ABSTRACT

Development of social skills is a necessary part of training to promote good academic and social performance among university students. The objective of the research was to evaluate the impact of a peer tutoring program on developing social skills among students majoring in elementary education at a university in the Araucanía region of Chile. This was a mixed-methods study that included the participation of 66 first-year students divided into an intervention group and a control group. A questionnaire and a focus group discussion were used to gather data. The results showed that the students who participated in the peer tutoring program showed a statistically significant increase in their development of social skills in comparison to the other group. The research provides evidence that peer tutoring clearly constitutes a pertinent strategy for developing social skills among pedagogy students.

Keywords: Cooperative learning; Peer tutoring; Social skills development; University pedagogy students

INTRODUCTION

The development of social skills among students of higher education has been recognized as a fundamental element for achieving good academic and employment performance (Lacunza, 2012). However, according to several authors, most research has focused only on the evaluation and construction of instruments for characterising social skills (Mendo, León, Felipe, Polo & Palacios, 2016; Pedraza, Socarrás, Fragozo & Vergara, 2014; Pujolàs, 2009). In other words, there is a need to investigate educational processes that develop students’ social skills.

In this regard, Hernández (2013) proposes that social skills development be considered one of the principal training needs in higher education institutions, since they require competent social conduct that fits the profile of the different areas of academic training (Caira & Sánchez, 2012). According to Gismero (2000), in the early stage of academic training more importance is given to technical competencies, rather than interpersonal relations, even in professions that require the development of relational and interaction components. Thus, there is a need to implement strategies aimed at strengthening social skills in professional education.

Various studies have defined social skills as a set of behaviors and emotions that effectively benefit relationships and coexistence with others (León, 2009; Monjas, 2007). Limited development of these skills in students could have adverse consequences such as low self-esteem, difficulty socialising, and abandonment of studies (Bueno, Durán & Garrido, 2013; Caballo, Salazar, Irurtia, Olivares & Olivares, 2014). The development of social skills,
then, represents a key factor in the academic life of university students of elementary education. Likewise, various social skills have been identified and described that make it possible to effectively interact with other people (López, Filippetti & Richaud, 2014; Mendoza & Rodríguez, 2013). For the Chilean context, Tapia-Gutierrez and Cubo-Delgado (2015) have identified five important social skills for early teacher training: empathy-supportiveness, collaboration, conversation, self-affirmation, and conflict resolution. It is essential to understand the definitions of the repertoire of social skills that should be strengthened in teacher training, considering the diverse scenarios of social interaction and the high relational component required by the profession.

Arán and Richaud (2014) describe empathy as the ability to understand the feelings and emotions of others, which promotes relationships of trust and supportive actions. In addition, according to Maturana (2002) relational coexistence necessarily implies recognition of the other. Also, collaboration skills enable two or more people to work together and incorporate different knowledge and perspectives to achieve higher quality solutions (Grau, 2013). In other words, empathic and supportive skills are fundamental to making progress in processes of collaboration that require social skills.

Some authors have also explained that conversational skills enable people to participate in communicative situations. These skills consist of the ability to initiate, maintain, and terminate effective conversations and they can feasibly be developed through systematic interaction with others (Pérez, Bustamante & Maldonado, 2009; Tapia-Gutierrez & Cubo-Delgado, 2015). For Garcia (2010), development of the social skill of self-affirmation enables a person to strengthen their identity, validating their own abilities and experiences. Likewise, De Armas (2003) proposes that the capacity for dialog, self-regulation, and creativity in coming up with solutions are the bases for developing conflict resolution skills.

In this context, the formation of social skills requires the creation of diverse learning scenarios that promote relationships among students (Pozo, 2008). These skills are learned in social interaction and can be modified throughout a person's lifetime (Rosa, Navarro & López, 2014). As a consequence, improving social skills requires the systematic and planned use of diverse learning strategies that include peer socialisation actions.

