A Cluster Analysis of High School Students’ Styles of “Living-Together” in the Classroom

Veronica Rosa*, Roberta Fida, Francesco Avallone

Abstract

Students’ experience of life in class has a pivotal role in their well-being. This study aims to identify homogeneous groups of students who have different perceptions about their “living-together” in class. A self report questionnaire was administered to a sample of 1,917 10th grade Italian students (52% females; M age = 15, SD= .7). Specifically, it included PYC (“How Do You Perceive Your Classroom?”) inventory to measure student perception of “living-together”, three student satisfaction items and ten items values scale. Findings showed four different students’ Styles of Living-Together in Classroom that affect in different ways student well-being.

Keywords: 10th grade Italian students; cluster analysis; well-being; “living-together”.

1. Introduction

The classroom is a social place (e.g., Ryan & Patrick, 2001) that plays a pivotal role in students’ social and academic development (Hamre & Pianta, 2001; Vieno, Santinello, Pastore, & Perkins, 2007). Children’s adjustment, motivation, and engagement have been found to be associated with the nature of context (Anderman & Maheher, 1994; Eccles & Midgley, 1989), including school and classroom environment. Indeed, in the educational settings, students have the opportunity to experiment with social relationships that are considered very important for positive

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adaptation (Bandura, Barbaranelli, Caprara & Pastorelli, 2001) and for the development of psychological well-being (Schaps & Solomon, 2003), especially in early adolescence. In this sense, it is important to understand the different ways in which adolescents live together in the classroom and the different behavioral styles they adopt, with the aim being to direct teachers and educators in general to create a classroom context in which students can create positive and supportive relationships.

In analysis of how people in Italy experience their lives with others in several kinds of contexts, Avallone introduced the concept of “living-together”, meaning the process of sharing existential experiences with other groups, people and social systems for a period of time in a defined place (Avallone, Farnese, Pepe & Paplomatas, 2007). Avallone and colleagues found that in organizational, social and affective contexts, the “living-together” declines in ten dimensions that refer to the compliance with rules; respect and tolerance for others; security and stability; sense of collective efficacy; equity; collaboration and cooperation; support and solidarity; trust, hope and expectation; care for others and effective communication; balance of power; pleasantness and investment of energy in the relationship. In school, these dimensions refer to factors regarding both behaviours and personal characteristics of students and teachers: student loyalty, student social support, student tolerance, student cooperation, student cohesion, student communication and assertiveness, student respect for the rules, student power orientation, teacher equity, and teacher support. Previous studies have shown that these “living-together” dimensions predict student school satisfaction (with classmates, with studies and with teachers) and student life satisfaction (Fida, Rosa, Avallone, in press; Rosa, 2011).

The findings of many researchers have consistently demonstrated that students’ perceptions of life in class or classroom climate, created through the interaction between teachers and students (Schmuck & Schmuck, 1978), are related to many academic and social outcomes (e.g., Fraser & Tobin, 1991), student school satisfaction (e.g., DeSantis King, Huebner, Suldo & Valois, 2006), and well-being. Moreover, these constructs are often posited to be a function of teachers’ (e.g., Marsh, Martin & Cheng, 2008) behaviors, expectation, and styles and as a function of students’ characteristics, behaviors and perceptions (Barth, Dunlap, Dane, Lochman & Wells, 2004; Dishion, McCord & Poulin, 1999).

2. Students’ Characteristics and Behaviors and Teachers’ Behaviors

It has repeatedly been noted that the nature and quality of the relationship with teachers is related to student quality of life (e.g., Goodnow, 1993) and to student school satisfaction (Danielsen, 2009; DeSantis King et al., 2006). Teachers’ support (Syvertsen, Flanagan & Stout, 2009) and their impartial attitude toward all students influence student perception of a respectful and fair classroom climate, which, in turn, contributes to a sense of community (Vieno et al., 2007), well-being (Dalbert & Maes, 2002), and reduced negative feelings.

