

Social Competence at School: Effectiveness of a Teaching at Distance Program for Teachers

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Abstract: Social skills programs usually take place face-to-face in small groups. Aiming at greater reach and dissemination, this study had the objective of experimentally evaluating the impact of a distance learning program on teachers' social and social educational skills and on students' socio-emotional development (social skills and behavior problems). Scores obtained with standardized scales in a sample of 35 teachers (15 from the experimental group and 20 from the control) and 231 students (103 and 128, respectively) were statistically analyzed by comparing groups and moments. The results evidenced the program's effectiveness on the teachers' social and social pedagogical competence and on the students' social emotional development, especially among those most compromised in social skills and behavior problems. The program's potentially effective characteristics, the innovative character of the Distance Education applied to the field of social skills and teacher education are discussed, as well as its limitations and directions for future research.

Keywords: social skills, academic learning, professional education, distance education, effectiveness

Competência Social na Escola: Efetividade de Programa de Ensino a Distância para Professores

Resumo: Programas de habilidades sociais geralmente ocorrem presencialmente, em pequenos grupos. Visando maior alcance e disseminação, este estudo teve por objetivo avaliar experimentalmente o impacto de um programa de ensino à distância sobre as habilidades sociais e sociais educativas dos professores e sobre o desenvolvimento socioemocional dos alunos (habilidades sociais e problemas de comportamento). Escores obtidos com instrumentos padronizados, junto a 35 professoras (15 do grupo experimental e 20 do controle) e 231 alunos (103 e 128 respectivamente), foram estatisticamente analisados, comparando-se grupos e momentos. Os resultados evidenciaram a efetividade do programa sobre a competência social e social pedagógica das professoras e sobre o desenvolvimento socioemocional dos alunos, especialmente aqueles mais comprometidos em habilidades sociais e problemas de comportamento. São discutidas as características potencialmente efetivas do programa, o caráter inovador da Educação à Distância no campo das habilidades sociais e formação de professores, bem como limitações e encaminhamentos de pesquisas futuras.

Palavras-chave: habilidades sociais, aprendizagem escolar, formação profissional, educação à distância, efetividade

Competencia Social en la Escuela: Eficacia de un Programa de Enseñanza a Distancia para Profesores

Resumen: Los programas de habilidades sociales suelen realizarse cara a cara, en pequeños grupos. Apuntando mayor alcance y difusión, este estudio tuvo como objetivo evaluar experimentalmente el impacto de un programa de educación a distancia en las habilidades sociales y socioeducativas de los docentes y en el desarrollo socioemocional de los estudiantes (habilidades sociales y problemas de conducta). Los puntajes obtenidos con escalas estandarizadas, en muestra de 35 docentes (15 del grupo experimental y 20 del control) y 231 estudiantes (103 y 128 respectivamente), fueron analizados estadísticamente mediante comparación de grupos y momentos. Los resultados evidenciaron efectividad del programa en la competencia social y socio pedagógica de los docentes y en desarrollo socioemocional de los estudiantes, especialmente aquellos más comprometidos. Se discuten las características potencialmente efectivas del programa, el carácter innovador de la Educación a Distancia de habilidades sociales en la formación docente, así como sus limitaciones y orientaciones para futuras investigaciones.

Palabras clave: habilidades sociales, aprendizaje escolar, formación profesional, educación a distancia, efectividad.

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The expansion of the school's role aimed at articulating the quality and effectiveness of learning with the social and emotional development of students is based on pedagogical proposals of great educators and has been reflected in international recommendations, with emphasis on the pioneering effort of UNESCO (International Commission on Education for the Twenty-First Century, 1997). This development includes self-determination, commitment, optimism, curiosity, social awareness, problem solving, self-knowledge, self-regulation

and other aspects that contribute to academic learning and future professional success.

The promotion of students' social and emotional development is also present in Brazilian educational legislation (Ministry of Education, 2018), imposing many challenges for the training and performance of teachers as protagonists for implementing this policy. The principles for this role already present in the national curriculum guidelines for training Basic Education teachers (Ministry of Education, 2015) can be analyzed from the perspective of socio-emotional development at school. It is about guaranteeing teacher training which includes the following objectives: (a) understanding teaching as an intentional and methodical process, based on specific knowledge about teaching-learning, socialization and knowledge construction; (b) the concept of teaching and learning associated with the socio-emotional development of students; (c) mastery of teaching conditions, strategies and skills aimed at teaching-learning-development articulation; (d) promotion of students' sociocultural identity, citizen's rights and duties, respect for the common good and democracy and work orientation.

Addressing these issues requires knowledge about Psychology and Education (curriculum, pedagogical practices, human development, teaching-learning, teaching programming, etc.). Part of these issues are addressed in this study from the perspective of the theoretical-practical field of social skills (Del Prette & Del Prette, 2022; Milligan, Sibalis, Morgan, & Phillips, 2017) in their applicability to the school context (DiPerna, Lei, Cheng, Hart, & Bellinger, 2018; Gresham & Elliott, 2016). For this, it becomes important to briefly expose the conceptual basis of this field with its basic concepts of social competence and social skills.

