



# What Works in Education?

Using Evidence to Improve Education

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## Do behavioral programs improve pupils' attitudes and outcomes?

Miquel Àngel Alegre

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Disruptive behaviors, lack of discipline and aggressiveness distort the optimal functioning of classrooms and compromise the conditions for teaching and learning by the pupils as a whole. At the same time, it has been clearly shown that sustained attitude problems are detrimental to the educational progress of the pupils that engage in them. Educational centers have provided diverse answers to this problem, from establishing systems of punishments and expulsions up to preventive focuses and emotional management activities. What do we know about the efficacy of these interventions? Which ones work best? In what conditions? How can we advance toward more effective behavioral programs in our country?

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“For too long, education has been based on inertia and tradition, and changes in educational intuitions or beliefs were unfounded. The ‘what works’ movement enters into the world of education with a clear objective: to promote evidence-based educational policies and practices. [Ivàlua](#) and the [Jaume Bofill Foundation](#) have joined forces to promote the movement in Catalonia.”

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# What Works in Education?

Using Evidence to Improve Education

## Do behavioral programs improve pupils' attitudes and outcomes?



### Miquel Àngel Alegre

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### Motivation

Disruptive behaviors or attitudes, including those rooted in a lack of discipline, defiance, rebellion and even aggressiveness, especially when of a certain intensity and sustained over time, distort the optimal functioning of classrooms and compromise the conditions for teaching and learning by the pupils as a whole. In practice, we know that teachers devote a significant proportion of their time in the classroom trying to control and manage various kinds of behavioral or disciplinary problems [1]. None of this time is used in the positive development of learning dynamics.

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At the same time, it has also been clearly shown that sustained displays of misconduct are seriously detrimental to the progress and educational opportunities of the pupils that engage in them [2] [3]. The harm is even greater when emotional or mental health disturbances lie at the root of these behavioral problems.

We encounter a different, and certainly more worrisome scenario when the behavioral problem is expressed in physical, verbal or psychological violence and reaches forms of bullying inside and outside the classroom and the school. This is certainly a phenomenon that requires specific attention, but that nevertheless ends up forming part of a range of behavioral problems that can occur in school settings.

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In Catalonia, the solutions that schools and school administrations have tested regarding this set of problems range from specialized tutoring programs for individuals or small groups to rather infrequent awareness-raising, modeling and role-playing activities in classroom contexts. Some schools have incorporated these and/or other activities as part of their plans for social harmony. At the same time, the treatment of behavioral problems is commonly dealt with through schools' mechanisms or departments for providing guidance or support for diversity and enjoys the support of specialized services of the municipal authorities or of the educational psychology advisory and guidance teams of the area. Finally, especially in secondary education, pupils with behavioral issues have frequently been placed in class-groups that have a lower student-teacher ratio or curricular diversification where various problematic issues end up concentrating (social problems, academic problems, emotional disturbances, etc.).

However, efforts to test, design and implement all solutions have rarely considered the accumulated empirical evidence of their effectiveness, meaning the positive, null or negative effects that they have had where they were carried out. Likewise, they have only seldom been studied rigorously. This is the question we raise in this review: what do we know about how behavioral improvement programs work in school settings?

## What policies are we talking about?

Many different forms, strategies and programs can be implemented in school settings to work on aspects related to pupils' behavior, comportment and attitudes. This diversity has just as much to do with the characteristics of the problem needing correction as with the specific approaches taken to their design and methods of intervention.

### Behavioral problems: types and characteristics

The literature on behavioral problems originating in and/or expressed in school settings is enormous and deals with a wide variety of support services. Put very simply, we could distinguish between two major types of problems, each with causes, triggering factors and internally variable levels of seriousness. These problems are what motivate the diverse objectives of change of all programs.

- **Internalizing behavior problems.** These include disturbances experienced on the most personal or subjective level that mainly affect the individual's psychological and/or emotional balance. Depression, anxiety, isolation, problems with paying attention, concentration, dissociation and hyperactivity are just some of the problems falling under this category. The level of seriousness of these problems can vary greatly, as can their external manifestations.
- **Externalizing behavior problems.** These refer to problems expressed mainly in social relationships and shared spaces. In school settings, we mean anti-normative, disruptive or undisciplined behaviors in the classroom, as well as defiance of authority, aggressiveness, violence and bullying (when physical, verbal or psychological violence is practiced sustainedly to dominate classmates). Various studies include other externalizing disturbances within this category, linked to risky behaviors inside or outside school, like theft or the consumption of alcohol, tobacco or drugs. In any case, there is a broad range of externalizing problems with different levels of intensity or seriousness. Some of these behaviors or practices may originate in or be associated with internalizing behavior problems, whilst others may not.

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### Behavior problems: diversity of responses

We find remarkable diversity in the design, methods and types of intervention of programs aimed at reducing externalizing behavior problems in school settings. Thus, beyond the specific objective or problem on which they focus, we could categorize the programs (or their components) along lines such as:

- **Preventive or corrective orientation.** Interventions can be corrective in nature when they are aimed at neutralizing or minimizing the prevalence of an existing individual or group behavioral problem, or else they can be designed in anticipation of a problem before it emerges. The type of orientation chosen accounts for the specific type of treatment (elements that are listed below).
- **Targeted or universal approach to activities.** On the one hand, we find programs or plans with measures aimed at all the pupils of the school or classroom, generally in order to improve the atmosphere of social harmony and the pupils' positive attitudes towards their education. On the other hand, we encounter interventions focused on pupils with specific behavioral or attitude problems, which are generally implemented individually or in small groups.
- **Approach on punishment or on empowerment and positive reinforcement.** We distinguish between interventions that prioritize punitive disciplinary action as a mechanism for correcting misbehavior (typically, expulsion from class or school) on the one hand and actions aimed at teaching pupils social or conflict management skills and at rewarding them for making positive changes on the other hand.

- **Dosage of interventions.** This refers to the duration, extension and frequency of the activities in the schedule.
- **Institutions and profiles of the professionals** involved in designing and implementing the intervention. Here, we distinguish between: *a*) programs and actions developed by the ordinary teachers of the school (like a cross-cutting project or specific project on a given subject), *b*) interventions led by specialists linked to the school (educational psychology teams belonging to or external to the school) and *c*) programs requiring participation from other sectors (usually social services, health services or the juvenile justice system).
- **Treatment model and activities.** Here we refer to the framework that guides the programs' treatment strategy: behavioral, cognitive-behavioral, mindfulness, psychotherapy and coaching. We also refer to the different types of activities that may be included in a given program: modeling; contracts and setting goals; awareness-raising activities and group discussion; cooperative environments, prizes and incentives; role-playing games; mentoring; tools for self-control, conflict resolution and interpersonal relationship management; peer mediation; meditation and relaxation, etc.
- **Scope and comprehensiveness of actions.** Some programs include activities that seek to involve other fields or actors that are important in the lives of the children or adolescents. A paradigmatic case is the rather central role that a large part of behavioral programs grants to the pupil's family. However, other programs limit their actions to the pupil requiring intervention.

## The focus of the review

This review focuses on **programs whose main objective is to prevent or correct externalizing behavior problems displayed in school settings**, to basically

include: *a*) systematic undisciplined or disruptive behaviors and attitudes in

the classroom or *b*) "antisocial", aggressive or violent behavior among classmates inside or outside the classroom (including bullying). This review covers programs generally intended to improve the atmosphere for relationships and learning and to thereby increase pupils' educational opportunities. We shall call them **behavioral or attitudinal programs (BAPs)**, accepting their potential diversity in terms of specific goals, approach, content, scope and types of treatment. Part of this diversity has to do with the certainly variable importance that may be given to the goal of improving academic achievement (performance, graduation and transitions) within the different programs.

In any case, programs specifically focused on lowering school absenteeism, clinical or psychosocial programs addressing problematic behavior linked to serious mental health disorders and programs linked to the field of juvenile justice lie outside the scope of this report, even though all three may involve the participation of schools or school professionals.

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## Questions influencing the review

Considering the diverse policies and initiatives that could fit under the category of BAPs, the review of the evidence presented herein seeks to answer the following questions: do BAPs achieve the goals for improvement that they pursue in terms of behaviors, attitudes, emotions and social relationships? To what extent are they also effective at improving the educational outcomes of the children and adolescents participating in them? What are the most effective BAPs like? In other words, which features or components of a BAP increase the likelihood that it will have a positive impact with respect to the goals pursued? Which groups of pupils (according to their age, socio-economic profile and behavioral profile) have the most to gain with the different types of BAPs? Lastly, depending on how we have been able to answer the previous questions: would it be advisable to extend and expand these types of programs across Catalonia? If so, under what conditions?

## Reviewing the evidence

### Meta-analyses considered

As mentioned earlier, most Catalan schools have been involved in developing behavioral or attitudinal programs. Thus, today we have a range of BAPs in Catalonia that is quite broad and heterogeneous in terms of approaches, content and resources. However, it must be said that the use of these programs has produced very little evidence on their impact potential. Thus, in order to respond to the questions raised, we have had to read assessments and study reviews of programs developed in other countries, primarily in the United States.

