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## Implementación del programa kiva de antibullying en escuelas pioneras en España

### Implementing kiva antibullying program in pioner schools in Spain

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#### RESUMEN.

Este estudio analiza la implementación del programa KiVa Antibullying en España en 10 escuelas pioneras. La investigación tiene dos objetivos. El primero es evaluar de forma preliminar la implementación del programa KiVa en las escuelas pioneras en España. Para ello, se han analizado los niveles percibidos de acoso y victimización a través de las encuestas realizadas de forma anónima por los alumnos de 10 colegios KiVa antes y después de la implementación del programa. El segundo es identificar los factores que explican el fenómeno con el fin de conocer los antecedentes de las víctimas y los agresores y proponer líneas de acción. Para ello, se analizó el entorno escolar (ambiente en el aula y en la escuela), la percepción de los estudiantes sobre los profesores y padres en relación con el fenómeno (actitud, capacidad y comportamiento) y la comunicación de las víctimas en su entorno en el caso de bullying. Para el estudio empírico se realizó el análisis de la prevalencia del bullying antes y después del primer año de implementación del programa, así como un análisis de independencia y correspondencias múltiples. Esto permite identificar las variables clave y sacar conclusiones sobre cómo los niños encuestados viven el acoso escolar en las escuelas KiVa pioneras en España y qué aspectos deben orientar a otras escuelas interesadas en prevenir el acoso escolar.

#### PALABRAS CLAVE.

Kiva, acoso escolar, evaluación, aplicación de programa, violencia escolar.



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**ABSTRACT.**

This study analyzes the implementation of the KiVa Antibullying program in Spain with 10 pioneer schools.

This research has two aims. The first is a preliminary evaluation of the KiVa program's implementation in the pioneer schools in Spain. To do so, the perceived levels of bullying and victimization have been analyzed through the surveys done anonymously by the students of 10 KiVa schools before and after the program's implementation. The second is to identify the factors which explain the phenomenon with a view to knowing the background of the victims and the bullies and proposing courses of action. To do so, the school environment (atmosphere in the classroom and in the school), the perception of the students concerning teachers and parents in relation with the phenomenon (attitude, capacity and behavior) and the communication of the victims were analyzed in their environment in the case of bullying. In the empirical study, analyses were performed of the prevalence of bullying before and after the first year of program's implementation, as well as an analysis of independence and multiple correspondences. This enables identifying the key variables and drawing conclusions about how the children surveyed live out school bullying in the pioneer Spanish KiVa schools, and what aspects should guide other schools interested in preventing bullying.

**KEY WORDS.**

Kiva, bullying, evaluation, program implementation, school violence.

**1. Introduction.**

School-bullying is seen as a major public health issue affecting a huge number of children and young people globally. That is the reason why schools all over the world need to confront this problem. However, this implies a hard work that includes personal and economic resources but also a great effort to concentrate on specific aspects of this complex phenomenon.

There is already a wide variety of research-based bullying intervention programs available for schools with evidence of effectiveness. Based on a recent meta-analysis of a total of 100 evaluation studies (Gaffney, Ttofi & Farrington, 2019), these anti-bullying programs significantly reduce bullying perpetration (random effects OR = 1.309) and bullying victimization (random effects OR = 1.244). In this analysis, the anti-bullying programs evaluated in primary studies employing age cohort designs (n = 14) provided the largest effects in reducing both bullying perpetration (OR = 1.474) and victimization (OR = 1.302). Amongst the anti-bullying programs with the strongest evidence of effectiveness, there were Olweus Bullying Prevention Program (OBPP), KiVa program, and Zero Program Against Bullying. (Gaffney et al., 2019.)

An earlier systematic review of 44 bullying interventions tested in controlled trials (Farrington & Ttofi, 2009) identified bullying intervention characteristics associated with positive intervention results. These characteristics posteriorly adapted to a systematic review examining 24 bullying intervention (Evans, Fraser & Cotter, 2014, p.541) were: school wide approach, classroom/school rules against bullying, established protocol for handling bullying situations, posters or other visible markers of anti-bullying campaign, adequate implementation intensity (more than 20 h), curriculum materials provided, videos or computer



based activities, peer oriented approach (e.g., bystanders interventions), teacher training/manual, improved playground supervision, and school-wide anti-bullying assemblies. In this analysis, programs OBPP and KiVa were identified as the most holistic ones. Starting bullying prevention is hard for schools.

KiVa has been demonstrated to be successfully developed in different sociocultural contexts all over the world (Axford et al, 2020; Green et al, 2020; Huitsing et al, 2020). As a consequence, it seems to be a good case to study the first year implementation in order to analyze what results could be expected and what are the main points schools interested in bullying prevention should focus on during the first year.

