European Journal of Psychology and Educational Research
Volume 6, Issue 1, 55 - 68.
ISSN: 2589-949X
https://www.ejper.com

More Than Just a Game: Teachers' Experiences of the PAX Good Behavior Game

Ale Holmdahl
Lund University, SWEDEN

Elinor Schad*
Lund University, SWEDEN

Gustav Nilsson
Linnaeus University, SWEDEN

Viktor Kaldo
Linnaeus University, SWEDEN

Received: December 27, 2022 ▪ Revised: February 25, 2023 ▪ Accepted: March 12, 2023

Abstract: The PAX Good Behavior Game (PAX-GBG) is an evidence-based universal preventive intervention program for classroom use. Our aim was to explore teachers' perceptions of PAX-GBG and their work with it, and whether this changed during the implementation of the intervention. In addition, we explored teachers' perceptions, and changes in perceptions, regarding how they perceived their workload when learning and using PAX, how it influenced relationships in the classroom and students with special needs. Semi-structured telephone interviews were conducted with six female teachers at three time-points during a school year. Based on thematic analysis, four themes illustrating teachers' experiences and the perceived effects of PAX-GBG on classroom relationships were identified: (1) Working with PAX-GBG, (2) The Game, (3) Focus on Behaviour, and (4) Relationships. A notable finding was that most teachers, at the outset, had concerns regarding the PAX Game and that these concerns mostly disappeared after they had experienced working with it. Based on improved student behaviours and overall enhanced relationships in the classroom, our results show that PAX-GBG is a suitable intervention for all students. Students with special needs may especially benefit due to a focus on clear expectations, positive reinforcement, and a more inclusive classroom climate. Some remaining concerns regarding the universal suitability of the game need to be explored further in future studies. Based on the results in this study, PAX-GBG seems to have high social validity in a Swedish context.

Keywords: *Interview study, PAX-GBG, qualitative study, Sweden, teaching.*

To cite this article: Holmdahl, A., Schad, E., Nilsson, G. & Kaldo, V. (2023). More than just a game: Teachers' experiences of the pax good behavior game. *European Journal of Psychology and Educational Research, 6*(1), 55-68. https://doi.org/10.12973/ejper.6.1.55

Introduction

Young peoples' mental health has become a pressing issue both globally (Merikangas et al., 2009) and in Sweden (Socialstyrelsen, 2013). The classroom is one arena for countering this, giving teachers many opportunities to create a nurturing environment (Biglan, 2015). To that end, the PAX Good Behaviour Game (PAX-GBG) is an internationally well-researched universal prevention program (Johansson et al., 2020) and from a national perspective, the cultural adaptation for PAX-GBG in Sweden shows promising results (Ghaderi et al., 2017).

Description of PAG-GBG

PAX-GBG, a school-based universal prevention program builds on the Good Behaviour Game (Barrish et al., 1969; Embry, 2002) combined with nine evidence-based teaching modules called kernels† (Embry, 2002; Embry & Biglan, 2008). In Sweden, PAX-GBG is mainly used with children aged 7–9 and blends activities, using kernels such as PAX Tootles notes‡ and the PAX Game§, together with the regular curriculum. The programme is usually implemented during a 12-week introduction period where kernels are introduced one at a time coming together in the end as the PAX game.

Initially, teachers and students work together creating a shared vision of what behaviours and experiences they want to see, hear, do, and feel in the classroom (the PAX Vision). In the PAX Game some of the behaviours from the PAX Vision

* **Corresponding author:**
Elinor Schad, Department of Psychology, Lund University, Sweden. ✉ elinor.schad@psy.lu.se

† In Swedish: Verktyg, PAX Lyssna, PAX Röster, PAX Överraskning och PAX Hissningar
‡ In Swedish: PAX Hissningar
§ In Swedish: PAX spelet

are chosen to create a mini-vision indicating what behaviours to focus on. Behaviours that support the vision are called PAX and behaviours that disrupt the vision are called Spleems**. In practice the word PAX thus becomes both a term for the program as a whole and a noun for a prosocial action, as in doing 'PAX'. Further kernels work to support the vision and create a culture of collaboration. Examples of kernels in PAX-GBG include PAX Quiet (a cue for attention), PAX Voices (a cue for expected voice levels), Granny's Wacky Prizes (motivators to increase wanted behaviours), and PAX Tootles notes (written peer praise) (Streimann et al., 2017).

When the kernels have been learned the PAX Game is introduced. The class is divided into teams with each team working cooperatively aiming to commit less than four infractions to agreed-upon rules during a predefined time period. In the beginning, this time period lasts only a few minutes, and as the students improve the time is extended. Teams that succeed in withholding disruptive behaviour during the allotted time are rewarded by taking part in a short activity from Granny's wacky prizes. Teams in PAX-GBG are periodically rearranged to decrease the risk of potentially destructive aspects of team-competition while at the same time giving the children opportunities to have prosocial interactions.

Playing the PAX Game potentially increases student capacity for self-regulation and psychological flexibility by encouraging activity and inhibition of impulses (Johansson et al., 2020). In a cluster randomized study using PAX-GBG O'Keeffe et al. (2021) could show increased self-regulation among the participants. Importantly, the ability to self-regulate constitutes a base for many other basic abilities, including making friends, working toward goals, or making better choices.

As success is dependent on the whole group, students participate in interdependent group contingency, promoting prosocial behaviour and cooperation (Gresham & Gresham, 1982; Groves & Austin, 2019). Furthermore, it has been shown that students' motivations to help each other succeed is elevated by positive reinforcement as well as increased self- and peer-monitoring (Weis et al., 2015). Weis and colleagues also found a correlation with increased academic achievement and overall engagement in instruction.

Literature Review

Workload and PAX-GBG

Much of previous research regarding teachers' experiences have been focused on understanding the link between teacher workload and PAX-GBG††. Indeed, workload is a pressing issue in Sweden, where 43% of teachers have work-related distress and 75% consider the workload to be heavy (Arbetsmiljöverket, 2018). In a randomized control study with 147 participants in 15 special education schools, the implementation of PAX-GBG increased teachers' self-efficacy and reduced emotional exhaustion (Hopman et al., 2018). In another study by Berg et al. (2017), PAX-GBG showed positive overall effects on teachers' perceptions of self-efficacy but concluded that teachers with high implementation fidelity might have an increased risk for burnout due to an increased temporary workload. Berg et al. (2017) also speculated that higher levels of reported stress in this group could be due to increased emotional awareness resulting from engaging with the intervention and one's own emotional responses. There has also been a pilot study in a Swedish context where PAX-GBG lowered the perceived level of work-related stress, as measured by a self-reported questionnaire before and after the intervention (Ghaderi et al., 2017).

Teacher Concerns

PAX-GBG trainers in Sweden report that teachers prior to implementation have both general and specific concerns about the intervention. Some of these have to do with fears of increased workload, and as many teachers already are under substantial work-related stress (Arbetsmiljöverket, 2018) this should be taken seriously. Other concerns are both related to fears that students would be excluded social or punished for loosing, and the appropriateness of competition in the classroom (Groves & Austin, 2019). School competitions and competing with classmates has traditionally been downplayed in the Swedish curriculum as exemplified by Annerstedt (2008) who studied physical education in the Scandinavian countries and found cooperation, socialization, and efforts to be more emphasized than physical strength, competitions, and achievement. Implementation results of PAX-GBG is largely based on quantitative studies (Tingstrom et al., 2006), with exceptions of for example Wu et al., 2019, who found a positive sentiment amongst school staff for PAX-GBG, leaving questions about the social validity of PAX-GBG.