Social competence is a central and integrated concept of the practical theoretical field of social skills, and an evaluative concept of both the performance and the results of interactions (Del Prette & Del Prette, 2022). In terms of performance, the interaction must be guided by social skills, meaning by behaviors which are socially expected, approved and valued by the culture or subculture. The results are considered in the short, medium and long term for the individual, the social group and society in general, thus contemplating the instrumental and ethical dimensions of social competence. Such outcomes include: achieving goals, maintaining or improving the self-concept and self-esteem of those involved, maintaining or improving the quality of the relationship, balance of exchanges and interpersonal human rights.

Childhood social competence includes the first three criteria, and additionally positive adult assessment, social status with peers, and indicators of associated adaptive behaviors (Del Prette & Del Prette, 2022). In the case of the teachers, one can also consider their "pedagogical" social competence in addition to their "personal" social competence (Del Prette & Del Prette, 2022), as evaluated by the results of educational social interactions in terms of students' learning and development.

An indispensable, if not sufficient, requirement for socially competent performance is a good repertoire of social skills (assertiveness, empathy, interpersonal problem solving, etc.) associated with the quality of body and paralinguistic communication (facial and body expression, gestures, posture, etc.). Thus, seven sets of social skills in childhood are critical to students' social competence and socio-emotional development: self-control and emotional expressiveness, civility, empathy, assertiveness, making and maintaining friendships, interpersonal problem-solving, and academic social skills (Del Prette & Del Prette, 2022).

Social skills are also requirements of the teacher's pedagogical social competence, particularly educational social skills, being defined as "actions intentionally planned to promote the development and learning of others in a formal or informal situation" (Del Prette & Del Prette, 2022). They are essential for the teacher to plan and conduct educational social interactions with students and are increasingly recognized as a basis for academic achievement and for acquiring social and emotional skills (Pianta, 2015; Postholm, 2018). The main educational social skills of the teacher are those of emotional support, classroom organization and instructional support, which were identified in the CLASS scale (Pianta, 2015), and also in the factor structure of the Inventory of Educational Social Skills (*Inventário de Habilidades Sociais Educativas - IHSE-Prof*, Del Prette & Del Prette, 2018b), used in the present study.

In addition to social skills, socially competent performance depends on sociocognitive and emotional requirements, among which the following stand out: self-knowledge of one's own resources, difficulties, and goals, etc.; knowledge of the norms and rules of the social environment, which indicate what is valued or disapproved in different contexts; self-monitoring of performance during the ongoing interaction; and coexistence values (for example, respect, citizenship, cooperation, solidarity, responsibility, reciprocity), understood as desirable results that guide social coexistence. All these aspects are relevant to the social and emotional development of students and can positively impact their academic achievement. In addition, they are indispensable for the pedagogical competence of teachers as mediators of students' socio-emotional development.

The feasibility and effectiveness of teaching and promoting social skills and social competence at school, along with their cognitive, affective and behavioral components, has been pointed out in several studies (DiPerna et al., 2018; Hickey et al., 2017; Milligan et al., 2017; Milligan et al., 2018; al., 2017). Moreover, there is robust evidence of the positive impact of social skills as enabling factors for academic achievement, as well as the negative effect of deficits in this area (Alzahrani, Alharbi, & Alodwani 2019; Gresham & Elliott, 2016).

In addition to school success, social skills function as a protective factor for healthy development, preventing or reducing the occurrence of emotional-behavioral problems, psychological disorders, bullying, and prejudice, among others (Del Prette & Del Prette, 2022; Domitrovich, Durlak,

Staley & Weissberg, 2017). The investment in social skills and socio-emotional development of students (as well as the teachers development) in the long term is additionally justified by its positive impact on mental health, quality of life, professional success and even the perception of happiness (Salavera & Usán, 202; Segrin & Taylor, 2007).

Overcoming school failure and promoting student development is particularly relevant in countries with worrying educational indicators, such as Brazil (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* [INEP], 2021). Even recognizing the multiple factors which go beyond the scope of teaching activities/practice, and that should be considered in public policies, the teacher's role is fundamental for achieving the expanded social function of the school.

Thus, it is necessary to invest in continuing education aiming at their social competence, both personal and pedagogical. In personal terms, it is about the socio-emotional development of the teacher to face the recognized occupational stress of their profession (Livingston & Flores, 2017) and also to act as a socially competent model for students. In professional terms, it is about expanding their pedagogical social competence to promote the socio-emotional development of students, in articulation with academic learning and strengthening the teacher's role as an effective mediator of educational social interactions in the classroom.