Also, positive peer relationships have a significant protective and adaptive role (Daukantaite & Bergman, 2005; Peterson & Seligman, 1984; Reis & Collins, 2004) in adolescents’ well-being. The literature indicates that in general – and particularly in early adolescence – a stable group of prosocial peers who provide support and protection (Bukowski & Sippola, 2001) and offer possibility of affiliation and cohesion (Roseth, Johnson & Johnson, 2008), reduce risks of social, emotional, or behavioral problems and enhance students’ developmental outcomes (Brody, Murry, Chen, Kogan & Brown, 2006). Moreover, positive and inclusive relationships between students in the classroom are associated with school solidarity and loyalty (Syvertsen et al., 2009) and with a greater sense of participation in the development and interpretation of regulations that, by extension, are associated with reduction of a number of negative and conflictual experiences and increased students’ satisfaction with school life (DeSantis King et al., 2006).

It is clear that the way in which students feel about relationships with their teachers and with their peers, has a strong influence on well-being (Johnson & McClure, 2004). There might well be different ways of perceiving what happens in class and, consequently, different levels of satisfaction and well-being. For example, some students may perceive “living-together” in class positively and are satisfied with teachers and classmates, while others may be less satisfied with school life and have a very negative view of what happens in class. In this sense, it is interesting to explore the several possible ways that students perceive “living-together”. This could also help teachers to create an environment that promotes student success and satisfaction.
Thus, the primary aim of this study is to identify homogeneous students’ styles of living-together in the classroom clusters of high school, and then, as a second aim, to confirm the choice of cluster solution and fully describe the clusters identified. In pursuit of this objective, we examined students’ perceptions of “living-together” dimensions and other characteristics (student satisfaction with classmates, with teachers, with studies, and with life in general). In particular to the first aim, we analysed four dimensions of “living-together”: student loyalty, student rules orientation, student social support, and student tolerance, that we considered to be representative of the characteristics and relational behaviors that shape their perceptions of “living-together” in the classroom.

As regards the second aim, we focused on some dimensions that were chosen as test variables, and which referred to other dimensions of “living-together”: teacher equity, teacher support, student cohesiveness and pleasantness, student cooperation, student social support, student communication and assertiveness, student power orientation, student classmate satisfaction, student teacher satisfaction, student studies satisfaction, and student life satisfaction, and the four variables used for identifying clusters. Moreover, we fully described the clusters identified through the difference in group membership among male and female.

To our knowledge, there is no analysis in the literature of student profiles of “living-together” in the classroom, which includes all dimensions used in this study, although certain longitudinal and cross-sectional studies can theoretically support the groups’ composition of styles of living-together in the classroom (Damon, 2008; Linnakyla & Malin, 2008; Torney-Purta, 2009; Vansteenkiste, Sierens, Soenens, Luyckx & Lens, 2009).

Specific hypotheses were formulated:
1. we expected to find different configurations in the four “living-together” dimensions;
2. we expected that the relationships among test variables and identified clusters would confirm the structure of the patterns;
3. in line with previous studies on gender differences in perception of classroom climate (Waxman & Huang, 1998), we expected that males would be less included in groups with a positive perception of what happened in the classroom and which were satisfied with relationships between teachers and classmates and among classmates;
4. we expected females to be more included in groups with higher satisfaction for both teachers and classmates.

3. Method

3.1. Participants and Procedures

The participants in this study were 1,917 students (mean age = 15, SD = .7; 46% males and 53% females) recruited from the second year of Italian high schools. Twenty-nine percent of students lived in north-east regions of Italy, 24% in the north-west, 19% in the center of the country, 17% in the south, and 10% on the islands of Sicily and Sardinia. The families’ profiles matched the national profiles with regard to socio-economic characteristics. Most young people were from intact families with both parents (88%). A stringent consent procedure for the study was followed, including parental and student consent and approval from school councils. All students were assured of the confidentiality of their responses and that participation was voluntary. Teachers supervised the completion of the questionnaires in class or in a laboratory equipped with computers.

3.2. Measures

Measures considered in this study were part of research (Avallone, 2007) into Italian high school students’ “living-together” in the classroom.

How Do You Perceive Your Class? (PYC). Students’ perception of “living-together” in the classroom was measured by a new instrument labeled How Do You Perceive Your Class? (PYC). This was developed in a “class form” in order to assess perceptions of the classroom as a “whole” (e.g., Sinclair & Fraser, 2002). An acceptable ten dimensional factorial structure of the PYC has been validated and presented in a previous study (Fida, Rosa & Avallone, in press). The ten dimensions were: teacher support, teacher equity, student loyalty, student power...
orientation, student tolerance, student rules orientation, student communication and assertiveness, student cohesiveness and pleasantness, student social support, and student cooperation.

