



Restorative methods as a strategy for the prevention of violence and bullying in primary and secondary schools in Mexico: An exploratory study

David Pérez-Jorge^{a,*}, Isabel Alonso-Rodríguez^a, Matías Arriagada-Venegas^b,
Eva Ariño-Mateo^c

^a Department of Didactics and Educational Research, University of La Laguna, San Cristóbal de La Laguna, 38200, Spain

^b Department of Psychology, Universitat de València, 46010, Valencia, Spain

^c Department of Psychology, IDOCAL Researcher, Universitat de València, 46010, Valencia, Spain

ARTICLE INFO

Keywords:

Emotional self-regulation
Peaceful strategies
School context
Self-determination
Restorative practices

ABSTRACT

School coexistence processes are mediated by conflict situations that are often not adequately, immediately and comprehensively resolved by schools, giving rise to violence. School violence has become a matter of global priority not only at the school or family level, but also socially due to its magnitude and scope. In the Program for International Student Assessment (PISA), reported in 2018 that 23% of students in Mexico had suffered bullying at least once a month, these data are worrying as they reveal high rate of violence. Considering the increase of violence in Mexican educational institutions, we wonder if students' awareness in the use of communication to resolve disagreements would be achieved after participating in a conflict prevention project applying restorative practices.

The objective of this study was to test whether students acquired greater emotional self-regulation, self-determination, and peaceful strategies to resolve conflicts after participating in a project centred on the restorative paradigm.

A total of 336 students from an elementary school and a high school located in Mexico participated in this study. An ad hoc questionnaire was administered to the students by a restorative justice specialist in the middle of the school year. Statistical analyses were performed with the Statistical Package for the Social Sciences V. 25. The results obtained showed that, after the implementation of this program for five months, students in both schools showed greater emotional self-regulation and self-determination. In conclusion, providing students with restorative strategies to resolve disputes favoured the use of peaceful conflict resolution strategies.

1. Introduction

Coexistence refers to personal interactions in which different ways of being, thinking, and acting coexist. Coexistence favors the creation of a system of common and shared agreements and norms [1,2]. Self-determination is important for people living together to feel free to make choices and decisions.

* Corresponding author.

E-mail address: dpjorge@ull.edu.es (D. Pérez-Jorge).

<https://doi.org/10.1016/j.heliyon.2023.e18267>

Received 27 June 2022; Received in revised form 25 June 2023; Accepted 12 July 2023

Available online 17 July 2023

2405-8440/© 2023 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Sometimes conflicts arise in coexistence that must be adequately resolved to prevent them from ending in acts of aggression and violence [3]. This situation is also experienced by educational institutions on a daily basis, where conflicts arise that may be present in a coexistence that should be taken as an opportunity for change [4]. The task of the school is to favor the process of lifelong learning of students and their integral development through a culture of values [1] and good treatment among equals both inside and outside the school [5]. We speak of school coexistence because all community agents converge in the school [6] making it a privileged place for the transmission of attitudes, peaceful values, the creation of bonds and social skills, generating capacities for coexistence, respect, participation, democracy, solidarity, communication and aptitudes for the peaceful resolution of conflicts [7,8] as well as developing the necessary skills to become self-determined. That is why, in order to favor an adequate school coexistence, the use of strategies based on dialogue, speech and listening is prioritized, being conversation the fundamental tool [6]. However, in recent years, many countries have increasingly expressed concern about the increase in violence in the classroom and demand that their schools are safer [9–12].

There is no consensus among researchers on the conceptual delimitation of the construct violence, thus generating a plurality of definitions that reflect the heterogeneity of approaches underlying this construct and the diversity of factors involved in the origin of violent behavior [13]. In the absence of agreed operational definitions, we based ourselves on the one provided by the World Health Organization [14], which defines violence as: The deliberate use of physical force or power, whether threatened or actual, against oneself, another person, or a group or community, that results in or has a high likelihood of resulting in injury, death, psychological harm, developmental impairment, or deprivation.

In the school context we will refer to violence as the act exercised through force directed at any member of the educational community, without forgetting the difference between a problem of coexistence and a problem of violence. Problems of coexistence are those where people are unable to reach an agreement in a given situation, which may lead to aggressive responses, but not repeatedly [15]. Violence and conflict have a close relationship, however, not all conflict results in a violent act, since conflict is inherent to human relationships but violence is not [16].

The terms school violence and bullying are often used interchangeably, which can lead to confusion. School violence can be expressed in different ways, and the most analyzed form due to its negative consequences on aggressors, victims, spectators and educational center is bullying [13]. In other words, school violence is a broader term than bullying and refers to all aggressive behaviors carried out in schools, which can involve both students and teachers. Bullying is a specific type of school violence between peers (students) and shows intentionality of harm, continuity in the bullying situation over time and the imbalance of power between aggressors and victims [17,18]. Most research on school violence has focused on bullying, although this is only one of the types of interpersonal violence experienced in educational institutions [15].

School systems are today more diverse than ever since schooling covers cultural, ethnic, sexual, religious, and/or physical pluralities, which are potentially more vulnerable to suffering episodes of rejection and discrimination [12]. These pluralities are the focus of school violence that has gained importance due to the frequency with which it occurs and the personal and social consequences it derives [19]. Bullying, also known by the English term bullying, is a type of violence that is part of the daily reality of educational institutions considered one of the great problems of school coexistence that generates concern not only to the scientific community but also to the general population [20]. Bullying has become one of the social phenomena that has most affected students due to the seriousness of its consequences and the alarming figures. Due to this situation, it has begun to study this problem in the last fifty years, developing a considerable number of investigations that try to investigate this phenomenon to eradicate it [9–12,21].

Bullying involves physical and/or psychological aggregation of a student or group of students, to other students who are victims of repeated attacks at school. It is an intentional, repetitive, and powerful behaviour towards the person on whom it is exercised [20,22]. These negative actions occur more frequently during adolescence and can be carried out in different forms and modalities such as physical aggressions, verbal, and psychological aggressions or of another type, such as insulting gestures, teasing, grimaces, exclusions from the group of the same, etc., acts that, when prolonged over time, have very negative effects on the entire educational community [23]. In general, those who exercise violence are young people who want to demonstrate superiority over others and do so through constant threats, insults, blows, or shoves [24]. Victims tend to be perceived as defenceless, powerless, and vulnerable [25] being exposed to undesirable situations through actions of a very varied nature [26]. This situation generates in the victim's behaviors of isolation, feelings of anguish, suffering, and fear [24]; resulting in multiple consequences such as low self-esteem, school absenteeism, decreased academic performance, and emotional instability [27].

In recent decades, numerous investigations have been carried out on bullying, and experts in the field have designed various programs to combat this phenomenon in the classroom [28]. Some research has focused on promoting knowledge of its characteristics and analyzing how to intervene from schools to eliminate it. Various intervention strategies emerged that were carried out using different media such as documentaries, posters, conferences, workshops, newspapers, among others [29]. Schools are the most appropriate spaces to apply anti-bullying programs, considering that most students attend class during some phase of their life [30]. Therefore, alternatives are sought that encourage a culture of training in values and positive regulation of conflicts, to reduce violence [4], since zero tolerance to school violence is the axis that articulates the programs of intervention. Coexistence in the classroom can be improved by developing specific activities that include dialogue and cooperative work as reflected in the pedagogical proposal "A Convivir Se Aprende" (meaning "You learn to live together"), which in addition to achieving the strengthening of values, led to a noticeable change in the behavior of students decreasing bullying episodes and generating real peaceful contexts [1]. Education in peaceful conflict resolution is a process in which students receive lessons and practices on positive conflict management to facilitate the development of skills focused on dialogue. Some social-emotional learning programs, programs focused on values and respect, or programs that address specific problems such as bullying, teach how to manage conflicts in a harmonious and healthy way [31–35].