The tables appearing below describe the 20 meta-analyses that form the foundation of evidence for the review of reviews that we present here. Overall, these meta-analyses encompass a wide

**Overall, these meta-analyses encompass a wide and diverse range of experimental and quasi-experimental assessments of the impacts of different BAPs.**



and diverse range of experimental and quasi-experimental assessments of the impacts of different BAPs: actions to prevent disruptive and antisocial behavior, programs against violence and aggressive attitudes at school, interventions aimed at anger management, social skill programs, actions to reduce bullying and victimization, mindfulness programs, school-wide positive behavior support programs, specific classroom management programs and interventions based on social information processing. Here we also collect reviews on the effectiveness of punitive disciplinary actions (expulsions from class or school, also known as in-school suspensions and out-of-school suspensions, respectively). We divide up this diverse group based on whether the programs considered in each meta-analysis are targeted (Table 1), universal (Table 2) or combined (targeted and universal) (Table 3).

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As a general rule, the programs reviewed are aimed at primary and secondary school pupils and prioritize attention on outcomes of behavioral change (only 10 of the 20 meta-analyses considered also take the possible effects of BAPs in academic settings into account). However, their duration varies greatly and can range from 10 weeks to two school years. Similarly, the BAPs included in all meta-analyses also differ in terms of the profiles of the people in charge, formats and frameworks of treatment and activities.

Table 1.  
**Meta-analyses considered. Targeted programs (only)**

Meta-analysis (N=studies included)	Type of intervention	Population	Outcomes	Dosage	Summary of effects*
Gansle [4] (N=20)	Targeted programs implemented in school settings whose objectives include anger management. Methods: personal (self-knowledge, emotional management, relaxation); social (social skills, communicative, problem-solving); combination (personal and social). Formats: individual; group (2 or more pupils); combination (individual or group).	From primary school pupils to secondary school pupils with externalizing behavior problems.	<ul style="list-style-type: none"> <li>Externalizing behavior problems: aggressive, disruptive, defiant behavior and different forms of anger.</li> <li>Social skills: social and interpersonal skills, self-control, assertiveness, problem-solving, emotional management.</li> <li>Internalizing behavior problems: depression, shyness, somatization, anxiety.</li> <li>Academic skills and achievements: performance, grades, commitment to school, attention and attendance.</li> <li>Beliefs and attitudes: self-efficacy, self-esteem, self-control.</li> </ul>	Average duration of the interventions: 14 hours.	<ul style="list-style-type: none"> <li><b>Overall effect: <math>d=0.31</math></b> For outcomes:</li> <li><b>Externalizing behavior problems: <math>d=0.54</math></b> Programs that last longer and have more activities are especially effective.</li> <li><b>Social skills: <math>d=0.34</math></b> Programs with more activities and aimed at pupils with special needs.</li> <li><b>Internalizing behavior problems: <math>d=0.43</math></b></li> <li>Academic skills and achievements: <math>d=-0.11</math></li> <li>Beliefs and attitudes: <math>d=0.11</math></li> </ul>
Noltemeyer, Ward and MacLoughlin [5] (N = 34)	Expulsions from class (in-school suspension) and expulsions from school (out-of-school suspension). In any case, these are temporary: expulsions from class for at least half a day and expulsions from school greater than one day.	Primary and secondary school pupils.	<ul style="list-style-type: none"> <li>Academic performance: pupils' results on standardized tests.</li> <li>Dropping out of school.</li> </ul>	Does not apply.	<ul style="list-style-type: none"> <li>Academic performance:</li> <li>Expulsion from class: <math>g=-0.10</math></li> <li><b>Expulsion from school: <math>g=-0.24</math></b></li> <li>Dropping out of school:</li> <li><b>Expulsion from class: <math>g=0.25</math></b></li> <li><b>Expulsion from school: <math>g=0.28</math></b></li> </ul>
Quinn <i>et al.</i> [6] (N = 35)	Social skills programs for pupils with emotional or behavioral disturbances. Approaches: programs based on manuals or on the literature; experimental programs.	Primary and secondary school pupils.	<ul style="list-style-type: none"> <li>Prosocial behavior: social relations, social problem-solving, social competence.</li> <li>Behavioral problems: problematic behavior in school and with the family, communication problems, disruptive behavior.</li> <li>Specific behavioral aspects: anxiety, adaptation, cooperation, interaction, self-esteem, aggression.</li> <li>Academic performance: standardized tests.</li> </ul>	Average of 12 weeks, 2.5 hours per week.	<ul style="list-style-type: none"> <li>Outcomes selected:</li> <li><b>Social relationships: <math>d=0.27</math></b></li> <li><b>Problematic behavior at school: <math>d=0.18</math></b></li> <li>Academic performance: <math>d=0.05</math> No significant differential effects are identified based on the characteristics of the programs (structured or experimental) or the age of the participants.</li> </ul>
Reddy <i>et al.</i> [7] (N = 29)	Targeted programs aimed at treating or preventing emotional disturbances. Approaches: preventive programs; corrective interventions.	Children and adolescents who are emotionally disturbed or at risk of becoming so. Primacy school to later secondary school (high school).	<ul style="list-style-type: none"> <li>Externalizing behavior problems.</li> <li>Internalizing behavior problems.</li> <li>Adaptive skills.</li> <li>Social skills.</li> <li>Staying in school.</li> <li>Academic skills: language and mathematical skills.</li> <li>School achievements: attending and completing school.</li> </ul>	Variable not considered.	<ul style="list-style-type: none"> <li><b>Preventive programs: <math>d=0.54</math></b> Outcomes selected:</li> <li><b>Externalizing behavior problems: <math>d=0.63</math></b></li> <li><b>Staying in school: <math>d=0.98</math></b></li> <li><b>Academic skills: <math>d=0.28</math></b></li> <li><b>Interventions: <math>d=1.34</math></b> Outcomes selected:</li> <li><b>Externalizing behavior problems: <math>d=1.27</math></b></li> <li><b>Staying in school: <math>d=1.07</math></b></li> <li><b>Academic skills: <math>d=1.78</math></b></li> <li><b>School completion: <math>d=0.38</math></b></li> </ul>
Wilson and Lipsey [8] (N = 47)	School programs based on processing social information aimed at pupils who have externalizing behavior problems or are at risk of having them. Treatments: social problem-solving; perspective-taking and empathy; anger management; social skills. People/professionals in charge: school staff; researchers; university students. Context: ordinary schools and classrooms; special schools and classrooms. Format: individual; group.	Primary and secondary school pupils.	<ul style="list-style-type: none"> <li>Aggressive behavior: violence, aggression, fighting, crimes against individuals, disruptive behaviors, acting out, externalizing behavior problems.</li> </ul>	Most programs last between 5 and 15 weeks, with 1 or 2 sessions per week.	<ul style="list-style-type: none"> <li><b>Aggressive behavior: <math>d=0.26</math></b> Programs developed in ordinary school settings (as opposed to special classrooms or schools) are especially effective. The rest of the programs' characteristics do not make a difference. No significant differential effects are identified based on the characteristics of the pupils.</li> </ul>

\* Statistically significant effects in bold.  $d$  = standardized mean difference (Cohen's  $d$ ).  $g$  = standardized mean difference (Hedges'  $g$ ). Source: author.