The questionnaire consisted of 40 items grouped in the 10 indicated dimensions. For each item students were asked to “Think about their class, about themselves and their classmates and to report how frequently a specific situation happens”, using a 4-point Likert scale (from 1 = never to 4 = often). As mentioned above, the dimensions of the PYC corresponded to 10 dimensions that had been found in a qualitative study of Avallone and colleagues (2007) on the “living-together” in organizational, social and affective contexts.

Students’ satisfaction. Satisfaction was measured by four items concerning student classmate satisfaction, student teacher satisfaction, student study satisfaction, and student life satisfaction. Participants reported how satisfied they were with classmates, teachers, their own study, and life generally using a 10-point Likert scale (from 1 = not at all important to 10 = very important).

4. Analytic Approach and Result

To investigate the high students’ styles of living-together in the classroom, we applied clustering analysis techniques (e.g., Bergman & Magnusson, 1997) with the SLEIPNER 2.1 statistical program (Bergman & El-Khoury, 2002). In this approach, subjects are grouped together according to similarities in the profiles. A combination of hierarchical and nonhierarchical clustering methods was used (Tan & Kumar, 2006). Before clustering, preliminary analysis was performed and several modules of SLEIPNER 2.1 were used to strengthen the quality of our data.

Descriptive data. Means, standard deviation, and correlations of clustering variables and test variables that were used to understand the nature of the cluster more fully were calculated. Given that no Bravais-Pearson correlation coefficient was higher than .90 (significant correlations vary from a minimum of -.66** to a maximum of .564**), we considered that multicollinearity between variables could not impact on the cluster analysis (Hair, Anderson, Tatham, & Black, 1998).

Missing-data handling. We chose to perform analyses based on participants with valid data. The initial sample size was 1,917 cases. Variables included in cluster analysis were imputed from 1,803 cases. Across the procedures, one residue case was identified and excluded from analysis and the final sample size was 1,802 (94%).

Cluster classification. We used Ward’s algorithm method, an iterative and agglomerative hierarchical procedure that incorporates the squared Euclidean distance to identify the similarity between subjects’ profiles. The Ward’s algorithm operates a fusion process that joins the cluster minimizing and increase in the within cluster or error sum of square (ESS), while maximizing the between-cluster sum of squares (Keltikangas-Järvinen, Ravaja, & Viikari, 1999). In our study, we conducted Ward’s method of hierarchical analysis with four PYC dimensions: student loyalty, student tolerance, student rules orientation, and student social support. We chose these four variables because we considered them representative of the characteristics and relational behaviors that define students’ perceptions of “living-together” in class.

For the choice of the number of clusters we followed several guidelines: a) the accepted solution has to be meaningful; b) change in the ESS values between adjacent cluster solutions; c) whether the cluster homogeneity coefficients are sufficiently low (lower values indicate greater homogeneity and high values indicate little homogeneity – Bergman and colleagues (2003) have suggested a limit of 50 (T metric) as desirable; d) theoretical meaningfulness of the profile pattern.

The scree-type plot was used, a type of visual aid that helped determine the appropriate number of meaningful clusters represented in the data. Subsequently, it was chosen the best cluster solution through hierarchical and nonhierarchical k-means cluster procedures. Non hierarchical procedures reduce the total ESS of the cluster solution, exclude outliers, produce more homogeneous clusters and further improve the preliminary cluster solution through an iterative process (Bergman & El-Khoury, 2001).

Scree-type plot analysis revealed three major gaps that indicated three (ESS = 42.14, EESS = 36%), four (ESS = 41.06, EESS = 33%), and five (ESS = 45.09, EESS = 32%) cluster solutions. As the three cluster solution EESS was too low and the gap between four and five cluster solutions too small, the four cluster solution was chosen. After relocating, the four cluster solution showed EESS = 50%.