Teacher-Student Relationships

It is well known that good teacher–student relationships predict positive outcomes for student engagement (i.e., psychological engagement, academic grades, school attendance, disruptive behaviours, suspension, and dropout) (Quin, 2017). Interestingly, in an intervention study with 570 children followed from second to third grade in elementary school Leflot et al. (2010) found that GBG reduced negative remarks from teachers. Leflot et al. (2010) pointed to an increase in

** In Swedish: Bliim

†† PAX-GBG and the good behaviour game, abbreviated as GBG, have been studied separately and will be demarcated as either PAX-GBG or GBG.

on-task behaviour and a reduction in students talking out of turn. A reduced number of negative remarks was also found in a withdrawal-design study (Lannie & McCurdy, 2007) looking at a classroom with 22 students in which researchers concluded that the decrease in disruptive behaviour resulted in fewer negative remarks from the teacher.

Student-Student Relationships

Although current research suggests otherwise, a common concern with implementing an interdependent group contingency such as PAX-GBG is that it could invoke negative peer pressure or negatively affect student–student relationships (Groves & Austin, 2019). Contrary to this, a randomized controlled intervention study using GBG as the intervention Witvliet et al. (2009) found that the intervention increased positive interactions between students and concluded that this, in turn, mediated the reduction in externalized and internalized problems. A similar conclusion was drawn by Vuijk et al. (2007) after a randomized intervention trial showed that GBG reduced victimisation, leading to a reduction in anxiety and depression in follow-up measurements (the intervention was implemented at age seven, follow-up measurement for victimisation occurred at age ten, and follow-up measurement for anxiety and depression were taken at age thirteen). Interestingly, victimisation had gender-specific expressions, with girls reporting less relational victimisation and boys reporting a reduction in physical victimisation (Vuijk et al., 2007). A similar discovery was made by Newcomer et al. (2016) who looked at the association of GBG with suicide rates in adulthood and correlated these with a measurement of social adaptation in first and second grade. Results indicate that peer social preference partially mediated the relationship between GBG and suicide rates in adulthood, the biggest effect being found in children deemed highly aggressive or disruptive by their teachers (Newcomer et al., 2016). Addressing the risk of negative peer pressure, Groves and Austin (2019) used a withdrawal study to research the effect of GBG in two different classrooms. Results showed that the intervention decreased disruptive behaviour, reduced negative interactions, and increased positive interactions. They also used a social validity measurement which indicated that students thought that the interdependent group contingency was fair (Groves & Austin, 2019).

Students With Special Needs

Weis et al. (2015) examined standardised reading and mathematics scores for 949 students enrolled in classrooms with or without a PAX-GBG intervention and found that there was a small but significant improvement for the PAX-GBG condition. The effect was strongest for boys, children with lower achievement scores at baseline, and students from more economically disadvantaged school districts. Vargo and Brown (2020) found in a reversal design study, where the interventions are repeatedly applied and withdrawn, that GBG decreased disruptive behaviour in students with autism and Petras et al. (2008) found in a large study (N = 2311) that male students with high scores on aggression and disruptive behaviour had the biggest effects, reducing their risk of antisocial personality disorder and violent/criminal behaviours in adulthood. Leflot et al. (2013) showed in a randomized control study implementing GBG (N = 530) that children with low scores on on-task behaviours at baseline had the largest reductions in aggression. The reduction was mediated by reduced peer rejection in the GBG condition, as students who played the game were more inclusive and this, in turn, reduced aggression in children who were having trouble staying on task. This is not to say that effects are always greater in students who struggle: van Lier et al. (2004) discovered in a randomized intervention trial, that GBG seemed to have the largest effect on children with intermediate levels of disruptive behaviour, with a positive impact on disruptive behaviour problems, while having an effect only on conduct problems for children who scored high on levels of disruptive behaviour. Issues with oppositional defiance or attention deficit/hyperactivity seemed to stay intact for the group with the highest scores on disruptive behaviour in the GBG condition compared to the control group (van Lier et al., 2004).

The Present Study

In Sweden, children start school at the age of six by attending a pre-school class. At the age of seven children begin comprehensive school (primary and lower secondary school) consisting of nine academic years. Access to equivalent education for all individuals is a fundamental principle guiding the Swedish school system from preschool to adult education. Accordingly, children in need of special support, with or without a diagnosis, have the same rights to an individually adapted education as other children. Pupils must according to the Educational Act, to the greatest extent possible, be taught in their regular class, that is, teaching must be inclusive. This often requires extensive adaptation of the learning environment and for researchers represent a unique opportunity to evaluate interventions in whole class settings including children with special needs.

From both an international and a national Swedish context most studies on PAX-GBG are quantitative. With a qualitative longitudinal research design, the aim of the present study is therefore to explore changes in teachers' experiences and views of PAX-GBG during implementation and use both in general and more specifically regarding key aspects of the game, teachers perceived burden when learning and using PAX, potential changes in relationships in the classroom, and any concerns regarding students with special needs. Furthermore, based on that the current curriculum for compulsory schooling (Grades 1–9) in Sweden endorses the view that most students are to attend regular classes (Öhman & Schad,

2017) this study also provides an opportunity to explore how teachers perceive working with PAX-GBG in inclusive classrooms.

Specifically, the aims are:

1) To explore how teachers perceive the PAX-GBG at onset and if this changes during the study time.
2) To explore how teachers perceive working with the PAX-GBG at onset and if this changes during the study time.
3) To explore how teachers perceive any changes, during the study time, in the relationships in the classroom, including: a) Relationships between teacher-student, and b) student-student.

Methodology

Research Design and Procedure

A longitudinal qualitative study design was chosen to study the PAX-GBG intervention using semi-structured interviews (Kvale & Brinkmann, 2009). Teachers were interviewed three times during the implementation. A total of 18 semi-structured interviews were performed during the teachers' work hours. All interviews were recorded and done over telephone between early November 2020 and late March 2021, ranging in length from 24 to 44 minutes (M = 33.5, SD = 4.7). First interviews were conducted before the introduction of the game; the second interviews were conducted soon after the teachers had started playing the game; and the third interviews were conducted when the teachers had played the game for three months. The material was anonymised assigning pseudonyms using the six most used female names in Sweden.

Participants and Study Setting

Participants were recruited through two licensed school psychologists[‡‡] training teachers in PAX-GBG. Contact with the school psychologists was initiated during the training program for instructors. In their first cohort, instructors were advised to train teachers who had good conditions for successful implementation, which in turn affected our recruitment. Six teachers working with the second year of primary school were asked by the school psychologists to participate and all agreed. As the intervention was new for the school district, the sample includes all teachers working with PAX-GBG in that district. There was no reward for participation. The participants self-identified as women and were 33 to 51 years old (M = 38.8, SD = 6.1). Years working as a teacher ranged from 3.5 to 20 (M = 10, SD = 4.94). The study population was from three different schools located in a suburban municipality (population around 65,000) in western Sweden. Schools size ranged from 300–900 students while class size ranged from 16 to 23 students (M = 20.1, SD = 2.4) attending second year of primary school. Teachers were trained in PAX-GBG during a 2-day course and received monthly coaching from school psychologists during the implementation.

