is closely related with low academic achievement or performance in school settings [95–98].

Taking this into consideration, it is essential in psycho-educational intervention to consider the promotion of social skills (such as acceptance, understanding, and strategies of conflict resolution) in the classroom, and to encourage assertiveness and other aspects (such as frustration management,

self-control, and low self-esteem) that may influence the student–teacher relationship. This research also stresses the need for a systemic stance, not concentrating exclusively on students at the remediation level, but working together with families, teachers, health workers, protection commissions, and other agents in the students' social network.

In addition, psycho-education and teacher consultation through school psychologists can support teachers to establish more attachment-sensitive relationships with their students, establishing the foundation for achieving optimal collaboration [99]. Examples of this kind of intervention include programs that support teachers to reflect on relational difficulties with a child [100], or the PACE model (playfulness-Acceptance-Curiosity-Empathy), which promotes a therapeutic attitude towards others that aims to deepen the attachment relationship, and create acceptance and a sense of safety within a secure base in the classroom [28].

The results of this study provide further evidence that teacher support is vital for school performance and for preventing "dropout", specifically for at–risk students. The findings confirm the importance of positive student–teacher relationships in contributing to academic success [73,101].

A strength of this study is that it was conducted with students from different educational paths (regular and at-risk). Although this study does not allow generalizations, we are confident that we have contributed to the reflection and enrichment of the topic "internal working models of attachment, student–teacher relationships, and school performance", regarding the young people included in alternative curricula. Interrupting the "chain" that leads to failure and abandonment presupposes the knowledge of the dialectic that occurs in the conceptual framework of student–teacher relations and the internal working model. With this knowledge, teachers can exercise, with discretion, their mission to facilitate learning-friendly school environments.

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References

1. Arnett, J.J. Emerging adulthood: A theory of development from the late teens through the twenties. *Am. Psychol.* **2000**, *55*, 469–480. [CrossRef] [PubMed]
2. Garnier, H.E.; Stein, J.A.; Jacobs, J.K. The Process of Dropping Out of High School: A 19-Year Perspective. *Am. Educ. Res. J.* **1997**, *34*, 395–419. [CrossRef]
3. Finn, J.D. Withdrawing from school. *Rev. Educ. Res.* **1989**, *59*, 117–142. [CrossRef]
4. Jimerson, S.R. On the failure of failure: Examining the association between early grade retention and education and employment outcomes during late adolescence. *J. Sch. Psychol.* **1999**, *37*, 243–272. [CrossRef]
5. Rumberger, R.W. High School Dropouts: A Review of Issues and Evidence. *Rev. Educ. Res.* **1987**, *57*, 101–121. [CrossRef]
6. Pordata.pt. Recuperado em 12 de março. 2018. Available online: https://www.pordata.pt/Europa/Taxa+de+abandono+precoce+de+educa%C3%A7%C3%A3o+e+forma%C3%A7%C3%A3o+total+e+por+sexo-1350 (accessed on 21 December 2018).
7. Benavente, A. Insucesso escolar no contexto português: abordagens, concepções e políticas. *Análise Soc.* **1990**, *25*, 715–733.
8. Pereira, H. Stress parental, vinculação, autoeficácia e estilos de coping, em pais/cuidadores de crianças com perturbação de desenvolvimento. Ph.D. Thesis, Universidad Miguel Hernández de Elche, Elche, Spain, 2015.
9. Lawrence-Brown, D. Differentiated instruction: Inclusive strategies for standards-based learning that benefit the whole class. *Am. Second. Educ.* **2004**, *32*, 34–62.

