

Article



The Effect of Non-Intellective Competencies and Academic Performance on School Satisfaction

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Abstract: (1) Background: To improve academic performance and prevent dropouts, many studies have investigated the effects of non-intellective competencies on performance, and the effects of performance on school satisfaction. The aim of this study was to investigate the direct role of both non-intellective competencies and performance on school satisfaction at the same time. (2) Methods: The study involved 731 Italian students, attending three different high schools, who responded to the H-Comp Scale, a questionnaire assessing twelve different aspects of students' skills, attitudes and motivations over the study, and the H-Sat Scale, a questionnaire assessing five different areas of school satisfaction. (3) Results: We found a strong role of non-intellective competencies on school satisfaction and a marginal role of academic performance, gender and the attended class, which reduced as students' self-perception in terms of their study competencies and the motivations possessed more than their sole performance, suggesting that this helps students to improve their non-intellective competencies in order to increase their performance and reduce the risk of dropouts, both directly and indirectly, through increasing their school satisfaction.

Keywords: school satisfaction; students' competencies; academic performance

1. Introduction

In recent years, the debate on promoting the best adaptation of students to their educational contexts has become more and more important both to promote successful academic careers in terms of performance and to counteract early school and university leaving. Theories and research have always focused on two issues—students' characteristics and what educational context helps avoid dropouts, as well as the adaptation of individuals in their educational context to their study and performance-related behaviors [1]. Moreover, the promotion of well-being and the prevention of psychological and social disease in educational contexts should also be addressed, as they are related both to performance improvement and a decrease in early academic leaving. Educational and social satisfaction are also associated with people's positive outcomes in many life domains, affecting, for example, physical health, educational commitment, and success [2]. What emerges from the literature is that students' performances and satisfaction are inextricably linked to each other: school satisfaction is associated with academic goals [3–5]. It is, above all, from the 2000s onwards that the concept of well-being, and in particular school well-being, takes on particular significance, for example with the proliferation of studies relating to positive psychology which today is flourishing as the golden

standard of well-being and aiming to favor the expression of talents and abilities of people in relation to their own social context [6].

Since 2017, the authors have undertaken a large research project, in both university and school contexts, in order to study the relationship between non-intellective competencies, performance, and academic well-being. First of all, the authors have developed a questionnaire on university satisfaction (C-Sat Scale) and another on university non-intellective skills (C-Comp Scale) [7,8]. The impact of the non-intellective competencies and college performance on university well-being were successively investigated [9].

The authors then moved to the high school context adapting the previous scales; they developed a questionnaire on high school satisfaction (H-Sat Scale) and another one on high school non-intellective competencies (H-Comp Scale) [10,11]. The present study, therefore, represents the last step of this large research project, and it had the objective of investigating the impact of non-intellective skills and academic performance on school well-being, in line with the previous literature that found evidence, at the school and college level, that academic competencies, academic performance, and school satisfaction are strongly related [3,12–14].

Non-Intellective Competencies and Academic Performance.

Several studies have shown that the prediction of academic performance, related to numerous different factors [15], is more accurate if it considers different individual characteristics, as well as the person's past achievements and cognitive abilities [16]. Academic performance is associated with both intellective factors and non-intellective factors: the importance of considering the role of non-intellective factors is that they are more modifiable, giving a chance to the professionals, school counselors and/or tutoring services to work on them to promote the school's success and well-being of the students. Laidra and colleagues [17] and Poropat [18] investigated how personality and intelligence are associated with success in first- and second-grade schools, showing that academic performance is related to the five personality factors of the Big Five model [19]; Ackerman and Heggestad [20] investigated performance relationships with vocational interests and personalities. Still, other authors have proved the existence of a relationship between academic achievement and the levels of motivation and commitment, self-efficacy, study skills, and self-awareness [21–23].

Richardson and colleagues [16] divided non-intellective factors into five research domains: personality traits, motivation, self-regulation strategies for learning, approaches to learning, and the influences of the psychosocial context. More recently, the authors have proposed, starting from the existing literature, a distinction in three areas of the non-intellective factors associated with academic performance: the self-concept area, which includes the constructs of self-esteem, self-efficacy, intrinsic and extrinsic motivation, self-regulation and management of emotions; the study area, which includes effort and time management constructs; the relationship area, which considers the role of perceived support and the relationships that students have with teachers, parents, and peers [8,9,11].

Academic performance can be influenced by students' beliefs about their abilities, the causes of events, and perceived control [24,25]. As for beliefs about ability, Bandura [26] proposed the self-efficacy construct to define the judgment that people develop in relation to their abilities, and other authors have also widely discussed the influence that self-efficacy expectations may have on the performance, choice, and implementation of objectives e.g., [27]. Self-efficacy beliefs have a direct relation to school achievement since they are a significant predictor of successful behavior in many life areas, for example, on academic achievement, academic persistence, academic performance, and grade point average (GPA) [28–38].