In addition, as confirmation of this choice, all homogeneity coefficients of four cluster solution were below one (c11 = .36, c12 = .41, c13 = .71, c14 = .52) indicating that all clusters were reasonably homogenous.
ANOVA were then carried out in order to confirm the choice of the final cluster solution and to understand more fully the nature of the cluster. After standardization, we used student loyalty, student tolerance, student rules orientation, student social support, teacher support, teacher equity, student power orientation, student cohesiveness and pleasantness, student communication and assertiveness, student cooperation, and student classmates satisfaction, student teacher satisfaction, student study satisfaction, and student life satisfaction as dependent variables and cluster groups as the independent variable.

The analysis of variance, performed to determine the relationships among test variables and to confirm the structure of the patterns, showed a significant effect of cluster membership on each dimension, except for the student power orientation dimension that was not different among group (the values of F and p are indicated in Table 1). The ANOVAs analysis on the other test variables indicated that while teacher equity, teacher support, student classmate satisfaction, and student teacher satisfaction were statistically significant among classmates (all clusters [cl] are significantly distinct) and that student cohesiveness and pleasantness, student cooperation, student communication and assertiveness, student life satisfaction, student study satisfaction, and student classmates satisfaction were not significantly distinct for some groups. Finally, student power orientation was not significantly distinct for all groups (cl1, cl2, cl3, cl4 p < .086).

### Table 1. Means and Standard Deviation for the Clustering Variables and Control Variables for Four Cluster Solution

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Dimension</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>Student tolerance</td>
<td>0.66a</td>
<td>0.78</td>
<td>0.08b</td>
<td>0.74</td>
<td>-1.13c</td>
<td>0.87</td>
<td>-0.29d</td>
<td>0.87</td>
</tr>
<tr>
<td>(N = 572 32%)</td>
<td>Student social support</td>
<td>0.86a</td>
<td>0.58</td>
<td>-0.28b</td>
<td>0.69</td>
<td>-1.30c</td>
<td>0.81</td>
<td>0.10d</td>
<td>0.75</td>
</tr>
<tr>
<td>Cluster 2</td>
<td>Student rules orientation</td>
<td>0.63a</td>
<td>0.62</td>
<td>0.42b</td>
<td>0.57</td>
<td>-0.73c</td>
<td>1.03</td>
<td>-1.06d</td>
<td>0.72</td>
</tr>
<tr>
<td>(N = 576 32%)</td>
<td>Student loyalty</td>
<td>0.63a</td>
<td>0.62</td>
<td>0.42b</td>
<td>0.57</td>
<td>-0.73c</td>
<td>1.04</td>
<td>-1.06d</td>
<td>0.72</td>
</tr>
<tr>
<td>Cluster 3</td>
<td>Student cooperation</td>
<td>0.47a</td>
<td>0.84</td>
<td>-0.02b</td>
<td>0.83</td>
<td>-0.74b</td>
<td>1.04</td>
<td>-0.13c</td>
<td>1.03</td>
</tr>
<tr>
<td>(N = 278 15%)</td>
<td>Teacher equity</td>
<td>-0.07a</td>
<td>1.03</td>
<td>-0.01a</td>
<td>0.93</td>
<td>0.10a</td>
<td>1.12</td>
<td>0.05a</td>
<td>0.95</td>
</tr>
<tr>
<td>Cluster 4</td>
<td>Teacher cohesiveness and pleasantness</td>
<td>0.33a</td>
<td>0.97</td>
<td>0.13b</td>
<td>0.87</td>
<td>-0.54c</td>
<td>0.97</td>
<td>-0.28d</td>
<td>0.97</td>
</tr>
<tr>
<td>(N = 376 21%)</td>
<td>Student study satisfaction</td>
<td>0.27a</td>
<td>0.80</td>
<td>0.13a</td>
<td>0.88</td>
<td>-0.57c</td>
<td>1.01</td>
<td>-0.31d</td>
<td>0.96</td>
</tr>
<tr>
<td>Cluster 5</td>
<td>Student communication and assertiveness</td>
<td>0.28a</td>
<td>0.94</td>
<td>-0.02b</td>
<td>0.92</td>
<td>-0.52b</td>
<td>1.02</td>
<td>-0.02c</td>
<td>1.02</td>
</tr>
<tr>
<td>(N = 376 21%)</td>
<td>Student study satisfaction</td>
<td>0.27a</td>
<td>0.91</td>
<td>0.08b</td>
<td>0.88</td>
<td>-0.44c</td>
<td>1.03</td>
<td>-0.23d</td>
<td>1.11</td>
</tr>
<tr>
<td>Cluster 6</td>
<td>Student life satisfaction</td>
<td>0.14a</td>
<td>1.00</td>
<td>-0.01ab</td>
<td>0.91</td>
<td>-0.20bc</td>
<td>1.10</td>
<td>-0.08c</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Note: Subscript letters that differ in each row denote which cluster means are significantly different from one another (α = .05). The numbers of samples size in Table refer to sample used in clustering process.