10. Tieso, C. Curriculum: Broad brushstrokes or paint-by-the-numbers? *Teach. Educ.* **2001**, *36*, 199–213. [CrossRef]
11. Tieso, C. The Effects of Grouping Practices and Curricular Adjustments on Achievement. *J. Educ. Gift.* **2005**, *29*, 60–89. [CrossRef]
12. Bergin, C.; Bergin, D. Attachment in the classroom. *Educ. Psychol. Rev.* **2009**, *21*, 141–170. [CrossRef]
13. Riley, P. An adult attachment perspective on the student-teacher relationship & classroom management difficulties. *Teach. Teach. Educ.* **2009**, *25*, 626–635.
14. Bombèr, L.M. *Inside I'm Hurting: Practical Strategies for Supporting Children with Attachment Difficulties in Schools*; Worth Publishing: London, UK, 2007.
15. Decreto-Lei n.º 3/2008. Available online: https://dre.pt/pesquisa/-/search/386871/details/normal?q=Decreto-Lei+n.%C2%BA%203%2F2008%2C%20de+7+de+janeiro (accessed on 21 December 2018).
16. Despacho Normativo n.º 1/2006. Available online: https://dre.pt/web/guest/pesquisa/-/search/168225/details/maximized (accessed on 21 December 2018).
17. Caminhos Para o Sucesso. Available online: https://repositorio-aberto.up.pt/bitstream/10216/14354/2/84276.pdf (accessed on 21 December 2018).
18. Simmons, R.G.; Rosenberg, M. Functions of Children's Perceptions of the Stratification System. *Am. Sociol. Rev.* **1971**, *36*, 235–249. [CrossRef]
19. Wehlage, G.G.; Rutter, R.A.; Smith, G.A.; Lesko, N.; Fernandez, R.R. *Reducing the Risk*; Falmer: New York, NY, USA, 1989.
20. Furlong, M.J.; Whipple, A.D.; Jean, G.S.; Simental, J.; Soliz, A.; Punthuna, S. Multiple Contexts of School Engagement: Moving Toward a Unifying Framework for Educational Research and Practice. *Calif. Sch. Psychol.* **2003**, *8*, 99–113. [CrossRef]
21. Schwartz, S.; Tinto, V. Leaving College: Rethinking the Causes and Cures of Student Attrition. *Academe* **1987**, *73*, 46. [CrossRef]
22. Fredricks, J.A.; Blumenfeld, P.C.; Paris, A.H. School Engagement: Potential of the Concept, State of the Evidence. *Rev. Educ. Res.* **2004**, *74*, 59–109. [CrossRef]
23. Berman, W.H.; Sperling, M.B. The structure and function of adult attachment. In *Attachment in Adults: Clinical and Developmental Perspectives*; Taylor & Francis Ltd.: London, UK, 1994.
24. Ainsworth, M.D. Attachment and Dependency: A Comparison. 1972. Available online: https://psycnet.apa.org/record/1973-24570-001 (accessed on 21 December 2018).
25. Bowlby, J. *Attachment and loss: Attachment*, 2nd ed.; Basic Books: New York, NY, USA, 1969.
26. Bowlby, J. The role of attachment in personality development. *A Secure Base Parent-Child Attach. Healthy Hum. Dev.* **1988**, *7*, 119–136.
27. Cummings, E.M.; Davies, P.T.; Campbell, S.B. New directions in the study of parenting and child development. *Dev. Psychopathol. Fam. Process* **2000**, *3*, 200–250.
28. Hughes, D.; Bomber, L.M.; Brisch, K.H.; Perry, A. *Helping Adolescents Engage with Life and Learning*; Worth Publishing: London, UK, 2009.
29. Grossmann, K.E.; Grossmann, K.; Winter, M.; Zimmermann, P. Attachment relationships and appraisal of partnership: From early experience of sensitive support to later relationship representation. In *Paths to Successful Development*; Cambridge University Press (CUP): Cambridge, UK, 2009; pp. 73–105.
30. Van Der Kolk, B.A.; Fisler, R.E. Childhood abuse and neglect and loss of self-regulation. *Bull. Menn. Clin.* **1994**, *58*, 145.
31. Gailliot, M.T.; Mead, N.L.; Baumeister, R.F. Self-regulation. In *Handbook of Personality Psychology: Theory and Research*, 3rd ed.; John, O.P., Robins, R.W., Pervin, L.A., Eds.; Guilford Press: New York, NY, USA, 2008; pp. 472–491.
32. Minnis, H.; Green, J.; O'Connor, T.G.; Liew, A.; Glaser, D.; Taylor, E.; Follan, M.; Young, D.; Barnes, J.; Gillberg, C.; et al. An exploratory study of the association between reactive attachment disorder and attachment narratives in early school-age children. *J. Child. Psychol. Psychiatr.* **2009**, *50*, 931–942. [CrossRef]
33. Canavarro, M.C.; Dias, P.; Lima, V. A Avaliação da Vinculação do Adulto: Uma revisão crítica a propósito da aplicação da Adult Attachment Scale-R (AAS-R) na população Portuguesa. *Psicologia* **2006**, *20*, 155–186. [CrossRef]
34. Comer, J.P. Schools that develop children. *Am. Prospect* **2001**, *12*, 30–35.

