

A Preliminary Analysis of Norms and Reliability for the School Reinforcement Survey Schedule (SRSS): Italian and American Early Adolescent Boys and Girls

George R. Holmes
University of South Carolina School of Medicine
William S. Hall Psychiatric Institute

Aldo Galeazzi
Università di Padova, Padova, Italy

Emilio Franceschina
Università di Parma, Parma, Italy

George F. McNulty
University of South Carolina

Angela Q. Forand, Sandra R. Stader, deRosset Myers, Jr., and Harry H. Wright
University of South Carolina School of Medicine
William S. Hall Psychiatric Institute

The School Reinforcement Survey Schedule (SRSS) was administered to 2,828 boys and girls in middle schools in the United States and an Italian translation was administered to 342 boys and girls in middle schools in Northern Italy. An exploratory factor analysis using half the American data set was performed using maximum likelihood estimation with a promax rotation. This analysis produced a structural equation model with six interpretable latent variables. This analysis was confirmed by results demonstrating a good fit with the other half of the American sample and separately with the Italian sample. Scores for the six latent variables were constructed and information about the distribution of scores was obtained. Multiple comparisons of the means were performed by gender, within each national sample, for each of the six latent variables. American and Italian girls report obtaining greater positive reinforcement from a wider variety of school activities compared to American and Italian boys.

KEY WORDS: Adolescent, school, social reinforcement, cross-cultural, structural equation model, gender differences

Students who find school positively reinforcing and participate in school events tend to perform well academically, to have better peer and adult relationships, to have higher self-esteem, and to be less likely to drop out of school. A number of investigations providing empirical support for findings like these have been published in the last 20 years. For example, Roeser, Midgley, and Urda (1996) found that student grades were positively related to academic self-efficacy and students' feelings about belonging in school. Academically competent middle school students had higher self-esteem and reported more satisfaction with school than less competent students (Hirsch & Rapkin, 1987). Similar results were obtained by Trusty and Dooley-Dickey (1993) who found that mathematical achievement was a significant predictor of school affiliation in their sample of fourth through eighth graders. Rumberger (1983) found that students with a poor self-concept, who believed others viewed them negatively (e.g., as a trouble-maker and a poor student), who felt unsafe at school, and who thought their classes were not useful also were at risk for dropping out. In addition,

Rumberger found that students who did not misbehave and who participated in either extracurricular activities in school or other organized activities were significantly less likely to drop out.

Reinforcement Surveys

The current investigation concerns the viability of the School Reinforcement Survey Schedule (SRSS: Cautela, Cautela, & Esonis, 1983) as an instrument to assess how populations of middle school students enjoy school-related events such as participating in school-based activities (e.g., sports, dances, class trips), doing classroom activities and homework, and discussing school with friends or parents.

The SRSS is an instrument developed by Joseph Cautela for use with individual girls and boys under his care in a clinical setting. It is conceptually based on another clinical instrument he devised, the Adolescent Reinforcement Survey Schedule (ARSS: Cautela et al., 1983). The ARSS is an adaptation to adolescents of the Reinforcement Survey

Schedule (RSS) (RSS: Cautela & Kastenbaum, 1967) The RSS itself is a clinical instrument intended to assess what the respondent found pleasurable, in contrast to what provoked fear, as in the Fear Survey Schedule of Wolpe and Lang (1964).

The present study is part of a larger program of investigation concerning the viability of a variety of survey schedules, including the SRSS, which have proven useful in the clinical setting. This program includes earlier factor analytic studies of adolescents from different cultures using the ARSS. Holmes, Heckel, Chestnut, Harris, and Cautela (1987) found 10 interpretable factors from responses to the ARSS by American college freshmen. Holmes, Sakano, Cautela, and Holmes (1991) subsequently found a similar set of 10 interpretable factors for the ARSS based on a sample of Japanese college students. Shortly thereafter, Holmes, Sakano, Doran, Doran, and Cautela (1994) found that factor analytic results for the ARSS for Japanese high school students were similar to those for Japanese college students. Galeazzi, Franceschina, Cautela, Holmes, and Sakano (1998) undertook a cross-cultural study comparing responses of American, Japanese, and Italian adolescents on the ARSS. The similarities found among the three countries suggest that the ARSS is a useful instrument in a variety of cultural settings.

Holmes, Cautela, Simpson, Motes, and Gold (1998) performed a factor analytic study of American students in grades 4 through 12 using the SRSS. Among other things, they found a correlation between academic performance and positive ratings of school events as measured by the SRSS. The present study extends the work of Holmes *et al.* (1998) in a further analysis focused exclusively on early adolescent responses to the SRSS, using girls and boys from Italy and America. Furthermore, the current study expands the research program in intercultural examination of the ARSS (Galeazzi *et al.*, 1998), to the SRSS.