Table 2.  
**Meta-analyses considered. Universal programs (only)**

Meta-analysis (N=studies included)	Type of intervention	Population	Outcomes	Dosage	Summary of effects*
Korpershoek <i>et al.</i> [9] (N = 55)	Classroom strategies and programs aimed at improving pupils' educational and behavioral outcomes.  Strategies: change in teaching practices; behavior improvement programs; improvement of teacher-pupil relationships; socio-emotional programs.	From pre-school or kindergarten pupils to primary school pupils.	<ul style="list-style-type: none"> <li>Academic outcomes: performance on standardized tests and grades.</li> <li>Behavioral variables: externalizing and internalizing behavior problems.</li> <li>Socio-emotional skills: social skills, emotional management, adaptation, empathy.</li> <li>Motivations: towards school and learning.</li> </ul>	From 3 months to over one year.	For behavior improvement programs: <ul style="list-style-type: none"> <li><b>Academic outcomes: g= 0.18</b></li> <li><b>Behavioral variables: g= 0.23</b></li> <li><b>Socio-emotional skills: g= 0.20</b></li> <li>Motivations: g= 0.08</li> </ul> No significant differential effects are identified based on the length of the programs of the profile of the pupils (sex, school year, socio-economic status).
Maynard <i>et al.</i> [10] (N = 61)	Mindfulness interventions aimed at socio-emotional, behavioral and academic improvement.  Components: work on the present moment; meditation; breathing techniques; relaxation techniques; mindfulness in daily activities; body observation; yoga.  People/professionals in charge: teachers; external specialist	Pre-school, kindergarten, primary school and secondary school pupils.	<ul style="list-style-type: none"> <li>Cognitive skills: executive functions, memory, attention span.</li> <li>Academic outcomes: standardized performance, marks, reading.</li> <li>Behavior: externalizing behavior problems, attendance.</li> <li>Socio-emotional skills: anxiety, stress, adhesió, social skills, self-esteem, emotional management, determination, internalizing behavior problems.</li> <li>Physiological variables: cortisol, heart beat, cerebral activity.</li> </ul>	Average of 10 weeks, 26 sessions and a total of 13 hours.	<ul style="list-style-type: none"> <li><b>Cognitive skills: g=0.25</b></li> <li>Academic outcomes: g =0.27</li> <li>Behavior: g=0.14</li> <li><b>Socio-emotional skills: g=0.22</b></li> </ul> Physiological variables: not reported due to the limited sample of studies.  No significant differential effects are identified based on the characteristics of the programs (components, people in charge, length). No differential effects are analyzed according to the pupil profile.
Solomon <i>et al.</i> [11] (N = 20)	School programs for supporting positive behavior.  Components: behavioral analysis applications (positive reinforcement and incentives); focus on prevention; instructive focus; evidence-based practices; systematic approach (entire school).  Formats: classroom-based; outside the classroom.	Primary school pupils.	<ul style="list-style-type: none"> <li>Discipline: reported incidents of a lack of discipline.</li> <li>Behavioral problems: frequency of incidents of misconduct.</li> </ul>	Programs lasting less than one year vs. programs lasting longer than one year.	<ul style="list-style-type: none"> <li><b>Discipline: r2=0.33</b></li> <li><b>Behavioral problems: r2=0.44</b></li> </ul> Programs in unstructured contexts (cross-cutting in the school) are especially effective.  The length of the program does not make a difference.
Valdebenito <i>et al.</i> [12] (N = 37)	School programs aimed at reducing the incidence of expulsion as a disciplinary measure.  Approaches: level of school (focused on school and teaching practices); level of pupils (focused on pupils' behavior).  People/professionals in charge: professional psychologist or counselor; social workers; teachers; community health worker; police.  Formats: curricular; non-curricular.  Treatments: tutoring and after-school programs; mentoring and monitoring; social skills programs; comprehensive programs; self-control and interventions against violence; mental health services.	Primary and secondary school pupils (4 to 18 years).	Main outcome: <ul style="list-style-type: none"> <li>Expulsion from school: includes short-term or medium-term expulsion from class or school.</li> </ul> Secondary outcomes: <ul style="list-style-type: none"> <li>Externalizing behavior problems: defiance, criminal or aggressive behaviors, bullying.</li> <li>Internalizing behavior problems: inhibition, isolation, anxiety, depression.</li> </ul>	Average of 20.4 weeks, 1.78 hours per week.	On main outcome: expulsions <ul style="list-style-type: none"> <li><b>Overall effect (short and medium term): d=0.30</b></li> <li>Medium-term effect (12 months): d=0.15</li> <li><b>Expulsions from class: d=0.35</b></li> <li>Expulsions from school: d=0.02</li> <li><b>Final expulsions from school: d=0.53</b></li> </ul> Especially effective: a) programs to improve academic skills; b) mentoring and monitoring; c) social skills programs for teachers; d) mental health services.  No significant differential effects are identified based on the approach (school/pupil) or the age of the participants.
Washington State Institute for Public Policy [13] (N = 7)	Good Behavior Game, a program aimed at improving behavioral problems in the classroom and preventing future criminal or risky behavior.	Pupils in the first two years of primary school.	<ul style="list-style-type: none"> <li>Externalizing behavior symptoms.</li> <li>Graduation from secondary school.</li> <li>Antisocial behavioral disturbances.</li> <li>Anxiety.</li> <li>Depression.</li> <li>Suicide attempts.</li> <li>Crime.</li> <li>Illegal consumption (alcohol, tobacco, drugs).</li> </ul>	Lasting two years, implemented daily according to subject.	<ul style="list-style-type: none"> <li><b>Externalizing behavior symptoms: d=0.44</b></li> <li>Graduation from secondary school: d=0.162</li> <li><b>Antisocial behavioral disturbances: d=0.30</b></li> </ul>
Washington State Institute for Public Policy [14] (N = 11)	Promoting Alternative Thinking (PATH), a socio-emotional education program aimed at improving social skills and emotional management and preventing serious behavioral problems and emotional disturbances.	Primary school pupils.	<ul style="list-style-type: none"> <li>Externalizing behavior symptoms.</li> <li>Internalizing behavior symptoms.</li> <li>Academic performance.</li> </ul>	2 or 3 sessions per week for several years.	<ul style="list-style-type: none"> <li>Externalizing behavior symptoms: d=0.03</li> <li>Internalizing behavior symptoms: d=0.01</li> <li>Academic performance: d=0.13</li> </ul>

\* Statistically significant effects in bold. d = standardized mean difference (Cohen's d). g = standardized mean difference (Hedges' g). r2 = coefficient of determination. Source: author.

Table 2. (continuation)  
Meta-analyses considered. Universal programs (only)

Meta-analysis (N=studies included)	Type of intervention	Population	Outcomes	Dosage	Summary of effects*
Wilson and Lipsey [15] (N = 73)	School programs based on the processing of social information. Treatments: social problem-solving; perspective-taking and empathy; anger management; social skills. People/professionals in charge: teachers; researchers; specialists (internal or external).	Primary and secondary school pupils.	<ul style="list-style-type: none"> <li>Aggressive behavior: violence, aggression, fighting, crimes against individuals, disruptive behaviors, acting out, externalizing behavior problems.</li> </ul>	Most programs last between 5 and 20 weeks, with 1 or 2 sessions per week.	<ul style="list-style-type: none"> <li><b>Aggressive behavior: d=0.21</b></li> <li>More frequent programs (not necessarily longer ones) and programs that have no problems with implementation are especially effective.</li> <li>The method of treatment and profile of the people in charge make no difference.</li> <li>Pupils from a low socio-economic background or pupils are enrolled in schools located in neighborhoods with a low socio-economic level especially benefit.</li> </ul>
<b>On anti-bullying programs</b>					
Farrington and Ttofi [16] (N = 44)	Programs aimed at reducing bullying and victimization in school settings. Components (selection): school anti-bullying plans; classroom rules; awareness-raising conferences and assemblies; disciplinary methods; curricular subjects; work among peers (peer mediation, peer mentoring, etc.); videos; teacher training; training and meeting with families, etc.	Primary and secondary school pupils.	<ul style="list-style-type: none"> <li>Bullying: elements: a) physical, verbal or psychological attack or intimidation intended to frighten or cause harm to the victim; b) unequal power relation; c) relatively prolonged repetition of incidents.</li> <li>Victimization: having been bullied.</li> </ul>	Not reported in aggregate form.	<ul style="list-style-type: none"> <li><b>Bullying: OR=1.36</b></li> <li>Programs that include training and meetings with families and more intense programs aimed at pupils (+20 hours) are especially effective.</li> <li><b>Victimization: OR=1.29</b></li> <li>Programs that include work among peers, videos and longer-lasting programs aimed at pupils (+270 days) are especially effective.</li> </ul>
Ferguson et al. [17] (N = 45)	Programs aimed at reducing bullying and victimization in school settings.	From primary school pupils to early secondary school (middle school) pupils.	<ul style="list-style-type: none"> <li>Bullying: includes any act of physical, verbal or psychological aggression between schoolmates.</li> </ul>	Variable not considered	<ul style="list-style-type: none"> <li><b>Overall effect: r=0.12</b></li> <li>High-risk pupils especially benefit.</li> <li>The level of education makes no difference.</li> <li>No differential effects are analyzed according to the programs' characteristics.</li> </ul>
Merrell et al. [18] (N = 16)	Programs aimed at stopping bullying. Activities (examples): work on social skills, empathy, problem-solving, mentoring, discussion, role-playing games, teacher training, etc.	From primary school pupils to early secondary school (middle school) pupils.	Various outcomes (28), including: <ul style="list-style-type: none"> <li>Practice of bullying.</li> <li>Victimization.</li> <li>Testimony of bullying.</li> <li>Positive interactions with peers.</li> <li>Behavioral or emotional problems.</li> <li>Self-esteem.</li> <li>Social skills.</li> </ul>	Variable not considered.	<ul style="list-style-type: none"> <li><b>Victimization: d=0.27</b></li> <li><b>Testimony of bullying: d=0.35</b></li> <li><b>Self-esteem: d=1.08</b></li> <li><b>Acceptance of peers: d=0.61</b></li> <li><b>Knowledge about preventing bullying (teachers): d=1.52</b></li> <li><b>Proper responses to bullying (teachers): d=0.30</b></li> <li><b>Effective intervention skills (teachers): d=0.99</b></li> <li><b>Report of undisciplined incidents (school): d=0.79</b></li> </ul>
Polanin et al. [19] (N = 11)	School bullying prevention programs based on changes of attitude in "bystander" pupils. People/professionals in charge: teachers; specialist or researcher. Activities (examples): awareness-raising, change of attitude, role-playing, modeling, videos, computer programs, etc.	From primary school pupils to early secondary school (middle school) pupils.	<p>Main outcome:</p> <ul style="list-style-type: none"> <li>Bystander intervention: intention to intervene, intention to stop the bullying, direct intervention, difficulties in intervening.</li> </ul> <p>Secondary outcome:</p> <ul style="list-style-type: none"> <li>Attitude of empathy towards the victim: sadness, anxiety, support, etc.</li> </ul>	Programs from 1 to 12 months.	<ul style="list-style-type: none"> <li><b>Bystander intervention (main outcome): g=0.20</b></li> <li>Programs developed by specialists or researchers are especially effective.</li> <li>The duration of the program does not make a difference.</li> <li>Secondary school pupils especially benefit.</li> <li>Attitude of empathy (secondary outcome): g=0.05</li> </ul>