**COOPERATIVE LEARNING AND DEVELOPMENT OF SOCIAL SKILLS**

Vygotsky's hypotheses reveal the importance of social interaction in addressing the social origins of psychological processes through the general genetic law on cultural development. He posits that any psychological function appears twice: first on a social, inter-psychological level, and then on an individual, intra-psychological level, where the internalisation transforms the process itself, changing its structure and functions (Wertsch, 1988). In this sense, team work constitutes one of the basic competencies required in today's society, where personal relationships and favorable interaction in heterogeneous groups play a decisive role (Aramendi, Bujan, Garín & Vega, 2013; Duran, 2014).

Cooperative learning is defined as the didactic use of small groups in which students work together to maximise their own learning and that of others (Johnson, Johnson & Holubec, 1999), it is clarified as being composed of heterogeneous groups, since the strength of these methods consists of students learning from their differences (Duran & Monereo, 2012). This implies understanding diversity as positive and taking advantage of what has traditionally been defined as a disadvantage.

From this perspective, cooperative learning methods emerge as an effective strategy for working with students at all levels and in all educational situations, including university
students, enabling them to jointly achieve academic, affective, and social objectives (Borivov & Reid, 2010; Navarro & Gallardo, 2014; Okilwa & Shelby, 2010). Cooperative work is presented as an innovative alternative, considering that it enables multiple types of learning that contribute to integral personal development.

In addition, studies have corroborated that cooperative learning methods promote the development of competencies that are essential for citizenship in today’s world, such as recognition and acceptance of differences and the development of complex social skills (Díaz-Aguado, 2003; Valdebenito & Duran, 2015a). According to León, Felipe, Iglesias and Latas (2011), cooperation is related to the ability to situate oneself in the emotional perspective of others, since cooperative interactions produce a change in the conduct of students as a consequence of their anticipation of the needs and responses generated by others. It also promotes the development of communicative skills as a result of challenging dialog among students. In this sense, diverse authors (Duran, 2016; Surian & Damini, 2014) cite improvement in the communicative skills of students as one of the main benefits of cooperative learning methods, as it enables them to resolve greater cognitive challenges while they participate in social groups. This is because they must ask for help, explain their ideas, critique the opinions of others, negotiate, defend their points of view, and pose and respond to questions (Roscoe & Chi, 2007).

Specifically, a cooperative learning method that is considered one of the most powerful strategies and one that has been validated in diverse contexts as a quality educational practice is peer tutoring (González, García & Ramírez, 2015). This strategy is based on the creation of pairs of people who share a social status and adopt an asymmetrical relationship by taking on the roles of tutor and tutee, working toward a known and shared objective reached through an interrelationship planned by the professor (Duran & Vidal, 2004). Thus, we define this interaction as having a structure that is initially developed by the professor, where control is gradually ceded to the pair and specifically to the student who is serving as the tutor, in order to give them an opportunity for mediation with their partner that is increasingly rich and beneficial for both.

The role of mediator consists of providing and adapting the necessary pedagogical assistance (through questions, examples, explanations, among others) so the learner can, from their actual level of development, advance to the zone of proximal development, strengthening negotiation and rebuilding meaning (Valdebenito & Duran, 2015b).

In this didactic strategy, Topping (1988) distinguishes between cross-age tutoring, which is defined as tutoring between students of different ages and levels (such that the roles are fixed), and same-age tutoring, where the participants are of similar ages and levels (in this case they may have fixed or reciprocal roles). Research studies on same-age tutoring have shown the favorable results of such interventions, in fixed-role (Fuchs, Fuchs, Hamlett, Phillips, Karns & Dutka, 1997), reciprocal (Duran, Blanch, Dekhinet & Topping, 2010; Mastropieri, Scruggs, Spencer & Fontana, 2003) and combined tutoring (Duran & Monereo, 2005).