Gender Differences

Previous research has found gender differences regarding students' school performance, satisfaction with their school

experiences, and related variables. For example, results from Hirsch and Rapkin's study (1987) indicated a gender effect with middle school girls reporting greater overall satisfaction with their school experiences compared to the boys. Holmes *et al.* (1994) found that female high school students in Japan rated social communication and academics (e.g. "Talking to my friends about the day's activities") as more pleasurable than boys. These results are consistent with those of Huang and Waxman (1995) who found that girls reported more school involvement, affiliation, and satisfaction than boys, and the girls' achievement motivation scores were greater than the boys. Compared to their female peers, male students may tend to perceive school as less interesting and to view their teachers as less caring and more difficult to please (Gold, Rotter, Holmes, & Motes, 1999).

Research Objectives

The research objectives of the present investigation are: (a) To construct and confirm a structural equation model of the responses of American and Italian early adolescents to the SRSS; (b) To score the latent variables of the model and examine reliability indices for the SRSS; and (c) To investigate whether there are significant gender differences in the responses to the SRSS. While the first two objectives address the viability of the SRSS in studies of middle school populations, objective (c) is intended to illustrate the usefulness of the SRSS.

Method

Participants

Participants in the American sample were 2,828 middle school students in grades six, seven, and eight (1,365 boys and 1,463 girls with a mean age of 13.00, $SD = 1.08$) from 14 schools in South Carolina. These schools were drawn from small cities and rural areas. Of the American participants 48.5% were African-American, 43.9% were white, and 7.6% belonged to other ethnic groups. There were 822 from sixth grade, 1,090 from seventh grade, and 916 from eighth grade. These students are a subset of those studied by Holmes *et al.* (1998) which included students in grades 4 through 12. The 342 participants in the Italian sample were from ten middle schools of northern Italy and were between 11 and 14 years of age (181 boys and 161 girls with a mean age of 12.49, $SD = 0.94$). There were 94 from grade one, 130 from grade two, and 116 from grade three. Grades 1–3 in Italy are comparable to grades 6–8 in the United States.

Materials

In this study, a section of the School Reinforcement Survey Schedule-Adolescent Version (SRSS; Cautela *et al.*, 1983) was used. The SRSS is a paper-and-pencil questionnaire that focuses on the reinforcing value of activities and events associated with school. The section used consists of 24 items which concern various school related activities such as talking about school with friends. A complete list of these

Author Note

George R. Holmes, Department of Neuropsychiatry and Behavioral Science, University of South Carolina School of Medicine and William S. Hall Psychiatric Institute; Aldo Galeazzi, Dipartimento di Psicologia Generale, Università di Padova, Padova, Italy; Emilio Franceschina, Istituto di Psicologia, Università di Parma, Parma, Italy; George F. McNulty, Department of Mathematics, University of South Carolina; Angela Q. Forand, Sandra R. Stader, deRosset Myers, Jr., and Harry H. Wright, Department of Neuropsychiatry and Behavioral Science, University of South Carolina School of Medicine and William S. Hall Psychiatric Institute.

Correspondence concerning this article should be addressed to George R. Holmes, William S. Hall Psychiatric Institute, Drawer 119, Columbia, SC 29202.

items is in Table 1. Students were asked to rate how much they liked various school-related activities on a 5-point Likert scale: “not at all” (0), “a little” (1), “a fair amount” (2), “much” (3), and “very much” (4).

Procedure

The SRSS was translated from English into Italian by two of the authors (Galeazzi and Franceschina) for use with the participants from Italy. In order to establish the accuracy of the translation, the Italian version was translated back into English by another group of translators. The results of this back-translation were closely in accord with the original. Apart from translation, no adaptation of the SRSS was undertaken. In both the Italian and the American study groups, the SRSS was administered in the respective classrooms during school hours by the classroom teachers. The process used in the translation and administration of the SRSS adheres to applicable portions of the The International Test Commission Test Translation and Adaptation Guidelines (Hambleton, 1994, 2001).

Results

The Structural Equation Model

Exploratory Analysis: The Conceptual Model.

The American sample was divided by selecting half of the girls and half of the boys at random. In this way an exploratory group of 1,414 American students and a confirmatory group of 1,414 American students were formed. The responses of the exploratory group were subjected to analysis in order to identify a usable system of underlying latent variables. This process included the consideration of a model with a single latent variable, the construction of a model based on a two stage least squares (TSLS) approach, and a variety of other factor analytic solutions. All the models were checked for factorability. The Root Mean Square Error of Approximation (RMSEA), a statistic for measuring the fit of the model to the data, was used to choose among the various models. The RMSEA was introduced in (Steiger, 1990). Browne and Cudeck (1993) suggest that a RMSEA of 0.05 or less indicates a close fit and that values up to 0.08 represent reasonable errors of approximation.

The factor analysis using the maximum likelihood estimation to extract the factors followed by an oblique promax rotation proved to be the best fit statistically. The number of factors to be extracted was determined by using the smallest number of factors with a RMSEA of 0.050 or less. This solution led to six factors with a RMSEA of 0.046. Similarly, a six factor solution resulted from both a scree-plot and inspection of the eigenvalues larger than one. The oblique (promax) rotation was employed as there was no basis to assume that the latent variables should be uncorrelated.