Among the various non-intellective factors identified, the research carried out in the field of education has paid particular attention to motivation in relation to learning. In these terms, it is important to first consider the difference between intrinsic motivation and extrinsic motivation [39]. Intrinsic motivation occurs when something is done because it is interesting or pleasant in itself. An intrinsically motivated person is driven to act for the pleasantness or challenge that the action itself entails. Extrinsic motivation, on the other hand, refers to doing something for instrumental or other reasons, such as being pressured

or receiving a reward. Most theories of motivation place emphasis on the construct of intention, highlighting the contrast between intentional and unintended behavior. This contrast has been translated into several terms: impersonal causality vs. personal causality, locus of internal control vs. locus of external control, voluntary response vs. impotence, autonomy vs. control. With respect to these theories, the self-determination theory adds, within motivated or intentional behaviors, the distinction between self-determined regulation and controlled regulation—when behavior is self-determined, the regulation process is a choice and the causality is perceived as internal to itself. When behavior is controlled, on the other hand, regulation translates into compliance and causality is perceived as external by itself [40]. Therefore, intrinsic motivation would be the result of autonomous and self-determined decisions that give, to the individuals, the perception of control and power; on the contrary, extrinsic motivation develops when individuals are forced or forced to act due to situations controlled by external factors [39].

Many studies have linked self-determined motivation with various academic achievements in each grade of education. Some of them have shown that students who carry out school activities driven by self-determined forms of motivation are more likely to stay in school than students who have less self-determined motivation; other authors have shown a positive correlation between intrinsic motivation and academic achievement [41,42]. Therefore, students who are intrinsically motivated and who present self-regulating styles also have better levels of adaptation, are more likely to stay in school and achieve school success than students with a less self-determined motivation [40]. Other research has investigated how the attributions and beliefs about self-efficacy, ability, and self-worth are able to influence intrinsic motivation, coming to propose a taxonomy of the motivational orientations adopted by students [43,44].

Academic performance is also influenced by emotionally related variables, such as the ability to control their reaction during a performance and the capacity to respond to failures. From a socio-cognitive perspective, some constructs are mentioned as self-regulatory abilities to achieve a goal; for example, the capacity to self-monitor and self-reflect on their own performance and result. The emotional control and the capacity to react to failures can be considered a central competence in this field [45,46]. Not having fear despite a possible failure and considering an unsuccessful event as a possible opportunity to learn from experience are points of strength in every educational path, determining a kind of awareness to feel competent and to be indulgent toward the points of weakness, reducing the chances to feel the anxiety that interferes and deteriorates educational performance [47,48]. Therefore, anxiety has demonstrated its strong relationship with a lower level of academic performance in many studies, also influencing memory and problem-solving processes, levels of self-efficacy, and the use of adaptive cognitive strategies [49–51]. As for the dimensions related to the self, self-esteem has played a central role in studies on academic performance for a very long time, with sometimes conflicting results based on the type of research design used [52]. However, many studies have highlighted that academic achievement and self-esteem are positively associated, without a definitive and clear explanation about the causality direction between the variables [53,54]. On the other hand, we could consider a circular causality, as suggested by an interesting model derived from the theory of Marsh, where academic achievement, self-concept, and self-attributions are mutually interconnected in a continuous equilibrium: a change in one dimension determines a change in the other two dimensions [55].

Academic performance is not only due to self-related characteristics, but also to attitudes and behaviors related to the study approach as self-regulatory learning strategies. We can identify three fundamental variables in this dimension: study dedication, time management, and learning assessment. Study dedication is the amount of effort spent on homework and class attendance, and it can impact on the learning process, consequently affecting the academic outcomes [9,56]. Study dedication includes the concept of efforts and the ability to regulate them adequately to achieve positive school results [57]. A meta-analytic review showed that effort regulation is related to GPAs, confirming a previous study where a higher level of student effort was related to a higher level of academic achievement [16,58].

Another self-regulation strategy is time management, which is the ability to manage the available time as well as possible and effectively reach the learning goals [59]. This ability is associated with a higher level of academic performance and success [45,60]. The students who are more able to manage their time are also those who show better organizational strategies that favor the effectiveness of learning processes and, consequently, increase the chances of achieving more success in the school environment and of being less exposed to dropout risks [61,62]. Among the self-regulation strategies, there is also a moment that temporally follows those described above, but is certainly not less important for the success of one's academic performance—the evaluation of how effective the learning process, and Zulkiply stated that the effectiveness of this final evaluation is positively related to academic performance since students are more able to evaluate the learning results showing a higher level in several metacognition measures [63,64]. These students are more able to organize study activities, to monitor the learning process and the learning results, to evaluate, modify and adapt their study strategies to recognize the alternative ways to improve their study habits [64].

The role of context in promoting or limiting students' performances and adjustment in the school environment cannot be excluded. Therefore, in addition to individual factors and self-regulation strategies, social support factors in one's environment can also influence students' academic results. The relationships with peers, parents, and teachers are a fundamental social resource to facilitate successful students' scholastic paths, also increasing their academic outcomes, performance, and achievement and improving the chance of achieving academic goals [65,66].

The parental involvement and participation in the scholastic development of students are related with their academic results—(a) in a metanalytic study, Wilder found a strong positive association between the two variables, and (b) in a review of various metanalytic studies, Castro and colleagues highlighted a significant relationship between parents' participation and academic results; these associations became stronger when the parents showed higher academic expectations towards their children's results and were able to establish a good level of communication with their children about school activities [67,68].