35. Erikson, E.H. O ciclo vital: epigênese da identidade. In *Identidade, juventude e crise*; Norton Company: New York, NY, USA, 1987.
36. Jordan, W.J.; Lara, J.; McPartland, J.M. Exploring the Causes of Early Dropout among Race-Ethnic and Gender Groups. *Youth Soc.* **1996**, *28*, 62–94. [CrossRef]
37. Fine, M. *Framing Dropouts: Notes on the Politics of an Urban Public High School*; Suny Press: Albany, NY, USA, 1991.
38. Cassidy, J.; Shaver, P.R. (Eds.) *Handbook of Attachment: Therapy, Research and Clinical Applications*; Guilford Press: New York, NY, USA, 1999.
39. Moss, E.; St-Laurent, D.; Dubois-Comtois, K.; Cyr, C. Quality of Attachment at School Age. In *Attachment in Middle Childhood*; Kerns, K.A., Richardson, R.A., Eds.; Wiley Online Library: Hoboken, NJ, USA, 2005.
40. Winnicott, D.W. O recém-nascido e sua mãe. In *Os bebês e suas mães*; Wmf Martins Fontes: São Paulo, Brazil, 1964.
41. Geddes, H. *Attachment in the Classroom: The Links between Children's Early Experience, Emotional Wellbeing and Performance in School*; Worth Publishing: London, UK, 2006.
42. Jacobsen, T.; Hofmann, V. Children's attachment representations: Longitudinal relations to school behavior and academic competency in middle childhood and adolescence. *Dev. Psychol.* **1997**, *33*, 703–710. [CrossRef]
43. Carpenter, M.; Nagell, K.; Tomasello, M.; Butterworth, G.; Moore, C. Social Cognition, Joint Attention, and Communicative Competence from 9 to 15 Months of Age. *Monogr. Soc. Res. Child. Dev.* **1998**, *63*. [CrossRef]
44. Matas, L.; Arend, R.A.; Sroufe, L.A. Continuity of Adaptation in the Second Year: The Relationship between Quality of Attachment and Later Competence. *Child. Dev.* **1978**, *49*, 547–556. [CrossRef]
45. Choudhury, N.; Gorman, K.S. The relationship between sustained attention and cognitive performance in 17-24-month old toddlers. *Inf. Child. Dev.* **2000**, *9*, 127–146. [CrossRef]
46. Pianta, R.C. *Enhancing Relationships between Children and Teachers*; American Psychological Association (APA): Washington, DC, USA, 1999.
47. Soares, I.; Lemos, M.S.; Almeida, C. Attachment and motivational strategies in adolescence: Exploring links. *Adolescence* **2005**, *40*, 129–155. [PubMed]
48. Marcus, R.F.; Sanders-Reio, J. The influence of attachment on school completion. *Sch. Psychol. Q.* **2001**, *16*, 427–444. [CrossRef]
49. Davids, J. The philosophical baby: What children's minds tell us about truth, love, and the meaning of life. *Infant Obs.* **2010**, *13*, 247–249. [CrossRef]
50. Breihan, J.R. *The Private Life of the Brain: Emotions, Consciousness, and the Secret of the Self*; Wiley: Hoboken, NJ, USA, 2000.
51. Lopes, J.; Silva, H. *O professor faz a diferença. Na aprendizagem dos alunos. Na realização escolar dos alunos. No sucesso dos alunos*; Lidel: Porto, Portugal, 2010.
52. Hamre, B.K.; Pianta, R.C. Can Instructional and Emotional Support in the First-Grade Classroom Make a Difference for Children at Risk of School Failure? *Child. Dev.* **2005**, *76*, 949–967. [CrossRef]
53. Kennedy, B.L. Educating students with insecure attachment histories: Toward an interdisciplinary theoretical framework. *Pastor. Care Educ.* **2008**, *26*, 211–230. [CrossRef]
54. Willie, C.V. Confidence, Trust and Respect: The Preeminent Goals of Educational Reform. *J. Negro Educ.* **2000**, *69*, 255–262. [CrossRef]
55. Furrer, C.; Skinner, E. Sense of relatedness as a factor in children's academic engagement and performance. *J. Educ. Psychol.* **2003**, *95*, 148–162. [CrossRef]
56. Klem, A.M.; Connell, J.P. Relationships Matter: Linking Teacher Support to Student Engagement and Achievement. *J. Sch. Health* **2004**, *74*, 262–273. [CrossRef]
57. Patrick, H.; Ryan, A.M.; Kaplan, A. Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *J. Educ. Psychol.* **2007**, *99*, 83–98. [CrossRef]
58. Martin, A.J.; Marsh, H.W.; McInerney, D.M.; Green, J.; Dowson, M. Getting Along with Teachers and Parents: The Yields of Good Relationships for Students' Achievement Motivation and Self-Esteem. *Aust. J. Guid. Couns.* **2007**, *17*, 109–125. [CrossRef]
59. Baker, J.A.; Grant, S.; Morlock, L. The teacher-student relationship as a developmental context for children with internalizing or externalizing behavior problems. *Sch. Psychol. Q.* **2008**, *23*, 3–15. [CrossRef]
60. Verschueren, K.; Koomen, H.M. Teacher-child relationships from an attachment perspective. *Attach. Hum. Dev.* **2012**, *14*, 205–211. [CrossRef]