The six factors were labeled as follows: *The School Day*, *Social Networking*, *Discussing School*, *Getting Grades*, *Extracurricular Activities*, and *Anticipating School*. To make a conceptual structural equation model, these factors were

identified as latent variables, while the 24 items were identified as observed variables. In this model, a latent variable is regarded as unrelated to an observed variable provided the corresponding factor loading has a magnitude of less than 0.10. The path diagram for this conceptual structural equation model is displayed in Figure 1. The arrows representing relationships among latent variables are not shown in order to enhance the clarity of this figure. For a fuller account of structural equation modeling and path analysis see McDonald (1999) and Jöreskog and Sörbom (1993).

Confirmatory Analysis: The Structural Equation Models.

LISREL 8.30 (Jöreskog & Sörbom, 1993) was used to find coefficients of the corresponding measurement equations. The analysis was done in three stages. First, an analysis was made across the three samples: the American Exploratory Group, the American Confirmatory Group, and the Italian Group. In this stage the error variances were set free but the coefficients of the measurement equations were the same for each of the three samples. For this system of coefficients the RMSEA is 0.049 with a 90% confidence interval of (0.047, 0.051). The standardized Root Mean Square Residuals were 0.042 for the American Exploratory Group, 0.043 for the American Confirmatory Group, and 0.14 for the Italian Group. The results confirm a close fit for the structural equation model with the American samples, but an unacceptable fit with the Italian sample.

In the second stage, the error variances were set free and coefficients were permitted to differ across the three samples. The RMSEA is 0.045 with a 90% confidence interval (0.043, 0.047). The standardized Root Mean Square Residuals were 0.036 for the American Exploratory Group, 0.039 for the American Confirmatory Group, and 0.066 for the Italian Group. This result indicates a close fit of the conceptual structural equation model with the American samples and an acceptable fit with the Italian sample. Therefore, while the conceptual structural equation model displayed in Figure 1 fits with all three samples, a single complete structural equation model could not be found. However, the analysis does confirm a single structural equation model for the full American sample.

The third stage analysis differed from the second only in that the two American samples were treated as one larger sample. Therefore, the coefficients of the measurement equations were computed for the American sample (all 2,828 students) and the Italian sample separately. The results can be found in Tables 2 and 3, with the corresponding covariance matrices for the latent variables in Table 4. For the full American sample the RMSEA is 0.046 with a 90% confidence interval (0.044, 0.048) while for the Italian sample the RMSEA is 0.050 with a 90% confidence interval of (0.042, 0.057). Other measures of fit were also strong. For the American sample, the Goodness of Fit Index (GFI) is 0.96 and the Normed Fit Index (NFI) is 0.93. For the Italian sample, these indices are 0.91 and 0.86, respectively.

The conceptual structural equation model displayed in Figure 1 fits the data closely, as do the separate structural equation models for the American and Italian samples.

Scoring the Latent Variables

LISREL 8.30 (Jöreskog & Sörbom, 1993) was used to score each of the six latent variables using regression equations. Because the structural equation models for the American and Italian samples differed, the regression analysis was carried out separately in these two samples. The regression coefficients are displayed in Table 5 and Table 6.

Means and Standard Deviations.

SPSS (Norušis & SPSS Inc., 1993) was used to obtain means and standard deviations for the scores of the latent variables for the American sample and for the Italian sample are given in Table 7. This table also gives a further breakdown according to gender.

Reliability.

For each of the six latent variables (in both samples) those items from the SRSS with regression coefficients of at least 0.03 were taken as the most significant contributors to the score of that latent variable. Cronbach's α reliability coefficients for the latent variables were computed based on these gathered items. The results are displayed in Table 8.

Comparison Between Boys and Girls

Multivariate analyses of variance (MANOVA) were conducted to compare, for the American and the Italian sample populations separately, the responses of boys and girls on the six latent variables. In both the American and the Italian samples, the results indicated significant differences between the responses of the boys and those of the girls, when the latent variables were considered together: for the American sample Wilks $F(6, 2821) = 38.490$ with $p < 0.001$; for the Italian sample Wilks $F(6, 335) = 5.528$ with $p < 0.001$. Between-groups univariate comparisons showed that the girls (in both the American and Italian samples) had significantly higher mean scores than the boys on each of the six latent variables (see Table 9).

Discussion

The structural equation model

The structural equation models whose conceptual path diagram is displayed in Figure 1 and whose coefficients can be found in Table 2 and Table 3 fit the data closely. This close fit suggests that the SRSS—analyzed according to this structural equation model—can be applied in both American and Italian settings. To achieve this close fit, it is necessary to accept different coefficients in the measurement equations depending on which of the sample populations (American or Italian) is under consideration. As a result, there are two structural equation models—one for the American sample and one for the Italian sample. Broadly, these two models agree, however they differ in weighting accorded to individual items on the SRSS. To this extent, the SRSS appears to be culturally sensitive.