Several studies have shown that teacher support is another crucial variable to foster the success of the students' educational paths both from the didactic point of view and from the point of view of emotional support in the role of other significant adults in the life of adolescents. Students who perceive positive support and a positive relationship with their teachers are those who are more likely to develop a higher level of interest in school activities and motivation because supportive teachers facilitate their learning process and improve the school climate and, consequently, students' academic achievements and success [69–71].

The relationships among adolescents are a clear fundamental need for the individual and social students' development in many spheres of their life. Many studies, e.g., [72] have confirmed that children with positive peer relationships are more involved even to respond to the academic demands, and the quality of these relationships is able to improve their scholastic success e.g., [73]. On the other hand, a negative or absent relationship with one's peers is capable of negatively affecting academic performance [74].

Dimensions Involved in Students' School Satisfaction.

School satisfaction is described as a judgment that includes both the cognitive and affective overall evaluation of life experienced at school [75]. The issue of promoting well-being in valued contexts for people, such as work, schools or universities, has become a fundamental one especially in periods characterized by multiple risk factors due to recent social and technological changes, the economic crisis, globalization, and the precariousness of people's training and career paths. The fear related to the future has become one of the biggest factors affecting the psychological health, life satisfaction and personal well-being of new generations [76–80]. Theories and research highlighted that well-being during adolescence is a multidimensional construct, determined by different personal and social factors and involving multiple domains, for example, the self, environment, family, friends, etc., but school

satisfaction plays a key role in defining the level the students' quality of life [81]. This is not only an issue strictly limited to satisfaction in one context, because the domain-specific satisfaction in a person's valued central life context can affect general life satisfaction in a kind of osmosis process [82,83]. Moreover, life in the school context can intervene with adolescent identity development processes, since it is one of the most central social contexts at this age and the student role is one of the most important roles that an adolescent plays, experimenting with one's self and one's personal and social skills [10,84]. Therefore, adolescents' well-being derives from a positive outcome with regard to managing new relationships with peers, experimenting with their autonomy through comparisons with authoritative and significant adult figures, developing a good sense of belonging to a friend group, perceiving support from family, and building good beliefs of effectiveness in dealing with these developmental tasks [85,86]. Studying the factors that promote the well-being of adolescents at school is crucial for various factors: (a) it is not only a matter related to the "hic et nunc", it influences the well-being of our future communities; (b) it is a protective factor towards risk behaviors; (c) it prevents dropout in educational paths; (d) it promotes the development of all skills and abilities that bring people to their optimal functionality, for themselves and for others, and helps them to become the best citizens possible; (e) it is related to academic results, performance, engagement, motivation to succeeed, persistence and progress at all educational levels [2,4,5,7,10,87,88]. On the other hand, adolescents' ill-being is negatively correlated with academic engagement [89]. Despite the crucial role of school well-being, also considering the relationship with academic engagement and success, some authors underlined that the attention paid by theories and research on this topic were not adequate [3]. At present, there are some theoretical models of school well-being which seem to underline its multidimensional nature, since it is affected by several variables at an individual, behavioral, social, and contextual level. One of the most important can be found in the "School Well-being Model" theorized by Konu and Rimpela using a multidisciplinary literature review process [90]. This model presents the school well-being as being composed of four areas: health status, the dimension of "having" (school conditions), the dimension of "loving" (social relationships), and the dimension of "being" (means for self-fulfillment). Recently, authors [7,9,10] have confirmed the multidimensionality of school and college satisfaction, proposing five sub-dimensions: choice, how the school attended satisfies the students in several aspects, for example, the type of school subjects studied; services, how the school attended satisfies the students for the adequateness of facilities (e.g., library, workrooms, gyms, etc.); study habits, how the students are satisfied considering attitudes, behavior, and results related to the study and compared with their efforts; relationship, how the students are satisfied with the social ties related to the school context; usefulness for the future career, how the school attended satisfies the students for the knowledge and competencies acquired with regard to their future professional and college path.

Academic self-concept is a key factor influencing school satisfaction [91]. Among the individual variables that affect adolescents well-being, we find positive psychology constructs such as hope, optimism, and courage, while a particular role should be reported regarding self-efficacy as the central construct of an entire socio-cognitive theoretical model on domain-specific well-being such as the educational and working context [76,84,92–96]. The link between self-efficacy and adolescents' well-being was also confirmed by Suldo and Huebner, who showed that students with better levels of self-efficacy tended to show higher levels of life satisfaction [97]. Additionally, Huebner and McCullough [4] showed, among other variables, the contribution of academic self-efficacy on school satisfaction. Other authors highlighted the role of motivation and social support in influencing the students' school satisfaction level [98,99].