\* Statistically significant effects in bold. d = standardized mean difference (Cohen's d). g = standardized mean difference (Hedges' g). OR = Odds Ratio. r = correlation coefficient. Source: author

Table 3.  
**Meta-analyses considered. Combined (targeted and universal) programs**

Meta-analysis (N=studies included)	Type of intervention	Population	Outcomes	Dosage	Summary of effects*
Grant [20] (N = 35)	School programs aimed at improving performance and social skills and reducing aggressive behavior. Methods: universal; indicated (pupils with antisocial behavior); selective (pupils with other risk factors).	Early secondary school (middle school) pupils.	<ul style="list-style-type: none"> <li>Academic performance: standardized marks and scores in key subjects.</li> <li>Aggressive behavior: physical violence and externalizing behavior problems.</li> <li>Social skills: self-efficacy in social relations, acceptance of group.</li> </ul>	Variable not considered.	<ul style="list-style-type: none"> <li><b>Overall effect: d=0.18</b></li> <li><b>Academic performance: d=0.12</b></li> </ul> Programs aimed at improving social skills are especially effective (above all universal programs).
Lösel and Beelmann [21] (N = 84)	Social skills programs aimed at preventing antisocial behaviors. Methods: universal; indicated (pupils with antisocial behavior); selective (pupils with other risk factors). Formats: individual training; group training; combined training (individual and group); self-training; individual coaching. Treatments: behavioral; cognitive; cognitive-behavioral; psychotherapy; counseling, etc. Professionals: teachers; (psychosocial) specialists; experiment researchers; tutored pupils.	Children and adolescents (4-18 years).	<ul style="list-style-type: none"> <li>Antisocial behavior: according to records kept by teachers or administrators, observation, response from family members or from pupil.</li> <li>Social skills: social competence, prosocial behavior.</li> <li>Socio-cognitive skills: self-control, problem-solving.</li> </ul>	From 10 to 30 sessions 1 to 12 months.	<ul style="list-style-type: none"> <li><b>Overall effect: d=0.38</b></li> <li>For outcomes:</li> <li><b>Antisocial behavior: d=0.26</b> Cognitive-behavioral programs are especially effective. Especially pupils +12 years.</li> <li><b>Social skills: d=0.39</b> Behavioral programs are especially effective. Especially pupils 4-6 years.</li> <li><b>Socio-cognitive skills: d=0.40</b> Cognitive programs are especially effective. Especially pupils 4-6 years.</li> </ul> Programs developed by researchers and tutored pupils are especially effective. The method of indicated programs is especially effective. The format and dosage of the program makes no difference.
Oliver <i>et al.</i> [22] (N = 12)	Classroom management strategies for teachers aimed at preventing or reducing aggressive or disruptive behaviors. Universal approach. Components: focus on prevention; reinforcement of prosocial behaviors; establishment of rules and routines; monitoring and feedback.	Primary and secondary school pupils.	<ul style="list-style-type: none"> <li>Behavioral problems: disruptive, defiant, aggressive behavior aimed at causing damage to objects or harm to people.</li> </ul>	Most programs last between 5 and 20 weeks.	<ul style="list-style-type: none"> <li><b>Behavioral problems: d=0.18</b></li> </ul> No differential/moderating effects are analyzed due to an insufficient sample of studies.
Wilson and Lipsey [23] (N = 249)	Programs aimed at preventing or reducing aggressive/disruptive behaviors in school settings. Methods: universal programs (generally disadvantaged environments); targeted programs (implemented outside the classroom); special schools or classrooms (outside ordinary channels, for pupils with learning difficulties or behavioral problems); comprehensive programs (including work with families, teachers or administrators). Treatments: behavioral strategies; cognitive orientation; work on social skills; therapy and guidance; peer mediation; family mediation.	From pre-school to later secondary school or high school (from before kindergarten to 12th grade).	Main outcome: <ul style="list-style-type: none"> <li>Aggressive/disruptive behavior: negative interpersonal behaviors like: fighting, physical blows, bullying, verbal conflict, classroom disruptions, acting out.</li> </ul> Other outcomes: <ul style="list-style-type: none"> <li>Social skills: communication, problem-solving/conflict-resolution.</li> <li>Academic achievements (performance and outcomes).</li> <li>School attendance: punctuality, absenteeism, dropping out.</li> <li>Personal adjustment: self-esteem, self-concept, personal well-being.</li> <li>Internalizing problems: anxiety, depression.</li> <li>Knowledge and attitudes.</li> </ul>	Not reported.	<ul style="list-style-type: none"> <li><b>Aggressive behavior (main outcome): d=0.21</b></li> <li><b>Universal programs: d=0.21</b> Pupils with a low socio-economic level and younger pupils especially benefit. The treatment method does not matter.</li> <li><b>Targeted programs: d=0.29</b> Higher-risk pupils especially benefit. Individual treatment with a behavioral method and well-implemented programs are especially effective.</li> <li><b>Special schools or classrooms: d=0.11</b> Higher-risk pupils especially benefit. Well-implemented programs in the classroom are especially effective. Comprehensive programs: d=0.05</li> <li>The effects increase with universal programs and a higher dosage.</li> <li><b>Academic achievements (secondary outcome): d=0.22</b></li> </ul>

\* Statistically significant effects in bold. d = standardized mean difference (Cohen's d). g = standardized mean difference (Hedges' g). Source: author.

## Do BAPs improve pupils' behaviors and educational outcomes?

Though a very dense summary, the review carried out has enabled us to identify **solid and extensive evidence**

**of the positive impacts that BAPs can provide to the behavioral factors they are intended to correct and promising, though non-extensive evidence of their effects on pupils' academic outcomes.**

**Overall, these meta-analyses encompass a wide and diverse range of experimental and quasi-experimental assessments of the impacts of different BAPs .**



Considering the academic aspect, the summary provided by the Education Endowment Foundation (EEF), based on the review of eight meta-analyses, considers the standard benefit of these programs as equivalent to a three-month gain in learning over pupils' average academic progress in a school year. In relative terms, this is a moderate impact, lower on average than other educational interventions like individual tutoring throughout the year or cooperative groups.

The summary presented herein, which broadens the foundation of evidence to 20 meta-analyses, shows a more nuanced picture of the academic benefits of BAPs. Only four of the 10 meta-analyses that consider the academic effects of BAPs indicate promising results in this regard [7] [9] [20] [23]; in the six remaining ones, the programs' academic benefits are negligible. Therefore, the amount of available evidence to evaluate the academic effectiveness of BAPs is limited, regarding both the number of meta-analyses and assessments covered and the outcomes they produce.

**Rather more extensive is the available evidence on the effectiveness of different BAP schemes and methods in preventing and correcting externalizing behavior problems that occur at first.**



Rather more extensive is the available evidence on the effectiveness of different BAP schemes and methods in preventing and correcting externalizing behavior problems that occur at first. Overall, it is shown that these programs can have an appreciable and statistically significant impact on containing and solving these problems. This impact can be of a very remarkable magnitude based on the type of program and outcome of interest.

It must be mentioned that the observation periods of the studies reviewed do not usually last longer than 12 months after participation in the program ends, which prevents us from commenting on the impact that these programs may have for various outcomes beyond the short or medium term.

Whatever the case may be, the effects of BAPs can clearly vary and this diversity usually depends on the aims and skills that they prioritize, the characteristics of the interventions and the profile of the pupils participating in them.

## Which aims are BAPs shown to achieve most effectively?

Before distinguishing between the types of programs, we wish to highlight two general conclusions about the BAPs' main areas of effectiveness:

- **More impact on behaviors than on academic outcomes.** The evidence available allows us to conclude that BAPs tend to have a greater impact on external behavior than on academic matters, at least in the short term [4] [6] [7] [10] [13] [14] [20]. However, recall that few meta-analyses consider and combine both kinds of outcomes. In all likelihood, due the lack of attention given to academic outcomes or even to the lack of significant impacts in these outcomes, we find the brief post-program observation period that characterizes most of the assessments available. Regardless of whether the programs are targeted or universal, or whether they focus on pupils with behavioral problems or on all the pupils in the classroom or school, we could support the hypothesis that improved academic performance by any pupils that is attributable to BAPs should stem from previous changes in behavior. If this hypothesis is correct, then it would be necessary to have longer observation periods than those used to detect possible academic impacts over the medium or long term.
- **Regarding externalizing behavior problems,** the literature shows significant impacts of different BAP schemes to prevent and/or reduce a wide range of outcomes: antisocial or disruptive behaviors [11] [13] [21], aggressiveness, rebellion or hostility [8] [15] [22] [23], bullying and victimization [16–19], the incidence of expulsions [12] and in improving social relationships both inside and outside the classroom [4] [6].
- **Socio-emotional skills.** Beyond the impacts observed in the academic outcomes or externalizing behavior outcomes, part of the BAPs can induce improvements in the young people's social skills, emotional management or positive attitudes towards cooperating in school [9] [10] [21]. As such, we speak of BAPs that direct their actions (typically universal and preventive in nature) to developing skills that we can understand as precursors to good or bad behavior: problem-solving, empathy, self-control, interpersonal relationships, etc. These are interventions with content and methodologies quite close to those used in socio-emotional programs.<sup>1</sup>

**Part of the BAPs can induce improvements in the young people's social skills, emotional management or positive attitudes towards cooperating in school.**



Overall, BAPs clearly vary in their ability to have an impact on the different outcomes considered and are always conditioned by their specific characteristics.