Reliability for scores

A score for each latent variable was computed by regression. Means and standard deviations for these scores were computed for each of the latent variables. This information is given in Table 7. On the average, students reported liking *Social Networking* "much" and *Extracurricular Activities* and *Getting Grades* "a fair amount". They reported liking the remaining three factors only "a little". Cronbach's α reliability coefficient was computed for each latent variable in each sample population using the collection of items from the SRSS that contributed most significantly to the score of the latent variable. The results, displayed in Table 8, yielded values of α above 0.70 except in one case ($\alpha = 0.68$), with some approaching 0.90.

Gender Differences

Hirsch and Rapkin (1987) found that middle school girls reported more satisfaction than boys with the quality of life at school. Similarly, in the current study when gender was used as a variable, girls, regardless of whether they are Italian or American find school more reinforcing overall than boys. Middle school is a time when the maturational lag that boys experience is most pronounced which may contribute to boys finding school less reinforcing than girls. The current results are consistent with the findings of Holmes *et al.* (1998) on a sample of American children attending grades four through twelve and with at least one other cross cultural study that found that Japanese girls find school more reinforcing than do boys (Galeazzi *et al.*, 1998). The combination of girls' relative advantage in verbal tasks and the emphasis placed on social compliance among girls may result in better classroom adjustment and girls perceiving school as more reinforcing.

Ramifications of School Satisfaction

Relative differences in the degree of satisfaction with the middle school experience for different groups are important in a practical as well as an academic sense. As Roeser, Eccles, and Sameroff (1998) demonstrated in their study of 1,041 adolescents in American schools, there is a reciprocal relationship between school motivation and positive emotional functioning over time. Children who are motivated and likely to find school reinforcing continue to do well. Moreover, positive perception of the learning environment in the seventh grade predicted eighth grade motivation, achievement, and emotional functioning. Efforts to enhance the reinforcement value of school for students who find their academic experience relatively less reinforcing might be expected to pay dividends in terms of future performance and adjustment.

Future Directions

The relatively small size of the Italian sample may not have allowed us to discern as many differences in the responses to SRSS as we found in the American sample. Replicating this study with a sample of several thousand Italian

middle school students promises to lead to a deeper and more reliable understanding.

Providing a Basis for Clinical Use.

The SRSS has the potential to provide clinically useful information. To realize this potential, it is necessary to develop a sound understanding of the correlations of responses to the SRSS with other clinically useful measures. For example, investigation of correlations between the SRSS and the ARSS would place school reinforcement in a broader context. Because depression diminishes the capacity for pleasure, an investigation of the correlations between the SRSS and various measures of depression is also appropriate. Due to the considerable developmental and psychological differences between boys and girls in the middle school age-range (11 to 14 years), investigations of how these differences are linked to responses on the SRSS are also needed. Finally, the present investigation establishes preliminary norms for the SRSS.

Providing a Basis for Educational Use.

Rumberger (1995) has shown that participation in extracurricular activities at school alone reduces the school drop-out rate in the United States. Our findings provide information about the relative reinforcement value of various school related activities for boys and girls of two different nationalities. This information may assist in reducing the drop-out rate among students who are involved in extracurricular activities by clarifying which activities are most reinforcing for which groups. Girls find the middle school experience more reinforcing than do boys. More investigation is needed to make these insights useful in the redesign of the middle school experience. Holmes et al. (1998) found a modest but positive correlation between academic achievement and school reinforcement measured by the SRSS. A more detailed study of the correlations between academic performance and the SRSS is in order for both the American and the Italian populations. Based on such a study, it might be possible, for example, to provide a reason for redesigning after-school clubs and meetings in American middle schools similar to those found in Italy. It might also be possible to recommend ways to make the middle school experience more reinforcing for boys than our study indicates it is today. An enhanced understanding of both cultural and gender differences in the appraisal of students on various aspects of the total school experience should lead to the development of more effective educational programs.

Enhancing the SRSS.

The current investigation suggests several ways the School Reinforcement Survey Schedule can be enhanced. The *Social Networking* latent variable is clearly the one middle school students find most reinforcing. An enhanced version of the SRSS should include more items directed at detailing the components of this variable. What activities do the students undertake while networking? What do they talk about (at lunch, at recess, . . .)? Is this networking largely with students of the same gender? The opposite gender? In mixed groups? Do adults have a role in this networking?

Adapting the SRSS to other cultures.

Finally, it should be noted that the SRSS was developed with American schools in mind. In other cultures, schools are structured differently; and they may fit with family life and the larger society in ways that are uncommon in the United States. Perhaps companion schedules to the SRSS should be devised to capture these distinctions.

Conversely, the cultural sensitivity of the SRSS in its current form makes cross-cultural comparisons problematic. Adapting the SRSS to remove such sensitivity might produce an instrument capable of useful comparisons. With the American and Italian populations in mind, such an adaptation process might start by considering those items where the differences between the coefficients of the measurement equations (or of the regression equations) are relatively large.