The KiVa antibullying program was developed at the University of Turku, funded by the Finnish Ministry of Education. The acronym KiVa originates from two Finnish words “kiusaamista vastaan” meaning “against bullying”. The word “kiva”, however, also means “nice” or “friendly” in Finnish language indicating the need to be nice and friendly to everybody in order to reduce bullying. The theoretical background of the program is on studies on the social standing of aggressive children, research on participant roles in bullying, and social-cognitive theories (Kärnä, Voeten, Little, Poskiparta, Kaljonen & Salmivalli, 2011a). Bullying is considered to be a group phenomenon. A study of Salmivalli, Lagerspetz, Björkqvist, Österman and Kaukiainen (1996) identified the following roles among the students in a bullying situation: Victim, Bully, Reinforcer of the bully, Assistant of the bully, Defender of the victim, and Outsider. KiVa focuses particularly on changing bystanders’ attitudes and behaviours.

The definition of bullying employed in the KiVa program is in line with The Revised Olweus Bully/Victim Questionnaire (OBVQ, see Hutchings & Clarkson, 2015):

A student is considered being bullied when one or more students call him or her mean and hurtful names, say mean or hurtful things about that student, make fun of, completely ignore, exclude, or leave that student outside on purpose. Bullying may also consist of hitting, kicking, shoving or ordering the victim around. Bullying can be trying to make other students dislike the target by spreading lies about him or her or by sending mean notes, or do other hurtful things than the ones mentioned above. It is considered bullying when these things happen repeatedly, and the victim finds it difficult to defend him/herself. It is also bullying when a student is teased repeatedly in a mean and a hurtful way. Friendly and playful teasing, in turn, is not considered as bullying. It is also not considered bullying when students with roughly an equal amount of power willingly argue or fight.

KiVa is a whole-school program including materials for students, teachers and parents. The main components of KiVa are (1) universal actions (prevention), (2) indicated actions (intervention), and (3) monitoring (follow-up). First, universal actions consist of 10 student lessons (Unit 1, for grades 1 to 3, Unit 2 for grades 4 to 6 and Unit 3 for grades 7 to 9). Lessons include student-centered, versatile and self-regulated activities on, for instance, human relations, emotions, communication, bullying as a group phenomenon, and tools for countering bullying. KiVa promotes values such as the importance of collaboration, shared responsibility, and mutual trust when preventing and tackling bullying. Second, indicated actions consist of an intervention protocol in the case of bullying is suspected of taking place at school. Third, monitoring consists, for example, of the registry of cases tackled by the intervention team as well as of a yearly student survey.



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KiVa program has been widely studied in the Finnish context (Sainio et al, 2019). In a large randomized controlled trial (Kärnä et al., 2011a), KiVa was found to significantly reduce (a reduction of 17-30% in comparison to control schools) both peer- and self-reported bullying and victimization. Also, the odds of being a victim were about 1.5-1.8 times higher and being a bully 1.2-1.3 times higher for a control school's students than for an intervention's school students. KiVa has been found effective in reducing various forms of victimization, including verbal, relational, physical, and cyberbullying (Salmivalli, Kärnä & Poskiparta, 2011) and to have a positive impact on students' perception of their peer climate (Williford, Noland, Little, Kärnä & Salmivalli, 2012). Moreover, after the first year of implementing KiVa in more than 1000 schools in Finland, both victimization and bullying was significantly reduced (Kärnä, Voeten, Little, Alanen, Poskiparta & Salmivalli, 2011b). The effects have found to be greater amongst boys than girls (Kärnä et al., 2011a) as well as more in primary than in secondary schools (Kärnä, Voeten, Little, Alanen, Poskiparta & Salmivalli, 2013). Anti-bullying attitudes, perceptions regarding peers' defending behaviors, and teachers' attitudes toward bullying have been found to be significant mediators of the program's effectiveness (Saarento, Boulton & Salmivalli, 2015).

The KiVa program has currently been implemented in various countries, such as Argentina, Chile, Italy, Mexico, Netherlands, New Zealand, South Africa, Spain, Sweden, the UK, and the USA. The first studies outside Finland indicated that KiVa is also effective in other sociocultural contexts. For instance, a pilot study in the UK comparing pre/post test results (Hutchings & Clarkson, 2015) reported significant reductions in bullying ( $t[12]=2.791$ ,  $p[\text{one-tailed}]=0.008$ ) and victimization ( $t[12]=2.147$ ,  $p[\text{one-tailed}]=0.027$ ). As a gender difference, reductions were found significant for girls both in victimization and bullying while for boys these were only significant in bullying. Also, a randomized control trial in Italy (Nocentini & Menesini, 2016) provided evidence of the program's effectiveness. At KiVa's primary schools, there was a reduction of 51 % in victimization and in bullying others from pre-test to post-test. At KiVa's secondary schools, the reduction was 12.9 % in victimization and 41.9 % in bullying others. It was acknowledged, however, that the success may have been partly due to an intense teacher training, follow-up, and an adaptation of the program to the Italian school system (e.g., the lesson schedule, timing, and teacher support).