61. Pereira, D.; Castro, R.; Carvalho, S. As implicações da vinculação no processo educativo: revisão sistemática da literatura. *Revista AMAzônica* **2018**, *21*, 310–327.
62. Feldman, R.S. *Compreender a psicologia*; McGraw-Hill Education: New York, NY, USA, 2001.
63. Ribeiro, J.L.P. *Investigação e avaliação em psicologia e saúde*; McGraw-Hill Education: New York, NY, USA, 1999.
64. Carvalho, M.; Soares, I.; Baptista, A. Inventário sobre a vinculação para a infância e adolescência (IVIA). *Relações de vinculação ao longo do desenvolvimento: Teoria e avaliação* **2006**, *5*, 253–255.
65. Machado, T.S.; Figueiredo, T. Vinculação a Pais, Pares e Professores–estudos com o IPPA-R para crianças do ensino básico. *Psychologica* **2010**, *53*, 27–45. [CrossRef]
66. Ferreira, P.S.D.O. A relação entre a qualidade de vinculação e o desenvolvimento emocional de crianças em idade pré-escolar. Ph.D. Thesis, ISPA-Instituto Universitário, Lisboa, Portugal, 2014.
67. Cardoso, A.M.I.M. Qualidade da vinculação e funcionamento metacognitivo na criança de idade pré-escolar. Master's Dissertation, University of Porto, Porto, Portugal, 2000.
68. Granot, D.; Mayseless, O. Attachment security and adjustment to school in middle childhood. *Int. J. Behav. Dev.* **2001**, *25*, 530–541. [CrossRef]
69. Woodfield, R.; Farsides, T. Individual differences and undergraduate academic success: The roles of personality, intelligence, and application. *Pers. Individ. Differ.* **2003**, *34*, 1225–1243.
70. Concepções e Práticas de Psicólogos Escolares Acerca das Dificuldades de Aprendizagem. Available online: http://www.scielo.br/pdf/pee/v19n1/2175-3539-pee-19-01-00071.pdf (accessed on 21 December 2018).
71. Pinto, L.M.R.N.A. Psicopatologia, insucesso escolar e estilos educativos parentais na adolescência. Master's Thesis, Universidade do Algarve, Faro, Portugal, 2013.
72. Filho, J.M. *O ser e o viver. Uma visão da obra de Winnicott*; Casa do Psicólogo: São Paulo, Brazil, 2001.
73. Myers, S.S.; Pianta, R.C. Developmental Commentary: Individual and Contextual Influences on Student–Teacher Relationships and Children's Early Problem Behaviors. *J. Clin. Child. Adolesc. Psychol.* **2008**, *37*, 600–608. [CrossRef] [PubMed]
74. Miles, S.; Stipek, D. Effects of Aggression on Achievement: Does Conflict With the Teacher Make It Worse? *Child. Dev.* **2008**, *79*, 1721–1735.