Cross-cultural studies of the SRSS involving middle school students from other cultures are worthy of investigation. Because there are already studies of the ARSS involving Japanese high school and college students (Holmes et al., 1991, 1994; Galeazzi et al., 1998), a study of responses by Japanese middle school students to the SRSS is a natural next step. Japanese schools may place a greater emphasis on academic performance, providing another reason for replicating our investigation for that population. The current study indicates that some adaptation of the SRSS to the Japanese culture might be in order.

References

- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing Structural Equation Models*. Sage Publications.
- Cautela, J., Cautela, J., & Esonis, S. (1983). *Forms for behavior analysis with children*. Champaign, IL: Research Press.
- Cautela, J., & Kastenbaum, R. (1967). Reinforcement Survey Schedule for use in therapy, training and research. *Psychological Reports*, 20, 115–1140.
- Galeazzi, A., Franceschina, E., Cautela, J., Holmes, G. R., & Sakano, Y. (1998). A comparison of Italian, Japanese and American students' responses to the Adolescent Reinforcement Survey Schedule. *Journal of Clinical Psychology*, 54, 267–278.
- Gold, J. M., Rotter, J. C., Holmes, G. R., & Motes, P. S. (1999). *Middle school climate: A study of attitudes*. Bloomington, Indiana: Phi Delta Kappa Educational Foundation.
- Hambleton, R. K. (1994). Guidelines for adapting educational and psychological test: a progress report. *European Journal of Psychological Assessment*, 10, 229–244.
- Hambleton, R. K. (2001). The next generation of the ITC test translation and adaptation guidelines. *European Journal of Psychological Assessment*, 17, 164–172.
- Hirsch, B. J., & Rapkin, B. D. (1987). The transition to junior high school: A longitudinal study of self-esteem, psychological symptomatology, school life, and social support. *Child Development*, 58, 1235–1243.
- Holmes, G. R., Cautela, J., Simpson, M. A., Motes, P. S., & Gold, J. M. (1998). Factor structure of the School Reinforcement Survey Schedule: School is more than grades. *Journal of Behavioral Education*, 8, 131–140.

- Holmes, G. R., Heckel, R. V., Chestnut, E., Harris, N., & Cautela, J. (1987). Factor analysis of the Adolescent Reinforcement Survey Schedule (ARSS) responses with college freshman. *Journal of Clinical Psychology, 43*, 386–390.
- Holmes, G. R., Sakano, Y., Cautela, J., & Holmes, G. L. (1991). Comparison of factor-analyzed Adolescent Reinforcement Survey Schedule (ARSS) responses from Japanese and American adolescents. *Journal of Clinical Psychology, 47*, 749–755.
- Holmes, G. R., Sakano, Y., Doran, G. H., Doran, J. R., & Cautela, J. (1994). Japanese high school and college students' responses to the Adolescent Reinforcement Survey Schedule. *Psychological Reports, 75*, 995–1006.
- Huang, S., & Waxman, H. C. (1995). Motivation and learning-environment differences between Asian-American and white middle school students in mathematics. *Journal of Research and Development in Education, 28*, 208–219.
- Jöreskog, K., & Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*. Chicago: Scientific Software International.
- McDonald, R. (1999). *Test Theory: A Unified Treatment*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Norušis, M. J., & SPSS Inc. (1993). *SPSS for Windows: Base system user's guide, release 6.0*. Chicago, IL: SPSS, Inc.
- Roeser, R. W., Eccles, J. S., & Sameroff, A. J. (1998). Academic and emotional functioning in early adolescence: Longitudinal relations, patterns, and prediction by experience in middle school. *Development and Psychopathology, 10*, 321–352.
- Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology, 88*, 408–422.
- Rumberger, R. W. (1983). Dropping out of high school: The influence of race, sex, and family background. *American Educational Research Journal, 20*, 199–220.
- Rumberger, R. W. (1995). Dropping out of middle school: A multilevel analysis of students and school. *American Educational Research Journal, 32*, 583–625.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research, 25*, 173–180.
- Trusty, J., & Dooley-Dickey, K. (1993). Alienation from school: An exploratory analysis of elementary and middle school students' perceptions. *Journal of Research and Development in Education, 26*, 232–242.
- Wolpe, J., & Lang, P. J. (1964). A Fear Survey Schedule for use in behavior therapy. *Behavior Research and Therapy, 2*, 27–30.