Social and relational variables can affect school satisfaction, and adolescent well-being, since having satisfactory relationships reduce the stress perceived in life contexts and facilitates people accessing social environment resources [88,100]. Social support to the progress towards work or educational aims represents crucial variables also in a socio-cognitive model of well-being; peer support is the strongest protective factor influencing adolescents' psychological well-being, and Ito and Smith stated

that interpersonal support is the more reliable predictor of school satisfaction [84,101,102]. Many studies have shown that peer relationships, having a supportive teacher, school climate, support from parents, and the ability to involve them in the school path, can affect adolescents' school satisfaction, and positive relationships can influence adolescents' general well-being and happiness [75,97,103–107]. On the contrary, a poor quality of relationships with peers and parents is related to a higher level of school stress and lower physical health and well-being [108].

In the field of influence of school well-being, different results emerge from the literature for the adolescents' group age; for younger students, the quality of the relationship with parents and teachers, but not with the friends, is crucial. In contrast, for the older students, a quality relationship with friends and teachers, but not with parents, influences the levels of school well-being [109].

Additionally, the environmental variables influence school satisfaction. Many studies reported the impact of physical variables to determine student well-being—adequate facilities, the suitability of the library, sufficient tools and materials, comfortable classrooms, order, privilege, etc.—can influence school satisfaction and success at all educational levels, i.e., at college and high school levels [75,110–112]. Additionally, in the model of Konu and Rimpela described above, to live in a protective and safe environment, to have sufficiently adequate and functioning services, to perceive the possibility to have easy access to the tutoring services or a school counselor, can facilitate the educational process and consequently affect well-being as also stated by other authors [90,113,114].

It seems legitimate to suppose that the non-intellective competences in the areas of self, relations, and study mentioned in the previous paragraph, influencing some fundamental aspects such as performance, school engagement, the progress towards school objectives, may have a significant effect also on the levels of school satisfaction perceived, as already demonstrated in the university environment in the previous research [9]. Ultimately, to evaluate the school satisfaction and its antecedents "can be useful for school and professionals of career guidance such as school counselor, helping students to work on their positive school adjustment, on their career plans, on the improvement of some areas of school well-being" [10] (p. 126).

2. Materials and Method

This study aimed at exploring if motivation, non-intellective competencies, and academic performance affect school satisfaction. Differences between the three schools will be investigated separately for the five different areas of satisfaction. Gender and class attended will also be considered.

2.1. Participants

In total, 731 Italian students participated in the study: it was a convenience sample, reached by a school project on soft skills and vocational guidance, and for this reason, it was not representative of the Italian population. Students attended a linguistic high school (31.3%), scientific high school (27.4%), and technical high school (41.3%). The males were more numerous in the scientific high school (75.0%) and the technical high school (95.7%), whereas females were more numerous in the linguistic high school (85.2%) ($\chi^2(12) = 387.101$; p < 0.000). Students attending the three schools were, on the contrary, homogeneous by age ($\chi^2(12) = 13.282$; p = 0.349), ranging from 14 to 20 years old, quite equally distributed in the five grades. The number of students decreased from the first (186) to the fifth class (114) because of some abandonments, which were more consistent after the first two classes—it is likely that students who attended the last three classes were more skilled and motivated in the school. As the skills required to compile the questionnaires were adequate for all the students attending these schools, no other restriction criteria were applied a part students' willingness and their parents signed authorization to participate in the study.

2.2. Procedure

Researchers presented the study to the students explaining that it aimed to assess their perception "about their experience as a high-school student." Students were informed that they were free to not

participate in the study, that the compilation was nominal, and it would provide an individual profile in the following weeks, useful to help them to understand the reasons for their academic performance and satisfaction. In the following days, during school time, students filled out the on-line questionnaire in the computer classroom. The questionnaire was administered just to those who gave their consent to participate in the study, which was authorized by their parents if minors.

2.3. Measures

- 1. H-Comp Scale: A questionnaire aimed to assess 12 non-cognitive competencies and motivations grouped into 3 areas: study (intrinsic motivation, extrinsic motivation, time management, study dedication); self (self-efficacy, learning assessment, emotional control, reaction to failures, general self-esteem); relations (family relationships, fellow student relationships, teachers relationships). The students were asked to indicate how true 48 sentences are on a Likert scale ranging from 1 (not at all true) to 5 (entirely true). All the items and the subscales were distributed normally, and Cronbach's alpha ranged from 0.70 to 0.87. Item examples: Intrinsic motivation (generally, I study willingly because I like doing it); extrinsic motivation (I always find a way to study, even when I am not very interested); time management (I can plan my study workload so that I am not late); study dedication (I study with perseverance); reaction to failures (I do not get discouraged when I face difficulties in my studies); learning assessment (I can evaluate with some accuracy if I am ready or not for a written or oral school test); self-efficacy (I consider myself a student with good study skills); emotional control (I am not anxious when I take a written or oral school test); general self-esteem (I have good self-esteem); family relationships (I involve my family as much as possible in my studies); fellow student relationships (when I need help, I ask my fellow students); teachers relationships (I have good relationships with all my teachers).
- 2. H-Sat Scale: A questionnaire aimed to assess five areas of school satisfaction—the appropriateness of choice, quality of school services, relationships with classmates, effectiveness of study habits, and usefulness for a future career. The students were asked to indicate how much they are satisfied with 20 items on a Likert scale ranging from 1 (not at all) to 5 (extremely). All the items and the subscales distributed normally, and Cronbach's alphas ranged from 0.78 to 0.92. Item examples: Appropriateness of choice (I am satisfied for taking this school); quality of school services (I am satisfied because the classrooms where we carry out our lessons are comfortable); relationships with classmates (I am satisfied of the relationships with my classmates); effectiveness of study habits (I am satisfied about my way of studying); Usefulness for a future career (I am satisfied because my studies will be useful for my educational and/or professional future).
- 3. Academic performance: This consists of the sum of the average marks of the school subjects received at the end of the first term, excluding physical education and good behavior. On a scale from 0 to 10, it ranged from 3.2 to 8.7. The mean was 6.2 (6 is the minimum to pass at the end of the scholastic year) with S.D. = 0.896. The scores were distributed normally, with skewness = 0.004 and kurtosis = 0.107. Table 1 shows its correlations with non-intellective competencies and areas of school satisfaction.