### What are the characteristics of effective BAPs?

The meta-analyses reviewed enable us to roughly discern the most effective BAPs and how they are most effective in achieving a given objective of change, as well as BAPs that are relatively ineffective and what they are like. We list these findings below.

<sup>1</sup> For further details about the characteristics of these programs and their impacts on pupils' cognitive and non-cognitive skills, please see Queralt Capsada's review (2016) "Are social and emotional learning programs effective tools to improve students' skills?" (in the series *What works in education*, no. 5).

- BAPs that prioritize punitive actions as a mechanism for correcting behavioral problems are not only ineffective in achieving this goal, but often end up having a negative impact on the pupils subjected to them [5] [24]. A paradigmatic case of this type of disciplinary method is **expulsion** (or suspension) from class or from school, whether temporary or permanent [12]. Thus, in their meta-analysis, Noltemeyer *et al.* (2015) conclude that expulsions from class or school harm pupils' academic performance and increase the probability that they will drop out of school (see Box 1). These actions may have a positive effect on the atmosphere of the classroom or school when the misbehaving pupil is expelled. Beyond this, however, expulsions end up having a detrimental effect for the atmosphere of social harmony at schools [25].<sup>2</sup>
- Instead, as we shall see below, the evidence supports the use of BAPs that employ different methodologies to prioritize developing pupils' skills and tutoring them individually or in small groups.



**Expulsions from class or school harm pupils' academic performance and increase the probability that they will drop out of school.**

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2 Moreover, different studies have shown that the use of expulsion from class or school as punishment is not neutral, and that pupils who are socio-economically disadvantaged and/or belong to ethnic minorities end up being especially penalized [12] [26] [27].

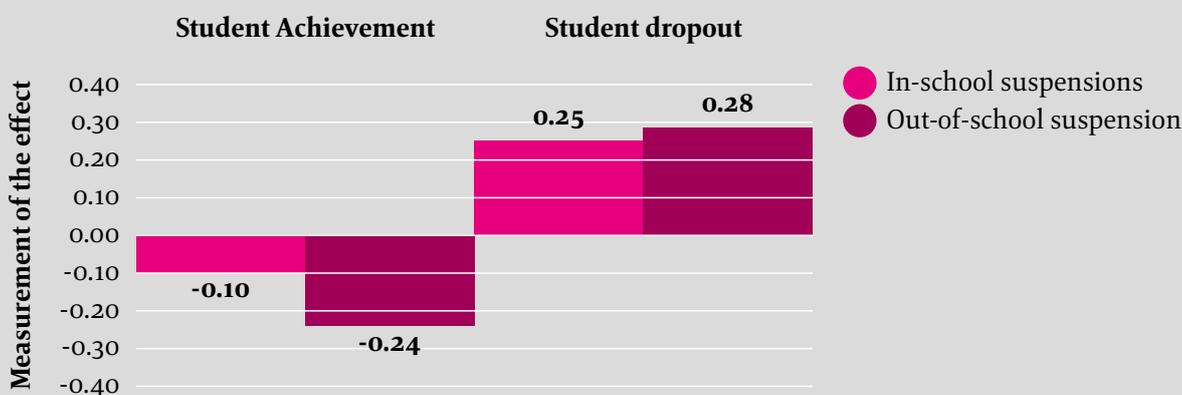
Box 1.

**The negative impact of expulsion (from class and from school)**

The meta-analysis conducted by Noltemeyer, Ward and McLoughlin [5] summarizes the results of 34 assessments focused on the impacts of the in-school suspension of primary and secondary school pupils from class and school on their student achievement and on whether they later out-of-school suspension. Together, these studies represent a total sample of 7,000 pupils in more than 100 schools in the United States.

**Results:**

- In-school suspension penalizes the pupils subjected to it. The impact is especially evident in the rise in pupil dropout rates (0.25 standard deviations).
- The impacts of out-of-school suspension are even greater than those of in-school suspension. Out-of-school suspension causes a significant drop in student achievement (-0.24) and a notable increase in the probability of dropping out (0.28).



**Implications:**

Expulsion from class or school has traditionally been a rather widespread practice used by schools to address their pupils' misbehavior in the United States and in most European countries. However, some studies have shown that the use of this method is not blind to pupils' social class or ethnic affiliation, meaning that minority pupils are especially affected by this bias [12] [26] [27]. The negative impact that this method shows to have on the pupils subjected to it advises its replacement by other interventions more focused on skill development and on positive reinforcement.

**Definitions:**

**In-school suspension:** temporary expulsion of the pupil from his or her class for at least half the school day whilst remaining under the supervision of school staff.

**Out-of-school suspension:** expulsion from the school for disciplinary reasons for longer than one day.

For further information:

Noltemeyer, A. M.; Ward, R. M. and McLoughlin, C. (2015). "Relationship between school suspension and student outcomes: A meta-analysis". *School Psychology Review*, vol. 44, no. 2, pp. 224-240.

Skiba, R. J. et al. (2011). "Race Is Not Neutral: A National Investigation of African American and Latino Disproportionality in School Discipline". *School Psychology Review*, vol. 40, no. 1, pp. 85-107.

Sullivan, A. L.; Klingbeil, D. and Van Norman, E. (2013). "Beyond Behavior: Multilevel Analysis of the Influence of Sociodemographics and School Characteristics on Students' Risk of Suspension". *School Psychology Review*, vol. 42, no. 1, pp. 99-114.

Valdebenito, S.; Eisner, M.; Farrington, D. P.; Ttofi, M. M. and Sutherland, A. (2018). "School-based interventions for reducing disciplinary school exclusion: a systematic review". *Campbell Systematic Reviews*, vol. 14, no. 1.

- **Targeted programs are particularly effective in addressing sustained undisciplined, disruptive or aggressive behaviors** [8] [21] [23].

Recall that targeted programs concentrate their interventions on disruptive pupils or pupils at the risk of developing antisocial behavior within school settings. It is common for these programs to be implemented in small groups of pupils or through mentoring or individual tutoring, and the available evidence suggests that the more personalized the treatment scheme, the more likely that the program will succeed. Some studies have also demonstrated that these programs can end up having generally low or moderate positive impacts on academic outcomes [7] [20] [28].

**The available evidence suggests that the more personalized the treatment scheme, the more likely that the program will succeed.**



Box 2.

### **Becoming a Man (Chicago, United States)**

Becoming a Man (BAM) was run as an experimental pilot program during the 2009-2010 school year in a sample of schools located in socially disadvantaged and conflictive neighborhoods in the city of Chicago. BAM is a program designed, promoted and implemented by two local non-profit organizations: Youth Guidance and World Sport Chicago.

The program is aimed at young secondary school students from socio-economically vulnerable environments who have behavioral problems and have become involved in criminal activity (violence, theft, drug use or trafficking, etc.). The main aspects of BAM are:

- **School intervention.** This includes 30 voluntary one-hour sessions in small groups scheduled once per week during the school year. The participants skip one hour of ordinary class to attend these sessions, which are conducted by an adult, preferably one who has studied Psychology and has experience working with vulnerable young people. The sessions follow a curriculum that includes cognitive-behavioral therapy content and methodologies: modeling through role-playing games and experimentation, social information processing and perspective-taking, case discussion, relaxation and introspection, etc.
- **After-school intervention.** This mainly consists of the practice of non-conventional sports (such as boxing, freestyle wrestling, martial arts, handball and archery) through which coaches trained in the program try to foster skills of self-control, conflict management and concentration. The sports sessions last one to two hours and are scheduled once per week.

During the 2009-2010 school year, Heller *et al.* [28] tested the program's effectiveness by proposing an experimental evaluation. Participating in the experiment were 2,740 male secondary school pupils at 18 schools located in the most vulnerable neighborhoods in Chicago. School by school, they randomly chose which of the pre-selected pupils would receive the offer to participate in the program (with or without a sports activity) and which would not. Approximately half the pupils that had the chance to participate ended up doing so.

Given that randomization is used to form two groups of pupils (test and control groups) that are equivalent in their socio-economic, behavioral and academic aspects, as well as in their

criminal history, comparing their outcomes during and after implementation of BAM indicates the impacts of the program. Thus, the study concludes that:

- The program reduces the number of arrests for violent crimes by 44% and the number of arrests for non-violent crimes (defying authority, vandalism, breaking and entering homes, etc.) by 36%. However, these impacts are limited to the same year that the program is implemented and fade in the following year.
- The program has positive sustained impacts on the pupils' educational outcomes (in grades, attending and continuing school). The size of the impact is equivalent to 0.14 standard deviations during the year of implementation and 0.19 at the end of the following school year. This effect may increase secondary school graduation rates by between 7% and 22%, especially benefiting students with worse academic performance before BAM started.
- Solely taking the impact on violent crime into account, with a cost of 1,100 USD per participant, the cost-benefit ratio of BAM could rise to 30:1, depending on how the social costs of these crimes are monetized.

For further information:

Heller, S., Pollack, H.A., Ander, R. and Ludwig, J. (2013) "Preventing Youth Violence and Dropout: A Randomized Field Experiment". NBER *Working Paper*, no. 19014.