This study analyzes the implementation of the KiVa program in Spain with 10 pioneer schools. The schools were expecting data and support for their work but also showed an interest in contributing to research on the program's impact and its localization needs in their sociocultural contexts. The schools received two days pre-implementation training by KiVa trainers certified by the University of Turku as well as three follow-up sessions by these trainers during their first year of implementation (Mäkelä & López Catalán, 2018.)

This research has two aims. The first is a preliminary evaluation of the KiVa program's implementation in the pioneer schools in Spain. To do so, the perceived levels of bullying and victimization have been analyzed through the surveys done anonymously by the students of 10 KiVa schools before and after the program's implementation. The second is to identify the factors which explain the phenomenon with a view to knowing the background of the victims and the bullies and proposing courses of action. To do so, the school environment (atmosphere in the classroom and in the school), the perception of the students concerning





teachers and parents in relation with the phenomenon (attitude, capacity and behavior) and the communication of the victims were analyzed in their environment in the case of bullying. In the empirical study, analyses were performed of the prevalence of bullying before and after the first year of program's implementation, as well as an analysis of independence and multiple correspondences. This enables identifying the key variables and drawing conclusions about how the children surveyed live out school bullying in the pioneer Spanish KiVa schools, and what aspects should guide other schools interested in preventing bullying.

## 2. Methods.

### 2.1. Participants.

This is an opportunistic evaluation of data from early-implementer schools. The study population is the students attending Spanish schools where the KiVa antibullying program was implemented for the first time. Most of the schools starting the implementation had both primary (in Spain six grades from years six to 12) and secondary school (4 grades from years 12 to 16) levels. All schools used English as one of the languages of instruction, they had voluntarily contracted the KiVa program and were enthusiastic about its implementation on a general level and they had no formal antibullying program implemented. The sample design which was used is simple randomized sampling with a 95% confidence level. The maximum error of the sample considered is 5%. The sample size is 3738 children, corresponding to 10 schools in which KiVa had been implemented in different levels of primary and secondary education.

### 2.2. Instrument and measures.

The measure used in the evaluation was an anonymous pupil report on the annual KiVa online internet-based survey created by the research team of the University of Turku, the creators of KiVa (Kärnä et al, 2011). The survey was given to the students of the academic year prior to the implementation of the KiVa program, and then again after finalizing the academic year in which the implantation took place. That is to say, the data show the schools' starting level and the results following the academic year in which the program was implemented.

The five following blocks of information were analyzed in this study:

Information of the profile of the respondents which includes gender and grade.

Variables which analyze the children bullied and those who bully. To do so, the survey uses the global items from the revised Olweus' Bully/Victim Questionnaire (Olweus, 1996):

"How often have you been bullied at school in the last couple of months?" and "How often have you bullied others at school in the last couple of months?" Students answered with one of five frequency categories (0 not at all, 1 only once or twice, 2 two or three times a month, 3 about once a week, and 4 several times a week).





“How often have you been bullied by internet in the last couple of months?” (0 not at all, 1 once or twice, 2 two or three times a month, 3 about once a week, and 4 several times a week). And, in the affirmative case, if the bullying was exclusively through the Internet.

“¿Since when have you been suffering from bullying?” (for a week or two, for a month, for 6 months, for a year, for many years).

The children bullied were also asked if they communicated this bullying, and in the affirmative case, to which of the following agents: Teachers, other school adults, home adults, siblings, friends, others.

Variables which analyze the atmosphere at school. These items were initially developed by the Finnish National Board of Education but then adapted to KiVa (Kärnä et al., 2011a). These variables are:

- I Feel Safe;
- Helping is common in class;
- I feel happy in class;
- I feel accepted; and
- I like the atmosphere at school.

The statements could be answered using 5 categories (I disagree completely, I disagree, I neither agree/disagree, I agree, I agree completely).

Variables which analyze the perception of the respondents about the competence of teachers and the attitude of the parents facing the phenomenon of school bullying:

“In your opinion, how much can your teacher do to decrease bullying? (“Very little or nothing”, “Rather little”, “A bit”, “A lot”, “Very much”).

“How much has your teacher done to decrease bullying since last fall?” (“Very little or nothing”, “Rather little”, “A bit”, “A lot”, “Very much”).

“What do your parents think about bullying?” (“They think that bullying is good”; “They don’t care whether children suffer from bullying or not”, “I don’t know”, “They reckon that bullying is bad”, “They think that bullying is absolutely bad”).

For the first objective - to test KiVa’s preliminary results after the first year of implementation – the Chi-squared test of independence (Chi<sup>2</sup>) is applied to both victims and bullies. Thus, the dependence or relation between the variables studied will be determined, complemented with the function of the correlation or coefficient of Phi. Its aim is to determine the sense of the statistical relation.