Non-Intellective Competencies School Satisfaction Areas	Academic Performance ¹
Family Relationships	0.205 **
Fellow Students Relationships	0.113 **
Teachers Relationships	0.231 **
Intrinsic Motivation	0.268 **
Extrinsic Motivation	0.346 **
Reaction to Failures	0.053
Learning Assessment	0.198 **

0.327 **

Time Management

Table 1. Relationships between academic performance, competencies, and school satisfaction.

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Non-Intellective Competencies School Satisfaction Areas	Academic Performance ¹
Self-Esteem	0.071
Self-Efficacy	0.404 **
Study Dedication	0.439 **
Emotional Control	-0.019
Choice satisfaction	0.233 **
Services satisfaction	-0.009
Relationships satisfaction	0.050
Study satisfaction	0.472 **
Usefulness satisfaction	0.138 **

Table 1. Cont.

¹ Note. ** p < 0.01.

3. Results

At a first step, we compared the mean differences in academic performance and satisfaction among the three schools attended using ANOVA and a Sheffe post-hoc test to corrects alpha for complex mean comparisons. Following, we calculated linear regressions using motivation, non-cognitive competencies, academic performance, gender, and the attended class as independent variables predicting school satisfaction, one area of satisfaction at a time. As linear regressions are strongly affected by outliers, we considered only the students with an unstandardized residual comprised between -6 and +6. The outliers ranged from 0.4% (study satisfaction) to 4.9% (usefulness for future career). As the attended class (ranging from 1 to 5) and age correlated, 0.942 (p < 0.000), we would have collinearity problems considering both of them. To avoid this, we chose the attended class because it is more likely that, at this stage of the school, this is the path that affects satisfaction more than the age itself. In this way, no consistent collinearity effects were present: the most critical variable was self-efficacy with VIF max = 4.444 and tolerance min = 0.225.

3.1. Relationships between Academic Performance, Competencies and School Satisfaction

All the non-intellective school competences are positively correlated with performance indices, except self-esteem, reaction to the failures, and emotional control. The strongest relationship is with self efficacy and study dedication. The performance indices are positively correlated with 3 on 5 satisfaction areas: study habits, choice, and usefulness for the future career. The strongest relationship is with the satisfaction of study habits.

3.2. Academic and Satisfaction Differences among the Three Schools

All the differences between academic performances among the three schools were statistically significant (F(2) = 39.350, p < 0.000). Linguistic high school students were those with a better performance (mean = 6.49), followed by the scientific high school students (mean = 6.28) and lastly by the technical high school students (mean = 5.85). The differences between linguistic and scientific high school students was 0.21 (p = 0.038) with a small effect size (Cohen's d = 0.26), between scientific and technical high school students was 0.43 (p < 0.000) with a medium effect size (Cohen's d = 0.52), and between linguistic and technical high school student was 0.64 (p < 0.000) with a medium effect size (Cohen's d = 0.72).

On the other hand, differences were very limited and not statistically significant, apart for the usefulness for a future career (F(2) = 4.998, p = 0.007) where students attending scientific high school were less satisfied (mean = 12.79) than those attending the linguistic high school (mean = 13.65) and the technical high school (mean = 13.66).

3.3. The Satisfaction of the Appropriateness of the School Choice

The choice satisfaction was explained by the percentage value of 51% in the whole sample (F(15) = 48.175, p < 0.000). Intrinsic motivation was the variable more positively related to all the schools. The attended class was also related to all the schools in a negative direction indicating that choice satisfaction decreased over time. Oppositely, academic performance was positively related, and gender did not affect choice satisfaction (Table 2).

High School ¹	Linguistic	Scientific	Technical
R2	0.582	0.519	0.519
F(15)	19.459 ***	12.959 ***	19.735 ***
		Beta coefficients	
Academic performance	0.123	0.247 ***	0.100 *
Intrinsic Motivation	0.488 ***	0.552 ***	0.452 ***
Extrinsic Motivation	0.025	0.049	-0.137 *
Time Management	-0.032	0.022	0.225 ***
Study Dedication	0.091	-0.075	0.022
Self-Efficacy	-0.005	0.041	0.088
Learning Assessment	0.011	-0.157 *	0.016
Emotional Control	0.050	0.079	-0.074
Reaction to Failures	-0.038	-0.016	0.101 *
Self-Esteem	-0.011	0.073	0.017
Family Relationships	-0.056	0.024	-0.019
Fellow Students Relationships	0.132 **	0.006	-0.123 **
Teachers Relationships	0.135 *	0.051	0.139 **
Gender	-0.027	-0.087	-0.025
Class attended	-0.231 ***	-0.166 **	-0.185 ***

Table 2. Linear regression over the satisfaction of the appropriateness of the school choice.