Meeting the training needs of teachers also means recognizing the challenges of the reality in which they are inserted. This reality in Brazil includes: excessive working hours, unfavorable conditions for improvement and low remuneration, associated with the absence of public policies to value the teaching career. Therefore, along with the aforementioned factors, teacher training requires the search for alternatives which are attractive, viable and effective.

Distance Education courses have been considered as an alternative, but not yet sufficiently evaluated in terms of their effectiveness and relevant ingredients, especially in Brazil. In addition to a consistent conceptual framework in the case of teacher education (Sancar, Atal, & Deryakulu, 2021), advocates of this modality highlight the need for an effective structure in an accessible and attractive format for teachers. Some of the effectiveness conditions highlighted in the literature (Dille & Røkenes, 2021; Lay, Allman, Cutri, & Kimmons, 2020) include: attention to the specific needs of teachers, collaboration and exchange of experiences, active learning, mentoring and expert support, feedback for acquisitions, use of models and opportunities to practice, implement and reflect on different pedagogical strategies.

The present study is based on the importance of socio-emotional development at school, on the potential of the field of social skills for the continuing education of teachers and on the need for viable and effective training alternatives for this. Social skills programs have been conducted face-to-face and in small groups, which limits their reach and dissemination. Aiming at greater reach and dissemination, this study had the objective of experimentally evaluating the impact

of a distance learning program on teachers' social and social educational skills and on students' socio-emotional development (social skills and behavioral problems).

Method

The program was hosted in a Moodle environment (<http://www.portaldosprofessores.ufscar.br/>) with a duration of 120 hours distributed in 16 biweekly units, organized in the first three modules. Module 1 aimed to present the framework of social skills and social competence and to promote the participants' repertoire so that they could directly experience the impact of social skills on their own relationship with family, colleagues, friends and strangers. Module 2 focused on childhood social competence, its cognitive, behavioral and affective components, its association with academic learning and prevention of socio-emotional problems, and strategies for observing, assessing and promoting students' social skills. Module 3 aimed to improve and diversify teachers' social educational skills and strategies to conduct the active and interactive teaching necessary for the social and emotional development of students in conjunction with academic learning.

Each unit of the program was structured around a hypermedia text with illustrations, links to instructional videos, encouraging demonstrations, songs and messages. Teachers were asked to complete practical tasks which required analysis, reflection and application of knowledge in social interactions with people they were familiar with, and especially with students in the classroom. The answers to the tasks were subject to immediate correction via automated feedback and feedback by tutors. Some tasks involved interaction and an exchange of experiences between course participants (forums), analysis and evaluation of their own and students' performance, as well as evaluation by tutors and the teaching conditions structured for the program.

Participants

A total of 35 teachers participated, 15 from the Experimental Group who completed the three modules and 20 from the Control Group who completed the planned assessments. The two groups did not differ significantly in age (average of 39.9 and 37.9 respectively), time in the classroom (12.6 and 10.7 years) or number of students in the classroom (22.6 and 21.0), both with predominant training in pedagogy and *latu sensu* postgraduate courses, mastery of information technology and appreciation of distance education (schedule flexibility, accessibility and opportunity to interact with colleagues).

The teachers signed up via social networks, at which time they were informed of the condition of a participating group (Experimental) and a waiting group (Control) which would only participate in the evaluations in the experimental test stage, receiving the program later. Those who met the following criteria were selected: accepting the condition

in which they were allocated, being teaching classes in elementary school and not involved in equivalent training. Regarding allocation in the experimental and control groups, pairs were initially formed equivalent in age, type of school and school year of the students, then a member of the pair was randomly selected for each group.

The sample of students consisted of 231 children, 103 from the Experimental Group (44.6%) and 128 from the Control Group (55.4%). Each teacher was asked to choose six children from their classroom according to the following criteria: high, low and medium academic performance, with an externalizing behavior problem (aggressiveness, restlessness, tantrum), with an internalizing problem (sadness, isolation, low self-esteem), and no behavior problem. Thus, the sample consisted of 118 students considered “at risk” (low academic performance and behavioral problems) and 113 considered “without risk” (high academic performance and not classified as problematic). The groups did not show a significant difference regarding the proportion of children with and without risk, gender or type of school (public or private), but they did for age and education, being slightly higher for the control group ($p < 0.05$).

