Socio-emotional Well-Being and Academic Achievement: Evidence from a Multilevel Approach

Bem-Estar Sócio-Emocional e Desempenho Acadêmico: Evidência desde uma Abordagem Multinível

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Abstract
Even though social and emotional well-being has been proposed as a main goal of education, its association with academic achievement is usually overlooked, particularly considering that educational institutions are requested to show academic outcomes, and thus their focus is on cognitive development and academic training. This study adopts a multilevel perspective to test this association among Chilean elementary students, considering features at individual (socio-emotional well-being, self esteem, and social integration) and social levels (classroom social climate and social network characteristics). Results show that socio-emotional variables, and particularly teachers' ratings of their students' self esteem, are associated with academic achievement. Interaction effects of individual and contextual variables are presented, and implications for research and interventions are discussed.
Keywords: Socio-emotional wellbeing; Academic achievement; Multilevel.

Resumo
Apesar de que o bem-estar social e emocional tem sido proposto como uma meta principal da educação, sua associação com o desempenho acadêmico geralmente é negligenciado, especialmente considerando que as instituições educacionais são convidados a mostrar os resultados acadêmicos, e, portanto, o foco é no desenvolvimento cognitivo e da formação acadêmica. Este estudo adota uma perspectiva multinível para testar essa associação entre alunos chilenos do ensino fundamental, incluindo características individuais (bem-estar sócio-emocional, auto-estima e integração social) e sociais (clima social da aula e as características de rede social). Os resultados mostram que as variáveis sócio-emocionais, e em especial a percepção de professores da auto-estima de seus alunos, estão associados com desempenho acadêmico. Além disso, efeitos de interação das variáveis individuais e contextuais são apresentados. Implicações para a pesquisa e as intervenções são discutidos.
Palavras-chave: Bem-estar sócio-emocional; Desempenho acadêmico; Multinivel.

Educational settings are requested to achieve academic results, and thus the curriculum focuses to a great extent on academic training in detriment of social and emotional skills. On the other hand, scholars, educators and policy makers are increasingly preoccupied with social and emotional difficulties among students such as school violence (Berger & Lisboa, 2008; Pellegrini, 1998), depressive and anxiety symptoms (Del Barrio, Moreno, & López, 1997), and lack of motivation (Ryan, 2001). Contrary to common sense belief that considered a clear cut distinction between socio-emotional and cognitive development, nowadays there is an acknowledgement of an emerging body of research showing an association between academic achievement and social and emotional characteristics (Elias & Arnold, 2006; Jiménez & López-Zafra, 2009; Payton et al., 2000). As a matter of fact, current research is showing a close association between them (Izard, 2009), and recent studies are beginning to demonstrate the impact of social and emotional development on academic achievement and school success (Elias & Haynes, 2008; Extremera & Fernández-Berrocal, 2003; Stipek & Miles, 2008). As shown by Wang, Haertel and Walberg (1997), when estimating the relative influence of more than 30 educational, psychological, social and emotional categories on academic learning, both social and emotional variables were the most influencing on academic performance. However, the particularities and underlying processes explaining this association remain unclear, and the social and emotional dimension as an indistinguishable set of characteristics has been proposed as the cornerstone for child and adolescent development, without a critical and evidence-based perspective (Extremera & Fernandez-Berrocal, 2003).

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An emerging perspective that allows an operational definition of this association is that of socioemotional learning (SEL). SEL has only recently begun to be considered as an important factor for educational outcomes in schools (Hoffman, 2009). SEL has become a focus of major educational initiatives, even though there are still divergences and no clear definitions of its operational definition (Hoffman, 2009). The Collaborative for Academic, Social and Emotional Learning (CASEL) conducted a meta-analysis reviewing more than 300 studies that addressed the effects of SEL programs on educational outcomes, including over 320.000 participants, showing consistently that SEL programs (K to 8th grade) improved social and emotional skills in students, modified attitudes about the self and the others, fostered a sense of school belonging, and were associated with an increase in prosocial behaviours and a decrease in internalizing and externalizing problems. Moreover, SEL programs were associated with a significant increase in the academic performance of students up to 11 to 17 percentile points across studies, showing a clear association between SEL and academic outcomes (Payton et al., 2008).