Data Collection

Three semi-structured interviews were undertaken to get a broad picture experiences of PAX and capture changes in each teacher's experience individually (illustrated in Figure 1). All interviews were performed by the first author. The same interview guide was used at all three time points, with adjustments from a prospective and retrospective stance. The interview template contained two sections: 1) experience working with PAX-GBG in general, and 2) how PAX-GBG affected relationships in the classroom. The first section included questions about general impressions of PAX-GBG, teachers' values and how PAX-GBG related to these values; teachers' challenges in the classroom; pros and cons for the teacher using PAX-GBG; and pros and cons for the students playing PAX-GBG. The second section included questions about how PAX-GBG affected relationships between teacher–student, student–student, teacher–student with special needs, and student–student with special needs (e.g., *How do you think PAX-GBG has influenced the relationships between students and students with special needs?).* In the second and third interviews questions regarding the effect of the game on relationships was added for each of the different kinds of relationships in the classroom.

[‡‡] Master of science

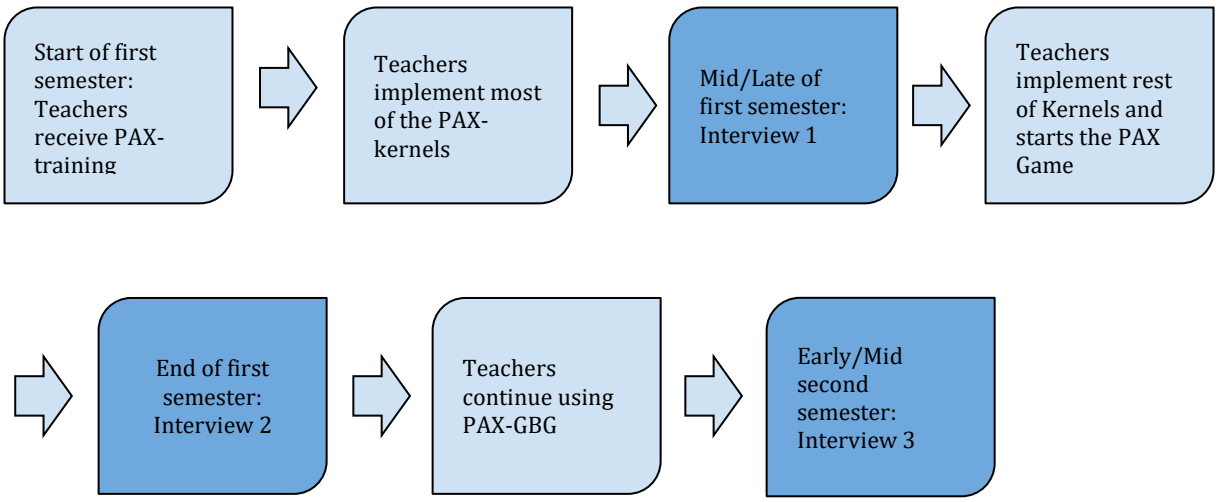

Figure 1. Flow Chart of Data Collection and PAX Implementation

Data Analysis and Interpretation

We have a critical realist position (Willig, 2013), in which an objective reality is assumed and can be described, while acknowledging that the perception of the teachers and researchers will affect what is being said. Data was analysed with thematic analysis as outlined by Braun and Clarke (2006). Audio recordings were transcribed, and we familiarised ourselves with the material by reading and rereading the interview transcripts. The transcripts were then coded into categories by interview questions utilising Nvivo (2020 release). After a theme was created, special consideration was made to identify changes in experiences over time by comparing themes in the first, second, and third interviews. Citations were chosen to be representative for each theme and have been translated by the researchers. Themes were then discussed, reviewed, and renamed in collaboration.

Ethical Considerations

The study protocol was reviewed by the Swedish Ethical Review Authority (application number 2020-04992). Participants' personal information was handled in accordance with the EU General Data Protection Regulation law. As the study does not implicate any kind of treatment nor handle sensitive topics, the risk of teachers experiencing psychological stress due to participation was considered low. Participants received written and oral information in advance and signed consent forms before being interviewed. The form stated the aim of the study, methods of data collection and handling, affirmed that participation was anonymous, and that participants could withdraw their consent at any time.

Reflexivity

As a part of the qualitative research process, time has been dedicated to reflect on the researchers' position and perspective. The first author was, at the time of the study, a master's student in clinical psychology with experience working with young autistic people but with few insights into the daily workings of elementary school classrooms. Having spent limited time in classrooms could be seen as a naïve strength due to a lack of preconceptions, but it could also be a limitation when trying to understand the interviewees and their context. While planning the study, the first author attended a training program to become a PAX-GBG trainer. The remaining authors are in the author order: a licenced clinical and educational psychologist experienced in qualitative methods, a PhD Student working on a dissertation on a randomized trial of PAX-GBG in Sweden, and a licenced clinical psychologist and professor in clinical psychology who is also the primary investigator of a randomized trial evaluating PAX-GBG but have no previous experience with the method.

Findings

Four themes illustrating teachers' experiences and the perceived effects of PAX-GBG on classroom relationships were identified: (1) Working with PAX-GBG, (2) The Game, (3) Focus on Behaviour, and (4) Relationships (Table 1). Each theme is represented by subthemes illustrating changes between the first, second, and third interviews.