Moreover, we carried out Chi-squared analysis between cluster groups and gender in order to define better the final cluster solution profiles. The result indicated that cluster membership was associated with gender, $\chi^2 (3, N = 1,796) = 49.79, p < .000$. The number of boys and girls in each cluster were similar, but in Cl1 there were more girls (38%, Stand. Residual = 4) than boys (24%, Stand. Residual = -4), and in Cl2 there were no significant differences...
in belonging to the cluster for male and female (32% and 32% respectively). C13 and C14 contained a greater number of boys (19%, Stand. Residual = 2.8 and 24% Stand. Residual = 2.1 respectively) than girls (12%, Stand. Residual = -2.6, and 18%, Stand. Residual = -1.9 respectively).

4.1. Cluster Description

The clusters were described on the basis of the outcomes of cluster analysis and the differences identified by the ANOVAs. As showed in Figure 1, the four clusters appear to be prospectively paired, because the second and fourth clusters showed profiles in which students’ perception of classroom life seemed to mirror each other, or were specular (many of the dimensions that are positive in a profile are negative in other), whereas in the first and third cluster, students showed opposite profiles.

In the first cluster (cluster 1), students showed a total positive perception of what happened in the classroom. This group was given the name “cooperative/proactive/loyal living-together” (N = 572, 32%), although a brief one- or two-word label may not adequately capture the meaning of the whole profile. This profile had significantly higher scores on student tolerance and student rules orientation and much higher scores on student loyalty and student social support than the other clusters. There were no significant differences between this cluster and clusters 2, 3, and 4 in regard to student power orientation and between this cluster and cluster 2 in regard to student studies satisfaction and student life satisfaction.

Note: st = student; sat = satisfaction; tea = teacher, rel acc = relationally accomplice, pw = power. St loyalty, st rule orientation, st social support, st tolerance are variables used in cluster analysis to identify the better cluster solution of high school students’ Styles of Living-Together in the Classroom. All other variables were used in ANOVAs analysis to confirm the cluster solution and to interpret students’ Styles of Living-Together in the Classroom.

Figure 1. High School Students’ Styles of Living-Together in the Classroom in Four Cluster Solution

The students referred to in this pattern, saw the classroom as a place where everything functioned – there was much respect for the rules, as well as support and loyalty among students – and where they could express themselves freely. For these young people class felt good and they thought that it worked well between classmates, who were supportive, cooperative, and assertive. Moreover, teachers were seen as fair and supportive and students were satisfied with classmates, teachers, the studies chosen, and with life in general. The power understood as the abuse of others and the desire to be a leader was viewed in negative terms. Finally, in this profile the majority of students were girls.

Second cluster (cluster 2) had a relatively flat profile. In particular, this profile labeled “respectful/tolerant living-together” (N = 576, 32%) had very high scores on student rules orientation and relatively high scores on student
tolerance, but low scores on student social support and low scores in student loyalty. There were no significant differences between this cluster and clusters 1, 3, and 4 as regards student power orientation; between this cluster and cluster 1 as regards student satisfaction with studies and student satisfaction with life; between this cluster and cluster 4 as regards student satisfaction with life, student satisfaction with classmates, student communication and assertiveness, and student cooperation. These students saw the classroom as a place of much respect for rules and tolerance, but in which there was no support and loyalty among classmates. They felt that teachers, with whom they were satisfied, provided support and fairness, but they did not perceive the possibility to speak in a friendly way, to cooperate, and to work with friends. In this group, boys and girls did not regard the classroom as a place of well-being and were less satisfied with classmates and life in general, but were more satisfied with studies. Also, in this profile as well as in cluster 1, the power understood as the abuse of others and the desire to be a leader was viewed negatively.