What underlies the association between social and emotional features and academic achievement? Zins, Payton, Weissberg and O'Brien (2007) argue that the traditional perspective on socioemotional features is that of emotional intelligence (Goleman, 1996; Salovey & Mayer, 1990). From this perspective, individual characteristics and competences are considered central for explaining developmental outcomes. For instance, research addressing the association between socioemotional features and academic achievement has consistently found that higher levels of emotional intelligence correlate with higher psychological and emotional wellbeing and less anxiety and depressive symptoms (for a review see Jiménez & Lopez-Zafra, 2009). For instance, Harden and Pihl (1995) found that primary students who displayed an average IQ but who performed poorly in educational tasks were anxious and impulsive, whereas students with positive socio-emotional development adapted easily to new experiences and developed a positive attitude towards school, achieving higher educational goals. Extremera and Fernández-Berrocal (2003) found that students with higher levels of emotional intelligence displayed higher emotional and psychological wellbeing (i.e., less anxious and depressive symptoms and a lower tendency to intrusive thoughts), concluding that non-academic individual characteristics have an important influence on school performance. Seemingly, at the individual level self-esteem has been reported as significantly associated with academic achievement (Milicic, 2001; Valentine, DuBois, & Cooper, 2004), even though there is some controversy regarding its effects (for a revision see Humphrey, 2004). However, scholars agree about its importance within educational settings, and argue that its effects might be indirect, for instance by fostering self-efficacy or establishing a positive attitude towards studying (Flouri, 2006).

As Zins and colleagues (2007) argue, SEL constitutes a broader perspective that overcomes individual views of socioemotional skills and focuses also on the socio-emotional environment in which the student unfolds, and the emotional intelligence paradigm has broaden itself (Goleman, 2006). From a contextual perspective, SEL implies the generation of a socioemotional environment in which students can feel secure, valued, and supported, characterized by warm but challenging classrooms (Elias, 2009). Bergin and Bergin (2009) conceptualize this as attachment in the classroom, highlighting the role that caring and secure relationships established within the educational context play regarding students' wellbeing (see also Berger et al., 2009). Teacher-student relationships constitute indirect attachment relationships (Bergin & Bergin, 2009) that allow students to securely traverse the challenging academic school experience. For instance, Frenzel, Goetz, Lüdtke, Pekrun and Sutton (2009) argue for an emotional transmission within these relationships. In their study they show how students' enjoyment is influenced by their teachers' enjoyment. Similar results were found for autonomous motivation (Roth, Assor, Kanat-Maymon, & Kaplan, 2007), highlighting the importance of affective interactions.

Peer relations are also central for the socio-emotional experience in elementary school. The orientation towards peers during early adolescence stresses the importance of close and intimate relationships (Ojanen, Grönroos, & Salmivalli, 2005) and the participation and acceptance of a peer group (Fletcher, Hunter, & Eanes, 2006). Moreover, peers play also a significant role regarding academic decisions and achievement. For instance, Crosnoe, Riegle-Crumb, Field, Frank and Muller (2008) found that among 9th and 10th graders their decision of taking - or not - math courses was associated with their close friends' achievement. From a social network perspective, Wentzel and Caldwell (1997) showed that adolescents who were part of cohesive peer groups displayed higher academic achievement. More recently, Chen, Chang, Liu and He (2008) found that among 3rd to 6th graders, students who were part of groups that displayed high achievement showed higher individual academic achievement and social functioning, and that group features enhanced the association between academic and social performance.

Classroom social climate integrates interpersonal relationships established with peers and teachers, as shown by several authors who include teacher support and peer support as central dimensions of its definition (Arón & Milicic, 1999; Fisher & Fraser, 1983; Griffith, 1995). Classroom social climate has been shown to be associated with socioemotional and academic adjustment (Jia et al., 2009), internalizing and externalizing problems (Kornblit, Adaszko, & DiLeo, 2008; Kuperminc, Leadbeater, & Blatt, 2001), and social adjustment (Kuper-

minc, Leadbeater, Emmons, & Blatt, 1997; Loukas & Robinson, 2004).

In sum, current research is showing how social and emotional factors are playing a role in the academic achievement of children and early adolescents. Individual social and emotional characteristics and particular socioemotional environmental features are significant factors when assessing academic performance. However, due to the long-lasting divorce between academic and socio-emotional dimensions, these factors have been overlooked or simply ignored as significant predictors for academic performance (Extremera & Fernandez-Berrocal, 2003; Goleman, 1996). This study contributes to this literature by examining the association between socioemotional variables and academic achievement among 3rd and 4th graders. Specifically, this study aims broadening the evidence of this association by adopting a multilevel perspective that allows integrating both individual and context level variables acknowledging their nested structure. At the individual level, self-esteem, socio-emotional wellbeing, and social integration are tested as predictors for academic achievement. At the environmental level, classroom social climate and peer social network features are tested. The guiding hypotheses of this study are that individual social and emotional variables and contextual socio-emotional features will be positively associated with academic achievement. To our knowledge no previous study in Latin America has approached this association from a multilevel perspective, and thus hypotheses considering the interaction of both levels are exploratory.