A leading role should be given to all the agents of the educational community in the face of intervention in this problem. In general, strategies are identified in which it is the teachers who assume a leading role in the prevention and resolution of cases of violence, using

the resource of “conversation” to create a climate of well-being [6]. Among the preventive actions that have had successful results, the school mediation programs, the improvement of the participation of students and families in the school, the development of cooperative learning activities, and the implementation of programs that develop personal and social competences stand out in students [13]. Hence the need to provide students with tools for emotional regulation so that they have the ability to regulate themselves adequately in the face of conflicts. The type of initiative most studied in relation to the formation of skills for conflict resolution is mediation between peers (students), which incorporates real interventions for the positive management of conflicts, as well as awareness and development of skills through the directed practice [36]. In these mediations/peer help systems, students intervene from neutrality, seeking a balance between the people involved without providing value judgments or solutions and giving the people involved back the floor [32]. In this initiative, the students themselves are responsible for their own actions and become aware of and engage in dialogue in an effort to resolve conflicts. Therefore, it is important to favor the autonomy and self-determination of the students, promoting the ability to act independently and responsibly in decision-making. Along the same lines, the Integrated Coexistence Improvement Model stands out, a proposal that attempts to provide an educational response to coexistence conflicts through different ways: creation of new organizational structures (insertion of the mediation team and conflict treatment), elaboration democratic and participatory of the norms of coexistence, and revision of the curricular framework of the center that leads to the creation of a more protective framework [37]. Following the restorative approach, in addition to peer mediation, restorative justice programs are applied in favor of the reparation of the damage caused. An outstanding study [38] who carried out a comparative analysis of the evaluations of these programs in sixty-seven schools in the UK, reveals that restorative practices, in addition to seeking solutions to conflict, develop new strategies to manage social relationships and the classroom environment. They are programs that try to favor the appearance of kinder contexts where all the people who make up the educational community can feel listened to, valued, and integrated. It is interesting to note that there are few empirical studies related to the application of Restorative Justice programs in educational institutions.

The concept of Restorative Justice is very broad and is determined by the various restorative practices that are used. Restorative Justice is an alternative that seeks the peaceful resolution of conflicts through the participation of the people involved in the process, with the aim of effectively satisfying the needs revealed by them. In this process, their feelings are considered, and neutral alternatives are sought for repairing the damage that has been done to them, seeking the recovery of social peace through community dialogue [39, 40]. This type of justice tries to recover the well-being and balance of societies and its purpose is to give voice and decision-making capacity to the people involved in the conflict.

There are considerable variations among existing restorative programs, variations that are due in part to different interpretations of conflict and how it is resolved. These differences are due in part to different interpretations of the conflict and how to resolve it. Among the main restorative models are victim-offender Mediation and Positive Discipline, and among the completely restorative models, Restorative Conferences and Peace Circles stand out [41,42]. Restorative practices such as mediation, in addition to being tools for conflict resolution, are a paradigm that seeks to take responsibility for the people involved in the conflict and in the democratic management of coexistence. Mediation is the most widespread conflict resolution technique in our environment, but there are other restorative mechanisms such as conciliation, arbitration, restorative conferences, among others.

Mediation, seeks to help people involved in a conflict to understand it in a more constructive way, seeking collaborative alternatives to solve it, with the participation of a neutral third person (mediator) trained to conduct the meeting and search for solutions of the existing conflict [43]. The concept of Mediation, in “modern cultures”, arises from Restorative Justice that originates mainly in the field of juvenile delinquency. The initial concept of Restorative Justice began to be discussed in the late 1970s mainly in the United States by American and European scholars and practitioners. The American programs of Restorative Justice were developed in the community context, compared to the European ones, framed and in the criminal sphere. These experiences have obtained encouraging results in countries such as the United Kingdom, Australia, New Zealand, Canada, the United States, and Argentina [44]. These programs began as isolated experiences, and little by little they have been extended to different areas of application: family, criminal, school, intercultural, etc. [45]. Another restorative practice is the Restorative Conferences, which consist of meetings where the victim, the offender, families, community support groups, and the facilitator participate. It is the people involved in the process who seek to reach an agreement to resolve the problem, seeking reparation for the damage to the victim, the strengthening of community values, the recognition and compensation of the offender to the person offended for the damage committed, in addition to the social reintegration of both [46].

The most widely recognized anti-bullying program is the Olweus Bullying Prevention Program (OBPP). This program was the first to create a comprehensive and methodologically evaluated intervention that has been replicated on a large scale and implemented in schools around the world. The OBPP was the first program aimed at the entire educational community where teachers, families, students, other professionals, etc. Participated [28]. The OBPP focuses on relationships between peers (students) to reduce existing bullying situations, to prevent new ones from arising, and to promote social relationships throughout the school [47]. A more recent and popular anti-bullying program is known as KiVa, which was developed in Finland in 2006, and is based on socio-cognitive theories. This program has been studied and the results reveal that it significantly reduces bullying and victimization, in addition to reducing retaliation. KiVa has been evaluated in several countries and the first studies have shown that it is also effective outside of Finland [48].

In the case of Mexico, violence figures have been alarming for decades there has been an increased interest in conducting research to find out the causes of both violence and bullying, who are the actors involved, and what are the consequences. In general, research highlights that it is a serious, frequent, growing problem that has acquired greater visibility [13,29]. This vision corresponds to the results obtained. The Program for International Student Assessment (PISA), a project of the Organization for Economic Cooperation and Development (OECD), is a three-year study that aims to assess the level of students near the end of compulsory education in terms of knowledge, abilities, and skills essential to participate fully in society. In addition to assessing academic performance, attention is

paid to school coexistence and problem solving. The results obtained in PISA (2015) show that 20% of Mexican student's state that they suffer bullying at least a few times a month, 13% of students made fun of other students, and around 14% state that they have been victims of frequent bullying [49]. The report PISA 2018 collects that 23% of students in Mexico report having suffered bullying at least a few times a month [50], worrying data, since they reveal the increase in violence figures compared to the previous study.

In addition, there are Mexican investigations that during the last decade have explored the concept of coexistence in different academic texts [51,52] seeking preventive rather than corrective proposals, testing a change of perspective so as not to be restricted only to school violence. An initiative that was born from the Federal Government launched the National School Coexistence Program (PNCE) in all Mexican elementary schools, to promote favorable coexistence environments [29].

In Mexico, various programs to prevent and reduce the effects of bullying and violence, focus on the development of prosocial behaviors [53]. As [53–55] state that for the development of an adequate coexistence, a school intervention aimed at the positive management of the conflict in the classrooms is necessary, through the democratic learning of the rules, the exercise of responsibility, and the improvement of self-esteem. Along these lines [56], designed an intervention program based on the principles of Applied Behavioral Analysis to reduce child behaviors of bullying applied in three Mexican public elementary schools. 223 students participated and the results showed a significant decrease in bullying, a reduction in disruptive behaviors of the students in the whole group, and especially it was effective in reducing antisocial behavior. According to the authors, the success of the program was possibly since it was designed assuming that bullying is a learned and proactive behavior, which is used to achieve social or material gains, therefore, to reduce it effectively, the use of laws is necessary. of learning and motivation such as those that support the bases of applied behavioral analysis. Another study was carried out by Ref. [51] with primary and secondary education students in Mexico City and the State of Mexico, this study aimed to evaluate a virtual reality bullying application and verify variability in the assertive responses of collaborating students in simulated situations. The data obtained at the end of the application showed, on the one hand, an increase in relation to assertiveness and, on the other hand, an increase in the percentage of assertive responses to interactive harassment situations.

