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Development of socio-emotional skills through cooperative learning in a university environment

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Abstract

This paper presents the results obtained on the socio-emotional variables arising from a cooperative learning project conducted in the university classroom. The idea of using this type of methodology comes mainly from the experience of university lecturers with regard to the routine difficulties encountered by students in groupwork sessions.

For this research project, a Likert scale questionnaire was used on a sample of 103 undergraduates reading degrees in Pre-School Education and Primary Education, in order to evaluate a possible improvement in the students' acquisition of socio-emotional skills. Once the research was completed in a cooperative learning classroom, the results reflected greater empathy and assertiveness among group members, as well as greater cohesion and confidence in reaching agreements and accepting views which differ from their own. Therefore, we can establish a positive relationship between the use of a cooperative methodology and an improvement in the socio-emotional skills of university students

1. Introduction

Today's University is increasingly diverse, due to the origin of students (different countries and cultures) and their socioeconomic status, characteristics or interests. This diversity in the classroom, along with the non-stop development of technologies, has required students and lecturers to increase their degree of adaptation and flexibility to an ever-

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changing reality. What is more, the incorporation of universities into the European Higher Education Area (EHEA) has led to the adoption of methodologies which, along with the increase in the number of work placement programmes within courses, foster the combination of individual work with interpersonal interaction and teamwork, the latter being one of the generic competencies for students to develop.

However, this diversity and this methodological model do not appear to be free from difficulties. There is a widespread perception among faculty of "the existence of a climate of interpersonal relationships in the classroom, yet in the performance of student-to-student tasks there is a strong individualistic, competitive, sparsely collaborative and non-supportive character, which barely considers mutual assistance" (Sánchez Marin et al., 2015, p. 177). The usual conflicts of any type of collaborative work seem to be accentuated in young people with many emotional and affective resources, but who at times are poorly accustomed to channelling them and adapting them to situations in the most appropriate way. Likewise, an increase is reflected in anxiety processes in increasingly younger people, sometimes with few psychological and emotional tools to face the personal and relationship difficulties which they encounter. This aspect is clearly reflected when conducting teamwork and coping with exams.

There is increasing empirical evidence which leads us to think that fostering students' socio-emotional competencies "may be a useful tool for addressing incipient negative emotions in different social and/or learning contexts and for ultimately being a factor that effectively facilitates problem solving and information processing" (Cassullo and García, 2015, p. 215). Some authors even suggest the need to introduce the teaching of social and emotional aspects into the curriculum. Gutiérrez and Expósito (2015) point out that there are several areas of life in which we engage in teamwork or collaborative working, so "if a person tends to be individualistic, they will struggle to develop social skills in order to be emotionally competent in relationships with others, and therefore will not have self-control or control over others when in situations of social interaction" (p. 43).

In an attempt to alleviate the difficulties encountered, the Catholic University San Antonio of Murcia launched an innovation project based on improving the socio-emotional skills of students through the use of the collaborative learning in the classroom strategy, because there is evidence in literature to that effect (Johnson, Johnson, and Holubec, 1999; De Miguel (Coord), 2006a, 2006b;. Gil Montoya et al, 2007; Rendón, 2015) which links the systematic and explicit incorporation of effective cooperative learning structures to improved socio-emotional competencies in people, thereby creating a more comprehensive education which is attentive to intercultural diversity and answers the heterogeneous needs that identify university students today.

This paper analyses the results of students from one of the subjects covered by the project, namely the 4th year of the Degree in Pre-School Education and the Degree in Primary Education, in order to discover whether the cooperative learning methodology improves the socio-emotional competencies of university students.

Collaborative, as improving these competencies in the university environment is not an unimportant question because, aside from creating more collaborative and happier citizens, it will encourage students to participate and actively engage in the different sectors of society for their own personal benefit and development. This is another task - within the framework of personalised attention - which today's University has in mind.

2. Methodology

The empirical work of the study is based on a quantitative approach and framed within a cooperative learning methodology. This methodology is based on a project already underway at the Primary Education stage and developed by Arnaiz and Linares (2010), through which the authors suggest a number of criteria that have been followed in the classroom for the proper development of the methodology:

- Student information: Before beginning the task, the lecturer explained the key aspects of cooperative learning to the students.
- Explanation of the task and time frame.
- Development of the activity and monitoring by the lecturer.
- Evaluation of how the experience of cooperative working developed.