Table 1. Themes and Subthemes, With Sample Quotes

Theme 1: Working with PAX-GBG	
Subthemes	**Sample quotes**
Teacher effort	*"You really need to keep two tracks, parallel in fact, because partly you have PAX which is the social [aspect] and then you have the actual education." —Kristina (Interview 2)*
PAX, Spleem and democracy	*"Of course, my values reflect…are reflected in what PAX behaviours we decide [to use] in the classroom." —Margareta (interview 2)*
Managing attention	*"PAX has…The whole purpose is to clarify and to be attentive to everyone in the classroom. So that no one will just sit out the time or disappear behind something and not really attend, with this you take note of everyone all the time." —Maria (Interview 1)*
PAX reliance	*"Right now, we can't manage without the harmonica because that's the only signal they listen to." —Anna (Interview 1)*
Not a silver bullet	*"They haven't taken to PAX but instead been like 'I don't give a damn about PAX, I'm not going to do it' or 'I don't want to get PAX, I just want to get Spleem'." —Kristina (Interview 3)*
Theme 2: The PAX Game	
Subthemes	
Losing is alright	*"Then it's like, 'aha, okay, what should we think about next time'. I've had the opposite effect, they have been more engaged. Like 'this time we are going to make it'." —Eva (Interview 3)*
	"I feel like I have been able to talk to a lot of students who last year couldn't stand making a mistake. But now they manage, "Yes, let's practise that'." —Anna (Interview 3)
Everybody's responsibility	*"After I explained it to him, he gets it one more time from his friends. So that's been great, and it hasn't come to that the group lost because of him. It hasn't happened." —Eva (Interview 2)*
Running the game	*"So, when I run the game, I have to be one hundred percent ready and on my toes for it to succeed in the classroom." —Elisabeth (Interview 1)*
	"You have to adjust it. To know which subjects are the most suitable for playing the game." —Eva (Interview 3)
Theme 3: Focus on behaviour	
Subthemes	
From identity to behaviour	*"Earlier it has been close at hand to say 'yeah, but it is only me who is being blamed', or 'I'm the only one in here who can't do this', but now it is just a Spleem. It isn't worse than that." —Maria (Interview 2)*
Clear expectations	*"It's an advantage that I don't assume that they know what to do, instead I explain it." —Anna (Interview 3)*
Theme 4: Relationships	
Subthemes	
Paying attention to the positive	*"I have learned that you can call PAX and encourage even the smallest things." —Kristina (Interview 2)*
	"So, if I note a Spleem I note PAX five times so that the child feels that 'I can succeed'." —Eva (Interview 1)
Part of the group	*"It's fun to work together and fun when you get to draw Whacky Granny's Prizes because you are…You are in on the surprise too. You participate and do it with the students." —Anna (Interview 1)*
New friends	*"Yeah, she got to be part of the group when they were going to play the game. They wanted her in their team. It was amazing." —Maria (Interview 2)*

Theme One: Working With PAX-GBG

This theme explores the experience of teachers working with and implementing PAX-GBG. Subthemes that came up in the analysis were *Teacher effort*, *PAX, Spleem and democracy*, *Managing attention, PAX reliance,* and *Not a silver bullet.*

Teacher Effort. Early in the process most teachers recognized that working with PAX-GBG meant an increase in both work tasks and cognitive load. Besides learning the kernels, it also took time to write the PAX Mini-vision and to write the tootles. It was experienced as strenuous to keep both the teaching material and PAX-GBG in memory at the same time. The workload was described as highest in the first interview. In the second and third interviews teachers described that PAX-GBG had saved them tedious work of correcting students. The tools in PAX-GBG also felt natural. However, also in the second and third interviews they expressed that they had to stay active to keep both the PAX-GBG material and the teaching material in memory at the same time.

> It's a big difference between now and the first months when it took quite a bit of time. You felt, now I have to write a mini-vision again, now I have to do this again, now I have to do that again. It was a lot and now it's just like okay, let's do a mini-vision for this. —Anna (Interview 2)

> It has been tedious and then you always must be on your toes when working with PAX, especially when you are implementing it because if you're not on your toes it's going to go wrong. But the advantages are that if you invest time and manage to take it all the way there are big upsides. So yeah, you get peace and quiet and you have less bickering in the classroom. There is a lot to gain but you need to get the right conditions and time for it. —Eva (Interview 3)

PAX, Spleem, and Democracy. When asked if and how PAX-GBG is in line with their values, most of the teachers responded early on that they liked the focus on good behaviour in PAX-GBG. Furthermore, they felt that PAX-GBG came with few inherent values, but rather functioned as a tool for the students and their teacher to add their own content in respect to what they want to achieve, both regarding what behaviours they want to see but also how they want to feel in the classroom. Some teachers considered the word 'Spleem' to be unnatural or silly when correcting student behaviour, and instead felt that they needed to use one of their regular words to clearly point out transgressions. Some teachers stressed the importance of learning that losing isn't dangerous. This was consistent through all three sets of interviews.

> I had a hard time saying it because it's a made-up word, and it's not like I would say Spleem to my three kids in the grocery store if they don't behave. People would look at me like I'm crazy. So, I've had a hard time adopting it one hundred percent. I do think kids should be able to hear a 'no' or 'that's not okay'. I stand by that. —Elisabeth (Interview 3)

> Enhancing the positive, it isn't always you are able to do that, but with PAX it has been easier to lift the good parts, instead of complaining about the stuff that doesn't work. —Kristina (Interview 2)

Managing Attention. All teachers reported that it was a challenge to obtain and hold the attention of the whole class. Early on, the teachers felt that PAX-GBG was helpful but insufficient for meeting this challenge. There was also a worry that students who performed well would be held back by other students when they trained some of the tools in PAX-GBG designed for managing attention. As perceived by the teachers, there was also a tendency that students who performed well then became restless and at times annoyed. In the second and third interviews teachers experienced that a lot of minor disruptive behaviours had disappeared. This created more time to be attentive to everyone in the classroom. An additional supporting factor was that the classroom atmosphere became much calmer over time, which reduced stress for both teachers and students.

> It felt like "do I have to do this extra thing now", but as time goes by, you save time. —Maria (Interview 3)

PAX Reliance. Most of the teachers reported that they started to rely on the PAX-tools during their work day. For example, an inability to get the attention of students without using the harmonica in 'PAX Quiet'. Teachers also had difficulties communicating with non-PAX-GBG teachers about working with students. Some teachers reported difficulties in having substitute teachers who were unfamiliar with PAX-GBG, as this caused confusion for the students. They also reported the experience of needing to use PAX-GBG most of or all the time, or students quickly returned to off-task behaviours. This theme was voiced in the first interview and remained relevant at the end of the study. In the third interview some teachers described a shift in communication with other teachers, due to the school becoming more accustomed to classes using PAX-GBG. Some teachers expressed a wish that the whole school, including extracurricular and substitute teachers, were involved with PAX-GBG to ease transitions.

> I must do it all out or else it won't work. I noticed very clearly that the disruptions came back and some other stuff too. So, we do it all out. —Eva (Interview 3)

Not a Silver Bullet. There were some students who initially didn't like PAX-GBG. A portion of those students changed their opinion during the implementation of PAX-GBG, but at the end of the study there were still a few students who didn't like it. There was a tendency in the interviews to attribute successfully including students to the method, and failure to do so, to the students. Teachers felt that for some students PAX-GBG was not enough, they needed smaller groups or more resources. There were also shorter periods where students defied PAX-GBG by acting oppositionally. They, for instance, wilfully collected Spleems or lost the PAX Game. Taking a slightly longer perspective, teachers don't think PAX-GBG in and of itself has been an obstacle for these students, but they have needed some additional support.

> I've talked about it with my PAX supervisor; that it doesn't always work. That maybe it isn't possible to include everyone in PAX, that the point is to work more with the big picture and that there will always be exceptions. Maybe I would need more support or extra staff to make it work. —Kristina (Interview 2)

Theme Two: The Game

For teachers, the PAX Game emerged as the most controversial part of PAX-GBG. In this theme we look at what the teachers thought about the game and how it changed over time. Subthemes emerging from this category were *Losing is alright*, *everybody's responsibility,* and *Running the game*.