It is necessary to highlight that most of the interventions and conflict management projects applied to the school environment are carried out in elementary schools since the early detection, identification, and treatment of cases of bullying are of great importance, without forgetting the need to invest in preventive projects that promote positive coexistence [10,11,57]. Along these lines [52], conducted a study that aimed to validate the internal structure of the School Violence Assessment Questionnaire in Infants and Primary Schools in a sample from northeaster Mexico. Thus, these authors provide a tool to assess bullying and perceived harm and its characteristics from the early childhood stage to facilitate early detection. These projects and evaluation instruments are born because of the increase in violence in the school context from a very early age, as reflected in the data in Mexico from the 2000 Child and Youth Consultation, carried out by the Federal Electoral Institute of Mexico (IFE). In said consultation, 32% of girls and boys between the ages of six and nine said they had been exposed to violence at school and 25% said they were the object of violence in the school environment, according to the National Health and Safety Survey [58]. Regarding adolescence, the National Survey on Exclusion, Intolerance and Violence in Public Schools at the high school level (2008) revealed that two out of ten high school students are rejected by their peers, and five out of ten accepted that they have difficulties in making friends. Approximately 46% of young people between 12 and 29 years of age suffered some type of violence or abuse during 2014 according to data from the Social Cohesion Survey for the Prevention of Violence and Crime (ECOPRED). Of these practices, 45% were caused by the particularities of the young person or by their resources. In addition, 42.6% of the victims stated that their main aggressors or perpetrators are classmates from the school. Thus, practically half of the experiences of violence suffered by the youth population correspond to actions that occurred in the school context. In this same year, the Organization for Economic Cooperation and Development (OECD, 2017) declared that around 18 million young people had suffered school bullying characterized by humiliation, insults, and beatings. In addition, INEGI reported that 32.2% of the victims of bullying are between 12 and 18 years old, where the type of bullying is 74% verbal abuse, 21% psychological, 17% physical, 9% sexual, and 9% cyberbullying via the internet. Therefore, bullying is a problem that affects a large percentage of the adolescent population [INEGI, 2014 as cited in [59]].

Knowing the importance of resolving conflicts peacefully to ensure a healthy coexistence in educational institutions, one question arises, are students taught with methods that favor conflict resolution? If so, is mediation or other restorative method practiced in the current school context? On the other hand, we question whether after participating in a restorative practice program, primary school students could resolve conflicts without using violence. And if the students at a Secondary School participated in this project, would awareness of using communication to resolve conflicts be achieved? So, do restorative methods favor the use of communication in the face of conflicts and therefore reduce violence? Then, does the participation of students in the conflict prevention project using the restorative approach have positive effects on their well-being?

The hypotheses that arise are that if students participate in a conflict prevention program focused on restorative practices, they will improve their emotional self-regulation and self-determination as well as learn to manage conflicts peacefully. Taking into account the above, where the results of the projects applied to prevent bullying are positive, this study aims to demonstrate that the participation of students in a project focused on the restorative paradigm will provide them with greater emotional self-regulation, self-determination and the use of peaceful strategies to resolve conflicts.

These strategies would focus on the use of communication and cooperative work to mediate any problem and develop interpersonal relationships in peace and harmony. Considering the above, where the results of the projects applied to prevent bullying are positive, this study aims to promote healthy school coexistence through positive conflict management to mitigate episodes of habitual practices such as bullying and develop a culture of values [9–12].

2. Materials and methods

2.1. Design

The proposal to implement a conflict prevention program in educational centers arises from a Restorative Justice project applied in the Attorney General's Office of the State of Sonora. This project focused on giving people involved in a crime the possibility of resolving it through the restorative paradigm. Specifically, it was aimed at minors who had transgressed the law and their victims who agreed to participate in this project for the restoration of the damage caused [60]. In those cases, in which Restorative Justice was used as an alternative to responding to what happened, the presence of the minor offender and his family, the victim and his family, some members of the community representing society, and the facilitator were necessary. Of all the cases attended, there were two in which the community representatives (a Physical Education teacher from a Primary School and a psychologist from a Secondary School), requested the possibility of implementing a conflict prevention program using restorative practices in the schools where they worked because they were concerned about the high rate of violence in their centers.

It is an exploratory and quantitative study in which information is collected based on the responses of families and students. An experimental investigation was carried out where the objectives led to the choice of a methodology based on probabilistic samples, by comparing the pre-test, applied before starting the program of restorative methods for conflict management and the post-test, administered to the five months making it coincide with the completion of said program. For the implementation of the program, in the first place, it was necessary to confirm that the entire educational community was in favor of the application, and it was necessary for parents and/or guardians to sign the authorization to be able to make all the students participate actively.

Through a pre-test/post-test research design, the perception of resolving conflicts using restorative practices was evaluated in 336 Mexican students, 228 belonging to a Primary School and 108 belonging to a Secondary School.

For the application of these workshops, there is a directive, family and educational staff commitment who considered the intervention pertinent, a fundamental variable since there is a consistent relationship between the commitment and the success of the objectives of the school interventions. For its part, loyalty was measured through the complete execution of the workshops by the professional in charge during the project execution period.

In the school context, is essential knowing which interventions work, and it is also essential to understand how to implement them to obtain the benefits they propose, bearing in mind that schools are dynamic and heterogeneous contexts [35]. The program that is proposed in this research is a program based on the positive results that have been obtained in different areas of the application of Restorative Justice to resolve conflicts, thus, hypothetically, the intervention should be successful.

To put this program into practice, a specialized professional trained the students in restorative models where the most used models were Mediation and Restorative Conferences. Regarding the job satisfaction, it should be noted that it is associated with their vision of change and improvement based on the positive results that had been obtained in the project applied in the State Attorney General's Office with minors who had offended. The methodology selected for the application of the project was based on an active and participatory methodology. The students participated in activities developed through playful-practical workshops focused on self-esteem, self-concept, development of social skills, emotional management, and socio-affective development. They carried out activities on values education, assertive communication, learning appropriate behaviors, and workshops on peaceful conflict resolution using restorative practices (mediation, conciliation, restorative conferences, among others). Before participating in the program, activities were carried out so that students and teachers could get to know the psychologist who was going to implement the workshops. Some of the activities that were carried out were, for example, Peace Day murals, workshops on identifying emotions and feelings, and strategies for emotional regulation and impulse control. Groups of student mediators were also created for each class who oversaw promoting the peaceful resolution of conflicts.

Both the theoretical and practical sessions are appropriate to the purpose of the study, which is to know if there is an improvement in the perception of the students with respect to resolving conflicts by applying the restorative paradigm, after participating in a project of this nature. The purpose of these strategies was to make students aware of the positive results of the peaceful resolution of conflicts through dialogue, thus improving relationships and school coexistence.

2.2. Context

A program of restorative practices was applied as a proposal for conflict prevention, in a Primary School and a Secondary School in the state of Sonora (Mexico), located in a marginal urban context with a high index of conflict and violence.

2.3. Participants

On the one hand, 228 students from a Primary School with ages between 8 and 12 years ($M = 9.59$; $SD = 1.16$) participated in this research, where 55.7% were in the fourth year, 14.9% were studying in fifth grade and 29.4% were in sixth grade. 57% of the students were male and the entire sample under study resided in Hermosillo, Sonora.

On the other hand, there was also a sample of 108 students from a Secondary School aged between 12 and 16 years ($M = 13.36$; $SD = 1.13$), 52% were in the first year of secondary school, 31% studied second and 17% belonged to third. 51.4% were women and all of them also resided in Hermosillo, Sonora.

2.4. Procedure

The first contact took place with the directors of both schools who agreed to implement a conflict prevention project using restorative practices after prior explanation. In both schools, both the teachers and the families agreed with the application of the program and agreed to allow the students to participate in the weekly sessions to learn strategies and tools for peacefully resolving conflicts using restorative practices. After obtaining the informed consent of the families for the participation of their sons and daughters in the project, they proceeded to explain to the students that it was a research where collaboration was voluntary and anonymous.

First, a preliminary evaluation of the teaching staff and the Management Team was carried out, by administering a questionnaire that asked them their perception of violence in the school center, with questions such as: What are the crimes that are most committed in your neighbourhood? Subsequently, a questionnaire scale type, was applied to students between the third and sixth years of Primary in their usual classrooms during a regular class period where the teacher of the course was present. In total, 228 students participated, distributed in 9 Primary Education classrooms between the ages of 8 and 12: 3 classrooms of fourth grade, 3 classrooms of fifth grade, and 3 classrooms of sixth grade. Regarding Secondary School, it should be noted that the students from the first to third year of Secondary School took a questionnaire in their usual classrooms during school hours. In total, 108 students participated in 10 Secondary Education classrooms aged between 12 and 16 years: 3 courses of the first year, 3 courses of the second year and 4 courses of the third year.