75. Harrison, L.J.; Clarke, L.; Ungerer, J.A. Children's drawings provide a new perspective on teacher–child relationship quality and school adjustment. *Early Child. Res. Q.* **2007**, *22*, 55–71. [CrossRef]
76. Siegel, D.J. Toward an interpersonal neurobiology of the developing mind: Attachment relationships, "mindsight," and neural integration. *Child. Adolesc. Soc. Work J.* **2001**, *22*, 67–94. [CrossRef]
77. Formosinho, J.; Machado, J.; Mesquita, E. *Individualismo e colaboração dos professores em situação de formação. Atas do VII Simpósio de Organização e Gestão Escolar*; Departamento de Educação: Aveiro, Portugal, 2012; pp. 1–11.
78. Parker, R.; Levinson, M.P. Student behaviour, motivation and the potential of attachment-aware schools to redefine the landscape. *Br. Educ Res. J.* **2018**, *44*, 875–896. [CrossRef]
79. Farromba, M.D.L.D.O.; Pires, L. Relações de Vinculação e Sucesso Escolar em Jovens Institucionalizados: Um Desafio aos Seus Cuidadores (Dissertação de Mestrado). Available online: https://repositorio.ipcb.pt/bitstream/10400.11/2118/1/Trabalho_final.pdf (accessed on 21 December 2018).
80. Sabol, T.J.; Pianta, R.C. Recent trends in research on teacher-child relationships. *Attach. Hum. Dev.* **2012**, *14*, 213–231. [CrossRef]
81. Ksenija, K. Attachment in the student-teacher relationship as a factor of school achievement. *Inovacije u Nastavi* **2015**, *28*, 167–188.
82. Machado, T.S.; da Silva, J.T.; Vieira, S. Vinculação na relação professor aluno como fator de sucesso académico= Attachment to Teachers as a Factor of School Achievement. In *Congresso Internacional de Psicologia da Criança e do Adolescente*; Lusíada University: Lisboa, Portugal, 2018.
83. Masten, A.S.; Best, K.M.; Garmezy, N. Resilience and development: Contributions from the study of children who overcome adversity. *Dev. Psychol.* **1990**, *2*, 425–444. [CrossRef]
84. Verschueren, K.; Doumen, S.; Buyse, E. Relationships with mother, teacher, and peers: Unique and joint effects on young children's self-concept. *Attach. Hum. Dev.* **2012**, *14*, 233–248. [CrossRef] [PubMed]
85. Brookover, W.B.; Schneider, J.M. Academic environments and elementary school achievement. *J. Res. Dev. Edu.* **1975**, *9*, 82–91.
86. Brookover, W.B.; Schweitzer, J.H.; Schneider, J.M.; Beady, C.H.; Flood, P.K.; Wisenbaker, J.M. Elementary School Social Climate and School Achievement. *Am. Educ. Res. J.* **1978**, *15*, 301–318. [CrossRef]