To attain the second objective - to determine the personal variables and of the environment associated with bullying situations in these Spanish pioneer schools in order to identify relevant factors to prevent bullying - the Chi-squared test of independence was carried





out, as well as Multiple Correspondences Analysis. This enables discriminating the consistence of the variables with respect to the victims and bullies. Perceptual maps to determine the profile of both roles are elaborated with this analysis.

The IBM SPSS Statistics v22.0.0 program has been used for the statistical treatment of the data.

### 2.3. Validation of the questionnaire.

An Exploratory Factor Analysis has been applied for the validation of the questionnaire and the extraction of factors which allow valuing the method implemented.

The Exploratory Factor Analysis shows that the measurement of Kaiser-Mayer-Olkin (KMO=0.893) verifies the sample's appropriateness and Bartlett's test of sphericity ( $\chi^2=20537.761$ ;  $p=0.000<0.01$ ) reflects that the correlation between the items is appropriate to apply this technique. The internal consistency shows a Cronbach Alpha of 0.919, confirming the high reliability of the questionnaire in the population analyzed.

### 2.4. Procedures.

The annual KiVa online internet-based student survey was implemented in English but the students were also offered a translation in Spanish in order to assure that all the survey's items were understood. The teachers supported completing the survey either in the computer classroom or in the classroom. Each student responded using their own device. Before implementing the survey, the teachers reviewed the definition of bullying (definition based on OBVQ) and asked the students to bear this in mind when answering the questions. With younger students, the teachers read each survey question aloud and ensured that the students understood them, after which the students were asked to respond to each question. Also, the students were helped only if they requested it, but in both cases additional explanations were kept to a minimum so as not to influence the students' responses. The students were reminded that their responses were confidential and completely anonymous. Only their gender and class grade were requested. The survey took from 10 to 20 minutes to complete.

## 3. Results.

Following a two-step approach, the pilot implementation of the Finnish KiVa anti-bullying program was tested. After that, personal and environmental variables related to bullying situations were examined in order to identify relevant factors to prevent bullying at schools.

### Analysis of Preliminary Results of KiVa

The study population are boys and girls from Spanish schools. The sampling design used was simple random sampling at a confidence level of 95%. The maximum sample error considered is 5%. The sample size is 3738 children, of which 51.8% of the respondents are boys (1936 boys) and the remaining 48.2% girls (1802 girls). The sample corresponds to 10 schools in which KIVA has been implemented in different grades of primary and secondary education. The study period corresponds to the years 2016, 2017 and 2018. 35.5% of the elements of the sample correspond to children studied in 2016, 52% of them in 2017 and the remaining 12.5% correspond to 2018.







### 3.1. Victimization.

Table 1 shows the percentage of children who declare that they have suffered school bullying before and after the implementation of KiVa, disaggregating according to the regularity of the bullying which they report. The percentage of respondents indicating they had not been bullied increased from 62.7 % to 71.1 % (improvement of 8.4 %). It is noted that the bullying in each of the categories decreases after the program's implementation, this decrease being more significant in the category of greater frequency.

Table 1.  
Been Bullied: Before and After the First Year of Implementation

| Variable             | Pre-survey | Post- survey | Variation |
|----------------------|------------|--------------|-----------|
| Not at all           | 62.7%      | 71.1%        | +8.4%     |
| Once or twice        | 18.5%      | 16.0%        | -2.5%     |
| 2 or 3 times a month | 7.0%       | 5.5%         | -1.5%     |
| Once a week          | 5.0%       | 3.3%         | -1.7%     |
| Several times a week | 6.8%       | 4.1%         | -2.7%     |
| Total                | 100.0%     | 100.0%       |           |

In the year prior to the program's implementation, grouping those responses which are quite frequent - that is "2 or 3 times a month", "once a week" and "Several times a week" - the bullying reported (self-reported) the year before the implementation affected 18.8% of the children surveyed. This percentage was reduced to 12.9% when the academic year finished after the implementation of KiVa (see Table 2).

Table 2.  
Been Bullied: Before and After the First Year of Implementation. Considering "Frequent bullying"

| Been bullied       | Pre-survey | Post-survey | Variation |
|--------------------|------------|-------------|-----------|
| Not at all         | 62.7%      | 71.1%       | +8.4%     |
| 1 or 2 a month     | 18.5%      | 16.0%       | -2.5%     |
| Frequent victims * | 18.8%      | 12.9%       | -5.8%     |
| Total              | 100.0%     | 100.0%      |           |

\*aggregating three categories which imply weekly periodicity (2 or 3 times a month; once a week; several times a week)

-A Chi-squared independence analysis was applied to measure KiVa's effects as to the reduction of the victimization. The test shows statistically significant evidence at 1% of significance ( $\chi^2=35.855$ ,  $p=0.000$ ) of the relation of dependence of the variable "been bullied" and the year of implementation of the methodology. Also, the coefficient  $\Phi=-0.081$ , showing an inversely proportional between the variables. This indicates that less children are bullied after the first year of implementing the methodology, statistically evidencing KiVa's results in the victims.