After analyzing the results of the students on the perception of violence in their schools, the implementation of the conflict prevention program applying restorative practices was assessed. The primary school students participated in three weekly didactic sessions of one and a half hours each during the five months of the study, and the secondary school students participated in two weekly didactic sessions of 2 h each during the same period. The total number of hours that students from each of the schools participated in the project was approximately 90. At the end of the conflict prevention program, the same trainer applied the same questionnaire to the students as a post-test.

The students participated in activities developed through playful-practical workshops focused on education in values, communication, learning behaviors, development of social skills, emotional management, and socio-affective development and in addition to preventive workshops for the peaceful resolution of conflicts using restorative practices such as mediation, conciliation, restorative conferences, among others through directed practices. Cooperative and value-based work was encouraged to improve self-determination and social skills, in addition to providing tools for proper emotional regulation through the control and management of emotional reactions, feelings and impulses.

2.5. Instruments

A questionnaire was administered to the students of both the Primary and the Secondary School, which sought to obtain information about the situation of school coexistence and the difficult environment in the center, and the way students should manage them. The questionnaire included different types of questions: on the one hand, it included a series of sociodemographic data (sex, age, place of residence, and educational level) used to determine the profile of the sample (See appendix 1).

On the other hand, it was included a question with statements that described the belief in the work of the police and the fair treatment of the Judiciary in Mexico, selected from the instrument of [61,62], that was translated and alluded to the Perception of Law and Legitimacy in Mexico. An example of the questions is *"I have great respect for the police"*, *"I believe that the local police treat people fairly"*, *"We must all obey the laws because they are fair"*. Another type of question was added that included statements related to the application of restorative practices to resolve conflicts with questions such as *"Do you think that the school authorities (teachers and Principal) considered the rights of each party involved in the conflict or problem occurred at school?"*, *"All parties were heard in the process of solving a conflict or school problem"*, *"I agree that the process of solving conflicts or school problems in a peaceful manner has been authorized"* or *"The reparation of the damage of all the parties involved was achieved in the process of solving the conflict or school problem"*.

For the evaluation of social skills, a sample of the Spanish version of [63] of the Matson Evaluation of Social Skills with Youngsters (MESSY), The Matson Assessment of Social Skills with Youth) was used and adapted. The scale allows evaluating specific social skills involved in adaptive social behaviors, as well as non-adaptive behaviors, considering the relationship with peers and adults, and is applied to children and young people from 4 to 18 years old. Some examples of items are *"I hurt the feelings of others on purpose"*, *"I threaten other people or act like a bullying"*, *"I feel good if I help someone"*, *"I always want to be the first"* or *"I feel alone"*. A question is also added that includes statements related to Self-efficacy such as *"I feel capable of finishing what I am doing"*, *"I am looking for the solution to a problem"* or *"I feel incapable of fulfilling what I propose"*. In these four scales the students were asked to respond on an 11-point Likert-type scale from 0 to 10, where 0 indicates total disagreement and 10 total agreements.

Arc's Self-Determination Scale (ARC) dimensions [64] was also used, of which a part of it was translated and where students were instructed to answer a 4-point scale where 0 = I do not do it even if I have the opportunity and 3 = I do it every time I get a chance. Some of the statements are: *"I do housework"*, *"I keep myself clean and with good personal care"* or *"I choose my clothes and personal items that I use daily"*. This scale is based on a good theoretical support, coherent and well-founded in the specific literature on self-regulation and motivation. This scale aims to assess two areas or subdomains: the degree of independence of the person, in relation to aspects of personal care, household chores and interaction with the environment; and the ability to choose or act according to preferences, beliefs, interests and abilities [65]. Finally, a question is included related to the Prosocial Self-Regulation Scale [66] that assesses prosocial involvement. Participants were asked to answer a 4-point scale where 0 = Not at all true and 3 = Very true. Some questions are, for example: *"I do not hit someone because I do not like to hit others"*, *"I do not hit someone because I would feel bad about myself if I did"*,

"I would help someone because I want people to like me" or "I would help someone because helping others is satisfying".

2.6. Analysis of data

The data obtained were analyzed using the SPSS version 25 program, applying descriptive and correlational procedures for paired samples. In addition, the Student's t-test was used to compare the pre-test and post-test means. Said analyzes were applied both to the sample of primary school students and to that of secondary school students.

3. Results

The results of the analyzes carried out are described below in three different sections, differentiating the Primary School sample and the Secondary School sample: A) Descriptive of paired samples, B) Correlations of paired samples and C) Student's T-tests.

3.1. Primary school students

Descriptive statistics and Cronbach's Alpha analyses were performed for each of the scales. The analyses show, on the one hand, that the internal consistency of the dimensions is adequate since it ranges between 0.51 and 0.94; and on the other hand, that the internal consistency of the scales is adequate since the range is between 0.50 and 0.89 (Table 1).

A) Descriptive of the paired samples

The analyzes carried out show that there are improvements in the mean of the post-test variables with respect to the mean obtained in the pre-test, except for the Self-efficacy variable. To highlight the improvement in the result of the variable "Conflict Prevention" after the application of the conflict prevention project using the restorative paradigm. See Table 2.

B) Paired sample correlations

The results related to correlations show that there are no significant results, therefore, the variables are not linearly related to each other. (Table 3).

C) Student's t-tests of paired samples

To find out if the improvement in the results is relevant, Student's t-tests were performed for each scale. The analysis of the results points to some improvement in the variables analyzed, however, only the Self-determination variable shows a statistically significant improvement after the experience of restorative justice (Table 4).

3.2. High school student body

Descriptive statistics and Cronbach's Alpha were analyzed for each of the scales. The analyses show, on the one hand, that the internal consistency of the dimensions is appropriate since it ranges between 0.61 and 0.95; and on the other hand, that the internal consistency of the scales is adjusted since the range is between 0.78 and 0.96 (Table 5).

Table 1
Cronbach's alpha of scales and dimensions.

Scales	Dimensions	Alfa Cronbach Scales	Alfa Cronbach Dimensions
Perception of Law and Legitimacy		0.74	
Self-Efficacy		0.50	
Social Skills Assessment		0.89	
	Aggressiveness/Antisocial Behavior		0.94
	Social skills/Assertiveness		0.83
	Engagement/Altruism		0.88
	Loneliness/Social anxiety		0.72
Perception of conflict resolution school authorities		0.79	
Self-determination		0.73	
	Independence: self-care routine and family oriented roles		0.56
	Acting based on preferences, beliefs, interests and abilities: self-expression		0.67
Self-regulation		0.71	
	Why don't you hit someone when they misbehave?		0.77
	Why would you help someone in danger?		0.51

Table 2
Paired samples statistics.

		Mean	Sd	Standard error of the mean
Pair 1	Law Perception Pretest	7.36	1.72	0.11
	Law Perception Posttest	7.37	2.18	0.14
Pair 2	Pretest self-efficacy	7.15	1.59	0.11
	Posttest self-efficacy	6.94	1.68	0.11
Pair 3	Social Skills Pretest	5.31	1.40	0.09
	Posttest Social Skills	5.49	1.59	0.11
Pair 4	Conflict Prevention Pretest	7.22	1.61	0.11
	Posttest Conflict Prevention	7.48	1.82	0.12
Pair 5	Self-determination Pretest	2.00	0.53	0.04
	Posttest self-determination	2.13	0.52	0.03
Pair 6	Self-regulation Pretest	1.88	0.59	0.04
	Posttest self-regulation	1.98	0.58	0.04

Table 3
Paired sample correlations.

		Correlation	Sig.
Pair 1	Perception Law Pretest	0.012	0.862
	Perception Law Posttest		
Pair 2	Pretest self-efficacy	0.048	0.475
	Posttest self-efficacy		
Pair 3	Social Skills Pretest	0.014	0.833
	Posttest Social Skills		
Pair 4	Conflict Prevention Pretest	-0.004	0.955
	Posttest Conflict Prevention		
Pair 5	Self-determination Pretest	-0.005	0.936
	Posttest self-determination		
Pair 6	Self-regulation Pretest	0.017	0.805
	Posttest self-regulation		

Table 4
Paired samples T-tests.