The third cluster (cluster 3), labeled “passive/individualist/hostile living-together” (N = 278, 15%), was opposite to cluster 1. In this group there were low scores in all dimensions and in particular students’ perception of loyalty, student tolerance, student social support, and student rules orientations. There were no significant differences between this cluster and clusters 1, 2, and 4 in relation to student power orientation; between this cluster and cluster 4 in relation to student satisfaction with studies and with student satisfaction with life. For these students, the classroom was a place of no respect for rules and no tolerance, as well as no support and loyalty among students. The young people in this profile did not consider classmates as cooperative, and assertive, and they did not feel there was the possibility to work with friends, or that support and fairness from teachers was forthcoming. The measure of power over others was the only dimension perceived positively. Moreover, these young people were not satisfied with classmates, studies, life in general and especially teachers. In this profile the majority of young were males.

In a mirror image to cluster 2, fourth cluster (cluster 4), labeled “comradely/intolerant/relationally accomplice living-together” (N = 376, 21%), had very low scores on student rules orientation and on student tolerance and high scores on student social support and student loyalty. There were no significant differences between this cluster and clusters 1, 2, and 3 as regards student power orientation; between this cluster and cluster 2 as regards student cohesiveness and pleasantness, student communication and assertiveness, student cooperation, student classmates satisfaction, student life satisfaction; between this cluster and cluster 3 as regards student life satisfaction and student studies satisfaction. This group of students saw the classroom as a place of little respect for rules and basic tolerance, good peer support but not much loyalty. The young people of this pattern felt that being in class was a nice experience and power was positive, but there was no cooperation, low freedom of expression and the teachers were not fair and supportive. These students were satisfied with classmates, but not with studies, teachers, and life in general. Also in this group, as well as in cluster 3, the power over others was seen as positive and the majority of young were males.

5. Discussion and Conclusion

The general purpose of this study was to investigate the whole students’ profiles of “living-together” in classroom. The class is a place where young people spend much of their time and where relational (Vieno et al. 2007) and academic capacities and general potential may develop if student’s strengths are in agreement with environmental, interpersonal, and institutional supports (e.g., Zarrett et al., 2009). Therefore, in our opinion, knowing the different ways in which young people live and view the class and the “living-together” in it can help teachers to create a classroom environment that is conducive to satisfaction and well-being. In this direction, the specific aim of the present study was to identify clusters of high students’ styles of living-together in the classroom that are similar. This was to understand better the ways that students felt about the class, that were different between them but repeated in clusters.

Our findings showed four different clusters internally homogeneous. In the first cluster, the students described as “cooperative/proactive/loyal living-together” seemed to have an idealized vision of “living-together” in the classroom. The students in this pattern perceived the personal characteristics and behaviors of classmates, of themselves, and of teachers positively and were satisfied with life, studies, classmates, and teachers. For these adolescent, the classroom was a pleasant environment, in which there was discipline and respect for the rules, where it was possible to express themselves freely, people worked together well, and peers were loyal, supportive, and
cohesive, and teachers fair and supportive. As expected (Waxman & Huang, 1998), in this group the majority of students were girls. In comparison, the opposite profile, the “passive/individualist/hostile living-together” group of students, seemed to have a negative view; they saw the classroom as a bad place with no respect for rules and little freedom of expression, let alone support, loyalty, cohesion, and cooperation. The young people in this profile did not perceive support and fairness from the teachers and were not satisfied with life in general and with life in the classroom. As expected, in this group the minority of students were girls. The fact that the two groups were extremes, and that the group of “cooperative/proactive/loyal living-together” was almost twice the size of the “passive/individualist/hostile living-together”, could lead to the consideration of them as the normative group.

In terms of the other two groups, our findings highlighted that they were in an intermediate position in respect to what. The two intermediate groups seemed to follow the quality of composition and the numerical proportions of the two groups at the extremes, because the groups of boys, who seemed to fit less positively into class life, were about half of those who seemed to adapt more positively. In these two groups, the students appear to have mirrored profiles, since, for most of the characteristics and behaviors that have been analyzed, what was viewed positively in a group of high school students’ styles of living-together in the classroom was seen negative in another group.