Instruments

Social Skills Inventory (Inventário de Habilidades Sociais - IHS2-Del-Prette) (Del Prette & Del Prette, 2018a). This instrument consists of 38 items answered on a five-point Likert scale ranging from 0-2 (never or rarely) to 9-10 (always or almost always). It only considers items with a factor loading greater than 0.30, and produces an overall score of 30 items ($\alpha = 0.944$) and five factor scores: F1, Assertive conversation ($\alpha = 0.934$); F2, Affective-sexual approach ($\alpha = 0.774$); F3, Expression of positive feeling ($\alpha = 0.894$); F4, Self-control/Coping ($\alpha = 0.840$); F5, Social resourcefulness ($\alpha = 0.840$). The full scale explained 59.8% of the variance, with good general and local fit indices: $\chi^2 = 1823.539$; $df = 295$; $\chi^2/df = 4.52$, $p < 0.001$; CFI = 0.966; TLI = 0.950; RMSEA = 0.037 (90% CI = 0.033 - 0.037). The internal consistency of the general score in the sample of this study was $\alpha = 0.772$ (the eight items with the lowest factor loading were kept in the form, considering possible qualitative analyzes and future studies).

Teacher Educational Social Skills Inventory (Inventário de Habilidades Sociais Educativas do Professor - IHSE-Prof) (Del Prette & Del Prette, 2018b). This instrument consists of 45 items that describe teacher interactions with students answered on a Likert scale that ranges from Never or Almost Never (0) to Always or Almost Always (4). The instrument produces a general score with 45 items ($\alpha = 0.957$) which are grouped around three factor scores: F1, Socio-emotional support ($\alpha = 0.758$); F2, Inductive Discipline ($\alpha = 0.758$); F3, Mediation learning/development ($\alpha = 0.758$), with good fit rates ($\chi^2 = 1672.568$; $df = 858$; $\chi^2/df = 1.95$; $p < 0.001$; CFI = 0.955; TLI = 0.948; RMSEA = 0.043; (CI 90% = 0.040-0.046) The internal consistency of the general score in the sample of this study was $\alpha = 0.956$.

Inventory of social skills, behavior problems and academic competence for children (The Social Skills Rating System - SSRS) (Gresham & Elliott, 2016), evaluation version by the teacher. The SSRS was adapted in Brazil for children aged 6 to 13 years, preserving only items with statistically relevant factor loading. The teacher assessment version contains 22 items on social skills ($\alpha = 0.92$) and 14 items on behavior problems ($\alpha = 0.92$). The social skills scale produces a four-factor structure (F1: Responsibility; F2: Self-control; F3: Assertiveness/Social Resourcefulness; F4: Cooperation/Affectivity) and the problem behavior scale, a three-factor structure (F1: Internalizing; F2: Externalizing; F3: Hyperactivity), both with satisfactory fit indices. The internal consistency in the sample of this study was $\alpha = 0.92$ for social skills and $\alpha = 0.91$ for behavior problems.

Procedure

Data collection. The study was conducted almost entirely before the pandemic, with simultaneous data collection for the experimental and control groups and collective initial assessment in the presence of the researchers and tutors. The second evaluation occurred at the beginning of the pandemic, and took place virtually by sending individual links, being answered synchronously and with monitoring by the tutors. The children’s assessment was performed by the teachers in SSRS online forms during Module 2 and after Module 3.

Data analysis. The teachers’ responses were converted into scores according to the instructions of each of the instruments and the effect of the group, moment and interaction factors on the set of scores was tested after confirming the distribution normality of scores (Shapiro-Wilks) (MANOVA, Hotelling’s t^2). The results showed a significant group difference for the *IHS2-Del-Prette* ($p = 0.001$) and the SSRS ($p = 0.023$), and of interaction for the *IHS2-Del-Prette* ($p = 0.028$). Differences between groups and between moments were tested (ANOVA) with post hoc multiple comparison (Tukey’s test). The data were analyzed separately in the case of the SSRS for the groups of students “without risk” (with a good repertoire of social skills and without behavioral or learning problems) and “at risk” (with behavior and/or learning problems).

The effect size (Cohen’s d) of the main differences was computed, interpreted according to the following criteria (Sawilowsky, 2009): very small (below 0.20); small (from 0.20 to 0.50); medium (from 0.50 to 0.80); large (from 0.80 to 1.20) and very large (above 1.20). Illustrative figures were constructed to visualize the moment and group effects.

Ethical Considerations

The entitled project which gave rise to this study was approved by the Ethics Committee of the Universidade Federal de São Carlos (CAAE No. 50409115.4.0000.5504). All ethical precautions relevant to research with humans were met, including the Informed Consent Form of the

teachers and the Parents' Term of Assent for the evaluation of the children by the teachers.

Results

There was multivariate statistical significance (Hotelling's t^2) for the effects of the program on the teachers' repertoire only for the social skills scores in the Group ($p = 0.001$) and Interaction ($p = 0.028$) factor. The ANOVA results showed an effect of the Group on social skills, in the general score and in the scores of all factors of the *IHS2-Del-Prette* ($p < 0.05$), except F1 ($p = 0.429$), moment effect in F5 ($p = 0.048$) and the effect of Group-Moment Interaction on the General Score ($p = 0.016$), F3 ($p = 0.001$) and F4 ($p = 0.015$). There was no effect

of the group in the *IHSE-Prof*, but of the Moment in F1 ($p = 0.001$), F2 ($p = 0.015$) and effect of Group-Moment Interaction on the General Score ($p = 0.019$), F1 ($p = 0.022$) and F2 ($p = 0.035$).