### 3.2 Bully others.

Table 3 shows the percentage of students who declare having bullied classmates according to the frequency of their actions. The percentage of students who bully decreased 9.3% after the first year of implementation of KiVa, the prevalence of bullying in each and every one of the categories being considerably reduced.

Table 3.

Has Bullied Others: Before and After the First Year of Implementation.

| Has bullied others   | Post-survey | Pre-survey | Post-survey |
|----------------------|-------------|------------|-------------|
| Not at all           | 72.8%       | 82.1%      | +9.3%       |
| Once or twice        | 18.4%       | 13.2%      | -5.2%       |
| 2 or 3 times a month | 4.4%        | 2.7%       | -1.7%       |
| Once a week          | 2.2%        | 1.3%       | -0.9%       |
| Several times a week | 2.3%        | 0.7%       | -1.6%       |
| Total                | 100.0%      | 100.0%     |             |

It is statistically demonstrated at 1% of the level of significance that there is a relation of dependence between the first year of implementation of the KiVa methodology and the variable “has bullied” ( $\chi^2=54.769$ ,  $p=0.000$ ). Furthermore, the relation between the variables is inversely proportional ( $\Phi=-0.083$ ). This statistically confirms the positive results concerning those who bully.

### 3.3. Relevant factors for the prevention of bullying and priority action lines.

Two analyses are presented to determine the factors associated with bullying situations in these Spanish pioneer schools. The first determines the personal and environmental variables associated with victims and bullies. The second defines the factors which explain the bullying situations.

### 3.4. Personal and environmental variables.

The  $\chi^2$  statistic and the level of significance manifest the variables which influence the victims (Table 4). It is interesting to note that gender does not influence the bullied children, bullying affecting boys and girls participating to this study in the same way. Furthermore, the perception that the students have about what the teachers do to reduce school bullying does not have an effect on the bullies.

$\Phi$  indicates that the relation between victims and the school level is low and inversely proportional; that is to say, the secondary students suffer more bullying than primary school students. This coefficient indicates that the relation between victims and “teacher can do” is low and inversely proportional; that is to say, that particularly the victims at secondary school have a low appreciation of what the teachers can do to reduce the bullying for them.





Table 4. Analysis of independence concerning victims

| Variables              | Chi2    | Level significance | Phi    |
|------------------------|---------|--------------------|--------|
| Grade                  | 323.984 | 0.000*             | -0,053 |
| Teachers can do        | 33.393  | 0.007*             | -0.054 |
| Parents think          | 28.202  | 0.030**            |        |
| Feel safe              | 421.115 | 0.000*             |        |
| Helping is common      | 74.043  | 0.000*             |        |
| Feel happy in class    | 158.039 | 0.000*             |        |
| Feel accepted          | 302.303 | 0.000*             |        |
| Like atmosphere school | 85.067  | 0.000*             |        |
| Gender                 | 4.960   | 0.291              |        |
| Teachers do            | 17.239  | 0.370              |        |

\*p<0.01 \*\* p<0.05. Source: Own elaboration.

The analysis of the variables which present a relation of dependence concerning bullies (Table 5) statistically highlights that the relation between the bullies, the “gender” and the “capacity of the teachers to reduce bullying” is low and inversely proportional. That is to say, boys bully more than girls, the bullies do it more in secondary than in primary and the boys who bully have a low appreciation of what the teachers can do to solve the bullying.

Table 5. Analysis of independence concerning “has bullied”

| Variables                 | Chi2    | Level significance | Phi    |
|---------------------------|---------|--------------------|--------|
| Gender                    | 34.470  | 0.000*             | -0.062 |
| Grade                     | 225.892 | 0.000*             | -0.065 |
| Teachers can do           | 57.716  | 0.000*             | -0.098 |
| Parents think             | 53.129  | 0.000*             |        |
| Feel safe                 | 82.105  | 0.000*             |        |
| Helping is common         | 36.279  | 0.003*             |        |
| Feel happy in class       | 55.870  | 0.000*             |        |
| Feel accepted             | 62.365  | 0.000*             |        |
| Like atmosphere at school | 39.459  | 0.001*             |        |
| Has been bullied          | 753.425 | 0.000*             | 0.291  |
| Teachers do               | 24.401  | 0.081              |        |

\*p<0.1. Source: Own elaboration.

### 3.5. Priority Action lines.

Multiple Correspondences Analysis evaluates the relations between categories of qualitative variables. To present the analysis, it is taken into account that the optimum number of factors will be the lowest number necessary to explain most of the variation. 3 factor analysis means an increase in the very small percentage of variance explained; the optimum solution is considered to be 2 factor analysis.