¹ Note. * p < 0.05; ** p < 0.01; *** p < 0.001.

For linguistic high school students, choice satisfaction was also partially explained by their relationships with fellow students and teachers. For scientific high school students, choice satisfaction was also partially explained by their academic performance and, negatively, by learning assessment. For technical high school students, choice satisfaction was also partially explained by time management, teacher relationships, and academic performance positively, and by extrinsic motivation and fellow students relationships negatively.

3.4. The Satisfaction of the Services Provided by the School

Services satisfaction was explained by the percentage value of 31% in the whole sample (F(15) = 21.199, p < 0.000). Teachers' relationships was the variable more positively related to all the schools. The class attended was also negatively related to all the schools, indicating that service satisfaction decreased over time. Oppositely, academic performance and gender did not affect the service satisfaction apart of the technical high school students (Table 3).

For linguistic high school students, service satisfaction was also partially positively affected by study dedication and learning assessments, and by time management negatively. For scientific high school students, service satisfaction was not explained by anything else other than the class attended and slightly by teachers' relationships. The technical high school students' service satisfaction was the most affected—with more than forty percent of explained variance—by teachers' relationships, intrinsic motivation and gender (positively), and academic performance (negatively).

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High School ¹	Linguistic	Scientific	Technical
	0.312	0.313	0.412
F(15)	6.430 ***	5.396 ***	13.247 ***
		Beta coefficients	
Academic performance	-0.141	-0.025	-0.129 *
Intrinsic Motivation	0.078	0.183	0.132 *
Extrinsic Motivation	0.026	0.117	-0.091
Time Management	-0.170 *	-0.020	0.136
Study Dedication	0.237 *	-0.042	0.019
Self-Efficacy	-0.214	0.104	0.031
Learning Assessment	0.216 **	-0.038	-0.002
Emotional Control	-0.088	0.162	0.011
Reaction to Failures	0.113	0.094	-0.065
Self-Esteem	-0.011	-0.102	-0.094
Family Relationships	0.003	0.039	0.002
Fellow Students Relationships	0.052	-0.025	-0.056
Teachers Relationships	0.374 ***	0.171 *	0.488 ***
Gender	0.095	0.056	0.099 *
Class attended	-0.153 *	-0.262 ***	-0.278 ***

Table 3. Linear regression over the satisfaction of the services provided by the school.

¹ Note. * p < 0.05; ** p < 0.01; *** p < 0.001.

3.5. The Satisfaction of the Relationships with Classmates

Relationship satisfaction was explained by the percentage value of 40% in the whole sample (F(15) = 30.998, p < 0.000). Fellow student relationships was the variable more positively related to all the schools. Academic performance and gender did not affect relationship satisfaction (Table 4).

High School ¹	Linguistic	Scientific	Technical
\mathbb{R}^2	0.449	0.511	0.351
F(15)	11.008 ***	12.533 ***	10.026 ***
		Beta coefficients	
Academic performance	-0.007	-0.010	0.046
Intrinsic Motivation	0.125	0.093	0.060
Extrinsic Motivation	-0.034	0.059	-0.145
Time Management	0.104	0.190 *	0.118
Study Dedication	-0.029	-0.069	-0.011
Self-Efficacy	-0.240 *	-0.041	0.041
Learning Assessment	0.070	-0.060	0.027
Emotional Control	-0.046	0.073	-0.067
Reaction to Failures	-0.002	0.037	0.093
Self-Esteem	0.140	0.235 **	0.076
Family Relationships	-0.086	-0.141 *	-0.071
Fellow Students Relationships	0.562 ***	0.570 ***	0.528 ***
Teachers Relationships	0.136 *	-0.017	0.077
Gender	0.029	-0.050	0.009
Class attended	-0.148 *	-0.155 **	-0.099

 Table 4. Linear regression over the relationships with classmates.

¹ Note. * p < 0.05; ** p < 0.01; *** p < 0.001.

For linguistic high school students, relationship satisfaction was also partially explained negatively by study self-efficacy and the class attended and positively by teachers' relationships. For scientific high school students, relationship satisfaction was also partially explained by self-esteem and time management, and negatively by the class attended. For technical high school students, relationship satisfaction was explained just by fellow student relationships.

3.6. The Satisfaction of the Effectiveness of Study Habits

Study satisfaction was explained by the percentage value of 72% in the whole sample (F(15) = 124.750, p < 0.000). Study dedication, academic performance, and study self-efficacy were the variables more positively related to all the schools. Gender and the class attended did not affect study satisfaction (Table 5).