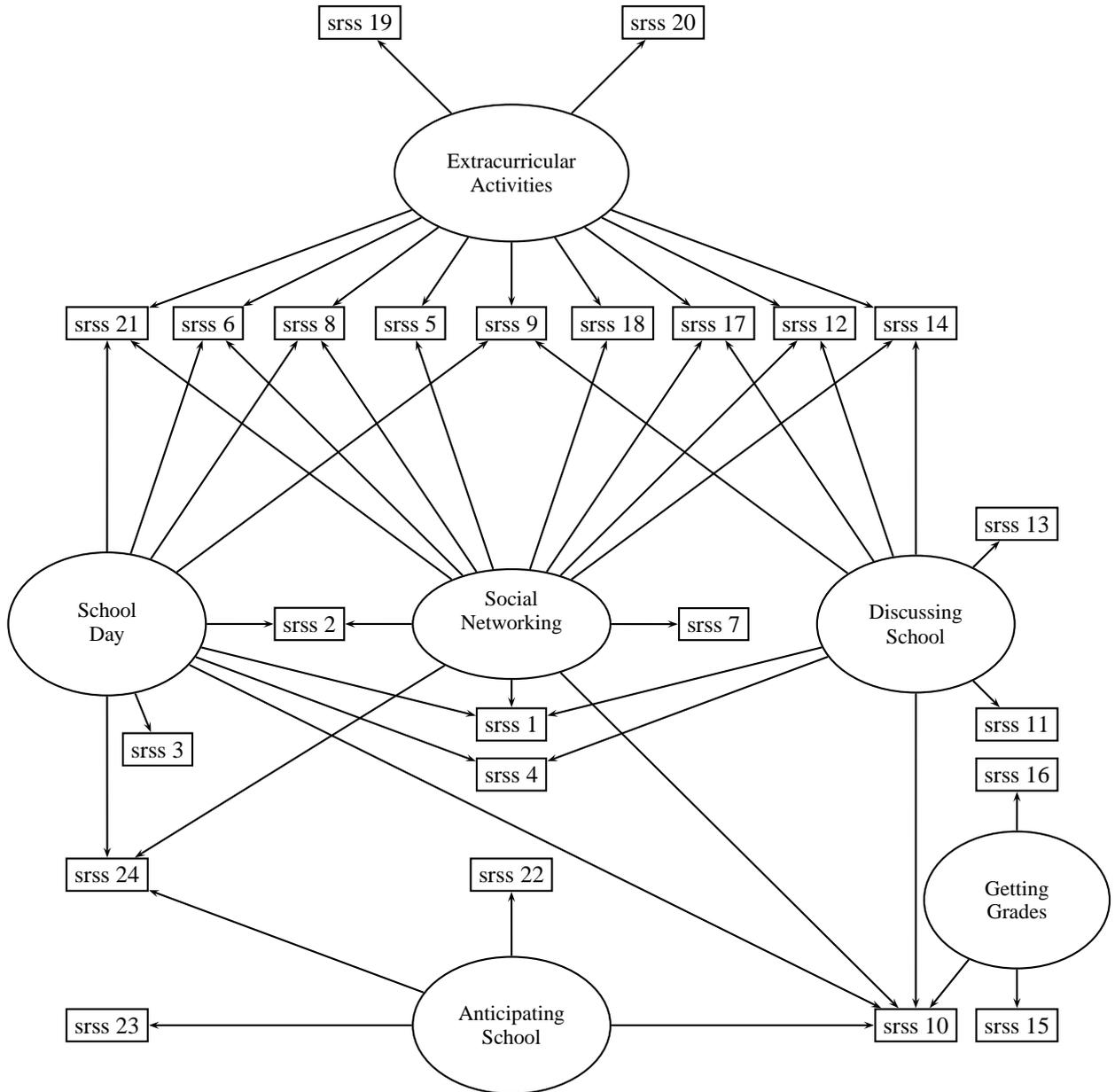


Figure 1. The Path Diagram of the Conceptual Structural Equation Model

Table 1
The School Reinforcement Survey Schedule

Put a check mark in the column that best describes how much *you like* each of the following school-related activities.

	Not at all	A little	A fair amount	Much	Very much
1. Leaving your home for school in the morning.					
2. Riding or walking to school.					
3. Entering the school building.					
4. Entering your home classroom and talking to your teacher alone.					
5. Having recess or free time.					
6. Having lunch with the other students.					
7. Playing or socializing with other students.					
8. Doing classroom activities.					
9. Studying with other students in the study hall.					
10. doing your homework.					
11. Talking about school with your mother.					
12. Talking about school with your father.					
13. Talking about school with your friends after school.					
14. Talking about your school with friends who attend a different school.					
15. Seeing your report card.					
16. Having your parents see your report card.					
17. Going to school sports events.					
18. Going to school dances or fairs.					
19. Going to after-school clubs and meetings.					
20. Going to school plays.					
21. Going on class trips.					
22. Looking forward to going back to school at the end of summer vacation.					
23. Looking forward to going back to school at the end of the Christmas, mid-winter, and spring vacations.					
24. Looking forward to going back to school each Monday morning after the weekend.					