**Peer tutoring in university contexts**

Peer tutoring is a powerful resource for consideration in university education contexts, as demonstrated by studies exploring the dialogic itineraries established in peer-to-peer interaction, meta-cognitive regulation, academic self-conception, and in regard to the roles played, socio-professional competencies and academic benefits (De Backer, Van Keer & Valcke, 2015; González, García & Ramírez, 2015; Moliner, Sales & Moliner, 2014). However, there are still few examples of implementation of peer tutoring in Latin America.
It has also been demonstrated that systematic and planned application of peer tutoring produces a substantial improvement in social skills, accompanied by a high level of satisfaction in regard to learning (Duran & Flores, 2015; González, García & Ramírez, 2015). It is, therefore, a method focused on the student, where the student takes on a central and regulatory role in their own process through interaction with a peer who will also achieve these qualities through a satisfactory interaction.

This set of interactions influences the development of empathic, communicative, and collaborative behaviors, positively affecting self-esteem and leadership through self-knowledge and knowledge of others (De Backer, Van Keer & Valcke, 2012; Duran & Flores, 2015; East, Tolosa & Villers, 2012). As a result, peer tutoring not only provides academic benefits, but also contributes to the formation of cross-cutting skills.

Successful implementation should include previous training in the roles and monitoring by a professor who has good command of this method. The tutor should have significant experience in the content to be taught and prepare the topics to be addressed in order to satisfactorily handle any difficulties that their tutee may have (Duran & Flores, 2015; Falchikov, 2001).

Ultimately, peer tutoring is presented as a teaching strategy that meets the educational needs of today's society and also the new demands of a university education, where students and future professionals can strengthen other aspects in addition to academics that will enable them to develop as integral, supportive citizens in a society that is increasingly demanding and individualistic.

Toward that end, the following objectives were defined for this study:

- Evaluate the impact of a peer tutoring program in developing the social skills of primary school pedagogy students.
- Understand the perception of tutees in regard to their social skills development during a peer tutoring program.

METHODOLOGY

The study is a mixed-methods sequential explanatory design with dominant status of the quantitative and qualitative parts (Tashakkori & Teddlie, 2010). The quasi-experimental quantitative study with a comparison group is designed to understand the effect of peer tutoring in developing social skills. The qualitative study is designed to obtain student perceptions about social skills development in the process of the program.

Participants

The study uses nonprobabilistic sampling, as the participants were not chosen randomly. It includes the participation of 66 university students involved in the pedagogy course at the Catholic University of Temuco in Chile. The experimental group was made up of 32 first-year students on the primary school pedagogy course who participated in peer tutoring. The comparison group consists of 34 first-years students involved in another pedagogy course at the same university. In the sample, 90% of the participants were from the Araucanía Region and belonged to a low socioeconomic level; the age range in both groups was 18 to 24.
Data collection instruments

Quantitative data were gathered using the EHS Social Skills Scale (Tapia-Gutierrez & Cubo-Delgado, 2015), through pre- and post-test application, for both the experimental group and the control group. The social skills questionnaire consists of a Likert-type scale that evaluates the social skills of university students. The instrument's content was validated by experts and its reliability was calculated using Cronbach's alpha statistic ($\alpha = .92$). The instrument evaluates the students’ perceptions of their own social skills. It consists of 41 items divided into five dimensions: empathic-supportive, conversational, self-affirmation, collaboration, and conflict resolution. Table 1 below shows the five social skills dimensions in the instrument and their respective descriptions.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathic and Supportive Skills</td>
<td>Defined as comprehension of the feelings and situations of others, manifesting a receptive attitude that favors trusting relationships and promotes the activation of supportive actions.</td>
</tr>
<tr>
<td>Conversational Skills</td>
<td>Defined as participation in communicative situations including listening, initiating, maintaining, and terminating conversations.</td>
</tr>
<tr>
<td>Self-affirmation Skills</td>
<td>Defined as defense and respect for one's own rights and opinions and those of others.</td>
</tr>
<tr>
<td>Collaboration Skills</td>
<td>Defined as those skills that enable one to encourage members of a group, request and provide help, and provide feedback in a tolerant environment.</td>
</tr>
<tr>
<td>Conflict Resolution Skills</td>
<td>Includes analysis of conflict situations and proposal of alternative solutions that generate evaluation of the decisions made.</td>
</tr>
</tbody>
</table>

A focus group of the tutees was facilitated to gather qualitative information. The discussion was guided by a script with open questions aimed at obtaining an in-depth understanding of the tutees' perception of social skills development in the tutoring program.