High School ¹	Linguistic	Scientific	Technical
	0.772	0.743	0.718
F(15)	47.631 ***	35.204 ***	48.554 ***
		Beta coefficients	
Academic performance	0.222 ***	0.149 **	0.097 **
Intrinsic Motivation	0.040	0.137 **	0.158 ***
Extrinsic Motivation	0.071	0.010	0.069
Time Management	0.076	0.233 ***	0.194 ***
Study Dedication	0.388 ***	0.296 ***	0.343 ***
Self-Efficacy	0.174 *	0.176 **	0.152 **
Learning Assessment	0.049	-0.086	-0.034
Emotional Control	-0.006	-0.007	0.048
Reaction to Failures	0.041	0.032	0.089 *
Self-Esteem	0.093	0.181 **	0.046
Family Relationships	0.039	-0.003	-0.021
Fellow Students Relationships	0.021	0.033	0.015
Teachers Relationships	-0.020	0.048	0.036
Gender	-0.021	-0.015	-0.027
Class attended	0.012	-0.007	-0.055

Table 5. Linear regression over the effectiveness of study habits.

¹ Note. * p < 0.05; ** p < 0.01; *** p < 0.001.

For linguistic high school students, study satisfaction was not explained by any other variable. For scientific high school students, study satisfaction was also partially explained by self-esteem and intrinsic motivation. For technical high school students, study satisfaction was also partially explained by intrinsic motivation and slightly by reactions to failures.

3.7. The Satisfaction of the Usefulness for a Future Career

Usefulness satisfaction was explained by the percentage value of 41% in the whole sample (F(15) = 31.838, p < 0.000). Intrinsic motivation (positive effect) and the class attended (negative effect) were the variables more related to all the schools. Academic performance and gender did not affect usefulness satisfaction (Table 6).

For linguistic high school students, usefulness satisfaction was also partially explained by teachers' relationships. For scientific high school students, usefulness satisfaction was not explained by any other variable. For technical high school students, usefulness satisfaction was also partially explained by self-efficacy and reaction to failures.

High School ¹	Linguistic	Scientific	Technical
R ²	0.458	0.452	0.446
F(15)	11.434 ***	9.422 ***	14.649 ***
		Beta coefficients	
Academic performance	0.067	0.134	0.013
Intrinsic Motivation	0.394 ***	0.460 ***	0.315 ***
Extrinsic Motivation	-0.024	0.136	0.011
Time Management	-0.095	-0.071	0.025
Study Dedication	0.070	-0.073	0.046
Self-Efficacy	-0.037	0.081	0.251 **
Learning Assessment	-0.035	-0.035	-0.003
Emotional Control	0.020	0.144	-0.037
Reaction to Failures	0.087	-0.066	0.118 *
Self-Esteem	0.160	0.085	0.021
Family Relationships	-0.033	0.036	0.054
Fellow Students Relationships	0.056	-0.089	-0.071
Teachers Relationships	0.211 **	0.049	0.110
Gender	0.061	-0.031	0.031
Class attended	-0.229 ***	-0.172 **	-0.162 **

Table 6. Linear regression over the usefulness for a future career.

¹ Note. * *p* < 0.05; ** *p* < 0.01; *** *p* < 0.001.

4. Discussion

The findings of this study, which will be discussed in detail hereafter, confirm the relationships between non-intellective competencies, academic performance, and school satisfaction [3,7–14]. The results showed a strong role of non-intellective competences on school satisfaction. According to the literature and our previous study on college students, different non-intellective competencies explain in various ways the different areas of satisfaction for the three schools considered [9].

Furthermore, we found the roles of academic performance and gender were marginal, as was the class attended, which reduced as soon as the seniority increased. The finding that academic performance affected school satisfaction very marginally is important as it confirms our previous study on college students [9]. It is a significant predictor for all the schools just for the satisfaction of the effectiveness of study habits. At the same time, it was completely ineffective in terms of the usefulness for future careers and had a moderate effect on the appropriateness of the school that the students had chosen, while these two areas of satisfaction were strongly affected by intrinsic motivation. The fact that we found significant correlations between performance and school well-being, but that it is not an always significant predictor, led us to a significant reflection: school well-being is not merely linked to school results. Somehow, a more inclusive and multidetermined perspective of school well-being emerges where, for example, even students exhibiting low performances can live the school experience with satisfaction.

The phenomenon of the decreasing satisfaction with an increasing age, which confirms the results of another our previous study [10], is very interesting and deserves specific investigations. As both these studies were not longitudinal, it is not fair to sustain that school satisfaction decreases while the student seniority increases, but this is a hypothesis that should be tested, as it is very plausible. At last, although we have to consider that our subsamples were not equilibrated by gender, the results on the nearly totally ineffective role of gender look reliable because they are consistent over all the schools and the areas of satisfaction.