Table 6 analyzes the relative importance of each of the factors extracted by the model. The two factors explain 44.2% and 31.2% of variation, respectively. This means that between them the two factors explain 75.3% of the total variation of the model developed. This percentage of explained variance is considered acceptable, as in studies related with Social Sciences the lowest tolerance quota is set at 60% (Hair et al., 2000).

Table 6. Summary of the model: variance explained by the factors

| Factor | Total (self-value) | Inertia | % of variance |
|--------|--------------------|---------|---------------|
| 1      | 10.164             | 0.442   | 44.2          |
| 2      | 7.165              | 0.312   | 31.2          |
| Total  | 17.329             | 0.753   |               |

Source: Own elaboration.

Table 7 enables analyzing the discrimination values which the variables considered in both factors use. In the first factor, it is noted that the variables related with the children bullied and who they tell about this are those which most discriminate. The first factor is labeled as The child's circle of trust, as the variables which determine it (who they tell about the situation, the length of the bullying) gather characteristics of the children as well as the people who they take as a reference to tell if a bullying situation takes place. In the second factor, the most relevant variables are those which refer to the grade and to the atmosphere of the school and of the class, labeled Atmosphere.

Table 7. Classification by factors of relevant variables for school bullying

| Variables               | Factor 1 | Variables                    | Factor 2 |
|-------------------------|----------|------------------------------|----------|
| Has been_bullied        | 0.999    | Grade                        | 0.998    |
| Told someone            | 0.982    | Like atmosphere at school    | 0.977    |
| Told teacher            | 0.962    | Feel happy in class          | 0.818    |
| Told other school adult | 0.962    | Feel safe                    | 0.766    |
| Told home adult         | 0.962    | Helping is common            | 0.724    |
| Told sibling            | 0.962    | Feel accepted                | 0.702    |
| Told other              | 0.962    | Teacher thinks               | 0.354    |
| Has been bullied long   | 0.883    | Teacher can do               | 0.346    |
| Told friend             | 0.538    | Teacher has done             | 0.344    |
| Has bullied             | 0.314    | Parents think                | 0.303    |
| Feel safe               | 0.251    | Has been bullied on internet | 0.290    |
| Feel accepted           | 0.197    | Gender                       | 0.039    |
| Bullied on internet     | 0.165    | Has been bullied             | 0.038    |
| Grade                   | 0.181    | Has bullied                  | 0.031    |
| Teacher think           | 0.149    | Bullied on internet only     | 0.029    |
| Teacher has done        | 0.143    | Has been bullied long        | 0.024    |
| Teacher can do          | 0.143    | Told someone                 | 0.016    |