		Mean	Sd	t	df	Sig. (bilateral)
Pair 1	Law Perception Pretest	-0.01	2.76	-0.06	227	0.95
	Law Perception Posttest					
Pair 2	Pretest self-efficacy	0.21	2.26	1.39	227	0.17
	Posttest self-efficacy					
Pair 3	Social Skills Pretest	-0.17	2.10	-1.24	227	0.22
	Posttest Social Skills					
Pair 4	Conflict Prevention Pretest	-0.27	2.43	-1.67	224	0.10
	Posttest Conflict Prevention					
Pair 5	Self-determination Pretest	-0.12	0.74	-2.48	223	0.01
	Posttest self-determination					
Pair 6	Self-regulation Pretest	-0.10	0.82	-1.76	221	0.08
	Posttest self-regulation					

A) Descriptive of paired samples

The results obtained reveal improvements in the results with respect to the mean of the variables in the post-test compared to the pre-test, except in the variable Social Skills Regarding the variable "Conflict Prevention" there is an improvement in the post-test of 0.27 after the application of the restorative practices project as an alternative to conflict resolution. (Table 6).

B) Paired Sample Correlations

The results corresponding to the correlations show significant differences in Matson's Social Skills (Table 7).

C) Student's t-tests of paired samples.

Subsequently, Student's t-tests were performed to test significance. The results reveal that there are significant differences in the Self-determination variable (Table 8), in addition to improvements in the perception of the law, and social skills with respect to the

Table 5
Cronbach's alpha of scales and dimensions.

Scales	Dimensions	Alfa Cronbach Scales	Alfa Cronbach Dimensions
Law and Legitimacy Perception	General attitudes toward the police	0.96	0.95
	Attitudes toward the criminal justice system		0.94
	Attitudes toward obeying the law		0.82
Self-Efficacy		0.78	
Social Skills Assessment	Aggressiveness/Antisocial Behavior	0.91	0.92
	Social skills/Assertiveness		0.85
	Engagement/Altruism		0.74
	Loneliness/Social anxiety		0.70
Perception of conflict resolution school authorities		0.95	
Self-determination	Independence: Routine self-care and family-oriented functions.	0.89	0.62
	Acting on preferences, beliefs, interests, and abilities: recreational and leisure time.		0.72
	Acting on preferences, beliefs, interests, and abilities: community participation and interaction.		0.66
	Act based on preferences, beliefs, interests and abilities: After-school activities		0.70
	Acting on preferences, beliefs, interests, and abilities: self-expression		0.80
Self-regulation	Why do you keep a promise to your friends?	0.92	0.77
	Why don't you make fun of another young person when he or she makes a mistake?		0.69
	Why don't you hit someone when they misbehave?		0.73
	Why do you try to be kind to other young people?		0.75
	Why would you help someone who is in danger?		0.71

Table 6
Descriptive of paired samples.

		Mean	Sd	Standard error of the mean
Par 1	Perception Law Pretest	5.61	3.82	0.37
	Perception Law Posttest	5.97	2.50	0.24
Par 2	Pretest self-efficacy	6.69	1.60	0.15
	Posttest self-efficacy	7.16	1.99	0.19
Par 3	Social Skills Pretest	5.23	1.51	0.15
	Posttest Social Skills	5.15	1.61	0.16
Par 4	Conflict Prevention Pretest	6.38	1.82	0.18
	Posttest Conflict Prevention	6.65	1.96	0.19
Par 5	Self-determination Pretest	1.95	0.43	0.04
	Posttest self-determination	2.20	0.74	0.07
Par 6	Self-regulation Pretest	1.81	0.54	0.05
	Posttest self-regulation	1.91	0.76	0.07

Table 7
Paired sample correlations.

		Correlation	Sig.
Pair 1	Perception Law Pretest	-0.019	0.844
	Perception Law Posttest		
Pair 2	Pretest self-efficacy	0.102	0.294
Pair 3	Posttest self-efficacy	-0.278	0.004
	Social Skills Pretest		
Pair 4	Posttest Social Skills	0.020	0.834
	Self-determination Pretest		
Pair 5	Posttest self-determination	-0.052	0.592
	Self-determination Pretest		
Pair 6	Posttest self-determination	0.134	0.167
	Self-regulation Pretest		
	Posttest self-regulation		

Table 8
Paired samples T-tests.

		Mean	Sd	t	df	Sig. (bilateral)
Par 1	Perception Law Pretest	-0.36	4.61	-0.81	107	0.418
	Perception Law Posttest					
Par 2	Pretest self-efficacy	0.54	2.63	-1.99	107	0.050
	Posttest self-efficacy					
Par 3	Social Skills Pretest	-0.22	2.43	0.36	107	0.720
	Posttest Social Skills					
Par 4	Conflict Prevention Pretest	0.21	2.64	-1.04	107	0.301
	Posttest Conflict Prevention					
Par 5	Self-determination Pretest	-0.12	0.74	-2.92	107	0.004
	Posttest self-determination					
Par 6	Self-regulation Pretest	0.10	0.86	-1.24	107	0.217
	Posttest self-regulation					

pretest scores.

4. Discussion

The results of the present study reveal an improvement in emotional self-regulation, self-determination and the use of peaceful strategies to resolve conflicts in students, after intervening in a dispute prevention project using the restorative approach.

In educational institutions, the aim is to generate a communication environment that favors healthy coexistence, peaceful values, and the peaceful resolution of conflicts [7] however, this reality is different since in recent decades there have been conflicts in coexistence that instead of being considered an opportunity [4] lead to episodes of violence [1]. Due to the increase in situations of bullying and violence, initiatives are being proposed worldwide to help alleviate them [54]. For this reason, it becomes a phenomenon of great concern and, therefore, a significant field of research.

Faced with this problem, experts in the field have designed programs to deal with this fact in educational institutions [28]. These programs are intended to promote the purpose of which is to promote a harmonious school culture, generating opportunities to adequately deal with relationships and problems [5]. The purpose of some of these programs is to teach how to resolve conflicts together through cooperation and communication. The school has the possibility of promoting, through culture, friendly social relationships, care, and well-being, favoring personal and group growth and a culture of tolerance and appreciation for diversity and peace. It is essential that education programs for children and adolescents address human rights, universal values, non-violent conflict management [6].

For some decades in Mexico, researchers have carried out studies focused on violence and bullying due to the alarming figures, as can be seen in the results of the PISA report that shows that 23% of Mexican student's report having suffered bullying sometimes [50]. In educational centers, conflicts are still resolved using corrective measures without favorable results as a response to violence, for which different lines of action are proposed, incorporating programs aimed at offering information for the prevention of violence in educational centers. Some countries have even incorporated Restorative Justice programs in the school environment, favoring, in addition to the resolution of the conflict, the restoration of the damage caused [41].

The results obtained in this study show that both the Primary School and Secondary School students consider the implementation of the conflict prevention project adequate. Our results support the vision of [54] who estimate that for an adequate coexistence a school intervention aimed at the positive management of problems is necessary. Our results also coincide with the pedagogical proposal "A Convivir Se Aprende" which indicates the possibility of creating scenarios of peace and improving coexistence by designing dynamics focused on dialogue and cooperative learning [1].

In this project we are based on the results obtained at the national and international level to select the restorative practices that were implemented in both schools. We selected peer mediation because it is the most studied alternative to the formation of skills for conflict resolution [36]. We also incorporate the paradigm of Restorative Justice because it aims, in addition to resolving conflicts peacefully, to restore damage. Restorative practices are conflict resolution strategies that seek democratic management of coexistence, seeking neutral alternatives to resolve the conflict and repair the damage through dialogue [40]. The results of a study conducted in schools in the United Kingdom, comparing evaluations of programs that employ restorative practices, revealed the importance of implementing these programs to create more welcoming spaces that foster respect among students [39].

In the study present here, it should be noted that restorative practices were implemented in classrooms with students through theoretical and practical sessions incorporating real interventions for the positive management of conflicts through oriented practices, with the intention of promoting school coexistence by contributing an educational response to conflicts, along the same lines, as the Integrated Coexistence Improvement Model [38]. Given that schools are the most appropriate spaces to apply anti-bullying programs [30], for the development of this study, restorative practices were applied, providing tools to students to solve problems using the word and not the word violence. It should be noted that none of the schools had received training in conflict prevention despite knowing how important it is in preventing violence. Special attention was paid to trying to improve social skills, communication channels, autonomy, and tolerance, facilitating alternatives that would promote a culture of education in values and positive regulation of conflicts [4]. In education for the peaceful resolution of conflicts, students participate in experiences on positive conflict management, thus

developing skills focused on dialogue [33].