Procedures

The first step was the application of a diagnostic evaluation (pre-test) of social skills in both the intervention group and the control group. The instrument was completed in-person by 66 students during a period of 35 minutes. All of the participants signed a consent form and were assured that their information would remain confidential. The next step consisted of the implementation of the peer tutoring program to improve the participants' reading comprehension and writing. 

The first action of the program involved training tutors and tutees in the strategy, preparing materials and training them in commitments related to adopting a listening attitude, empathic treatment, and assertive communication. Three initial workshops were held to train the tutors and two were held to train the tutees. The work pairs, each of which consisted of a tutor and a tutee, were also formed in this stage to establish rules and agreements for the work to come.

The peer tutoring program was then implemented. The tutors and tutees met once a week for two hours in 16 sessions, in addition to one hour of online work each week. It should be noted that the tutors met each week with a professor from the language area to review the activities, obtain guidance, and answer questions. Once the peer tutoring program had ended, the social skills instrument was applied to the intervention and comparison groups.
(post-test) in c) Final evaluation stage. In addition, a focus group was held with 12 randomly chosen tutees from the experimental group. A script with open questions to guide the discussion was used to gather this qualitative information. An audio recording of the discussion was made for subsequent analysis.

Data processing and analysis
The quantitative data were processed using SPSS Statistics, version 22.0 for Windows. The data were subjected to the Kolmogorov-Smirnov, Rachas and de Levene tests, resulting in \( p > .05 \) in all tests. As a consequence, a parametric \( t \)-test for related samples was used to analyse the inter-group mean differences of the students’/tutees’ pre- and post-test results. The content of the qualitative information about the tutees’ perceptions gathered from the focus group audio recordings was also analysed in terms of the five social skills dimensions. Categories that help explain the development of these skills emerged from this analysis. Some quotations that describe the emerging factors that influence social skills development over the course of the peer tutoring program are shown below for each category.

RESULTS
The results are presented in accord with the study objectives. Table 2 shows the comparison of the experimental group’s and the control group’s mean scores for the five different dimensions of the EHS Social Skills Scale completed pre- and post- the program. The significance of the results of t-tests conducted for related samples are included.

Impact of the peer tutoring program on development of social skills by primary school pedagogy students
For the empathic-supportive skills, the experimental group, after participating in the peer tutoring program, demonstrated a statistically significant increase in the development of these skills \( (p=.01) \) when mean scores of the pre- and post-tests were compared. The control group showed no significant difference in this dimension \( (p=.33) \). In the conversational skills dimension the experimental group also demonstrated a statistically significant increase in the development of these skills \( (p=.01) \), when mean scores were compared between the pre- and post-test results. However, the control group, which did not participate in the tutoring program, showed no statistically significant difference when their pre-test and post-test mean scores were compared regarding this dimension \( (p=.06) \).

With regard to the self-affirmation skills dimension, the experimental group showed a statistically significant improvement when their pre-test and post-test scores were compared \( (p=.00) \). For its part, the control group showed no statistically significant difference in their performance on this dimension \( (p=.09) \). Similarly, the result of a \( t \)-test with regards to the collaboration skills dimension found that the experimental group showed a statistically significant improvement \( (p=.00) \), while the control group (without tutoring) showed no statistically significant difference when their pre-test and post-test mean scores were compared regarding this dimension \( (p=.10) \). In the conflict resolution skills dimension the experimental group had a value of \( p=.00 \). In other words, significant differences are established between the mean scores of the pre- and post-test. For its part, the control group showed no significant differences \( (p=.44) \) – Table 2.
Table 2: Students’ $t$-test results for mean differences for related samples with regard to social skills