Losing is Alright. Early on, most of the teachers predicted that students would be demoralized if they lost a game and that it would be hard on them to participate without the Granny's Whacky Prize. One of the first discoveries teachers made when playing the game was that students rarely lost. Most teachers experienced students as motivated to do well during the game. There were exceptions, such as students losing on purpose, or those who didn't care, but over time most students stayed motivated. The teachers also discovered that when the students lost, they rarely became demoralized. They did become disappointed, but they weren't as bothered by losing as the teachers had assumed they would be. Losing the PAX Game did not seem to be seen as very different from losing in the many other games taking place in school, at break time or in gym class. This theme was voiced in the first interview and stayed relevant in the second and third interviews. A development in the second and third interviews was a clear tendency toward adopting an attitude that shortcomings were due to a lack of training. Teachers and students were more attentive towards what they needed to work on than they were afraid to lose.

> It hasn't turned out the same way because it hasn't been like a big serious competition, but more like any game where you can be 'out'. Like in other games, such as in gym class, or on break. So, it hasn't been a big a deal for the kids as adults maybe think it is. —Kristina (Interview 3)

Everybody's Responsibility. In the first interview, the teachers worried that students who didn't perform well in the game would in some way be punished or excluded by other students. In the second and third interviews, most teachers experienced that students helped each other to succeed. There were some exceptions, like situations where students had not been included by other students, and sometimes students had been given other tasks, by the teacher, outside the game, but in general the game was considered to increase group cohesion. Several teachers reasoned that this was due to collective goals. Outside the PAX Game, success is individual, but in the PAX Game you need to make sure that your classmates do their part for you to succeed. There were also experiences of peer pressure between classmates, noticed mainly through disappointment from classmates, sometimes directed to individual students, when they lost a game.

> And when we talked about it afterwards, "how did it go and what do you need to think about not Spleem", then they come up with stuff like "you have to do your best and you shouldn't Spleem on purpose". They've given some tips and tricks." —Margareta (Interview 3)

Running the Game. Most of the teachers assumed that it would be difficult to run the game, specifically in observing the whole classroom. During the second and third interviews most teachers reflected that it had been easier than expected. As with other tools in PAX-GBG, running the PAX Game had become easier after having done it a few times. Some teachers experienced that the game was now a resource that could be used when the classroom was disorderly.

> If they are chatty, I can say that we are going to play the game, "okay", They don't really connect the two but they like playing it. —Anna (Interview 3)

Theme Three: Focus on Behaviour

The third theme explores how PAX-GBG influences social and power dynamics in the classroom through attention to behaviour. Subthemes that emerged were *From identity to behaviour* and *Clear expectations*.

From Identity to Behaviour. In the first interview there was a worry among teachers that some of the students with special needs would be 'Spleemed' more often than others. The concern was that the PAX-GBG would reinforce the tendency to place most of the blame on certain students in the classroom. During implementation teachers experienced that the way behaviours are expressed, concretely, led them to find PAX-behaviours in students with special needs and, to the teachers' surprise, Spleem-behaviours in high-performing students. When behaviours were specified, teachers relied less on students' identity or personality to orient their attention in the classroom. It is also worth noting that teachers reported being more attentive to PAX-behaviours in students with special needs to encourage them. Over time teachers experienced conflicts related to students feeling that they were always targeted for criticism faded. Teachers also avoided singling students out by name and just saying that they noted a Spleem. This happened both during the PAX Game and more generally, as well. In doing this, the perception shifted from who was doing what, to what was being done.

> Now it isn't dangerous to do a Spleem. In the beginning when you hadn't used it very much, then it was very awkward, like 'ooh, a Spleem, lethal'. But it's not like that anymore. —Anna (Interview 3)

> Then it isn't that they feel that everything they do is wrong. It's just this small, small, behaviour that's a Spleem, and that moves the problem from the person to the action. I think that's positive. —Maria (Interview 3)

Clear Expectations. Throughout all interviews, teachers expressed that making context-appropriate behaviours explicit was helpful for both students and teachers. Communicating classroom expectations was eased by PAX Vision, in which both teacher and students can check up on what they strive for as a group. Teachers also reflected on the advantage of being explicit with unspoken expectations by operationalizing them as behaviours. These include things like how to move your hands and feet in the classroom, what volume of voice is appropriate for different tasks, and how to treat classmates. The transparency of expected behaviour has been especially helpful for students with special needs and students that struggle to read social cues. The teachers also thought that clear expectations in the classroom helped students trust each other, and feel safe in the environment, creating a calmer classroom.

> There can't be anything negative with being provided very clear...That you get to know "what is it that is being expected of me right now", because kids want to succeed. —Maria (Interview 1)

Theme Four: Relationships

The fourth theme concerns relationships in the classroom, both between teacher and student and between the students themselves. Subthemes that emerged were: *Paying attention to the positive*, *Part of the group,* and *New friends*.

Paying Attention to the Positive. In the first interview there was an expectation that the teacher–student relationship would improve through increasing positive interactions by being attentive to PAX-behaviours in students. This assumption held true, as teachers in the second and third interviews reported that relationships indeed improved. It was considered especially helpful for the relationships with students with special needs. Over time teachers lowered their threshold for when they called PAX. They discovered that they could call PAX even for seemingly basic prosocial behaviours. Being encouraged in front of other students also seemed to have a positive effect on that student's social status. The teachers discussed tootles having a large effect on the teacher–student relationship, but especially on the relationships between students. Since you must write a tootle to every other student before you can write one to the same person again, everyone gets to be acknowledged for their prosocial behaviour. This seemed, to the teachers, to reinforce prosocial behaviour and to broaden the identity of students with negative self-image.

> It's so much easier in a stressed situation that you jab at what doesn't work instead of praising what does work. And I think, in that way, that this opened my eyes to really focus on what does work. —Margareta (Interview 2)

> It's also a way for me to recognise these students when they do PAX and do something good. So, they are praised in front of their classmates. And then you think that the classmates see students with special support or special needs with more positive eyes. —Margareta (Interview 1)

> That makes it so that everyone gets these tootles and I think that we have seen when they write to students that usually wouldn't get a tootle. They find stuff with those kids that are good and then that behaviour is reinforced, "you are always so funny". Then this person becomes 'the fun person' instead of being someone who always fights and curses. —Maria (Interview 3)

Part of the Group. The teachers also discussed that the teacher–student relationship had improved due to the integration into the group through PAX-GBG. One part of this was how they applied the vision to themselves. When they did something that was a Spleem they called it out on themselves. This also enhanced the perception of the rules in the classroom being clear and fair for everyone. They also discussed participation in Granny's Whacky Prizes. The activities had both been fun and an opportunity to show that the teacher could be not only a serious classroom leader but also a playful person.

> Then it's the Whacky Prizes, they love them. They love shooting rubber bands at me, or we have done the thing with the basket-hoop and stuff like that. Yeah, but it's like since I am with them in that joshing it creates a sort of we-feeling. I'm with them and playing around. —Eva (Interview 1)

New Friends. In the second and third interviews some teachers noted that students had formed new relationships that crossed previous social boundaries in the classroom. Teachers expressed that students were more forgiving and encouraging toward each other in general but especially in the context of the game. They observed that students who had been marked as a liability for losing the game were over time explicitly and increasingly welcomed into the group. Students were more helpful to each other and especially helpful toward students who struggled with a task. Class cohesion was thus perceived to be higher, and students tended to play more with everyone in the class and not just a select few.