87. Thrupp, M. *Schools Making A Difference: School Mix, School Effectiveness, and the Social Limits of Reform*; McGraw-Hill Education: New York, NY, USA, 1999.
88. Van Maele, D.; Van Houtte, M. The Quality of School Life: Teacher-Student Trust Relationships and the Organizational School Context. *Soc. Indic. Res.* **2010**, *100*, 85–100. [CrossRef]
89. Wang, S.-K.; Hsu, H.-Y.; Campbell, T.; Coster, D.C.; Longhurst, M. An investigation of middle school science teachers and students use of technology inside and outside of classrooms: Considering whether digital natives are more technology savvy than their teachers. *Educ. Tech. Res. Dev.* **2014**, *62*, 637–662. [CrossRef]
90. Amitay, G.; Rahav, G. Attachment and pedagogical relevant practices as elements of a successful alternative school through the narratives of its students. *Psychol. Sch.* **2018**, *55*, 1239–1258. [CrossRef]
91. Ensminger, M.E.; Slusarcick, A.L. Paths to High School Graduation or Dropout: A Longitudinal Study of a First-Grade Cohort. *Sociol. Educ.* **1992**, *65*, 95–113. [CrossRef]
92. Metz, M.H. Real School: a universal drama amid disparate experience. *Polit. Educ. Assoc. Yearb.* **1989**, *4*, 75–91.
93. Newmann, F. Reducing Student Alienation in High Schools: Implications of Theory. *Harvard Educ. Rev.* **1981**, *51*, 546–564. [CrossRef]
94. Arslan, G. Relationship between Sense of Rejection, Academic Achievement, Academic Efficacy, and Educational purpose in High School Students. *Egitim ve Bilim* **2016**, *41*, 293–304. [CrossRef]
95. Adelabu, D.H. Time perspective and school membership as correlates to academic achievement among African American adolescents. *Adolescence* **2007**, *42*, 525–538. [PubMed]
96. Anderman, E.M. School effects on psychological outcomes during adolescence. *J. Educ. Psychol.* **2002**, *94*, 795–809. [CrossRef]
97. Booker, K.C. School Belonging and the African American Adolescent: What do We Know and Where Should We Go? *High. Sch. J.* **2006**, *89*, 1–7. [CrossRef]
98. Goodenow, C.; Grady, K.E. The Relationship of School Belonging and Friends' Values to Academic Motivation Among Urban Adolescent Students. *J. Exp. Educ.* **1993**, *62*, 60–71. [CrossRef]
99. McCormick, M.P.; O'Connor, E.E.; Cappella, E.; McClowry, S.G. Teacher-child relationships and academic achievement: A multilevel propensity score model approach. *J. Sch. Psychol.* **2013**, *51*, 611–624. [CrossRef]
100. Spilt, J.L.; Hughes, J.N.; Wu, J.-Y.; Kwok, O.-M. Dynamics of Teacher-Student Relationships: Stability and Change Across Elementary School and the Influence on Children's Academic Success. *Child. Dev.* **2012**, *83*, 1180–1195. [CrossRef]
101. Veiga, F.H.; Festas, I.; Taveira, C.; Galvão, D.; Janeiro, I.; Conboy, J.; Almeida, A. *Envolvimento dos alunos na escola: Conceito e relação com o desempenho académico—Sua importância na formação de professors*; Revista Portuguesa de Pedagogia: Coimbra, Portugal, 2014.