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Experimental Group (n=32)</th>
<th>Control Group (n=34)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest SD Posttest SD</td>
<td>Pretest SD Posttest SD</td>
</tr>
<tr>
<td>Empathic and Supportive Skills</td>
<td>39.0 3.8 41.5 3.9  .01*</td>
<td>44.4 3.4 45.0 4.4  .33</td>
</tr>
<tr>
<td>Conversational Skills</td>
<td>37.0 3.5 38.7 3.1  .01*</td>
<td>38.5 3.0 39.6 3.2  .06</td>
</tr>
<tr>
<td>Self-affirmation Skills</td>
<td>21.0 1.4 22.3 1.5  .00*</td>
<td>20.8 2.1 21.0 2.8  .09</td>
</tr>
<tr>
<td>Collaboration Skills</td>
<td>27.7 3.5 30.9 3.1  .00*</td>
<td>29.3 4.0 30.5 3.3  .10</td>
</tr>
<tr>
<td>Conflict Resolution Skills</td>
<td>16.4 1.9 18.4 2.1  .00*</td>
<td>18.4 1.8 18.7 3.1  .44</td>
</tr>
</tbody>
</table>

The analysis and interpretation of these quantitative data demonstrate that the students in the experimental group who participated in the peer tutoring program showed a statistically significant increase ($p<.05$) in their social skills development in all five dimensions of the construct. However, the control group, which did not participate in the tutoring program, achieved no statistically significant difference in any of the five dimensions of the scale. Therefore, it is concluded that the significant differences found in relation to the social skills of the experimental group can be attributed to the tutees' participation in the program.

Tutees' perceptions about their social skills development

The findings in this section are organized into the categories, underlying each social skills dimension.

**Empathic-supportive skills dimension**

**Category 1: relationships of trust that promote supportive actions**

The findings indicate that the tutees develop empathic and supportive expressions vis-a-vis their tutor such as commitment to homework, punctuality, and accuracy, which has repercussions for their own learning and successful completion of the task, as observed here: “We try to help our tutor as much as possible, because we understand that he has a lot of responsibilities. So we try to collaborate a lot with him, in actions such as bringing the completed homework, asking precise questions, and arriving at our meetings on time” (Tutee 1). In addition, the commitment, willingness, and attitude of the tutors also has repercussions on the development of empathy, support, and collaboration, as can be observed in the following statement from a tutee: “I believe that one of the aspects that helped us improve ties of trust and to commit to the Program was seeing the tutor's enthusiasm in teaching us, his dedication in preparing the material, and his effort to explain in the best way possible” (Tutee 8).

Based on these findings, we can infer that the tutees manifest attitudes of sympathy, closeness, and helpfulness, reciprocating the effort and dedication of the tutor; this can be attributed to the peer tutoring.
Conversational skills dimension
Category 2: expressing oneself with confidence
The tutees acknowledge that the opportunity to learn from others has improved their ability to express themselves and participate in conversations and classes with more confidence, security, and precision, as well as generally in communicative situations. Following is some evidence from the students:

I think the tutoring promotes openness to dialog. It helped me improve how I communicate with my peers. I must confess that I had difficulty maintaining conversations with people I didn't know or students from other courses, but now I am confident and I feel that I am able to initiate a conversation with different people. (Tutee 4)

I feel like I have lost my fear of asking questions and now I can better express my ideas. I have gained confidence to sustain more fluid conversations with the work group and I have sufficient initiative and security to talk with people I don't know. (Tutee 9)

Based on these findings, it is apparent that peer tutoring provided valuable assistance for the students in effectively undertaking conversations that implied expressing their ideas with greater assertiveness and familiarity among their peers. This also implicitly contributes to learning contexts by promoting constructive dialogue, cognitive conflict, and construction of meaning.