Method

Participants were part of a larger longitudinal study (Fondecyt # 1070851) focused on socio emotional learning. For the present study, only cross-sectional data from one assessment wave are considered. All third and fourth graders of five elementary schools in Metropolitan Santiago, Chile, were invited to participate in this study. The total sample included 674 children (51.5% girls, 56.6% 3rd graders) distributed in 19 classrooms. Active parental consent was gathered for all participants, who were also asked to sign their consent to be part of this study. Participants were asked to report on their social emotional wellbeing, their self esteem, their perception of their classroom social climate, and their social networks within their classrooms. Teachers were asked to rate their students' self esteem. Academic records were also gathered for all participants.

Due to the amount of measures and the age of participants, data collection was divided in two consecutive sessions (within the same week) of one hour each. Participants were assured that their answers would be confidential. Children were told not to talk to their peers while answering the survey, and that they could stop participating at any time. All surveys were identified and distributed in a manner that concealed the identity of the participants. Measures and procedures to protect the confidentiality and rights of all participants were approved by the Ethical Committee of both sponsoring universities and accepted by the principals of all schools involved in this research.

Complete data on all measures was gathered for 467 participants; however, for each measure taken separately the answer rate was above 87% (unfortunately data was gathered during the seasonal outreach of the AH1N1 flu, which made impossible follow up visits to complete data collection).

Measures

Socio-Emotional Wellbeing. The self reported Socio-emotional Wellbeing Scale (Escala de Autoreporte de Bienestar Socio-Emocional [ASE]) was used to assess this dimension. This scale was developed for the Chilean population by Milicic, Arab, Alcalay, Berger and Torretti (see Arab, 2009) and constitutes a screening test aimed to determine the level of socio-emotional wellbeing of children aged 8 to 12 (2nd to 6th graders). The scale includes 52 items (considering reversed items) with a four categories likert type answer ("Happens to me all the time", "Happens to me usually", "Happens to me only few times", "Rarely happens to me"), and showed high internal consistency (α= .935). Sample items are "I'm alone during school breaks", "I trust myself that I can achieve my goals", "when I have a problem, I found ways to solve it", "when I am angry I know how to calm down myself".

Self Esteem. Self esteem was assessed through the Self-Esteem Scale (Test de Autoestima [TAE]), developed in Chile by Marchant, Haeussler and Torretti (2002) based on the Piers Harris assessment. TAE is a screening test for 3rd to 8th graders that comprises two measures that assess self esteem through complementary ways: A student's self report, and teacher's report. The student self-report protocol includes 23 items that the participant answers yes or no. The teacher version includes 19 items with four categories likert type answer. TAE was designed and validated for the Chilean population, establishing a statistical norm regarding the self esteem level.

Classroom Social Climate. To assess classroom social network, the School Climate Scale (Escala de Clima Social [ECLIS]) was developed by Arón and Milicic (1999). ECLIS includes 55 items with four likert type answer options; on each item participants answer regarding his or her agreement with the statement, ranging from everyone/always to none/never. Items focus on teachers ("they are trustful", "they notice when you are troubled", "they are fair"), classmates ("mi classmates make fun of me", they know how to share", "I feel alone in my class"), and the school setting ("my school is clean and well organized", "I have enough working material in my classroom").

Social Integration. Participants' social integration was assessed through the Social Cognitive Mapping (SCM) procedure (Cairns, Perrin, & Cairns, 1985). Children answer the question "*Do you hang around together a lot with some kids in your classroom?*" Participants who responded affirmatively were asked to write down the names of the members of his or her group. Eight lines were provided to write down the names; however, children were told that not all lines had to be filled and that they could add more names if needed. Social integration was calculated as the number of nominations received as part of a certain group over the maximum potential number of nominations.