• **Universal programs are especially effective in developing certain socio-emotional skills among the pupils**

(empathy, conflict management,

emotional control, etc.) and thereby in preventing possible externalizing behavior problems [10] [13]. Universal actions may be implemented in the entire classroom or in the entire school.

The literature is not unanimous on the most appropriate scope of application. While some studies conclude that school programs for supporting positive behavior are more effective when applied to the school as a whole (Solomon, 2012), quite a few others have demonstrated that different classroom management strategies can prevent or even correct pupils' disruptive or aggressive behavior [9] [13] [22]. Such strategies include the definition of agreed regulatory frameworks, awareness-raising and discussion activities, cooperative games, peer tutoring, etc. Box 3 describes the Good Behavior Game, a paradigmatic example of these kinds of interventions.

**Universal programs are especially effective in preventing possible externalizing behavior problems.**



## Box 3.

**Good Behavior Game (Netherlands)**

The Good Behavior Game (GBG) program is a classroom management strategy that attempts to prevent or correct behavioral or disciplinary problems through cooperative work and group incentive schemes. Its basic procedure is to divide the class into two or three groups that compete with each other to avoid receiving points for misconduct. Misconduct is defined as deviation from the rules defined and agreed for the class. The team with the fewest points at the end of the game wins a reward, generally in the form of free time. If all teams manage to stay below a threshold level of misconduct, all of them receive the reward. The game typically takes place each day, taking up one or two hours of class, and is scheduled during the first two years of primary school.

The program was first evaluated in 1969 by researchers at the University of Kansas [29] and since then has been widely implemented in schools in the United States and around the world. Thus, for example, the GBG was experimentally tested in the schools of two urban areas in the western Netherlands during the 2004-2005 and 2005-2006 school years [30].

This experiment consisted of the following: the summer before the start of the first year of primary school, 47 classes that were finishing kindergarten (a total of 758 pupils) at 30 schools were divided into two groups: the test group (which received the GBG program in the first and second year of primary school) and the control group (which did not receive the GBG program during either year). Randomization causes observable characteristics (as well as unobservable ones, like some socio-emotional skills) to be compensated between both groups. From there, the researchers compared the outcomes of interest (primarily concerning relations and behaviors) of the pupils of both groups at the end of the first year of primary school and again at the end of the second year that the program was implemented, arriving at the following conclusions:

- Participation in the program has a positive impact on reducing the pupils' externalizing behavior problems (disobedience and aggressiveness) equivalent to 0.28 standard deviations at the end of the first year and 0.45 at the end of the second year.
- The program also has positive impacts on the pupils' relational outcomes, which are chiefly demonstrated during the second year of primary school: acceptance by their peers (0.34), their number of friends (0.20) and closeness to the rest of their peers (0.26).
- Reductions in externalizing behavior problems are largely mediated by gains in relational outcomes, a link that is especially evident among boys.

The findings of this experiment are in accordance with the conclusions of other impact assessments of the GBG program. By summarizing this evidence of impact and comparing it to the cost of the program, using data on its implementation in the United States, the Washington State Institute for Public Policy estimated the cost-benefit ratio at 65:1 USD [13].

For further information:

Barrish, H. H.; Saunders, M. and Wolf, M. M. (1969). "Good behavior game: effects of individual contingencies for group consequences on disruptive behavior in a classroom". *Journal of Applied Behavior Analysis*, vol. 2, no. 2, pp. 119-124.

Witvliet, M.; Van Lier, P. A. C.; Cuijpers, P. and Koot, H. M. (2009). "Testing Links Between Childhood Positive Peer Relations and Externalizing Outcomes Through a Randomized Controlled Intervention Study". *Journal of Consulting and Clinical Psychology*, vol. 77, no. 5, pp. 905-915.

Washington State Institute for Public Policy (2017). *Good Behaviour Game: Benefit Cost Results*. Retrieved from <http://www.wsipp.wa.gov/BenefitCost/Program/82>.

With regard to academic outcomes, actions focused on classroom management seem more promising than those designed for the school as a whole, though the evidence for this is quite limited [9].

Also noteworthy are universal programs to stop bullying at school, which according to the meta-analyses considered (Table 2) are more effective when they are implemented in the classroom and throughout the school at the same time, when they include a plan with varied activities that involve the main people in question (pupils, teachers and families), and when they become stable over time. The impacts of these programs can then become significant not only for the incidence of bullying or victimization [16] [18], but also for the change in attitude of “bystander” pupils [19].

- Few meta-analyses distinguish BAPs' ability to have an impact based on their **orientation or method of treatment**. In any case, the evidence reviewed suggests:

- Behavioral or cognitive-behavioral approaches would be especially appropriate as part of targeted programs aimed at reducing displays of undisciplined or aggressive behaviors and attitudes. However, the method of treatment does not seem to significantly moderate the effectiveness of universal programs (in the classroom or the school) [21] [23].
- In general, we were able to document the possible positive impacts of universal programs based on social information processing techniques [15]. These programs are based on the theory that social behavior is the result of six interconnected processes: 1) decoding the internal keys of the situation; 2) interpreting the keys; 3) selecting or clarifying the objectives; 4) establishing or accessing possible solutions for achieving the objectives; 5) selecting the solution; and 6) performing the behavior. According to this scheme, externalizing behavior problems could result from cognitive deficiencies in at least one of these processes. These programs' lines of action include problem-solving strategies, the encouragement of empathy and certain anger management and social interaction tools. Their impacts are felt not only at the socio-emotional level, but also in preventing and reducing aggressive behaviors (fights, violence, openly disruptive behaviors, etc.).
- BAPs based on relaxation, meditation and guided introspection have started to be implemented in recent years. Mindfulness is one example of this. The available evidence indicates that mindfulness does not usually have an appreciable impact on behavior or on academic performance. However, some other admittedly light effects have

**Universal programs to stop bullying are more effective when they are implemented in the classroom and throughout the school at the same time, when they include a plan with varied activities that involve the main people in question (pupils, teachers and families), and when they become stable over time.**



**Behavioral or cognitive-behavioral approaches would be especially appropriate as part of targeted programs aimed at reducing displays of undisciplined or aggressive behaviors and attitudes.**



**BAPs based on relaxation, meditation and guided introspection have started to be implemented in recent years.**



been identified on cognitive skills (mainly executive functions and attention span) and socio-emotional skills (self-esteem, emotional management, social skills and internalizing behavior problems) [10] [31].

**The dosage of the programs (duration and frequency of the actions) by itself does not decisively make a difference.**



- Studies that take the **dosage of the programs (duration and frequency of the actions)** into account tend to conclude that this factor, by itself, **does not decisively make a difference** in a program's chances of success or failure [8] [10] [11] [19] [21].

There are some remarkable exceptions to this point. On the one hand, Wilson and Lipsey [23] come to the conclusion that comprehensive universal programs, which include work coordinated between families, teachers and administrators, gain the ability to make an impact as their dosage is increased. On the other hand, Farrington and Ttofi [16] conclude that the most effective anti-bullying programs last at least one school year. Only the meta-analysis conducted by Gansle [4] on the effectiveness of interventions focused on anger management suggest that targeted programs have a greater impact when they have more activities and last longer.<sup>3</sup>

In any case, it should be taken into account that the dosage of targeted programs (usually around 3 months, 30 session hours) is usually lower than in universal schemes (often programs lasting two or three school years). Thus, some of these studies indicate that the effectiveness of BAPs could clearly be compromised outside these dosage ranges. Specifically, the warning could go both ways:

- For targeted BAPs, this refers to the **danger of defining support services segregated from the ordinary classroom** that are sustained over time and concentrate pupils with various kinds of problematic issues (externalizing and internalizing behavior problems and academic problems, for example) [8].

**This refers to the danger of defining support services segregated from the ordinary classroom that are sustained over time and concentrate pupils with various kinds of problematic issues.**



- For **universal programs, it indicates their need to be sustained over time.** Otherwise, they will not achieve significant changes in the culture and atmosphere of the classroom and the school (Grant, 2012). An example of this would be the anti-bullying programs [16] and comprehensive-type programs [23] mentioned above.
- Apart from some specific anti-bullying programs or programs for developing social skills where the involvement of a specialist or researcher does seem to make a difference [19] [21], the evaluative literature tends to conclude that **the profile of the professionals who lead or implement the BAPs is not a variable that necessarily affects their effectiveness.** Thus, we find examples of various kinds

<sup>3</sup> Bear in mind that the duration of the programs evaluated in this meta-analysis range from 6 to 50 hours.

of BAPs (targeted, universal, based on a certain method of treatment, based more or less on guides or tutorials) that are shown to be effective whether conducted by ordinary teachers or by specialists (mainly educational psychologists) internal or external to the school. In other words, **ordinary teachers can be as effective as professional specialists in developing a large part of BAPs**. Furthermore, the evidence shows that a teacher's contribution to the impact that a program has increases when he or she has received specific training on how it works [9] [32].

**A teacher's contribution to the impact that a program has increases when he or she has received specific training on how it works.**



- Many of the programs evaluated and included in the meta-analyses include activities for **working on with families** as a complementary component of the actions for the pupils. However, its specific contribution to the programs' success has hardly been analyzed, if at all. Here we could once again mention Farrington and Ttofi's [16] study on the effectiveness of programs to stop bullying and victimization in school settings, which concludes that the inclusion of training and awareness-raising activities with family members increases their impact.