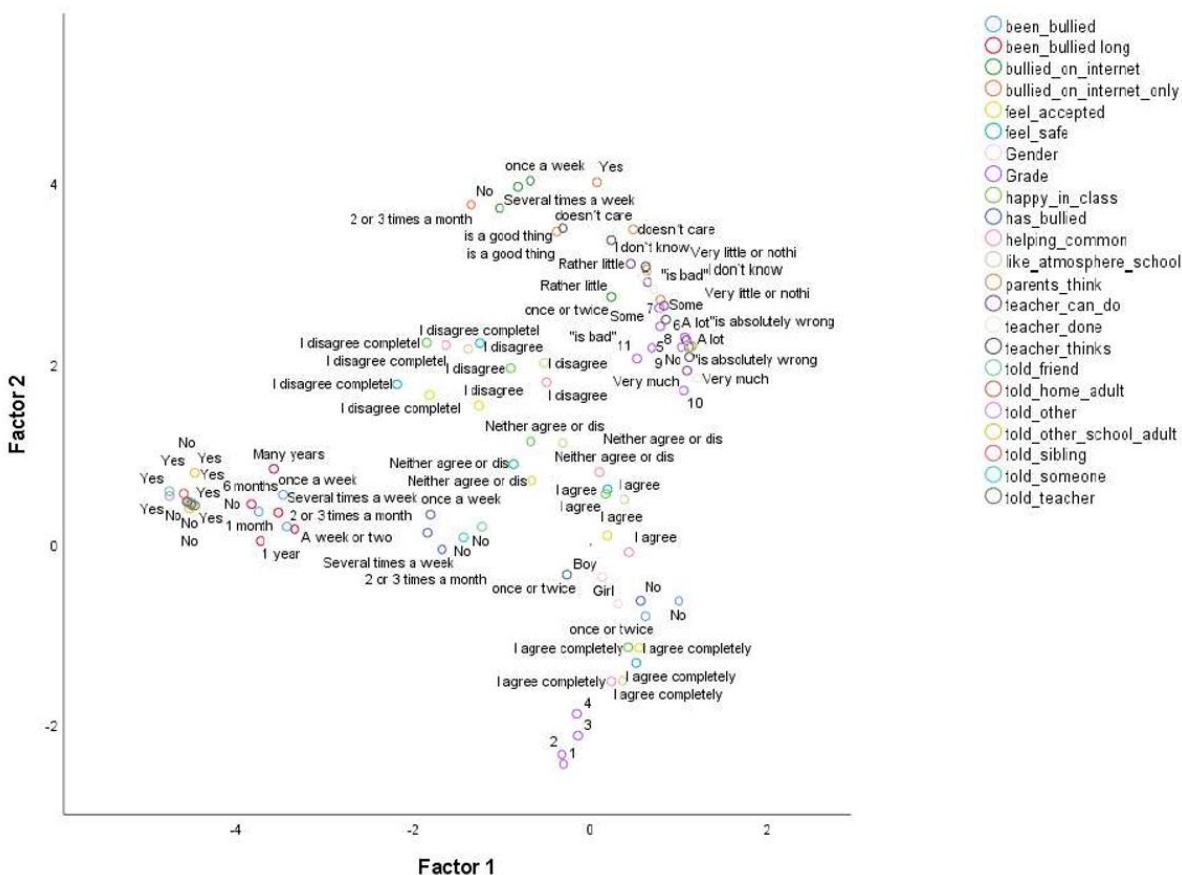


| Variables                 | Factor 1 | Variables               | Factor 2 |
|---------------------------|----------|-------------------------|----------|
| Feel happy in class       | 0.140    | Told other school adult | 0.014    |
| Parents think             | 0.134    | Told teacher            | 0.012    |
| Like atmosphere at school | 0.104    | Told home adult         | 0.012    |
| Helping is common         | 0.082    | Told sibling            | 0.012    |
| Gender                    | 0.035    | Told other              | 0.012    |
| Bullied on internet only  | 0.003    | Told friend             | 0.008    |

Source: Own elaboration.

The perceptual map of Figure 1 represents the distinct categories of each of the variables analyzed in the survey (see Instrument and measures). These categories are represented in relation with the two factors identified as relevant in the phenomenon -Factor 1 is Circle of trust and Factor 2 Atmosphere. This allows extracting the main features of the bullied child and of the bully, analyzing the closeness between categories. This information leads to the priority action lines.

Figure 1.



Font: Own ellaboration.





Based on the data analyzed, the bottom-left quadrant shows that the children who are frequently bullied (several times a week, once a week or two or three times per month) have been suffering bullying for long periods of time (for many years, for a year, or even for six months). They declare not feeling accepted, or sure of themselves and are not happy in class or in school. If they tell someone about their situation, they tend to do so to adults of their family or of the school.

° decide to talk about their situation (see Table 8).

Table 8. Told someone/year of implementation.

|       | First Year | Second Year | Variation    |
|-------|------------|-------------|--------------|
| Yes   | 65.5%      | 71.9%       | <b>+6.4%</b> |
| No    | 34.5%      | 28.1%       |              |
| Total | 100.0%     | 100.0%      |              |

Source: Own elaboration.

On the other hand, based on the data analysis shown in Figure 1, the children who more frequently bully do not tell anyone about it, declare being indifferent to if they are accepted or not in class and feel sure of themselves and of the class atmosphere.

The two groups of children – victims and bullies- are more concerned about what their parents think than about what their teachers think. However, when the children are studying in higher grades, they give more importance to what the teachers think and do with respect to bullying.

#### 4. Conclusions.

This study had two main aims. The first was to evaluate KiVa's preliminary results after its first year of implementation. The second was to identify key factors to prevent bullying, determining the personal and environmental variables associated with bullying situations in the schools, as an important guide for those schools that face bullying prevention for the first year.

Regarding the first objective, the results statistically show KiVa's success for both for the victims and for the bullies, these results being consistent with those obtained by Clarkson et al. (2019) in the United Kingdom where one year pre- to post-intervention results from the online pupil survey showed statistically significant reductions in victimization (16% to 9%) and bullying (6% to 2%). In this study, there was an improvement of 8.4 % in the number of respondents not being bullied and of 9.3 % in the number of respondents not bullying others after the first year of implementing the KiVa program. This can be considered as positive result also in the light of previous studies, which have suggested that KiVa interventions may also cause more reporting of bullying and victimization by increasing awareness of bullying (so called sensitization effect), without actually increasing bullying or victimization (Kärnä et al., 2011a).

We very positively value the result, considering that KiVa requires the implementation of all the educational community, as it follows a whole-school and systematic approach. This acts at both the prevention and the intervention and follow-up levels. During the first year, the schools are in the initiation and follow-up phase, when the priorities are integrating the schools





in the principles of the KiVa values (i.e., collaboration, shared responsibility, and mutual trust) and learning to gradually apply the specific mechanisms of prevention, intervention, and follow-up. This is why – although knowing the schools of the study are in the initiation phase and that the effective and quality implementation will foreseeably take place from the second year - the results are valued as very positive, and improvements are expected in the program's maturation phase.