Peer Social Network. In order to assess structural attributes of the peer social network, social network analyses were performed using the Simulation Investigation for Empirical Network Analyses (SIENA) program. SIENA is one of the statistical modules of StOCNET (Boer et al., 2006), a family of statistical programs for social network analysis. Matrices in which each line represents a nominating child and each column a potential nominatee were constructed for each classroom. Three main structural attributes of the network were calculated: (a) *density*, based on the number of outgoing ties; (b) *reciprocity*, the extent to which nominations as part of the own group are reciprocated; and (c) *transitivity*, the tendency of individuals to be friends with the friends of their friends, or in other words, the tendency to closure.

Academic Achievement. School records for all participants were collected. Average grade for the whole previous academic year was used to assess academic achievement.

Analytical Strategy

Considering the nested structure of the data, multilevel analyses were best suited. Hierarchical linear modeling (HLM) was used to analyze the association of both individual and classroom level social and emotional characteristics on academic achievement. HLM considers that individuals are nested within particular classrooms. Consequently, HLM estimates intercepts and slopes within classroom, thus calculating correct standard errors and allowing an unbiased significance test (Raudenbush & Bryk, 2002). Moreover, HLM allows estimating moderating effects of higher level features on associations that occur at the individual level, and testing simultaneously individual and classroom level, estimating the proportion of variance accounted for by each. Three steps are involved in a regular HLM model. First, as a preliminary step a fully unconditional model is estimated to clarify if HLM is appropriate for a particular set of data (i.e., part of the variance is explained by between-group differences). The second step implies estimating an unconditional level-one model with all level-one predictors, testing for slopes' heterogeneity. The third step refers to estimating a level-two model, in which level-two variables are hypothesized to moderate the association between level-one predictors and the dependent variable (Raudenbush & Bryk, 2002). In the present study the effects of socioemotional wellbeing, self esteem, social integration, and individual school climate perception at level-one, and network features (density, reciprocity and transitivity) and school social climate at level-two, are regressed on academic achievement. Gender was included as a covariate in all analyses.

Prior to all analyses all self reported measures were *z*-standardized within the whole sample. Teacher reports were *z*-standardized within each classroom. Academic achievement was standardized within schools, since evaluating and grading procedures might be different for each institution.

Results

Means and standard deviations for all study variables are presented in Table 1, by gender. Girls scored higher on socioemotional wellbeing and on their perception of the classroom social environment than boys (ts = 2.50 and 3.84, ps < .05), and were rated by their teachers as higher with regards to their self-esteem (t = 2.73, p < .01). Regarding their academic achievement, girls obtained higher grades (average of the whole academic year) than boys (t = 3.92, p < .001).

Table 1
Means and Standard Deviations for Study Variables, by Gender

	Boys		Girls			
	M	SD	M	SD	t	sig.
Socioemotional wellbeing	-.11	.99	.10	.96	-2.50	.013
Self-esteem (student)	-.07	.97	.06	1.02	-1.56	ns
Self-esteem (teacher)	-.11	.98	.10	.98	-2.73	.007
Classroom climate	-.17	.99	.15	.99	-3.84	.000
Social integration	.04	1.03	-.04	.97	< 1	ns
Academic achievement	-.16	.98	.15	.99	3.92	.000

Table 2 displays intercorrelations among study variables separated by gender. As can be observed, all variables within the socioemotional sphere (i.e., SEW, SE both from student and teacher ratings, a positive perception of classroom social climate and social integration) were positively associated with each other for both boys and girls. Also, with the exception of classroom social integration (only for boys), all variables correlated positively and significantly with academic achievement.

Table 2
Correlations between Study Variables, by Gender

	Socioemotional wellbeing	*Self-esteem (student)*	*Self-esteem (teacher)*	*Classroom Climate*	*Social integration*	*Academic Achievement*
Socioemotional wellbeing	-	.60**	.29**	.39**	.25**	.23**
Self-esteem (student)	.57**	-	.32**	.41**	.16**	.27**
Self-esteem (teacher)	.33**	.34**	-	.22**	.26**	.57**
Classroom Climate	.41**	.38**	.17*	-	.18**	.13*
Social integration	.27**	.33**	.36**	.19**	-	.10
Academic Achievement	.29**	.32**	.61**	.18**	.22**	-

Note. ** $p < .01$; * $p < .05$. Correlations for boys above diagonal, girls below diagonal.

Hierarchical Linear Modeling

In order to test the study hypotheses, Hierarchical Linear Modeling (HLM) analyses were performed. Following HLM procedures, first a fully unconditional model was tested in order to check if hierarchical modeling suited the nested structure of the data. The intra-class correlation (ICC) was .035, showing significant differences by classroom ($\chi^2_{(18)} = 32.28$, $p < .05$). In other words, 3.5% of the variance of academic achievement was explained by classroom level predictors, and the remaining 96.5% could be attributed to individual level predictors.