We have defined “comradely/intolerant/relationally accomplice living-together” as the group of students who showed positive scores almost exclusively in the dimensions regarding relationships with peers and personal relationships, but who did not seem to perceive the possibility of working together and to belong to the class. In fact, these young people saw classmates as loyal, supportive, and were satisfied with classmates, but not with life and with teachers and saw the classroom as a place in which there was little tolerance and respect for rules. On the contrary, students who were defined as “respectful-tolerant living-together” showed to perceive in class aspects of responsibility and ability to collaborate and negotiate with others. These young people had more positive opinion of teachers and were satisfied with their support and fairness. They also seemed satisfied with studies, but not with life and their classmates.

Our results are in line with literature demonstrating that an open and fair classroom climate is created by teacher and peer relationships and correlated with students’ positive view of their ability to think critically about social issues and their tolerance of diverse opinions (e.g., Berman, 1997). Therefore, when the classroom climate is less supportive and more competitive and hostile, students feel anxiety and unease which may lead to intellectual depression (Zedan, 2010).

Especially in early adolescence, young people’s feelings toward teacher support predicts values, achievement expectations, engagement, and performance (Goodenow, 1993). However, although the learning process occurs inside the student, teachers have the essential function of building an emotionally receptive and motivating environment, and providing social-emotional opportunities because the process of learning is facilitated (e.g., Vieno et al., 2007). Given all the above and the composition of our profiles, the results of previous studies may constitute the theoretical support of the groups labelled “cooperative/proactive/loyal living-together” and “respectful-tolerant living-together”. In relation to “comradely/intolerant/relationally accomplice living-together”, previous studies noted that, particularly in young adolescents, positive interactions with classmates and positive perceptions of their social and emotional support facilitated students’ self-regulation and self concept (Wentzel, 1994) encourage engagement and concentration on achieving goals and academic learning (Pierce, 1994) and discouraged disruptive behaviors (e.g., Ryan & Patrick, 2001). Moreover, perceptions of the support that children and adolescents received from peers have been found to be critical and influential factors in emotional and cognitive development (e.g., Ennett & Bauman, 1994) and a fundamental ingredient in healthy childhood development.

6. Implications for Practical Education

Since the references mentioned above, we believe this study has implications for educational practice. The groups that emerged from our analysis indicated the link between students’ positive perception of “living-together” and well-being, and that the relationships between students and between students and teachers played a key role in shaping the perceptions that students had of “living-together” in connection to their satisfaction. Moreover, our results confirmed previous findings that students’ feelings of inclusion in a classroom group in which they were cared for and supported (Danielsen et al., 2009), positively related to cognitive and emotive experiences, and with the opportunity to express themselves, to communicate and cooperate with each other.
We can argue that living in an educational environment in which students receive support, feel solidarity, demonstrate respect for others, and experience fairness and opportunity of expression, as well as cohesion and cooperation towards common objectives, has a key effect on their wellbeing. What has been discussed so far suggests that if teachers want to create an environment that promotes well-being and, in turn, facilitates students’ learning and success, they may consider the perception students have of “living-together” in the classroom. In this way, they can create and promote a classroom context that supports, nurtures, and respects students, that encourages young people to get to know each other, to share ideas, and to explore new content. In such a classroom, students are helped to develop social skills and relationships and they should be able to accept each other’s ideas and values (e.g., Miller & Pedro, 2006). When this happens, everyone will feel a sense of satisfaction for school and life in general.

7. Limitations and Future Directions

The study has some limitations. First, the sample was large but not nationally representative. Nevertheless, the advantage of a large data set provides valuable information on high school students’ perception of what happens in a classroom, i.e. classroom climate. Second, the study was limited to self-report measures. In order to surmount some of the disadvantages of self-report procedures, the measures remained private in order to reduce social desirability responding. However, in future studies these problems could be circumvented by including multiple methods and respondents, such as teacher reports of students’ characteristics and behaviors which influence “living-together” in class.

Furthermore, the cross-sectional nature of this study is limited and the interpretation of the relational-behavioral high school student profiles’ should proceed with caution. In future studies longitudinal data may be used for clarify causal relations and the assessment of variables at different times. Our findings are limited by the particular set of measures we used to operationalize the PYC, satisfactions’ variables (Anderson, Moore, & Hamilton, 1998) as we used measures that were composed of only one indicator. Future research should transcend these limitations, including multidimensional scales for the measurement of satisfaction, in order to investigate the role of other personal and social factors that together with school “living-together” are equally important for predicting the well-being and satisfaction of boys.

References