> They all play together now. Before there were some different groupings, the football-gang, that other gang there, now they all play with everyone. Today it was like 'what, do they play together? What's happening?' and it's really great to see.
>
> —Elisabeth (Interview 3)

Discussion

The four main themes are discussed utilizing the demand–control–support model (Asif et al., 2018; Kim et al., 2021). In addition, we use the growth mindset theory (Dweck & Yeager, 2019), behavioural contracts (Bowman-Perrott et al., 2015), and positive reinforcement (Embry & Biglan, 2008; Hardy & McLeod, 2020) in our discussion.

Working with PAX-GBG

The respondents reported working with PAX-GBG as strenuous since it entailed many new tasks and an increase in cognitive load. Although the demands of using PAX-GBG were highest at the onset, efforts surrounding its use were required throughout the entirety of the study indicating a continued, somewhat increased, cognitive load for the teachers. From the perspective of demand–control–support model for work-related stress and anxiety (Asif et al., 2018; Kim et al., 2021), demands and low levels of control are positively correlated with stress and anxiety, while control and support are negatively correlated with stress and anxiety. According to the participants adding PAX-GBG to their workload increased demand; or as the teachers expressed it, they had to both spend some time on doing some PAX-activities (like making mini-Visions) and keep the principles of PAX in their head at the same time as the regular curriculum. Over time, the specific PAX-activities become more automatic and less demanding, but still required some cognitive load to follow the PAX-principles. However, they also experienced increased control over their work in the classroom, as was the case with PAX Quiet in managing attention or using the PAX Game to calm the classroom down. According to the demand-support-control model, the overall effect on stress and anxiety would depend on the relative strength of those two opposing phenomena. Several teachers also reported having good support from the supervisors in helping them implement PAX-GBG. Although this support was not given in the immediate situation, it was helpful for understanding and managing disruptive behaviour as well as in managing their own expectations of themselves.

The participants reported feeling less stressed during the time they worked with PAX-GBG due to having to deal with less disruptive behaviour, both saving time and experiencing less emotional/social stress. This is in line with the results from a pilot study for PAX-GBG in Sweden by Ghaderi et al. (2017) who found that teachers had lower work-related stress after its implementation. Together, this indicates that PAX ability to increase control and support could outweigh the extra demands also in inclusive classrooms.

The PAX Game

There were several hesitations expressed by the teachers early on, with the strongest and most common being concerns around the PAX Game itself. Concerns ranged from worries executing the PAX Game, to particularly students with special needs suffering peer rejection. After playing, all teachers supported the PAX Game. Based on previous research, this outcome could have been expected as the PAX Game seems to promote prosocial behaviour (Groves & Austin, 2019; Witvliet et al., 2009). We can also see that interdependent group contingency (Gresham & Gresham, 1982) is at play since students treat outcomes as a collective responsibility, and as a means of reaching their goals, thus helping each other.

Contrary to initial fear, some teachers noted that students did not worry about losing the PAX Game. Nor did they seem to worry about peer rejection when they did lose. For the students it was, indeed, just a game, like other games being played in gym class or on the playground. Regarding the cultural adaptation of PAX-GBG it is important to highlight that, in a Swedish context, teachers might be aversive to competition-based games in academia, while students don't seem to be.

Focus on Behaviour

Most teachers reported that while using PAX-GBG they broke the habit of repeatedly giving negative remarks to the same students; perhaps because of focusing on certain behaviours instead of letting one's attention follow the same students, often students with special needs, by habit. Consequently, training specific behaviours was in focus and failure was instead seen upon as lack of practice. This relates with the concept of a growth mindset (Dweck & Yeager, 2019), meaning that human capabilities can be developed over time, in contrast to the concept of a fixed mindset that holds that capabilities are hard to change. A growth mindset has also been speculated to increase self-regulation (Rissanen et al., 2021), perhaps a mediating factor in PAX-GBG. For example, supporting individual learning processes as well as promoting mastery of orientation, persistence, and process-focused thinking (Rissanen et al., 2021). Furthermore, research on growth mindset share some findings with research on PAX-GBG pertaining to academic improvement in general and with students with low baseline scores, in particular (Weis et al., 2015; Yeager et al., 2019).

Another recurrent aspect concerns an overall experience of coherence for the students. For example, it is easy to understand that throwing objects in the classroom are Spleems because it disrupts their agreed upon PAX Vision, an intervention that was especially helpful for students with special needs. This process is comparable to behavioural contracts, a well-researched and effective clinical intervention where you clearly state what is expected, how behaviour is rewarded, and the consequences for not meeting agreed-upon expectations (Bowman-Perrott et al., 2015). Interestingly, this part of PAX-GBG could also explain the improved teacher–student relationships observed in this study. In lieu of students being scolded without clear reasons, reprimanding students while referring to prior agreements could prevent misunderstandings (Bushe, 2009).

Relationship-Building

A basic tenet of behavioural psychology is that frequency of behaviour increases when reinforced, as with the PAX Tootle notes, praise, or by just focusing on certain behaviours (Embry & Biglan, 2008; Hardy & McLeod, 2020). In this study, the teachers experienced that teacher-student, student-student, teacher-student with special needs and student-student with special needs relationships improved. As discussed in previous research on PAX-GBG, this can be explained by a feedback cycle where students' pro-social behaviour and attention on pro-social behaviours continuously improves (Leflot et al., 2013; Witvliet et al., 2009). The same effects were observed between students, as increased attention on prosocial behaviours between students improved both behaviour, relationships, and group cohesion. This effect was considered especially relevant for students with special needs. Reportedly, PAX-GBG also appears to have facilitated new friendships in the classroom according to some respondents, both between student-student and student-student with special needs.

Students with special needs in the PAX-GBG classroom

Since the inclusive classroom is the norm in Sweden, our result indicating that students with special needs seem to thrive in the PAX-GBG classroom is especially interesting. Naturally, all students benefit from clear expectations; however, for students who have a hard time reading social cues, clear expectations regarding specific behaviours, as is central in PAX-GBG, could make an important difference and change that student's trajectory of learning and success significantly. The teachers' reports regarding the benefits of the clear expectations, and their decreased focus on a student's character (identity) while instead reinforcing positive behaviour in students with special needs, goes well in line with this. Since learning is a collaborative process, the reported increase in pro-social behaviours, especially in relation to the Game as well as the absence of teachers initially feared negative consequences, likely benefit students with special needs, who are also competing more on equal terms with their classmates due to a strong focus on positive reinforcement instead of blame.

Conclusion

We have, longitudinally, explored teachers' experiences and perceptions of PAX-GBG and how those changed during the study time. We were also interested in perceived changes in views regarding key aspect of the game, teachers perceived burden when learning and using PAX, potential changes in relationships in the classroom, and experiences regarding students with special needs. Our results expand knowledge regarding PAX-GBG in a field dominated by quantitative research, suggesting that teachers find PAX-GBG useful and acceptable. In line with previous research, we find that PAX-GBG reduces disruptions in the classroom (van Lier et al., 2004) and strengthens relationship between teachers and students and between students. Based on improved student behaviours and overall enhanced relationships in the classroom, our results show that PAX-GBG is a suitable intervention for all students. Students with special needs may especially benefit due to a focus on positive reinforcement of PAX behaviours and a more inclusive and collaborative classroom climate. Our findings therefore suggest that PAX-GBG is a suitable intervention also for students with special needs, if combined with additional support. A notable finding was that most teachers, at the outset, had concerns regarding the PAX Game and that these concerns mostly disappeared after they had experienced working with it. Some remaining concerns regarding universal suitability of the game need to be explored further in future studies. Based on the results in this study PAX-GBG seems to have high social validity in a Swedish context.