Study satisfaction: The satisfaction regarding the effectiveness of study habits has been the area most affected by academic performance and non-intellective competencies. Oppositely, it was not affected by gender and the class attended. For the linguistic high school students, it was based just over their dedication to the study, their academic performance, and slightly, by their study self-efficacy

while, for scientific and technical high school students, the role of academic performance was more moderate giving space to time management and intrinsic motivation. These findings are particularly important because they suggest that not only academic performance can be influenced by students' beliefs about their abilities [24,25], but also school satisfaction [4,7,87]. These results confirm teachers' perceptions about the difficulties many students of scientific and technical high school students usually encounter, in part because they tend to question their school choice, in part because they are less competent, and probably less motivated, in terms of organizing and preserving time to study over the day, recognizing that these are the variables that confirm their learning performance more than the marks themselves.

Choice satisfaction: The appropriateness of the school choice has been the second area more affected by the variables we considered. It was not affected by gender but tended to reduce with an increase in the seniority. Intrinsic motivation was the most influential variable for all the schools, according to the scientific literature, which sustains that vocational interests are among the most important elements to consider when people make career choices [27]. Students more interested in the topics of their school are more satisfied with their choice, facilitating their progression towards personal career goals [96,115,116]. Linguistic high school students' satisfaction was, in part, explained also by their relations with fellow students and teachers, confirming that, according to their teachers' perception, this school is chosen at least in part because of the positive interpersonal relationships that are created. For technical high school students, also, relationships were meaningful, but negatively correlated in terms of relationships with fellow students. It looks as if those more motivated are also those who keep their distances from those less motivated; considering that also time management competence had an essential role in their satisfaction, it could be that they consider their not-involved classmates as distracting to their studies. Scientific high school students, lastly, also based their choice satisfaction on academic performance, as if its adequacy would be based only on interests and performance.

Usefulness satisfaction: The usefulness for a future career has been the third area more affected by the variables we considered and tended to reduce with an increase in age. Oppositely, it was not affected by academic performance and gender. In this case, too, intrinsic motivation was the most influential variable for all the schools. Students consider the congruence between their vocational interests and their school as the most critical variable in explaining the choice they did, but also the career they will encounter in the future. It sounds as if students consider that the capitalization of their future qualification will not depend on the congruence between their academic title and the requests of the labor market, but on their motivation for working in that field [27]. Linguistic high school students also based their satisfaction on their relationship with teachers: it could depend on their consideration of positive feedback as a confirmation of their suitability with jobs in this field. Technical high school students also based their satisfaction on study self-efficacy and reaction to failures as if they consider competencies as indexes of their ability to face the future labor market [28,37].

Relationships satisfaction: Relationships with classmates has been the fourth area more affected by the variables that we have considered and tended to reduce with an increase in the age. Oppositely, it was not affected by academic performance and gender. In this case, fellow students relationships was the most influential variable for all the schools, according to our expectations [5,9,71,72]. Linguistic high school students' satisfaction was, in part, also negatively explained by study self-efficacy, as if students' relationships are the most important for students who need to be supported by their classmates. For scientific high school students, self-esteem and time management were also involved, as if students needed not only to be able to build good relationships with their classmates, but also to trust in themselves, and to be efficient in managing their time so to have enough both to study and cultivate good relationships.

Services satisfaction: The services provided by the school have been the fourth area more affected by the variables we considered and tended to reduce with an increase in age. Oppositely, it was not affected by academic performance and gender. It is not so easy to understand the reasons this should be affected by individual competencies, because we did not find any suggestion by the previous literature, but we can make some hypotheses if we notice that the most influential variable was the teachers' relationships for all the schools. We can consider two different explanations: the first is that the students who have better relationships with their teachers also have easier access to the school services; the second is that students can identify the school for the teachers, distinguishing just in part between the two and blaming inadequate services on teachers. Linguistic high school students' satisfaction was, in part, also positively explained by study dedication, and learning assessments, and negatively explained by time management. Technical high school students' satisfaction was, in part, also explained by intrinsic motivation, as if blaming inadequate services is a way to communicate general dissatisfaction.

5. Conclusions

This research project seems to confirm the stronger role of non-intellective competences, compared to academic performance, on school satisfaction, as previously demonstrated in the university context. In the school context, our study could have many practical implications. Counseling, coaching, and tutoring services are invited to plan training and career counseling interventions on specific non-intellective skills, attitudes, and motivations in order to improve students' academic performances not only directly, but also indirectly through increasing the students' school satisfaction. These interventions should also be calibrated differently according to the type of school attended by the students and according to each student's needs assessed with the H-Comp Scale. For example, some training interventions could be addressed in a group on the specific competencies needed by the class together, while specific counseling or coaching interventions could be proposed to individual students according to their specific needs. Even teachers, in addition to the professional figures already mentioned, could be helped, by a reliable knowledge of their students' needs, to pay particular attention to the most critical areas to improve both the school results and the level of well-being in classrooms.

The results of our study have to be read in light of some limitations. The population we involved did not consider students attending professional schools, which are more practical, with negative effects also in terms of gender balance: a sample more representative of high school students should be involved. The cross-sectional nature of the data does not allow for the verification of causal relationships, and mainly verifies the decrease in the students' satisfaction over their seniority, a longitudinal study should be developed in order to test the stability of satisfaction over time and the stability of non-intellective competencies in explaining it. Further studies, moreover, could test the mediating role of some psychological variables here not considered, such as the students' certainty on their school choice or their attitude toward the institute they are attending.

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