### Which pupils have to most to gain with BAPs?

The reviewed literature allows us to postulate some hypotheses in relation to the groups or profiles of pupils who are more sensitive to the impacts of the BAPs. Once again, the following statements must be taken with a grain of salt, as the base of evidence sustaining them is not extensive or conclusive: 10 of the 20 meta-analyses reviewed show findings on the differential effects of the programs and 6 of those detect significant group differences, which are not always consistent.

- **Which regard to age**, we must refer to the study by Lösel and Beelmann [21] on the impact of social skills programs aimed at preventing antisocial behaviors. This meta-analysis concludes that these programs are especially effective in preventing and reducing antisocial behavior among adolescents (pupils over 12 years of age) and have the greatest impact on improving social skills among children (from 4 to 6 years old). This conclusion is in line with Wilson and Lipsey's finding [23] that preventive universal programs can work especially well in primary education. This pattern is repeated when we review the findings of the meta-analyses focused on age groups or specific grades of education: universal programs aimed at developing socio-emotional skills and preventing behavioral problems in primary education tend to have positive effects [11] [13]; we find programs focused on correcting disruptive, antisocial or aggressive behaviors effective in both primary and secondary school [6] [8] [20].

**We find programs focused on correcting disruptive, antisocial or aggressive behaviors effective in both primary and secondary school.**



- **With regard to the pupils' socio-economic and behavioral profile**, some studies find that universal programs to develop social skills and prevent behavioral problems work particularly well in socio-economically disadvantaged school settings [15] [23]. The evidence is much broader and supports the conclusion that the effectiveness of targeted programs essentially depends on how they adjust to the behavioral profile or the risk profile of the target population [21] [23] [33].

## Summary

According to the evidence reviewed, BAPs can clearly foster significant positive impacts on pupils' learning process and, more clearly and directly, on the externalizing behavioral factors taken into account in this review, such as undisciplined, disruptive or aggressive behaviors inside and outside the classroom.

It should be noted that the evidence is much more extensive and consistent concerning the benefits that these programs may have for behavior than for gains in academic performance. Few meta-analyses focus on educational outcomes and some of those that do discuss the difficulties that certain BAPs face in being effective in that regard. As mentioned above, this circumstance could have to do with the brief post-program observation period found in most of the evaluations included in the meta-analysis.

Yet we also cannot conclude that BAPs' effectiveness on behavior is fully guaranteed. Some BAPs work better than others and this depends on features of their design and implementation as well as on how they are adjusted to the specific issues addressed. Though this is a very brief summary, we have found:

- **Targeted programs** are effective when: *a*) they are based on behavioral or cognitive-behavioral approaches; *b*) they work with small groups of pupils, preventing them from becoming isolated in segregated classrooms concentrated with pupils with other kinds of problematic issues (social or academic problems, emotional disturbances, etc.); *c*) they have spaces for individual tutoring; *d*) their duration and volume of activities are sufficient and suited to the problems they set out to correct; and *e*) they involve ordinary teachers (in addition to other possible specialists). These BAPs **usually demonstrate their effectiveness by reducing the incidence of displays of undisciplined or aggressive behaviors in primary and secondary school alike.**
- Universal programs can also have a positive impact on correcting disruptive or antisocial behaviors. Paradigmatic in this regard is the effectiveness of some anti-bullying programs, particularly those that: *a*) affect the dynamics of the classroom and the school as a whole; *b*) involve pupils, teachers and families; and *c*) are stable over time. **In general, however, universal programs are especially effective in improving certain socio-emotional skills among pupils** (empathy, anger management, problem-solving, social interaction) and therefore in preventing possible externalizing behavior problems, especially in primary education.

- Finally, it is clear that **programs that prioritize the use of punitive disciplinary measures** (such as expulsion from class or from school) as a mechanism for correcting misbehavior not only have a negative effect on the punished pupils, **but also fail to produce any positive medium or long-term change in the atmosphere of the classroom or the school.**

Table 4 summarizes the main arguments set out in this review.

Table 4.  
**Strengths and weaknesses of the BAPs**

Strengths	Weaknesses
• BAPs can have positive effects on pupils' academic outcomes.	• The evidence on the educational impacts of these programs is limited and not always consistent.
• BAPs can have positive effects on preventing and correcting externalizing behavior problems.	• A lack of evidence on these programs' impacts on behavior beyond the short and medium term.
• Skill-based BAPs and positive support tend to have positive impacts.	• Punitive BAPs are counterproductive for the punished pupils and do not improve the school's atmosphere in the medium term.
• Targeted BAPs are effective when their duration and activities are adjusted to the behavioral problems to resolve.	• This adjustment requires a refined diagnosis that is not always available or easy to conduct.
• Targeted BAPs are effective when they do not produce intra-school segregation.	• Training and managing flexible groups can entail significant organizational costs.
• Universal BAPs are effective against disruptive acts and violence (including bullying) when they involve all actors and permeate the school's atmosphere.	• It is not always easy to involve the entire school faculty and all families.
• Universal BAPs seem to be especially effective in primary education.	• These programs may be less effective in secondary education.
• BAPs increase their likelihood of success when the teachers involved receive specific training in the program.	• Activities to train teachers can have a significant economic and management cost.
• The role of professional specialists (educational psychology), whether internal or external to the school, may be key to the success of the programs.	• These professionals and the hours that can be devoted to these programs are often a scarce resource.
• BAPs may be able to increase their ability to have an impact on schools located in socially disadvantaged environments.	• This evidence is still quite limited.

Source: compiled by the author

## Implications for practice

Preventing and correcting externalizing behavior problems that may be present in school settings are basic objectives to improve the educational prospects of pupils suffering from them (or at risk of suffering from them) and to facilitate a convivial atmosphere in the classroom and the school that provides ideal conditions for learning for all pupils.

The behavioral problems that are the subject of this review are clearly complex multidimensional phenomena. At their base, these problems can be linked to internalizing behavior problems, mental disturbances, academic shortcomings or problems in family relationships or related to a disadvantaged socio-economic situation. They can also be a simple expression of the maturing process and of the transition from childhood to adolescence. All in all, external displays of misconduct necessarily have different meanings and intensities and thereby require different solutions adjusted to the reality of each display.

Therefore, that the programs and interventions covered in this review are clearly insufficient to fully and finally overcome the behavioral problems that some pupils may display and correct them, fostering more cooperative attitudes in school.

We will need to consider coordinated actions involving behavioral strategies, but also strategies for personalizing learning, curricular diversification, motivational work, social and family support, etc. However, once the most robust empirical evidence available on the effectiveness of these programs is analyzed, we are in a position to support the following recommendations or considerations for practice:

**The success of BAPs depends on how they adjust their approaches and activities to the characteristics of the behavioral problems that they aim to address.**



- **The success of BAPs depends on how they adjust their approaches and activities to the characteristics of the behavioral problems that they aim to address.** From this point of view, schools should get good diagnoses on the context, causes and possible expressions of the behavioral problems that may arise at their earliest convenience. These diagnoses could be conducted and shared during teaching staff meetings with the support of specialists from the schools or external educational services.
- As a general rule, in order to address sustained displays of undisciplined behavior, defiance and aggressiveness in classrooms and common areas at schools, it would be advisable to **reinforce certain focused responses. In this case, it would be best to use programs that work individually or in small groups** with pupils who display the specific issues in question and that offer them the possibility of working on modeling activities, self-control, incentives, etc., during the appropriate hours and weeks. In this way, they are not disassociated from the social and learning dynamics that take place in ordinary classes.

- Alongside the targeted strategy, certain universal plans or programs aimed at all pupils in a class or school can also help to reduce the incidence of disruptive, antisocial and aggressive behaviors inside and outside the classroom. One example consists of certain **classroom management strategies focused on defining the agreed regulatory frameworks, awareness-raising and self-control activities, cooperative games, peer mediation**, etc., that have shown to be effective in both primary and secondary school. These strategies should therefore be strengthened and extended to schools, mainly to those with a higher level of behavioral problems.
- **Universal anti-bullying programs can also have a positive impact on reducing the problem in schools. However, their success is not guaranteed.** The evidence gathered in this sense recommends programs that involve the entire educational community of the school, are sustained over time and have a real affect on relational patterns inside and outside the classroom. As such, it would be appropriate to promote the definition and implementation of anti-bullying programs that can combine those elements.
- Beyond the school realities marked by obvious displays of behavioral problems, **we should support universal preventive actions aimed at developing socio-economic skills that may be precursors of good or bad behavior** (empathy, anger management, problem-solving, social interaction). These actions can have a place reserved in the school calendar (during tutoring hours, for example) or can be worked on globally and consistently with the schools' plans for social harmony and educational programs.  
  
**The teaching staff is key to the effective development of all types of BAPs in all their stages.**
- The teaching staff is key to the effective development of all types of BAPs (universal, targeted, with a behavioral or socio-emotional focus) in all their stages (diagnosis, design, implementation and evaluation of the activities, relation with specialists and external services). At the same time, we could see that BAPs that included training for the teaching staff in the significance and methodologies of the programs had a greater impact. Therefore, **it would be advisable to promote training teachers in these types of problems and programs** as part of their initial training, but especially as part of general or specific continuous training.
- Other specialists are called to play a central role in implementing BAPs. **Professionals working in the fields of educational psychology, diversity support and social work can make a crucial contribution to a program's success**, regardless of whether they are school staff members or external education service employees.  
  