The post-hoc analysis (Tukey's test) showed significantly higher scores in the case of social skills for the experimental group at both moments ($p < 0.001$ and $p < 0.05$), except in F2 ($p = 0.427$), significant differences between moments in the experimental group for the overall score ($p = 0.025$), F3 ($p = 0.004$), F3 ($p = 0.021$) and marginally significant for F5 ($p = 0.061$). The effect size of the difference between the groups was large and very large in the evaluation after the program (0.956 to 1.927) in all scores, and very large in the pre/post difference for the experimental group (1.431 to 1.765) in the overall score and in the F3, F4 and F5 factors. Figure 1 illustrates the post-hoc results.

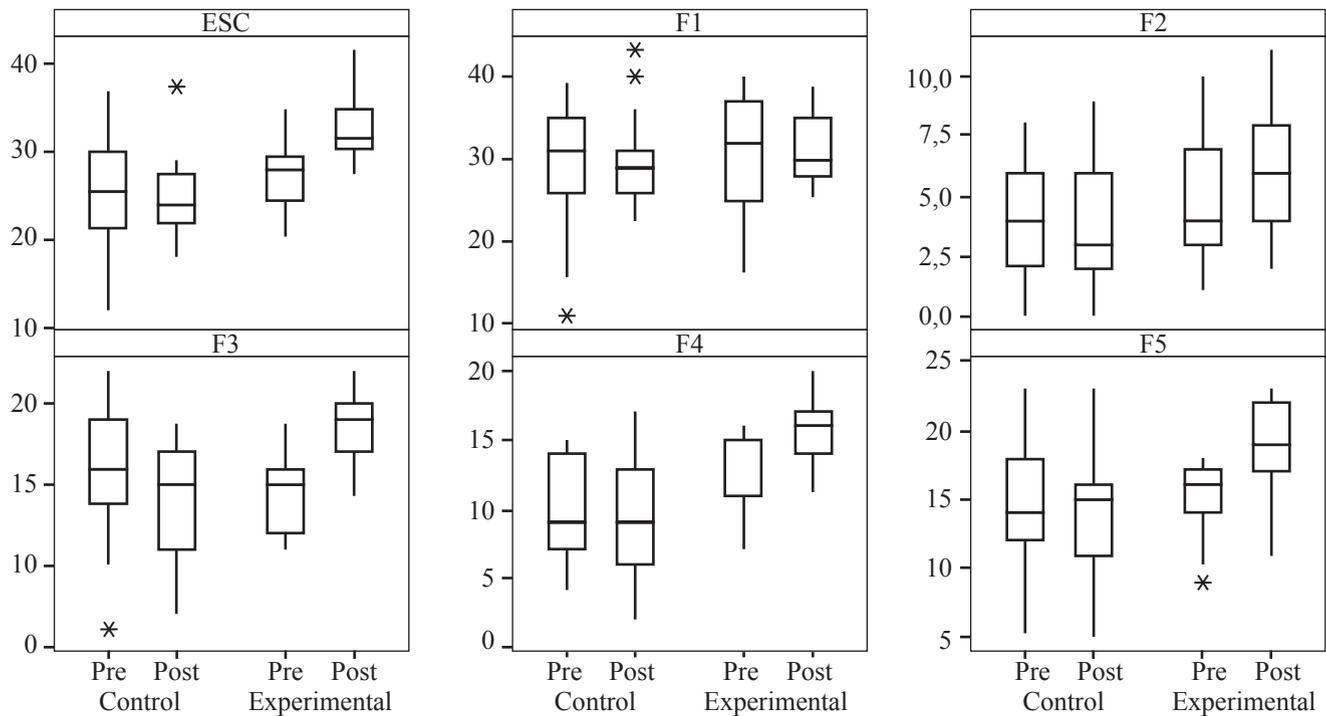


Figure 1. Teachers' scores from the Experimental Group and the Control Group in social skills (*IHS2-Del-Prette*, above) before and after the Program. Note. ESC = General Social Skills Score; F1= Assertive conversation; F2 = Affective-sexual approach; F3 = Expression of positive feeling; F4 = Self-control/ Coping; F5 = Social resourcefulness.

In the case of educational social skills, there was a previous difference favorable to the experimental group only in F1 ($p = 0.031$), but the two groups differed in the post evaluation in the general score ($p = 0.024$), F1 ($p = 0.025$) and F2 ($p = 0.046$), with large effect sizes (0.896 to 0.969). Differences between pre and post evaluations in the experimental group were significant in the overall score ($p = 0.031$) and F1 ($p = 0.016$), and marginally significant in F2 ($p = 0.094$), with large to very large

effect sizes (0.969 to 1.246). There was only no significant difference between the moments ($p = 0.744$) in F3, despite the large effect size (0.824). Figure 2 illustrates the results of the post-hoc analysis.