Upon completion of the cooperative learning methodology in the classroom, an evaluation was made of the development of the socio-emotional intelligence competencies in the students participating in this methodology.

The instrument used for evaluating the development of socio-emotional competencies through a cooperative

learning methodology was a Likert scale questionnaire in a frequency range of 1 to 5, where 1 means "never" and 5 means "always". The questionnaire consisted of 41 items referring to three competencies (Empathy, Assertiveness and Consensus) with different skills to be developed by students in each one.

The reliability of the instrument analysed using Cronbach's alpha measure of internal consistency shows a value of .965, confirming a high internal consistency of the questionnaire (Gadermann, Guhn, & Zumbo, 2012).

Data was processed using a statistical analysis of frequencies by means of the IBM SPSS Statistics 21 package.

The research was carried out on 4th-year students reading degrees in Pre-School Education and Primary Education at the Catholic University San Antonio of Murcia and enrolled in an elective course during the second semester of the 2014-2015 academic year.

The total population of students enrolled in the elective subject and taking part in the cooperative learning methodology was 113, with 78.8% of this total answering the survey on the acquisition of skills related to socio-emotional competencies, thereby obtaining a sample of 89 questionnaires. A confidence level of 95% was therefore set, along with a heterogeneity level of 50% and a maximum estimation error of 5%. The data shows an adequate representation of the population studied according to Bugeda's formula (1974) for populations of less than 100,000 elements.

3. Analysis and Results

As shown in Table 1, the results show a very positive evaluation by the students in all the competencies analysed in the questionnaire (empathy, assertiveness and consensus). In all of them, an average score of above 4 is noted (within the 1 to 5 rating scale of the questionnaire). This fact confirms that a methodology based on cooperative learning "almost always" or "always" allows students to develop socio-emotional competencies, as recognised by the students themselves.

Table 1. Competencies evaluated.

Competencies	Average score
Empathy	4.33
Assertiveness	4.23
Consensus	4.26

When it comes to the competency of "empathy", the results in Table 2 show that it is the most valued one by students. In this sense, students highlight the skills of "listening to the other person" (4.66), "analysing the different opinions suggested by others" (4.54) and "feeling that you learn and open your mind by listening to other solutions" (4.41) as the ones most developed through the cooperative learning methodology. On the contrary, the use of "non-verbal communication to support arguments" (4.01) and "avoiding presumptions" (4.19) are more difficult to develop.

Table 2. Empathy

Skill	Average score	Standard deviation	% of scores between 4 and 5
Accepting and evaluating other opinions or ideas different from my own	4.23	.869	79.7%
Listening to the other person	4.66	.668	91.9%
Analysing the different options suggested by others	4.54	.725	89.2%
Avoiding presumptions	4.19	1.016	81.9%
Using non-verbal communication to support arguments	4.01	.958	70.3%
Putting myself in the place of others	4.31	.757	85.1%

Learning by understanding other points of view	4.39	.679	91.9%
Feeling that I learn and open my mind by listening to other solutions	4.41	.775	87.8%
Understanding other ways of looking at the world and being moved by this	4.24	.808	79.7%

When it comes to the development of "assertiveness", this is the least valued competency by students overall, although the differences with the other two evaluated competencies are not very significant. The most developed skills through this methodology, in relation to assertiveness, are "communicating through non-invasive gestures" (4.43), "defending the right to participate without encroaching upon the rights of others" (4.34), "engaging naturally and not being self-conscious or passive out of comfort or the feeling that others are more capable or dominant" (4.32) and "engaging with an emotional state of calm, avoiding aggressive and dominant attitudes" (4.32). However, "making decisions after considering all the opinions and thoughts on the subject" (4.07), "using a relaxed and stress-free tone of voice" (4.09) and "defending one's position considering the emotional impact it may have on the other person" (4.07) are those least implemented through cooperative learning, according to the students.