Recommendations

It would be interesting to explore how to adapt PAX-GBG culturally by first identifying critical ingredients in PAX-GBG and then explore how other parts can be modified (Hasson & von Thiele Schwarz, 2017). Furthermore, some teachers seemed to have concerns with the use of the word 'Bliim' causing a slight methodological drift, it would therefore be useful to further explore if there are core parts in PAX-GBG that are important to execute more strictly and other parts that could be changed to fit the specific culture making PAX-GBG more accessible for teachers. Another area of interest would be to capture the experience of children and/or adults who are or have participated in the intervention as students. In doing this, participants could explore the themes brought up in this study, such as a growth mindset (Dweck & Yeager, 2019) or their experiences surrounding the effect PAX-GBG on relationships in the classroom.

Our results may facilitate and guide the use of PAX-GBG. Considering the efforts necessary for successful implementation and use of PAX-GBG, teachers should be given time, support, and resources when they are novices. Indeed, many of the participants said that having support from PAX supervisors had been beneficial for them. Furthermore, contrary to teachers' initial fears and concerns, our results indicate that students enjoyed competing and appeared not to be bothered by losing on occasion. This knowledge could be used to alleviate common and culturally engrained fears among teachers in Sweden before introducing PAX-GBG. In addition, we found no evidence of PAX-GBG being in any way problematic to use in inclusive classrooms or that students with special needs would be increasingly disadvantaged in classrooms using PAX-GBG.

Limitations

Although small-scale, a strength of this study is the longitudinal approach, as teachers were interviewed early after their training, as well as before and after using the PAX Game. This allowed us to capture *a priori* concerns, and then follow if and how these altered with experience. Limitations of this study include a short time interval between interviews. Having the first interview at the start of the first semester and the third one at the end of the second semester would have allowed for a better measurement as to the gradual development of teachers' experiences and relationships within the classroom. This study also had a sample where all teachers had the same supervisors during implementation.

Ethics Statements

The study protocol was reviewed by the Swedish Ethical Review Authority (application number 2020-04992). The participants provided their written informed consent to participate in this study.

Acknowledgements

We would like to thank the participating teachers, the Swedish PAX-GBG community, and the two licensed school psychologists for making this study possible. A special thanks to Antonia Klein and Jonathan Leicester for proofreading.

Conflict of Interest

No potential conflict of interest was reported by Ale Holmdahl, Elinor Schad, and Viktor Kaldo. Gustav Nilsson is employed by the NGO responsible for implementation of PAX-GBG in Sweden. He is also board member for the same organisation, without any financial compensation.

Authorship Contribution Statement

Holmdahl: Concept and design, data acquisition, data analysis, interpretation, drafting manuscript, critical revision of manuscript, final approval. Schad: Concept and design, interpretation, critical revision of manuscript, supervision, final approval. Nilsson: Concept and design, ethics application, interpretation, critical revision of manuscript, supervision, final approval. Kaldo: Concept and design, ethics application, supervision, critical revision of manuscript, final approval.

References

Annerstedt, C. (2008). Physical education in Scandinavia with a focus on Sweden: A comparative perspective. *Physical Education and Sport Pedagogy*, *13*(4), 303–318. https://doi.org/10.1080/17408980802353347

Arbetsmiljöverket [Swedish Work Environment Authority]. (2018). Arbetsorsakade besvär [Work-related problems]. Arbetsmiljöverket.

Asif, F., Javed, U., & Janjua, S. Y. (2018). The job demand-control-support model and employee wellbeing: A meta-analysis of previous research. *Pakistan Journal of Psychological Research, 33*(1), 203–221.

Barrish, H. H., Saunders, M., & 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, 2*(2), 119–124. https://doi.org/10.1901/jaba.1969.2-119

Berg, J. K., Bradshaw, C. P., Jo, B., & Ialongo, N. S. (2017). Using complier average causal effect estimation to determine the impacts of the good behavior game preventive intervention on teacher implementers. *Administration and Policy in Mental Health and Mental Health Services Research, 44*, 558–571. https://doi.org/10.1007/s10488-016-0738-1

Biglan, A. (2015). *The nurture effect: How the science of human behavior can improve our lives & our world.* New Harbinger Publications.

Bowman-Perrott, L., Burke, M. D., de Marin, S., Zhang, N., & Davis, H. (2015). A meta-analysis of single-case research on behavior contracts: Effects on behavioral and academic outcomes among children and youth. *Behavior Modification, 39*(2), 247–269. https://doi.org/10.1177/0145445514551383

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bushe, G. R. (2009). *Clear leadership. Sustaining real collaboration and partnership at work.* Davies-Black Pub.

Dweck, C. S., & Yeager, D. S. (2019). Mindsets: A view from two eras. *Perspectives on Psychological Science, 14*(3), 481–496. https://doi.org/10.1177/1745691618804166

Embry, D. D. (2002). The Good Behavior Game: A best practice candidate as a universal behavioral vaccine. *Clinical Child and Family Psychology Review, 5*, 273–297. https://doi.org/10.1023/A:1020977107086

Embry, D. D., & Biglan, A. (2008). Evidence-based kernels: fundamental units of behavioral influence. *Clinical Child Family Psychology Review, 11*,75–113. https://doi.org/10.1007/s10567-008-0036-x

Ghaderi, A., Johansson, M., & Enebrink, P. (2017). *Pilotstudie av PAX i skolan: en kulturanpassad version av PAX Good Behavior Game* [Pilot study of PAX i Skolan: a Cultural Adaptation of PAX Good Behavior Game]. Karolinska Institutet. https://bit.ly/3JhlFiQ

Gresham, F. M., & Gresham, G. N. (1982). Interdependent, dependent, and independent group contingencies for controlling disruptive behavior. *The Journal of Special Education, 16*(1), 101–110. https://doi.org/10.1177/002246698201600110

Groves, E. A., & Austin, J. L. (2019). Does the Good Behavior Game evoke negative peer pressure? Analyses in primary and secondary classrooms. *Journal of Applied Behavior Analysis, 52*(1), 3–16. https://doi.org/10.1002/jaba.513

Hardy, J. K., & McLeod, R. H. (2020). Using positive reinforcement with young children. *Beyond Behavior, 29*(2), 95–107. https://doi.org/10.1177/1074295620915724

Hasson, H., & von Thiele Schwarz, U. (2017). *Användbar evidens: om följsamhet och anpassningar* [Usable evidence: On compliance and adjustments]. Natur & Kultur.