The following are examples of educational social skills that showed significant improvement in the experimental group: F1 (learning-development mediation), conducting intense dialogue activities with the class, using everyday events to discuss coexistence, asking the student or group

to react to ideas and statements of colleague; F2 (positive discipline management, asking for desirable contingent to undesirable behavior, giving immediate positive feedback to desirable social behaviors, asking students to rate their academic and interpersonal performance; F3 (emotional support), showing support for a student with a problem, using playful and humorous methods/activities to improve the class atmosphere, and express affection to the students.

The students' repertoire was evaluated separately considering the impact on "no risk" children ($n = 74$). There was statistical significance in the MANOVA test (Hotelling's t^2) for the Group ($p = 0.026$) and for the Risk factor ($p < 0.001$), but not for the Interaction ($p = 0.951$). The ANOVA data showed a significant difference of Group in the general score of behavior problems ($p = 0.048$) and F3 ($p = 0.002$), as well as in the moment in the general score of social skills ($p = 0.042$). Significant differences were found in all of the Risk factor scores.

Moreover, as eight subgroups are formed as in the interaction between moment, group and risk, Tukey's multiple comparison (post-hoc) with effect size analysis (Cohen's d) was applied in matched pairs: four for the control group (G1 = pre, without risk; G2 = pre, with risk; G3 = post, without risk; G4 = post, with risk) and four for the experimental group (G5 = pre, without risk; G6 = pre, with risk; G7 = post, without risk; G8 = post, with risk). Figure 3 illustrates these results.

The results in both the experimental group and in the control group showed that the children initially classified by their teachers in the risk group differed significantly from the unclassified ones (G1 x G2, G3 x G4, G5 x G6 and G7 x G8), with large to very large effect sizes for all social skills and behavior problem scores. Only at-risk children in the experimental group (G6-G8) showed small to medium effect size improvements for social skills and behavior problems in the between-moment assessments.

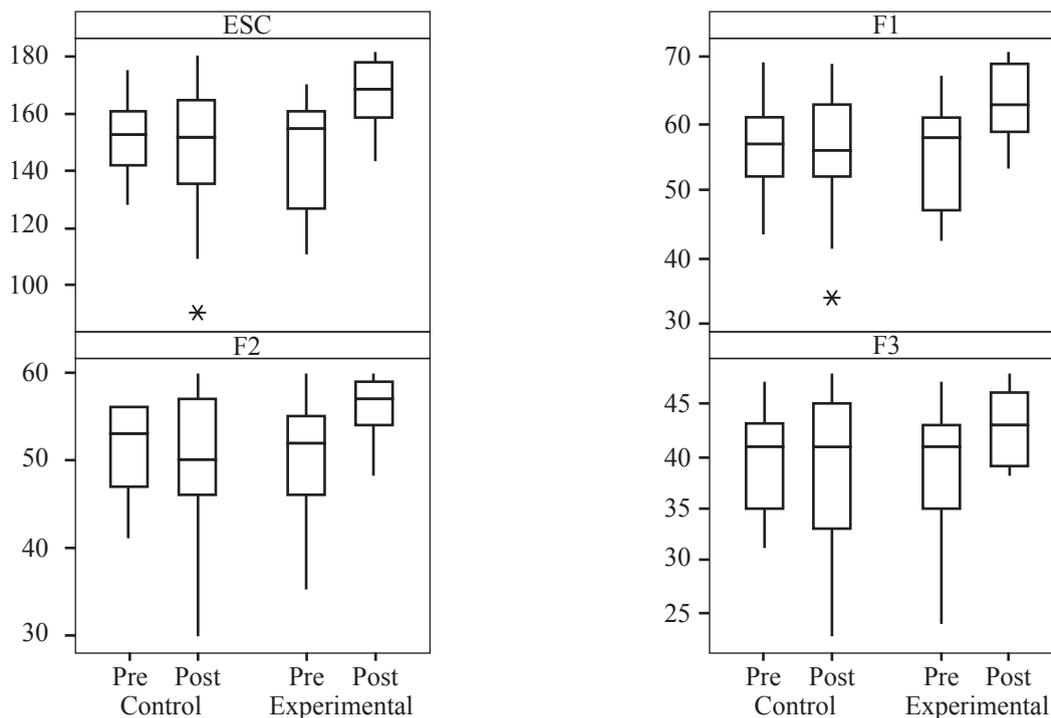


Figure 2. Teachers' scores of the Experimental Group and the Control Group in educational social skills (IHSE-Prof) before and after the program. Note. ESC = General score of educational social skills; F1= Socio-emotional support; F2 = Inductive discipline; F3 = Learning/development mediation.