Table 3. Assertiveness

Skill	Average score	Standard deviation	% of scores between 4 and 5
Speaking in the first person when not representing the others so as not to give a negative impact of the group's image	4.18	.834	85.1%
Expressing feelings in keeping with decisions taken	4.16	.754	83.8%
Avoiding defensive positions	4.31	.875	81.1%
Making decisions after considering all the opinions and thoughts on the subject	4.07	.941	71.6%
Understanding what the other person is feeling	4.18	.850	78.4%
Showing an understanding attitude, not subjugating others (aggressively dominating)	4.27	.983	82.4%
Using a relaxed and stress-free tone of voice	4.09	.814	77%
Using a leisurely and calm speech tempo	4.24	.791	78.4%
Communicating through non-invasive gestures	4.43	.723	86.5%
Anticipating conflicts by calmly expressing what I don't like or what I disagree with	4.22	.832	83.8%
Defending the right to participate without encroaching upon the rights of others	4.34	.763	85.1%
Engaging naturally and not being self-conscious or passive out of comfort or the feeling that others are more capable or dominant	4.32	.742	86.5%
Engaging with an emotional state of calm, avoiding aggressive and dominant attitudes	4.32	.938	83.8%
Defending my position while considering the emotional impact it may have on the other person	4.07	.881	75.7%

The "consensus" competency is the second highest valued by students. As shown in Table 4, students feel they have improved in skills such as "using a low and calm voice, despite believing that I am right and being convinced that the other person might feel otherwise" (4.38), "respecting the other person's turn to speak and not interrupting" (4.39), "recognising the right that others have to speak and be heard" (4.50) and "understanding the other person and giving positive feedback" (4.38), whereas "avoiding counter arguments" (3.91) or "admitting the failure of the team, despite believing that it is not to be directly blamed" (4.05) have a lower score in relation to the others.

Table 4. Consensus

Consensus	Average score	Standard deviation	% of scores between 4 and 5
Listening to others whilst looking into their eyes, convinced that this inspires confidence and is really a form of communication	4.20	.758	82.4%
Encouraging fluent interaction	4.27	.746	85.1%
Satisfying the interests of all parties	4.28	.836	86.5%
Avoiding counter arguments	3.91	.953	71.6%
Making concessions: bowing down to different views or opinions	4.15	.855	83.8%
Trusting each other	4.30	.918	82.4%
Respecting the other person's turn to speak and not interrupting	4.39	.873	85.1%
Encouraging the participation of all parties	4.24	1.057	78.4%
Displaying positive body language: relaxed, calm and confident	4.03	.891	73%
Using a low and calm voice, despite believing that I am right and being convinced that the other person might feel otherwise	4.38	.871	83.8%
Expressing opinions in a reasoned manner	4.27	.782	82.4%
Understanding the other person and giving positive feedback	4.38	.771	85.1%
Recognising the right that others have to speak and be heard	4.50	.745	91.9%
Appreciating that everybody has the same power and that nobody is dominant or will have their own way	4.34	.880	86.5%
Feeling that I learn more in a team than by myself, with the conviction that this multiplies the perception of reality	4.34	.816	83.8%
Admitting the failure of the team, despite believing that it is not to be directly blamed	4.05	1.058	74.3%
Feeling the need to learn more about the others	4.32	.893	85.1%
Letting myself be corrected or critiqued and accepting suggestions for improvement	4.38	.839	86.5%

4. Conclusions

The results show that the use of the cooperative learning methodology in the university environment fosters the development in students of socio-emotional skills and competencies such as empathy, assertiveness and consensus, with the ability of putting oneself in the position of others, or empathy, being the most valued in this study.

Significantly, the high scores obtained through the questionnaire show how the students themselves appreciate and recognise an improvement in their relationships with others, resulting in more successful and productive groupwork.

These results confirm previous research, as well as the need to develop this methodology at a university level as part of teaching-related research projects and innovation. University prepares citizens who in the future will actively engage in society, so the development of these socio-emotional competencies in young people is particularly relevant. At the same time, these projects must be accompanied by ongoing teacher training. Casullo (1991) defines the teaching role as one of a student-subject or student-discipline mediator who attempts to explain a certain aspect of the natural, social or cultural reality, which involves permanently implementing interpersonal skills with other human beings (students, parents, colleagues, authorities, etc.). One cannot ignore the important role of teachers in this field, but the question we should ask ourselves is whether future teachers are actually trained in the use of these methodologies.

In short, the University is faced with the task of expanding the range of its teaching methods in order to achieve the specialisation of each subject, as well as enabling the development of competencies in students that allow them to engage in society in an active, creative and transformational way.

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