Hopman, J. A. B., van Lier, P. A. C., van der Ende, J., Struiksma, C., Wubbels, T., Verhulst, F. C., Maras, A.,Breeman, L. D., & Tick, N. T. (2018). Impact of the Good Behavior Game on special education teachers. *Teachers and Teaching, 24*(4), 350–368. https://doi.org/10.1080/13540602.2017.1379389

Johansson, M., Biglan, A., & Embry, D. (2020). The PAX Good Behavior Game: One model for evolving a more nurturing society. *Clinical Child and Family Psychology Review, 23*, 462–482. https://doi.org/10.1007/s10567-020-00323-3

Kim, S., Kim, H., Park, E. H., Kim, B., Lee, S. M., & Kim, B. (2021). Applying the demand–control–support model on burnout in students: A meta-analysis. *Psychology in the Schools, 58*(11), 2130–2147. https://doi.org/10.1002/pits.22581

Kvale, S., & Brinkmann, S. (2009). *Den kvalitativa forskningsintervjun* [Qualitative research interview]. Studentlitteratur. https://libris.kb.se/bib/11365255

Lannie, A. L., & McCurdy, B. L. (2007). Preventing disruptive behavior in the urban classroom: Effects of the good behavior game on student and teacher behavior. *Education and Treatment of Children, 30*(1), 85–98. https://doi.org/10.1353/etc.2007.0002

Leflot, G., Onghena, P., Colpin, H., & Van Lier, P. A. C. (2013). The role of children's on-task behavior in the prevention of aggressive behavior development and peer rejection: A randomized controlled study of the Good Behavior Game in Belgian elementary classrooms. *Journal of School Psychology, 51*(2), 187–199. https://doi.org/10.1016/j.jsp.2012.12.006

Leflot, G., Van Lier, P. A. C., Onghena, P., & Colpin, H. (2010). The role of teacher behavior management in the development of disruptive behaviors: An intervention study with the good behavior game. *Journal of Abnormal Child Psychology, 38*, 869–882. https://doi.org/10.1007/s10802-010-9411-4

Merikangas, K. R., Nakamura, E. F., & Kessler, R. C. (2009). Epidemiology of mental disorders in children and adolescents. *Dialogues in Clinical Neuroscience, 11*(1), 7–20. https://doi.org/10.31887/DCNS.2009.11.1/krmerikangas

Newcomer, A. R., Roth, K. B., Kellam, S. G., Wang, W., Ialongo, N. S., Hart, S. R., Wagner, B. M., & Wilcox, H. C. (2016). Higher childhood peer reports of social preference mediates the impact of the good behavior game on suicide attempt. *Prevention Science, 17*(2), 145–156. https://doi.org/10.1007/s11121-015-0593-4

Öhman, M., & Schad, E. (2017). Inclusive learning environments in Swedish schools. In C. Arnold, & J. Horan (Eds.), *Inclusive educational practice in Europe: Psychological perspectives* (pp. 214-236). UCL Institute of Education Press.

O'Keeffe, J., Thurston, A., Kee, F., O'Hare, L., & Lloyd, K. (2021). An exploratory, cluster randomised control trial of the PAX Good Behaviour Game. *Social Inclusion, 9*(4), 47–59. https://doi.org/10.17645/si.v9i4.4602

Petras, H., Kellam, S. G., Brown, C. H., Muthén, B. O., Ialongo, N. S., & Poduska, J. M. (2008). Developmental epidemiological courses leading to antisocial personality disorder and violent and criminal behavior: Effects by young adulthood of

a universal preventive intervention in first- and second-grade classrooms. *Drug and Alcohol Dependence, 95*(Supplement 1), S45–S59. https://doi.org/10.1016/j.drugalcdep.2007.10.015

Quin, D. (2017). Longitudinal and contextual associations between teacher–student relationships and student engagement: A systematic review. *Review of Educational Research, 87*(2), 345–387. https://doi.org/10.3102/0034654316669434

Rissanen, I., Laine, S., Puusepp, I., Kuusisto, E., & Tirri, K. (2021). Implementing and evaluating growth mindset pedagogy – A study of Finnish elementary school teachers. *Frontiers in Education, 6,* Article 753698. https://doi.org/10.3389/feduc.2021.753698

Socialstyrelsen. (2013). *Folkhälsan i Sverige årsrapport – Årsrapport 2013* [Public health in Sweden – Yearly report 2013]. https://bit.ly/3Ztm74E

Streimann, K., Trummal, A., Klandorf, K., Akkermann, K., Sisask, M., Toros, K., & Selart, A. (2017). Effectiveness of a universal classroom-based preventive intervention (PAX GBG): A research protocol for a matched-pair cluster-randomized controlled trial. *Contemporary Clinical Trials Communications, 8*, 75–84. https://doi.org/10.1016/j.conctc.2017.08.013

Tingstrom, D. H., Sterling-Turner, H. E., & Wilczynski S. M. (2006). The good behavior game: 1969-2002. *Behavior Modification, 30*(2), 225–253. https://doi.org/10.1177/0145445503261165

van Lier, P. A. C., Muthen, B. O., van der Sar, R. M., & Crijnens, A. A. M. (2004). Preventing Disruptive Behavior in Elementary Schoolchildren: Impact of a Universal Classroom-Based Intervention. *Journal of Consulting and Clinical Psychology, 72*(3), 467–478. https://doi.org/10.1037/0022-006X.72.3.467

Vargo, K., & Brown, C. (2020). An evaluation of and preference for variations of the Good Behavior Game with students with autism. *Behavioral Interventions, 35*(4), 560–570. https://doi.org/10.1002/bin.1740

Vuijk, P., van Lier, P. A. C., Crijnen, A. A. M., & Huizink, A. C. (2007). Testing sex-specific pathways from peer victimization to anxiety and depression in early adolescents through a randomized intervention trial. *Journal of Affective Disorders, 100*(1-3), 221–226. https://doi.org/10.1016/j.jad.2006.11.003

Weis, R., Osborne, K. J., & Dean, E. L. (2015). Effectiveness of a Universal, Interdependent Group Contingency Program on Children's Academic Achievement: A Countywide Evaluation. *Journal of Applied School Psychology, 31*(3), 199–218, https://doi.org/10.1080/15377903.2015.1025322

Willig, C. (2013). *Introducing qualitative research in psychology* (3rd ed.). Open University Press.

Witvliet, M., Van Lier, P. A. C., Cuijpers, P., & 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, 77*(5), 905. https://doi.org/10.1037/a0014597

Wu, Y. Q., Chartier, M., Ly, G., Phanlouvong, A., Thomas, S., Weenusk, J., Murdock, N., Munro, G., & Sareen, J. (2019). Qualitative case study investigating PAX-good behaviour game in first nations communities: insight into school personnel's perspectives in implementing a whole school approach to promote youth mental health. *BMJ Open, 9*(9), Article e030728. https://doi.org/10.1136/bmjopen-2019-030728

Yeager, D. S., Hanselman, P., Walton, G. M., Murray, J. S., Crosnoe, R., Muller, C., Tipton, E., Schneider, B., Hulleman, C. S., Hinojosa, C. P., Paunesku, D., Romero, C., Flint, K., Roberts, A., Trott, J., Iachan, R., Buontempo, J., Yang, S. M., Carvalho, C. M., … & Dweck, C. S. (2019). A national experiment reveals where a growth mindset improves achievement. *Nature, 573*, 364–369. https://doi.org/10.1038/s41586-019-1466-y