Table 2
Structural Equation Coefficients, American Sample

	Social Networking	Anticipating School	Extracurricular Activities	Getting Grades	Discussing School	The School Day	Error Variance	R^2
srss7	1.00	--	--	--	--	--	0.70	0.51
srss6	0.96	--	-0.14	--	--	0.19	0.79	0.45
srss5	0.85	--	-0.02	--	--	--	0.43	0.43
srss21	0.65	--	0.37	--	--	-0.12	0.84	0.40
srss23	--	1.00	--	--	--	--	0.47	0.74
srss22	--	0.98	--	--	--	--	1.00	0.56
srss24	-0.12	0.59	--	--	--	0.17	0.66	0.48
srss19	--	--	1.00	--	--	--	1.28	0.42
srss20	--	--	0.98	--	--	--	1.21	0.42
srss9	--	--	0.58	--	0.07	0.15	1.69	0.20
srss17	0.59	--	0.61	--	-0.10	--	1.29	0.37
srss18	0.57	--	0.55	--	--	--	1.23	0.36
srss16	--	--	--	1.00	--	--	0.61	0.75
srss15	--	--	--	0.95	--	--	0.64	0.72
srss11	--	--	--	--	1.00	--	0.75	0.60
srss13	--	--	--	--	0.82	--	0.95	0.44
srss12	0.36	--	0.30	--	0.56	--	1.42	0.35
srss14	0.28	--	0.37	--	0.47	--	1.47	0.32
srss3	--	--	--	--	--	1.00	0.86	0.53
srss1	0.26	--	--	--	-0.38	0.49	1.69	0.13
srss8	0.43	--	0.35	--	--	0.38	1.28	0.31
srss2	0.28	--	--	--	--	0.39	2.25	0.09
srss10	-0.25	0.13	--	0.18	0.12	0.55	1.13	0.39
srss4	--	--	--	--	0.23	0.33	1.18	0.17

Coefficients equal to 0 have been suppressed.

Table 3
Structural Equation Coefficients, Italian Sample

	Social Networking	Anticipating School	Extracurricular Activities	Getting Grades	Discussing School	The School Day	Error Variance	R^2
srss7	1.00	--	--	--	--	--	0.44	0.42
srss6	1.12	--	0.16	--	--	-0.08	0.44	0.52
srss5	0.66	--	0.01	--	--	--	0.50	0.22
srss21	0.29	--	0.10	--	--	--	0.53	0.08
srss23	--	0.98	--	--	--	--	0.23	0.81
srss22	--	1.00	--	--	--	--	0.40	0.71
srss24	-0.02	0.34	--	--	--	0.43	0.58	0.38
srss19	--	--	0.42	--	--	--	0.56	0.17
srss20	--	--	1.00	--	--	--	1.34	0.32
srss9	--	--	0.27	--	0.17	0.37	1.07	0.17
srss17	0.44	--	0.58	--	-0.04	--	1.07	0.27
srss18	-0.70	--	1.57	--	--	--	0.61	0.65
srss16	--	--	--	1.00	--	--	0.08	0.96
srss15	--	--	--	0.82	--	--	0.66	0.67
srss11	--	--	--	--	1.00	--	0.20	0.85
srss13	--	--	--	--	0.44	--	1.40	0.14
srss12	-0.11	--	-0.04	--	0.94	--	0.42	0.70
srss14	0.37	--	0.12	--	0.26	--	1.20	0.13
srss3	--	--	--	--	--	1.00	0.44	0.54
srss1	-0.01	--	--	--	-0.05	0.99	0.47	0.50
srss8	0.28	--	-0.07	--	--	0.95	0.76	0.40
srss2	0.06	--	--	--	--	0.82	0.79	0.31
srss10	-0.19	--	--	-0.03	0.24	0.72	0.70	0.35
srss4	--	--	--	--	0.16	0.57	0.72	0.26

Coefficients equal to 0 have been suppressed.

Table 4
Covariance Matrices of the Latent Variables

	American Sample						
	social	xact	antici	talk	grades	day	
social	0.74						
xact	0.30	0.91					
antici	0.01	0.41	1.32				
talk	0.09	0.43	0.40	1.13			
grades	0.14	0.36	0.48	0.66	1.79		
day	0.06	0.29	0.57	0.50	0.61	0.97	

	Italian Sample						
social	0.31						
xact	0.26	0.63					
antici	0.09	0.22	0.99				
talk	0.13	0.13	0.17	1.16			
grades	0.12	0.18	0.33	0.70	1.95		
day	0.11	0.16	0.51	0.28	0.35	0.51	

Note. social = social networking talk = discussing school
xact = extracurricular activities grades = getting grades
antici = anticipation of school day = the school day

Table 5
Regression Coefficients: American Sample

	Social Networking	Anticipating School	Extracurricular Activities	Getting Grades	Discussing School	The School Day
srss1	0.02	--	--	--	-0.05	0.07
srss2	0.02	--	--	--	--	0.05
srss3	-0.01	0.02	--	0.02	0.03	0.32
srss4	--	0.01	--	0.01	0.06	0.08
srss5	0.19	--	-0.02	--	-0.01	-0.01
srss6	0.18	--	-0.05	0.01	-0.01	0.05
srss7	0.21	--	-0.01	0.01	-0.01	-0.01
srss8	0.05	0.01	0.06	0.01	0.01	0.08
srss9	--	0.01	0.08	--	0.02	0.03
srss10	-0.04	0.03	0.01	0.05	0.05	0.14
srss11	-0.01	--	0.02	0.03	0.34	0.04
srss12	0.03	--	0.05	0.01	0.10	0.01
srss13	-0.01	--	0.01	0.02	0.22	0.02
srss14	0.02	--	0.06	0.01	0.09	0.01
srss15	0.01	--	--	0.39	0.03	0.03
srss16	0.01	0.01	--	0.43	0.03	0.03
srss17	0.06	0.01	0.10	--	-0.02	-0.01
srss18	0.06	0.01	0.10	--	--	--
srss19	-0.01	0.01	0.18	--	0.01	--
srss20	-0.01	0.01	0.18	--	0.01	--
srss21	0.11	--	0.09	--	--	-0.05
srss22	--	0.21	0.02	--	--	0.02
srss23	-0.01	0.45	0.04	0.01	0.01	0.04
srss24	-0.03	0.20	0.02	0.01	0.01	0.09

Note. Coefficients equal to 0 have been suppressed.