Self-affirmation skills dimension
Category 3: expresses and accepts opinions
In addition to the opportunity recognized by the students to participate with greater ease in communicative exchanges, tutoring also contributes to security, certainty, comprehension, and respect for others’ opinions. This is exemplified by the following two quotes from tutees:

In the tutoring work I learned to defend my point of view in the interactions with the tutor and my classmates. I was fully able to accept opinions that differed from my way of thinking and I learned to establish agreements with the group (Tutee 7).

I was embarrassed to say what I thought, but during the tutoring program I had the opportunity to express my ideas and establish my position in relation to the topics we discussed in the sessions. In this process, the tutor was key because he gave me the time and confidence to communicate my thoughts (Tutee 10).

Among the findings, it was observed that tutees lose their fear of expressing their concerns and learn to defend their ideas, which enables them to see that the knowledge they have built is meaningful and transferable to other situations and contexts.

Collaboration skills
Category 4: providing and requesting help
The collaboration process developed during the peer tutoring sessions was manifested in support, mentoring, and the dedicated commitment of the tutors to contribute to the learning process of their tutees, as reflected in the testimonies.

*I think that during the tutoring I learned and I felt supported by the tutor. She always encouraged me to overcome my learning difficulties and was willing to explain it to me again* (Tutee 3).

*My tutor has been very committed to my learning, both in the in-person sessions as well as the online work. I also try to help as much as possible. My classmate who is a tutee and I also help each other a lot, so we don’t overload our tutor* (Tutee 6).

This qualitative information reveals the dedication of the tutors, which also helped create a propitious environment for learning. The tutees valued the commitment and dedication of the tutors in addressing learning difficulties and recognize the constant feedback they received during the process.

**Conflict resolution skills**

*Category 5: agreeing on solution alternatives*

There is evidence that during the tutoring sessions the tutees improved skills that enable them to avoid conflict by taking into account diverse points of view to effectively resolve potentially problematic situations:

*I believe that I learned to consider the opinion of my classmates before making a decision. I had to learn to cede something for the good of the group, because I was used to imposing my ideas. Now I look for joint solutions* (Tutee 3).

*At the beginning of the tutoring I had difficulty agreeing on study schedules with my group because I tried to impose the schedule that was best for me. After hearing about the difficulties of others and listening to their proposals, I became more flexible and was able to arrive at an agreement with my classmates* (Tutee 2).

This shows the tutees are capable of establishing spaces for discussion, mediation, and consensus about decisions involving members of the group. They recognize that they developed the ability to adopt strategies for reaching agreement with their classmates.

**CONCLUSION**

The results of this study demonstrate an improvement in social skills development of primary school pedagogy students who participated as tutees in a peer tutoring program. This improvement is attributed to the opportunities for social learning that these students have in an innovative cooperative work experience that contributes to integral personal development. The positive impact of this peer tutoring program can be explained by the planned and systematic interrelationship in which students face challenging dialogic itineraries inherent to cooperative learning methods.

The effectiveness of this peer tutoring program is corroborated to the extent that the pedagogy students who participate as tutees are able to significantly increase the different dimensions of the social skills construct. In this sense, peer tutoring becomes a useful and pertinent strategy in the university context for meeting the social skills training needs required mainly by pedagogy students and particularly those from vulnerable socio-educational contexts.
At the end of the peer tutoring program, the tutee students recognized that they had made progress in social skills development, as manifested in improved relationships of trust and supportive actions among classmates; confidence in expressing themselves and posing and accepting different opinions; their willingness to provide and accept help; and in seeking alternatives for conflict resolution. These perceptions demonstrate that they value the learning experience of the tutoring programs.

The impact of peer tutoring on the social skills of pedagogy students facilitates their insertion into university life, strengthening their academic career. This improvement is focused on the student, who must regulate their learning process through reciprocal interaction with their peers, after receiving training in their role in the tutoring program. Finally, it is worth noting that in future studies it would also be advantageous to evaluate the impact of this peer tutoring program on the social skills of the students who serve as tutors.

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