One more task, perhaps one of the most important, will be to give the floor back to the participants, as defended in the restorative paradigm approach. It is necessary to involve students in the resolution of their conflicts and hold them accountable for their actions. In this line, the results of the study show improvement in the self-determination and self-regulation of the students at both schools after participating in the project, and it is that the programs that develop personal and social skills in the students have been successful since they have had favorable results [13]. Therefore, these results reveal that Primary School students after participating in a restorative practice program develop better self-regulation and use dialogue to resolve conflicts, thus avoiding episodes of violence. And as for the students at the Secondary School, highlight the improvement in their self-determination after participating in this project. The results of this study support this idea, based on the fact that it is the students themselves who are responsible for their actions, and it is they themselves who become aware and dialogue trying to resolve conflicts. As for the secondary school students, they highlight the significant improvement in self-determination after participating in this project. This data is relevant since self-determination leads students to act as the main causal agent in their lives and to make favorable decisions about their lives [65–67]. These results confirm the objective of this study since it is demonstrated that students, in addition to acquiring greater emotional self-reliance and self-determination after participating in the project focused on the restorative *para*-digma, internalize peaceful strategies to resolve conflicts.

The results of this study support this idea, based on the fact that it is the students themselves who are responsible for their actions, and it is they themselves who become aware and engage in dialogue in an attempt to resolve conflicts. In addition, the positive results in terms of the self-efficacy of secondary school students after participating in the conflict prevention project should be highlighted. These results respond to the hypotheses raised at the beginning, the students' awareness of using communication to solve conflicts and the restorative methods favor a positive coexistence by reducing violence.

In addition to these two variables, this study analyzed the students' perception of authority figures and the application of the law, where the results show improvements after participating in the conflict prevention project using restorative methods. The student body of both schools maintained a fairer and more equitable view from the authority figures. The Social Skills Scale was also studied. After participating in the program, the students developed improvement in social skills through cooperative work and the learning of values. These results support the data referring to the pedagogical proposal "A Convivir Se Aprende", which shows that using activities that favor cooperative work and the strengthening of values, reduces episodes of bullying, and generates peaceful contexts. of coexistence [1].

In summary, the results of this research support that the implementation of restorative strategies in educational institutions improves emotional self-regulation, self-determination and the use of peaceful strategies to resolve conflicts. These results are consistent with some programs focused on education in values and programs that ensure that specific problems such as bullying are addressed, teaching how to manage conflicts peacefully [33]. Therefore, it can be affirmed that the participation of students in the conflict prevention project using the restorative approach has positive effects on their well-being. To obtain more conclusive results, a longer-term follow-up would be necessary once the strategy is fully implemented in schools.

5. Conclusions

Education has an indispensable role to play in the progress of humanity towards the ideals of peace and freedom, and social justice. Education is the key to transform the reality that is lived in the classrooms, generating friendly interactions where good treatment prevails developing practices that consolidate a coexistence and a culture of peace. However, for decades, growing indiscipline and school violence are issues of notable social concern, due to the continuity and severity of its personal and social consequences, in addition to the limitations to carry out the teaching function.

In Mexico, the number of investigations related to school violence and bullying has increased and initiatives have been designed to prevent and reduce these episodes. Some of these initiatives prioritize the use of strategies based on communication and listening. Thus, alternatives are sought that promote a culture of training in values and positive regulation of conflicts, with the aim of reducing violence.

The initiative of the project applied in both schools agrees with the type of action most studied in relation to the formation of skills for conflict resolution, we refer to mediation between students, which is considered a good practice restorative. The vision that participating students have when it comes to resolving conflicts using restorative practices is positive, thus favoring new alternatives that promote the culture of education in values and positive coexistence. It must be considered that educational institutions are favorable contexts of peaceful values, coexistence capacities, and aptitudes for the proper management of conflicts. It should be noted that the workshops carried out in this project were based on communication, dialogue, respect, and active participation when it comes to resolving disagreements and making decisions since as point out, they are important elements of democracy. This study supports the idea that are the students themselves who internalize these values, becoming responsible and becoming aware of their actions, using dialogue to try to resolve conflicts. These results are in line with the OBPP, which is one of the best-known programs worldwide and focuses on relationships between equals (students) to reduce existing bullying situations and favor school social relationships.

We believe that it is still necessary to continue working on these aspects, to turn from a culture of normalized school violence to a culture of peaceful coexistence. To prevent and address bullying requires the participation of society as a whole and at the institutional level, it is necessary to consider the role of the school and the role of teachers, parents, and mothers in their relationship with violence. An educational intervention in coexistence is needed aimed at the prevention of violence and the construction of peaceful environments, through restorative practices and integrated treatment in the resolution of conflicts from schools.

Finally, it should be noted that this is exploratory research, where changes were observed by the researchers themselves. The

intention of this study was to observe possible changes after implementing the conflict prevention project using restorative practices. The results will allow to deepen in knowledge and new design. In addition, they will allow to support and accompany future research to obtain the real effect of the implementation of conflict prevention programs using the restorative approach. Therefore, these results can be seen as an indicator that can mark future lines of research.

6. Limitations and prospective

The present study has some limitations; on the one hand, it indicates the lack of a control group for comparison, either through a different intervention or with a group that did not participate in the program, so it is suggested that a control group be established for future studies. On the other hand, it should be noted that the results were positive, but sometimes they were not significant. The short period of implementation of the program can explain this fact, despite this we recommend carrying out a longitudinal study and throughout different educational stages, in order to determine more specifically the true effect and scope of the program.

Despite the limitations, the findings of the present study provide suggestive data that may have an applied utility in the development of educational programs and projects that are implemented with a longer duration in time. The data obtained show that there are substantial improvements in the variables studied. Taking these results into account, it would be convenient to develop educational projects with a transversal focus that would promote education in values and positive coexistence. Likewise, it is recommended for future studies to consider the follow-ups to evaluate that the change is maintained over time, all with the purpose of strengthening the empirical evidence that supports the use of preventive programs based on conflict prevention applying a restorative paradigm.

Institutional review board statement

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Review Board (or Ethics Committee) of the European Scientific Institute (ESI) (protocol code: ESI-2020/003).

Informed consent statement

Written informed consent was obtained from the patient(s) to publish this paper.

Author contribution statement

David Pérez-Jorge: Conceived and designed the experiments; Performed the experiments; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Isabel Alonso-Rodríguez, Eva Ariño-Mateo: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Matías Arriagada-Venegas: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Data availability statement

No data was used for the research described in the article.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

To the participating educational centers and their teachers and students.

Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.heliyon.2023.e18267>.

References

- [1] B. Bernal, Y. Díaz, I. Meza, *A convivir se aprende: estrategia pedagógica para mejorar la convivencia escolar*, *Hexágono Pedagógico* 9 (1) (2018) 29–49, [10.22519/2145888X.1251](https://doi.org/10.22519/2145888X.1251).