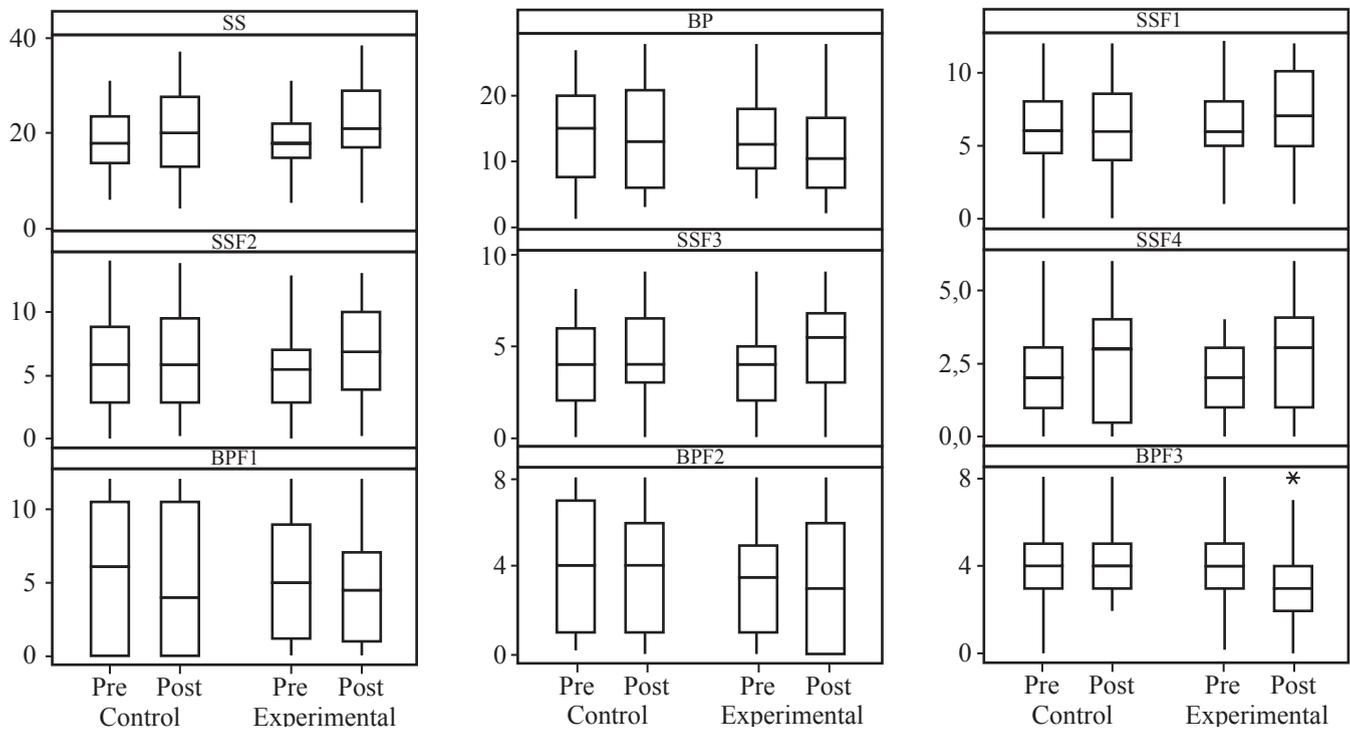


Figure 3. Social skills and behavior problems scores of at-risk students from the Experimental Group and the Control Group before and after the program. Note. SS = Social Skills Score; BP = Behavior Problems Score; SSF1= Responsibility; SSF2 = Self-control; SSF3 = Assertiveness/Resourcefulness; SSF4 = Cooperation/Affectivity; BPF1= Externalizing; BPF2 = Internalizing; BPF3= Hyperactivity.

Discussion

Using an experimental design, this study demonstrated the effectiveness of a continuing education program for teachers in the virtual form of distance learning. Significant effects on teachers' repertoire of social skills and educational social skills and effects on students' repertoire on socio-emotional indicators of social skills and behavior problems were identified. Improvements in the teachers' repertoire of social and social educational skills produced effect sizes which are suggestive of the intervention's impact on the experimental group, which did not occur in the control group.

The impact of the program on social skills occurred for the general repertoire and for the skills of expressing positive feelings (F3), self-control/coping (F4) and social resourcefulness (F5). These improvements meet the multiple daily demands of teachers' social interaction, which can favor their mental health (Salavera & Usán, 2021) and contribute to the teacher acting as a socially competent model for the students.

Acquisitions in educational social skills mainly occurred for learning/development mediation skills (F1) and inductive discipline (F2), but also for emotional support to students (F3). These results show that the teachers participating in the intervention became more effective in mediating interactive teaching conditions and in the positive management of discipline in the classroom, maintaining sensitivity to the emotional needs of students.