Next, a model including all level-1 variables was tested. Socio-emotional wellbeing, social climate perception, self esteem as perceived by the teacher and the student him or herself, and social integration were entered (grand-mean centered; for a discussion on variable centering see Enders & Tofighi, 2007) as predictors of academic achievement; gender was entered as covariate. Gender showed no significant effect and was excluded from following analyses. The only significant predictors at level-1 were self esteem as perceived by the teacher ($\beta = .585$, $t = 14.83$, $p < .001$) and by the student ($\beta = .174$, $t = 3.74$, $p < .001$). Variance estimates of this model indicated that there was still unexplained variance across classrooms ($\tau = .042$, $\chi^2_{(18)} = 49.86$, $p < .001$).

Table 3
Final Hierarchical Linear Model predicting Academic Achievement

Fixed effect	γ	*SE*	*t*	*d.f.*	*p*
Academic achievement (intercept): Base	.032	.047	< 1	14	.507
Network density	-3.270	2.391	-1.37	14	.193
Network reciprocity	-.261	.145	-1.80	14	.092
Network transitivity	-3.113	1.645	-1.89	14	.079
Classroom social climate	-.185	.177	-1.04	14	.315
Self esteem as perceived by teacher: Base	.576	.041	14.09	413	.000
Network density	3.930	1.665	2.36	413	.019
Network reciprocity	-.048	.063	< 1	413	.447
Network transitivity	2.444	.985	2.48	413	.014
Classroom social climate	-.243	.080	-3.03	413	.003
Social integration: Base	-.021	.039	< 1	413	.590
Network density	-3.258	2.028	-1.61	413	.109
Network reciprocity	-.205	.097	-2.11	413	.035
Network transitivity	-3.808	1.125	-3.38	413	.001
Classroom social climate	.154	.121	1.27	413	.204
Self esteem as perceived by self: Base	.165	.052	3.14	413	.002
Social climate perception: Base	.026	.040	< 1	413	.526
Socio-emotional wellbeing: Base	.020	.042	< 1	413	.631

Note. The outcome variable is academic achievement.

Finally, the full model including both level-1 and level-2 predictors was tested. This model included effects of level-2 predictors on the intercept (i.e., main effects), and also level-2 effects on level-1 variables' slopes (i.e., interaction effects). The reliability estimate of the model was .607, variance component was $\chi^2_{(14)} = 37.73$, $p < .01$. Table 3 displays coefficients and significance tests. As shown, the only level-1 variables that showed main effects were self esteem as perceived by the teacher and the self (*t*s = 14.09 and 3.14, respectively).

Table 3 also shows that no level-2 variables had a significant main effect on the intercept; only network reciprocity and network transitivity almost reached significance (*p*s = .09 and .08, respectively), showing a tendency for higher academic achievement in classrooms in which friendships are reciprocated and social networks tend to closure. However, significant interaction effects were found. The effect of self esteem as reported by teachers on academic achievement was moderated by network density (t = 2.36) network transitivity (t = 2.48), and classroom social climate (t = -3.03), such that self esteem was a stronger predictor in classrooms in which more friendships took place and the social structure was tighter, and was less significant in classrooms with a poorer social climate. Seemingly, even though social integration did not show significant main effects, level-2 predictors moderated its association with academic achievement. Network reciprocity and transitivity both negatively predicted the slope of social integration (*t*s = -2.11 and -3.38, respectively), showing that social integration is more likely to be associated with academic achievement in classrooms in which social bounds are weaker and random.

Discussion

The present study focused on the association between social and emotional features and academic achievement of 3rd and 4th graders. Contributing to a growing body of research showing a significant impact of social and emotional characteristics on academic success, results show significant correlations between socio-emotional wellbeing, self esteem, social integration and a positive perception of the school social climate, and academic achievement. Moreover, this study adopted a multilevel perspective including both individual and classroom level characteristics, acknowledging the nested nature of the school experience.