**Professionals working in the fields of educational psychology, diversity support and social work can make a crucial contribution to a program's success, regardless of whether they are school staff members or external education service employees.**

that they generally have the resources necessary to carry out the aforementioned tasks.

- Finally, we wish to stress that the design and reform of BAPs in our schools and in programs, as well as any related plans that may be promoted by the educational administration, must consider what the most robust empirical evidence tells us about what works better or worse in relation to which goals. **We also emphasize the importance of evaluating these programs.** Only in this way can we find out how they work in our immediate environment, what impacts they have, which of their components or activities are most effective, which behavioral displays and which pupil profile benefit the most and, from there, how much leeway is left for improvement and innovation.

## Bibliography

- [1] INEE (2014). *TALIS 2013. Estudio internacional de la enseñanza y el aprendizaje. Informe español*. Madrid: MECD.
- [2] OECD (2016). *Low-Performing Students: Why They Fall Behind and How to Help Them Succeed*. Paris: OECD Publishing.
- [3] Skinner, E. A. and Pitzer, J. R. (2012). "Developmental Dynamics of Student Engagement, Coping, and Everyday Resilience". A: Christenson, S. L.; Reschly, A. L. and Wylie, C. (ed.) (2012). *Handbook of Research on Student Engagement*. New York: Springer, pp. 21-44.
- \*[4] Gansle, K. A. (2005). "The effectiveness of school-based anger interventions and programs: A meta-analysis". *J. Sch. Psychol.*, vol. 43, no. 4, pp. 321-341.
- \*[5] Noltemeyer, A. M.; Ward, R. M. and McLoughlin, C. (2015). "Relationship between school suspension and student outcomes: A meta-analysis". *Sch. Psychol. Rev.*, vol. 44, no. 2, pp. 224-240.
- \*[6] Quinn, M. M.; Kavale, K. A.; Mathur, S. R.; Rutherford, R. B. and Forness, S. R. (1999). "A Meta-Analysis of Social Skill Interventions for Students with Emotional or Behavioral Disorders". *J. Emot. Behav. Disord.*, vol. 7, no. 1, pp. 54-64.
- \*[7] Reddy, L. A.; Newman, E.; De Thomas, C. A. and Chun, V. (2009). "Effectiveness of school-based prevention and intervention programs for children and adolescents with emotional disturbance: A meta-analysis". *J. Sch. Psychol.*, vol. 47, no. 2, pp. 77-99.
- \*[8] Wilson, S. J. and Lipsey, M. W. (2006). "The effects of school-based social information processing interventions on aggressive behavior, part II: selected/indicated pull-out programs". *Campbell Systematic Reviews*, vol. 2, no. 6.
- \*[9] Korpershoek, H.; Harms, T.; de Boer, H.; Van Kuijk, M. and Doolaard, S. (2016). "A Meta-Analysis of the Effects of Classroom Management Strategies and Classroom Management Programs on Students' Academic, Behavioral, Emotional, and Motivational Outcomes". *Rev. Educ. Res.*, vol. 86, no. 3, pp. 643-680.
- \*[10] Maynard, B. R.; Solis, M. R.; Miller, V. L. and Brendel, K. E. (2017). "Mindfulness-based interventions for improving cognition, academic achievement, behavior and socio-emotional functioning of primary and secondary students". *Campbell Systematic Reviews*, vol. 13, no. 5.
- \*[11] Solomon, B. G.; Klein, S. A.; Hintze, J. M.; Cressey, J. M. and Peller, S. L. (2012). "A meta-analysis of school-wide positive behavior support: An exploratory study using single-case synthesis". *Psychol. Sch.*, vol. 49, no. 2, pp. 105-121.
- \*[12] Valdebenito, S.; Eisner, M.; Farrington, D. P.; Ttofi, M. M. and Sutherland, A. (2018). "School-based interventions for reducing disciplinary school exclusion: a systematic review". *Campbell Systematic Reviews*, vol. 14, no. 1.
- \*[13] Washington State Institute for Public Policy (2017a). *Good Behavior Game: Benefit-Cost Results*. Washington: Washington State Institute for Public Policy.
- \*[14] Washington State Institute for Public Policy (2017b). *Promoting Alternative Thinking (PATH): Benefit-Cost Results*. Washington: Washington State Institute for Public Policy.
- \*[15] Wilson, S. J. and Lipsey, M. W. (2006). "The effects of school-based social information processing interventions on aggressive behavior: Part I: Universal programs". *Campbell Systematic Reviews*, vol. 2, no. 5.
- \*[16] Farrington, D. P. and Ttofi, M. M. (2010). "School-Based Programs to Reduce Bullying and Victimization". *Campbell Systematic Reviews*, vol. 5, no. 12.
- \*[17] Ferguson, C. J., Miguel, C. S., Kilburn, J. C. and Sanchez, P. (2007). "The Effectiveness of School-Based Anti-Bullying Programs: A Meta-Analytic Review". *Crim. Justice Rev.*, vol. 32, no. 4, pp. 401-414.
- \*[18] Merrell, K. W.; Gueldner, B. A.; Ross, S. W. and Isava, D. M. (2008). "How effective are school bullying intervention programs? A meta-analysis of intervention research". *Sch. Psychol. Q.*, vol. 23, no. 1, pp. 26-42.
- \*[19] Polanin, J. R.; Espelage, D. L. and Pigott, T. D. (2012). "A Meta-Analysis of School-Based Bullying Prevention Programs' Effects on Bystander Intervention Behavior". *Sch. Psychol. Rev.*, vol. 41, no. 1, pp. 47-65.
- \*[20] Grant, T. A. (2012). "A meta-analysis of school-based interventions for middle schoolers: Academic, behavioral, and social outcomes". Doctoral Thesis, Fordham University.
- \*[21] Lösel F. and Beelmann, A. (2003). "Effects of Child Skills Training in Preventing Antisocial Behavior: A Systematic Review of Randomized Evaluations". *Ann. Am. Acad. Pol. Soc. Sci.*, vol. 587, no. 1, pp. 84-109.
- \*[22] Oliver, R. M.; Wehby, J. H. and Reschly, D. J. (2011). "The Effects of Teachers Classroom Management Practices on Disruptive, or Aggressive Student Behavior". *Campbell Systematic Reviews*, vol. 11, no. 4

- \*[23] Wilson, S. J. and Lipsey, M. W. (2007). "School-Based Interventions for Aggressive and Disruptive Behavior". *Am. J. Prev. Med.*, vol. 33, no. 2, pp. S130-S143.
- [24] Gray, A. M. *et al.* (2017). *Discipline in Context: Suspension, Climate, and PBIS in the School District of Philadelphia*. CPRE Research Reports. Retrieved from: [http://repository.upenn.edu/cpre\\_researchreports/106/](http://repository.upenn.edu/cpre_researchreports/106/)
- [25] Skiba, R. J. (2014). "The Failure of Zero Tolerance". *Reclaiming Child. Youth*, vol. 22, no. 3, pp. 27-33.
- [26] Skiba, R. J. *et al.* (2011). "Race Is Not Neutral: A National Investigation of African American and Latino Disproportionality in School Discipline". *Sch. Psychol. Rev.*, vol. 40, no. 1, pp. 24.
- [27] Sullivan, A. L.; Klingbeil, D. and Van Norman, E. (2013). "Beyond Behavior: Multilevel Analysis of the Influence of Sociodemographics and School Characteristics on Students' Risk of Suspension". *Sch. Psychol. Rev.*, vol. 42, no. 1, pp. 99-114.
- [28] Heller, S.; Pollack, H.; Ander, R. and Ludwig, J. (2013). "Preventing Youth Violence and Dropout: A Randomized Field Experiment". National Bureau of Economic Research, Cambridge, MA, w19014.
- [29] Barrish, H. H.; Saunders, M. and Wolf, M. M. (1969). "Good behavior game: effects of individual contingencies for group consequences on disruptive behavior in a classroom". *J. Appl. Behav. Anal.*, vol. 2, no. 2, pp. 119-124.
- [30] Witvliet, M.; Van Lier, P. A. C.; Cuijpers, P. and Koot, H. M. (2009). "Testing links between childhood positive peer relations and externalizing outcomes through a randomized controlled intervention study". *J. Consult. Clin. Psychol.*, vol. 77, no. 5, pp. 905-915.
- [31] Van de Weijer-Bergsma, E.; Langenberg, G.; Brandsma, R.; Oort, F. J. and Bögels, S. M. (2012). "The Effectiveness of a School-Based Mindfulness Training as a Program to Prevent Stress in Elementary School Children". *Mindfulness*, vol. 5, no. 3, pp. 238-248.
- [32] Horner, R. H. *et al.* (2009). "A Randomized, Wait-List Controlled Effectiveness Trial Assessing School-Wide Positive Behavior Support in Elementary Schools". *J. Posit. Behav. Interv.*, vol. 11, no. 3, pp. 133-144.
- [33] Wilson, S. J.; Lipsey, M. W. and Derzon, J. H. (2003). "The effects of school-based intervention programs on aggressive behavior: A meta-analysis". *J. Consult. Clin. Psychol.*, vol. 71, no. 1, pp. 136-149.

(\* meta-analyses covered by the review)

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