Teachers' attention to students' educational needs, their commitment to overcoming them, and self-assessments and references to their own performance and the results of their work are very suggestive indicators of improvement in their pedagogical social competence. This competence was therefore reflected in interactive classroom practices and in the quality of relationships with students, which constitute aspects emphasized in the course and recognized as factors of social and emotional learning at school (Aspelin & Jonsson, 2019; DiPerna et al., 2018; Hickey et al., 2017; Pianta, 2015)

The positive effect on students only occurred in the experimental group and was more robust for at-risk students in terms of improving social skills and reducing behavior problems. This data is important because it is the students who most require attention to their educational and emotional needs (Domitrovich et al., 2017). As teaching skills and strategies honed by teachers throughout the program contribute to active and interactive teaching, it is likely that all students will benefit from these conditions for academic learning and socio-emotional development in the medium term, as attested to in other studies (Alzahrani et al., 2019; Hickey et al., 2017; Pianta, 2015).

The repertoire of social skills and educational social skills is generally not part of the teacher's undergraduate training, but is recognized as an indispensable ingredient of efficient pedagogical techniques and practices (Pianta, 2015), and accordingly the importance of continuing education

programs that focus on this repertoire. The present study shows the applicability of the framework and resources from the field of social skills in school education, and particularly in the continuing education of teachers.

The results showed the feasibility and effectiveness of a continuing education program for teachers with these objectives in the Distance Education format. The use of this distance modality, as in the present study, is innovative in several ways. Skills promotion programs are usually face-to-face, in small groups, based on experiential strategies that increase their effectiveness, but may restrict their reach.

The Distance Education modality can solve the problem as long as it does not compromise the issue of effectiveness, since it can be adaptable and flexible to the agenda and needs of teachers. Thus, without disregarding the importance of face-to-face contacts, structuring which includes potentially effective ingredients in the virtual modality can enable access for teachers from different geographic areas and constitute the basis for virtual learning communities in the medium and long term, in turn contributing to strengthen the professional identity of teachers (Dille & Røkenes, 2021).

The effectiveness of the virtual distance learning format depends on adapting relevant teaching conditions from the face-to-face format to this modality, as performed in the present program. Some of the conditions recommended in the literature (Beisegel, Mitchell, & Hill, 2018; Dille & Røkenes, 2021) were reproduced in this study and others were specially created for the program. The use of videos and vignettes can be highlighted, with instructional, motivational and pedagogical alternatives modeling objectives, and the theory-practice articulation, with emphasis on interactive tasks to be carried out in the natural environment. These conditions were followed by a detailed report of performances and conditions in which they took place and feedback from tutors, automated feedback in videos with interactive questions and activities (forums) that required an exchange of experiences and mutual support between participants.

The results suggest that the set of these conditions was important for the personal and professional development of the participants (Lay et al., 2020). However, it is worth recognizing that identifying critical ingredients would imply more refined investigations in the future, associated with the indicators of academic and socio-emotional learning of students and an evaluation of the specificities of the participants' previous training and practice contexts.

Although not the object of analysis in this study, it is worth mentioning the positive evaluation of the participants about the program's teaching conditions, the procedures and resources used, the role of tutors and their own motivation and involvement with the program. The available evidence of effectiveness, as well as the feasibility and acceptance of the Social Skills at School Program Mediated by the Teacher make it possible to defend its dissemination for the continuing education of teachers, and also eventually for initial training at the University, as in other countries (Lay et al., 2020; Livingston & Flores, 2017). Thus, the texts, activities and multimedia materials of the program were

organized in self-instructional books to further facilitate this dissemination (Del Prette & Del Prette, 2022).

The present program was almost entirely conducted and evaluated before the COVID-19 pandemic (early 2020), but its characteristics, objectives and effectiveness make it particularly relevant after this long absence period of children from school. The challenges that teachers are facing when students return to face-to-face classes are recognized and widely publicized (learning delay, emotional problems, aggressiveness, lack of motivation, etc.). Overcoming all this requires teachers to have greater personal and pedagogical social competence for welcoming tasks, which are so crucial at this stage and to meet the urgency of an even more effective and motivating teaching for students.

Notwithstanding the results obtained, some limitations of this study must be acknowledged. The assessments were based on reporting instruments answered by the teachers, whose limitations should ideally be compensated with observational data. Thus, even recognizing the teachers as good evaluators of the students and with indirect access to the performance and context of the teachers' practice through the program's tasks, it is understood that future studies should include assessment by direct observation or filming as complementary data.

Another limitation was the reduced number of professors, which limits generalization of the results, although this is somewhat mitigated by the experimental design adopted. Furthermore, expanding the sample in the case of students would be desirable in order to include a better balance between the experimental and control groups in terms of age and education.

Finally, a limitation partly due to the pandemic was the absence of a follow-up evaluation foreseen for the last stage of the present project, which is in progress. The follow-up at this stage will include an evaluation of school academic performance records for a more complete impact analysis.

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