An important consideration that this study raises is how the socio-emotional dimension might be operationalized. Current theoretical developments posit socio-emotional learning (SEL) as an important perspective that integrates both emotional and social features. Overcoming theoretical perspectives that focus solely on the individual, SEL includes both characteristics of the individual but also of the particular environment in which he or she develops (Zins et al., 2007). In other words, socio-emotional development cannot be assessed only by measuring individual characteristics, but also by assessing the relationship between the individual and his or her social context. Unfortunately, there are no measures or assessment tools in Spanish and validated for a Latin-American population that address this topic, and previous research has used different theoretical perspectives and instruments to approach the subject. In this sense, this study contributes in two ways to the operationalization of the socio-emotional dimension within education. First, following the notion of SEL as integrating both individual characteristics and the social contexts in which they unfold, the present study features a multilevel approach assessing individual level factors nested within classroom level factors. It is word noting that hierarchical linear modeling (HLM) does not add individual and group level predictors, but acknowledges the nested nature of data; in this sense, more than considering two levels of social complexity, this study integrates the consideration of individual characteristics and how they are associated to academic achievement within these particular environments. Also, from a measurement perspective this study introduces an instrument to assess socioemotional wellbeing among children, elaborated and validated for the Chilean population.

Regarding the study hypotheses, significant correlations were found for all socio-emotional variables and academic achievement for both boys and girls (except social integration for boys). Multilevel analyses showed that network structural characteristics almost reached significant levels regarding main effects on academic achievement (Table 3).

Interestingly, significant interaction effects were found. Self esteem as reported by the teacher lost strength as predictor of academic achievement in classrooms with a better social climate; in other words, in classrooms with a poorer environment the perception of the teacher might compensate when assessing academic achievement. By the other hand, network structural features (density and transitivity) strengthened the predicting power of self-esteem, showing an interaction effect of both teacher and peers as significant social relations for academic success, which is in line with previous research (Arón & Milicic, 1999). Moreover, the predicting effect of teacher perceptions of self esteem refers directly to the expectancies that teachers might have regarding their students, and thus how they give feedback and request academic improvements and success from them. However, the fact that self-esteem as reported by teachers showed the highest correlation with academic achievement is worrying, since it talks directly to the Pygmalion effect (Rosenthal & Jacobson, 1992); most probably these results imply that students who are good students are rated as higher on self-esteem by their teachers, and consequently teachers might reinforce and enhance academic development of those students who they perceive as higher on their self-esteem, and consequently act directly over their self-

esteem. In this sense, teachers should be aware of their competences regarding how they can enhance their students' self-esteem and wellbeing. In this sense, SEL programs should focus on enhancing competences more than on overcoming weaknesses.

Methodologically, the significant and large predicting effect of teachers' perception of self-esteem explains why in the regression model other variables, that showed significant associations with academic achievement, did not reach significance in the hierarchical regression analysis. However, considering that all socio-emotional variables did correlate significantly with each other, it is reasonable to suppose that when excluding teacher reports the predicting power of other variables increase. In fact, when running same analyses excluding self esteem reported by teachers, both self esteem reported by the self ($t = 4.37$, $p < .001$) and socio-emotional wellbeing ($t = 1.83$, $p < .07$) arise as significant level-1 predictors. Self esteem showed significant interaction effects with level-2 variables; when social networks were weaker (lower in reciprocity and transitivity) the predicting effect of self esteem on academic achievement was stronger. Further research is needed to gain a better understanding of how teachers' perceptions, along with other individual and classroom level factors, are associated to academic achievement.

This study has limitations that should be considered when interpreting the data. First, due to its cross-sectional nature no causal relationships can be established, even though the literature shows an effect of socio-emotional features on academic achievement. Longitudinal analyses are needed to test this hypothesis. Another limitation refers to the definition of the study variables. It was already discussed the difficulty to define socio-emotional variables. This study included self esteem, socio-emotional wellbeing, social integration, classroom social climate, and network characteristics, considering the SEL framework that includes both individual and contextual factors. However, other variables might be included within this dimension. Seemingly, academic achievement can be further disaggregated, for instance in math and language. The fact that no gender differences were found might be due to the inclusion of academic performance as a whole, considering that boys and girls have been shown to perform differently in these areas. Methodologically, this study includes a new developed instrument to assess socio-emotional wellbeing, validated for the Chilean population. Even though it is a strength to introduce a new screening instrument to assess socio-emotional wellbeing, it might affect the replicability of the results presented here.

In sum, this study highlights the importance of the socio-emotional dimension on academic achievement and adds, from a Latin-American evidence based perspective, to an already consistent body of evidence showing that both socio-emotional characteristics of the student and of the environment are significant factors for academic success. Schools should thus include SEL explicitly in their curriculum, acknowledging that development is a multidimensional, context-based phenomenon.

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