- [2] R.D.R.Z. Torres, M.J.V. Zambrano, C.E.V. Zambrano, E.D.L.M.C. Girón, Convivencia escolar y práctica de valores en estudiantes de octavo de una Unidad Educativa de Guayaquil, *Digital Publisher CEIT* 7 (4) (2022) 60–74, <https://doi.org/10.33386/593dp.2022.4-2.1213>, 2020, 593.
- [3] R. Ortega, R. Del Rey, *Construir la Convivencia, Edebé*. Search on Google Scholar (2004).
- [4] J. Villalba, La convivencia escolar en positivo, *Revista Educación y Humanismo* 18 (30) (2016) 92–106, <https://doi.org/10.17081/eduhum.18.30.1324>.
- [5] M. De Agüero, La investigación acerca del acoso y violencia escolares en México, *Rev. Digit. Univ.* 21 (2) (2020) 1–15, 10.22201/cuaieed.16076079e.2020.21.4.2.
- [6] G. Colombo, Violencia Escolar y Convivencia Escolar: descubriendo estrategias en la vida cotidiana escolar, *Rev. Argent. Soc.* 8 (15) (2011) 81–104. <https://www.redalyc.org/pdf/269/26922386005.pdf>.
- [7] M.H.R. Ariza, N.M.C. Bonilla, J.C.O. León, P.V. Vaca, Convivencia escolar y cotidianidad: una mirada desde la inteligencia emocional, *Revista Educación y Desarrollo Social* 11 (1) (2017) 24–47, 10/18359/reds.2649.
- [8] M.M. Cano-Echeverri, J.E. Vargas-González, Actores del acoso escolar, *Rev. Méd. Risaralda* 24 (1) (2018) 60–66.
- [9] A.I. González-Contreras, D. Pérez-Jorge, M.C. Rodríguez-Jiménez, K. Bernadette-Lupson, Peer bullying in students aged 11 to 13 with and without special educational needs in Extremadura (Spain), *Education* 3–13 49 (8) (2020) 945–956, <https://doi.org/10.1080/03004279.2020.1817965>.
- [10] D. Pérez-Jorge, I. Alonso-Rodríguez, E. Ariño-Mateo, M.C. Rodríguez-Jiménez, Prevention of school conflict in a Mexican primary school from an integrative and restorative perspective, *Education* 3–13 (2021) 1–15, <https://doi.org/10.1080/03004279.2021.1914126>.
- [11] J. Ruiz-Ruiz, D. Pérez-Jorge, L. García-García, G. Lorenzetti, Gestión de la Convivencia, Search on Google Scholar, Octaedro, Spain, 2021.
- [12] R. Valdés-Morales, V. López, F. Jiménez-Vargas, Inclusión educativa en relación con la cultura y la convivencia escolar, *Educación y Educadores* 22 (2) (2019) 187–211, <https://doi.org/10.5294/edu.2019.22.2.2>.
- [13] B. Martínez-Ferrer, G. Musitu-Ochoa, S. Buelga, Violencia entre iguales en la adolescencia: el contexto escolar y las nuevas tecnologías, en: J. A. Vera, & Á. A. Valdes. (Coord) *La violencia escolar en México. Temáticas y perspectivas de abordaje*, Iave Editorial. Search on Google Scholar, 2016, pp. 17–40. C.
- [14] O.M.S., *Informe mundial sobre la violencia y la salud*, Organización Mundial de la Salud., Search on Google Scholar, 2002.
- [15] M.A. Valle-Barbosa, A.M. de la Torre, R. Robles-Bañuelos, M.G.V. López, M.E. Flores-Villavicencio, G.J. González-Pérez, La violencia y acoso escolar en una escuela de Guadalajara, México, *Revista Iberoamericana de Educación* 79 (2) (2019) 43–58, <https://doi.org/10.35362/rie7923180>.
- [16] A. Gómez, La violencia de alumnos hacia maestros en escuelas secundarias de Colima, México, *Revista de Investigación Educativa Latinoamericana* 51 (2) (2014) 19–34.
- [17] E. Cañas-Pardo, Acoso escolar: características, factores de riesgo y consecuencias, *Revista Doctorado UMH* 3 (1) (2017) 7–18. <https://revistas.innovacionumh.es/index.php/doctorado/article/view/635>.
- [18] R. Granados, Riesgo de violencia y el acoso escolar en estudiantes de Guanajuato, México, *Revista de Investigación Académica sin Frontera* 13 (2020) 1–23, <https://doi.org/10.46589/rdiasf.vi33.316>.
- [19] M. Ayala-Carrillo, Violencia escolar: un problema complejo, *Ra Ximhai* 11 (4) (2015) 493–509.
- [20] A. Herrera, F.J. Pedrozo, El bullying: una aproximación a la delimitación operacional del concepto, *Revista Internacional de Psicología del Desarrollo y la Educación* 1 (1) (2012) 451–459. <https://www.redalyc.org/pdf/3498/349832342046.pdf>.
- [21] I. Martínez, E.I. Gómez, R. Goig, El acoso escolar en educación secundaria: prevalencia y abordaje a través de un estudio de caso, *Comunitania, International Journal of Social Work and Social Sciences* 17 (2019) 71–91, 10.5944/comunitania.17.4.
- [22] D. Olweus, *Conductas de acoso y amenaza entre escolares*, Morata, 1998.
- [23] D. Falla, R. Ortega-Ruiz, Los Escolares Diagnosticados con Trastorno del Espectro Autista y Víctimas de Acoso Escolar: una Revisión Sistemática, *Psicol. Educ.* 25 (2) (2019) 77–90, 10.5093/psed2019a6.
- [24] Y. Reyes, J. Acuña, Acoso escolar y interrupción del aprendizaje en estudiantes de la secundaria de Chilpancingo, México, *Rev. Innova Educación* 2 (3) (2020) 413–430, <https://doi.org/10.35622/j.rie.2020.03.003>.
- [25] R. Hernández-Vásquez, M. Saravia, Generalidades del acoso escolar: una revisión de conceptos, *Apunt. Psicol.* 1 (2016) 30–40. https://revistas.upeu.edu.pe/index.php/ri_apsicologia/article/view/873.
- [26] M. Herrera-López, E. Romera, R. Ortega-Ruiz, Bullying and cyberbullying en Colombia; coocurrencia en adolescentes escolarizados, *Rev. Latinoam. Psicol.* 49 (3) (2017) 163–172, <https://doi.org/10.1016/j.rlp.2016.08.001>.
- [27] D. Santoyo, S. Frías, Acoso escolar en México: actores involucrados y sus características, *Rev. Latinoam. Estud. Educ.* 44 (2014) 13–41. <http://hdl.handle.net/20.500.12799/3502>.
- [28] M. Gastesi, J.C. Ripoll, Una revisión de la eficacia de los programas anti-bullying en España, *Pulso* (42) (2019) 51–72.
- [29] C.L. Saucedo, C. Guzmán, La investigación sobre la violencia escolar en México: tendencias, tensiones y desafíos, *Revista Cultura y Representaciones Sociales* 12 (24) (2018) 213–245, <https://doi.org/10.28965/2018-024-08>.
- [30] M. Foody, S. Muthanna, Análisis sobre el uso de técnicas de mindfulness en programas antiacoso escolar, *J. N. Approaches Educ. Res.* 7 (1) (2018) 3–9, <https://doi.org/10.7821/naer.2018.1.253>.
- [31] D. Pérez-Jorge, M.C. Rodríguez-Jiménez, A.I. González-Contreras, J. Ruiz-Ruiz, Teachers' beliefs about bullying, analysis to reorient teacher training, *Humanities & Social Sciences Reviews* 8 (2020) 294–306, <https://doi.org/10.18510/hssr.2020.8527>.
- [32] L.V. Badenes, I.U. Guiral, J.E.A. Serrano, Los programas de mediación entre iguales: una herramienta eficaz para la convivencia escolar, *Apunt. Psicol.* 31 (2013) 165–171. <https://www.apuntesdepsicologia.es/index.php/revista/article/view/319>.
- [33] L. Villanueva, I. Usó, J. Adrián, Los programas de mediación entre iguales: una herramienta eficaz para la convivencia escolar, *Apunt. Psicol.* 31 (2) (2013) 165–171.
- [34] P. Carbajal, Convivencia democrática en las escuelas. Apuntes para una reconceptualización, *Revista Iberoamericana de Evaluación Educativa* 6 (2) (2013) 13–35.
- [35] D. Pérez-Jorge, M.A. González-Luis, M.C. Rodríguez-Jiménez, E. Ariño-Mateo, Educational programs for the promotion of Health at school: a systematic Review, *Int. J. Environ. Res. Publ. Health* 18 (20) (2021), 10818, <https://doi.org/10.3390/ijerph182010818>.
- [36] R. Rojas-Andrade, L. Leiva-Bahamondes, A.M. Vargas, A.M. Squicciarini-Navarro, Efectos de la fidelidad de la implementación sobre los resultados de una intervención preventiva en salud mental escolar: un análisis multinivel, *Psychosoc. Interv.* 26 (3) (2017) 147–154, <https://doi.org/10.1016/j.psi.2016.12.002>.
- [37] K. Bickmore, A. MacDonald, Oportunidades de liderazgo estudiantil para alcanzar la 'Paz' en las escuelas urbanas de Canadá: contradicciones en la Práctica, *Revista Interamericana de Educación para la Democracia* 3 (2) (2010) 6–37.
- [38] J.C. Torrego, Desde la mediación de conflictos en centros escolares hacia el modelo integrado de mejora de la convivencia, en: J. C. Tórrago, *Modelo integrado de mejora de la convivencia*, Search on Google Scholar, 2006, pp. 11–26. Grael.
- [39] M. Albertí i Cortés, C. Boqué i Torremorell, Hacia una pedagogía restaurativa: superación del modelo punitivo en el ámbito escolar, *Revista de Mediación* 8 (1) (2015) 36–49.
- [40] J. Segovia, J. Ríos, Diálogo, justicia restaurativa y mediación, *Documentación Social* 148 (2008) 77–98 (Search on Google Scholar).
- [41] G. McCluskey, Restoring the possibility of change? A restorative approach with trouble and troublesome young people, *Int. J. Sch. Disaffection* 7/ (1) (2010) 19–25. <https://access.portico.org/Portico/auView?auld=ark:%2F27927%2Fphx2c2c5m82>.
- [42] P. McCold, La historia reciente de la justicia restaurativa. Mediación, círculos y conferencias, *Delito y Sociedad* 22 (36) (2013) 9–44. http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S2468-99632013000200001.
- [43] P. McCold, T. Wachtel, Restorative justice theory validation, in: E. Weitekamp, H. Kerner (Eds.), *Restorative Justice: Theoretical Foundations*, Willan Publishing, 2012, pp. 110–142 (Cullompton).
- [44] R. Pulido, G. Martín-Seoane, B. Lucas-Molina, Orígenes de los Programas de Mediación Escolar: distintos enfoques que influyen en esta práctica restaurativa, *An. Psiologic.* 29 (2) (2013) 385–392, <https://doi.org/10.6018/analesps.29.2.132601>.
- [45] I. González, M. Fuentealba, Mediación penal como mecanismo de justicia restaurativa en Chile, *Revista Chilena de Derecho y Ciencia Política* 4 (3) (2013) 175–210.