Table 6
Regression Coefficients: Italian Sample

	Social Networking	Anticipating School	Extracurricular Activities	Getting Grades	Discussing School	The School Day
srss1	0.01	0.04	--	--	-0.01	0.17
srss2	0.01	0.02	0.01	--	--	0.08
srss3	0.01	0.04	0.01	--	0.01	0.18
srss4	0.01	0.01	--	--	0.03	0.07
srss5	0.12	--	0.05	--	0.01	0.01
srss6	0.24	-0.01	0.14	--	0.01	--
srss7	0.20	--	0.08	--	0.01	0.01
srss8	0.04	0.02	--	--	--	0.10
srss9	0.01	0.01	0.04	--	0.02	0.03
srss10	-0.02	0.02	-0.01	--	0.04	0.08
srss11	0.03	-0.01	0.01	0.01	0.58	0.01
srss12	-0.01	-0.01	-0.02	0.01	0.26	0.01
srss13	--	--	--	--	0.04	--
srss14	0.03	--	0.02	--	0.03	--
srss15	--	--	--	0.09	--	--
srss16	--	0.01	0.01	0.88	0.04	0.02
srss17	0.05	--	0.09	--	--	0.01
srss18	-0.01	0.02	0.31	--	--	--
srss19	0.03	--	0.10	--	--	--
srss20	0.03	--	0.10	--	--	--
srss21	0.05	--	0.04	--	--	--
srss22	--	0.28	0.01	--	-0.01	0.04
srss23	-0.01	0.49	0.02	--	-0.01	0.07
srss24	--	0.08	--	--	--	0.07

Note. Coefficients equal to 0 have been suppressed.

Table 7
Mean Scores and Standard Deviations

	Social Networking	Anticipating School	Extracurricular Activities	Getting Grades	Discussing School	The School Day
American Boys (<i>N</i> = 1365)						
Mean	2.71	0.89	1.51	2.01	1.09	1.23
SD	0.80	1.00	0.79	1.31	0.91	0.87
American Girls (<i>N</i> = 1463)						
Mean	2.85	1.17	1.94	2.27	1.43	1.46
SD	0.71	1.06	0.80	1.25	0.92	0.80
Full American Sample (<i>N</i> = 2828)						
Mean	2.278	1.03	1.74	2.15	1.27	1.35
SD	0.76	1.04	0.82	1.29	0.93	0.84
Italian Boys (<i>N</i> = 181)						
Mean	2.40	0.82	2.63	1.72	1.50	1.02
SD	0.49	0.91	0.72	1.39	1.03	0.62
Italian Girls (<i>N</i> = 161)						
Mean	2.56	1.16	3.00	2.01	1.80	1.27
SD	0.46	0.92	0.64	1.32	0.99	0.63
Full Italian Sample (<i>N</i> = 342)						
Mean	2.47	0.98	2.80	1.85	1.64	1.14
SD	0.48	0.93	0.70	1.36	1.02	0.64

Table 8
Cronbach's α Coefficient of Reliability

Social Networking	Anticipating School	Extracurricular Activities	Getting Grades	Discussing School	The School Day
0.79	0.76	American Sample 0.78	0.73	0.78	0.74
0.68	0.83	Italian Sample 0.71	0.89	0.74	0.84

Table 9
Between-Groups Univariate Comparison of Mean Scores by Gender

Latent Variable	F	Mean Difference (Female – Male)	95% Confidence Interval	
			Lower Bound	Upper Bound
American Sample				
Social Networking	24.64***	0.14***	0.09	0.20
Anticipating School	48.95***	0.23***	0.20	0.35
Extracurricular Activities	219.19***	0.44***	0.38	0.50
Getting Grades	31.78***	0.27***	0.18	0.37
Discussing School	97.67***	0.34***	0.27	0.41
The School Day	50.88***	0.22***	0.16	0.28
Italian Sample				
Social Networking	9.06**	0.16**	0.05	0.26
Anticipating School	11.85**	0.34**	0.15	0.54
Extracurricular Activities	24.36***	0.46***	0.22	0.51
Getting Grades	3.87*	0.28*	0.00	0.58
Discussing School	7.02**	0.29**	0.07	0.51
The School Day	14.37***	0.26***	0.12	0.39

Note. Bonferroni adjustment for multiple comparisons

* $p \leq 0.05$. ** $p < 0.01$. *** $p < 0.001$.