According to the data compiled in the KiVa pilot study in Spain, both personal and environmental factors which influence the victims and the bullies have been determined. It is interesting to note how the gender is only significant in the case of the bullies - based on self-reported data, in the schools analyzed the boys bully more. However, Thornberg et al (2017) found out that in Swedish school's male students reported bullying more than female did. In this sense, more work may need to bringing about a change in boys' attitudes and behavior concerning bullying, as well as to tackle gender aspects, knowing the possibilities of KiVa to tackle bullying based on homophobia and transphobia in schools (Andújar and León, 2017).

A greater relation of bullies in secondary schools has also been identified, where a higher level of continuous conflict is perceived. In similar ways, KiVa's anti-bullying work has been found to be more challenging in Finnish secondary than in its primary schools (Kärnä et al., 2013). These results highlight the importance of long-term preventive efforts, starting from the early years of schooling so as to also achieve changes in adolescents' attitudes and behavior and to reduce bullying in these years, instead of starting to reduce bullying only at secondary schools, when problems may already have been accumulated for years and the cases may be much more difficult to tackle. In this sense, Allen (2010) also suggested the importance of designing and implementing a School-wide system including high school level.

It is also to be highlighted as relevant that both the children bullied and the children who bully others concede great importance to the capacity of the teachers to reduce the bullying ("teachers can do"). In this sense, it is teacher's capacity which affects the victim and the bully, even more than their actions ("teachers have done"). A possible explanation is that during the first year the students do not know the role of the teachers in prevention and especially in intervention concerning the phenomenon – as it is a "taboo" subject which schools avoid disseminating. A practical implication is derived from this result, the need to transmit to the students the real capacity of reaction of the teachers faced with bullying, projecting the culture of "zero tolerance" and the training of both the teachers who do the KiVa sessions and the rest of the teachers, who must avoid loopholes when responding to these situations as part of the school culture.

The analysis has also facilitated two priority action lines for prevention that schools are recommended to have in mind when starting bullying prevention: the child's circle of trust and the school's atmosphere in the classroom and the school. Firstly, during the first years of implementation it is important to improve the children's level of knowledge about the circle of trust -especially adults in the school and family – as they are clearly identified as support in cases of victimization (Bozan and Evgin, 2021). In this sense it is proposed the training of parents and teachers in aspects of detecting school bullying including workshops of positive communication which facilitate the revealing of the phenomenon. Secondly, fostering safe and positive atmosphere as well as collaboration between different stakeholders in the school, and







promoting mutual collaboration between kids within the classrooms and carrying out actions in favor of the acceptance of all the students, seem to be keys to improve coexistence.

In relation to findings about the profiles identified for victims and bullies, the presence of stable victims has been detected. This is a serious concern recognized by the previous literature (Haataja et al, 2016), as teachers rarely detect bullying signs (Craig et al., 2000), even though they are trained to do so. The recognition of victims might become even more difficult in secondary school as compared with primary school (Smith & Shu, 2000). Telling about victimization is fundamental for receiving support (Haataja et al, 2015). In this sense, the analysis shows that the implementation of KiVa increases communication of the situation of bullying to other people by the victims by 6.4%, as KiVa promotes the relevance of helping and asking for help. It is of vital importance to encourage everyone to search for help if they suffer or witness bullying and to create a school environment where bullying is not tolerated. Consequently, a need for prevention and early intervention can be highlighted to avoid the silent long-term suffering of some individuals. It is important to support good peer relations, healthy self-esteem, and sources of happiness for individuals at risk of being victimized.

The results show that the perception that children have concerning the attitude of their parents about bullying influences the victims and, especially, the bullies. This finding is consistent with the nature of family relations in Spain, where communication, coexistence with the children and, in sum, the influence of the family nucleus means an opportunity for the fight against bullying. In this sense – and despite of, according to the results most students stating that their parents disapprove of school bullying to a lesser or greater extent– the experience in the pilot project shows the need to integrate these agents even more actively in the program. Due to all this, we consider that it would be interesting to analyze what the usual role of the parents is (reinforcers, assistants, defenders, or even bullies) with the aim of intensifying the training of the families and specifying the functions of their possible role within KiVa program as well as in any other prevention strategies. Reform efforts at school need to involve parents and community members (Mitchel et al, 2016).

As a limitation of this research, the study has been performed on a basis of 10 pioneer schools in Spain. The experience shows that the first year of implementation of the program is fundamentally a year of learning the KiVa methods and philosophy, so it would be very interesting to extend the work to a longitudinal analysis.

In this preliminary study, we initially identified statistical differences between primary and secondary school levels, although most of the respondents of these pioneer schools were in primary. Thereby, future research focused on secondary results as KiVa becomes extensively implemented in Spain should be explored.

It should also be mentioned that this study focused only on the survey results, we did not check how the results are in line with the quality of implementation. However, as the schools in general were very keen to implement KiVa, the quality of implementation can be seen as somewhat high. In future studies, more attention could be paid to how the results reflect the quality of implementation.







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