- [46] E. Curbelo, Trabajo social y mediación judicial. El trabajador social forense como mediador en el contexto de la mediación penal de menores, *Humanismo y Trabajo Social* 7 (2008) 135–154.
- [47] C. Brenes, Justicia Restaurativa: Una herramienta para la solución al fenómeno de la criminalidad costarricense, Search on Google Scholar, 2009. Unpublished doctoral thesis.
- [48] D. Olweus, S. Limber, Bullying in school: evaluation and dissemination of the Olweus bullying prevention program, *Am. J. Orthopsychiatry* 80 (1) (2010) 124–134, <https://doi.org/10.1111/j.1939-0025.2010.01015.x>.
- [49] T. Mäkelä, B. López-Catalán, Programa de convivencia y antiacoso escolar KiVa: impacto y reflexión, *Anales de la Fundación Canis Majoris* 2 (2018) 234–258 (Search on Google Scholar).
- [50] OECD, Resultados de Programa de Evaluación Internacional de los Alumnos (PISA) 2015 Bienestar de los alumnos, Organización Mundial de la Salud, México, Search on Google Scholar, 2017.
- [51] OECD, Programa de Evaluación Internacional de los Alumnos (PISA) 2018 Bienestar de los alumnos, Organización Mundial de la Salud, Search on Google Scholar, México, 2019.
- [52] C. Fierro-Evans, P. Carbajal-Padilla, Convivencia Escolar: una revisión del concepto, *Psicoperspectivas* 18 (1) (2019) 9–27, <https://doi.org/10.5027/psicoperspectivas-vol18-issue1-fulltext-1486>.
- [53] N. Heredia, Acoso escolar presencial y virtual en una secundaria técnica de una comunidad Maya en Yucatán (MÉXICO), *Revista EDUCAmazônia - educação Sociedade e Meio Ambiente, Humaitá* 23 (2) (2019) 505–521. <https://periodicos.ufam.edu.br/index.php/educamazonia/article/view/6739>.
- [54] P. Ortega, R. Mínguez, P. Saura, El conflicto en las aulas. Propuestas pedagógicas, Ariel. Search on Google Scholar, 2003.
- [55] B. Mendoza, F.J. Pedroza, Evaluación de un Programa de Intervención para Disminuir el Acoso Escolar y la Conducta Disruptiva, *Acta de Investigación Psicológica* 5 (2) (2015) 1947–1959, [https://doi.org/10.1016/S2007-4719\(15\)30015-6](https://doi.org/10.1016/S2007-4719(15)30015-6).
- [56] E. Berra, J. Castañeda, S. Muñoz, Z. Vega, X. Duran, Simulador Virtual para Acoso Escolar en Niños y Adolescentes: un Estudio Piloto en México, *Hamu'ay* 5 (1) (2018) 7–16, <https://doi.org/10.21503/hamu.v5i1.1517>.
- [57] F. Barragán-Medero, J. Mackwicz, Z. Szarota, D. Pérez-Jorge, Educación para la paz, la equidad y los valores, *Octaedro*. Search on Google Scholar, 2021.
- [58] J.G. Tovar, A.H. Montaña, D.I.L. Rodríguez, M.C.H. Ruíz, Estructura interna del Cuestionario de Evaluación de Violencia Escolar Infantil y Primaria en un entorno violento de México, *Interacciones* 4 (1) (2018) 21–30, <https://doi.org/10.24016/2018.v4n1.90>.
- [59] O.N.E. Esparza, G.D.Z. Conde, I.I. Campos, Género, violencia y el discurso del (cyber) bullying en el nivel de educación media superior, *Opción* 32 (13) (2016) 954–978. <https://www.redalyc.org/pdf/310/31048483045.pdf>.
- [60] I. Alonso-Rodríguez, M. Frías Armenta, Justicia Restaurativa, Un modelo de intervención en México, en: M. Frías Armenta (Ed.), *Legislación, Justicia Y Humanismo*, Pearson Educación de México, S.A. d, 2016, pp. 99–111.
- [61] M.V. Trianes, M.J.B. Mena, A. Muñoz, B. García, M. Cardelle-Elawar, L. Infante, Relaciones entre evaluadores de la competencia social en preadolescentes: profesores, iguales y autoinformes, *An. Psicolog.* 18 (2) (2002) 197–214. <https://revistas.um.es/analesps/article/view/28391>.
- [62] T. Tyler, *Why People Obey the Law*, Princeton University Press. Search on Google Scholar, 2006.
- [63] J. Matson, A. Rotatori, W. Helsel, Development of a rating scale to measure social skills in children: the Matson Evaluation of Social Skills with Youngsters (MESSY), *Behav. Res. Ther.* 21 (4) (1983) 335–340, [https://doi.org/10.1016/0005-7967\(83\)90001-3](https://doi.org/10.1016/0005-7967(83)90001-3).
- [64] M.L. Wehmeyer, *The Arc's Self-Determination Scale. Procedural Guidelines*, Search on Google Scholar, 1995. The Arc of the United States.
- [65] F. Peralta, A. Zulueta, M.C. González Torres, La escala de autodeterminación de Arc. Presentación de un estudio piloto, *Siglo Cero* 33 (3) (2002) 5–14. <http://hdl.handle.net/11162/32093>.
- [66] B.J. Zimmerman, Self-regulated learning and academic achievement: an overview, *Educ. Psychol.* 25 (1) (1990) 3–17, [10.1207/s15326985ep2501_2](https://doi.org/10.1207/s15326985ep2501_2).
- [67] I. Alonso-Rodríguez, D. Pérez-Jorge, A.I. González-Herrera G, A.I. González-Contreras, Percepción de las familias ante la resolución de conflictos empleando métodos restaurativos en el contexto escolar, en: *Responsabilidad social para la inclusión*, 2022, pp. 116–130 (Dykinson. Search on Google Scholar).