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Doing PAXY Things: Swedish 3rd-Grade Students' Feelings and Attitudes Towards Participation in the PAX Good Behavior Game

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Abstract: The PAX Good Behavior Game (PAX-GBG) is a school-based intervention shown to enhance student self-regulation, encourage prosocial behavior, and curb challenging behaviors. However, little is understood about students' perspectives on the intervention. In this study, we conducted a survey and semi-structured interviews with 3rd-grade students in Sweden to examine their feelings and attitudes towards PAX-GBG. Thematic analysis revealed five themes: 'enjoying our PAX-classroom', 'I can do this', 'it's tough (sometimes)', 'making sense', and 'grease for the wheels'. Survey results showed mostly positive feelings towards PAX-GBG activities. Overall, the participants displayed positive attitudes towards PAX-GBG, indicating its appreciation and suitability for students. Moreover, many found the intervention effective in fostering appropriate behaviors and deterring inappropriate ones, consistent with previous quantitative studies.

Keywords: Behavior modification, PAX good behavior game, Sweden, thematic analysis.

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Introduction

School is crucial for children's daily activities and their overall well-being. Creating a peaceful, safe, and nurturing environment supporting social and academic development is vital. Universal school-based prevention programs can enhance learning environments and develop students' social-emotional skills without stigmatizing individual students. Although a large body of research supports the effectiveness of behavior modification programs little is known about student experiences. Part of developing an evidence-based practice should, to a larger extent, involve incorporating student experiences. This is crucial for informing the implementation process, identifying areas for improvement, and providing valuable new insights.

The Good Behavior Game

The Good Behavior Game (GBG) is an interdependent group contingency used in a classroom setting (Barrish et al., 1969). Research has shown GBG to be effective in reducing students' challenging behaviors (Bowman-Perrott et al., 2016; Flower et al., 2014). Additionally, there has been substantial research on the GBG and its modifications, finding positive outcomes in various school settings (Joslyn et al., 2019; Tingstrom et al., 2006). Furthermore, research suggests that the method is effective in reducing conduct problems, as rated by both teachers and peers, and withdrawn behavior, as rated by peers (Smith et al., 2021). There is also evidence suggesting improved peer-to-peer social communication in the classroom, showing a decrease in negative social interactions and an increase in positive social interactions between students during game time (Groves & Austin, 2019). Research suggests the method may have some long-lasting positive effects when implemented early (Kellam et al., 2011). Despite earlier reviews showing moderate to large treatment effects of the GBG,

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a recent review found smaller and more variable effects, depending on the outcome and sex (Smith et al., 2021). These findings, along with studies highlighting the need for better implementation practices, are noteworthy (Baffsky et al., 2023). Implementation practices may also have to be flexible due to individual needs of students with special need, as pointed to by Jornevald et al. (2024).

PAX-GBG

PAX-GBG is a manualized method originally developed to strengthen social support for the implementation of the GBG in elementary school classrooms (Johansson et al., 2020). In PAX-GBG teachers use both the GBG and evidence-based procedures for influencing behavior, referred to as kernels (Embry & Biglan, 2008). Nine kernels are incorporated into teachers' daily routines, including for example using a harmonica as a visual cue to get the attention of students. The implementation of PAX-GBG begins with the class creating a "vision" board of their ideal classroom together. Behaviors that students want more of in the classroom are labeled *pax* and those they want less of are labeled *spleems*. The same behavior can be labeled both a *pax* and a *spleem* depending on its context; for example, running could be considered a *pax* outside on break, while running indoors during class could be a *spleem*. Teachers introduce the use of the different kernels in the classroom one at a time, and eventually start playing the PAX game with the class. Students play the game in small teams, trying to abstain from collectively decided *spleems* during a short time. Teams performing fewer than a set number of *spleems* may participate in a short rewarding activity, like dancing on the spot for 30 seconds. Teachers are encouraged to adapt the game to students' abilities by helping them choose appropriate *spleems* and gradually increase the game's duration. When the method is fully implemented all the kernels are used, and the game can be played multiple times a day (PAXIS Institute, n.d.).

PAX-GBG has been culturally adapted to suit schools in Sweden. Table 1 presents a list of kernels used in PAX-GBG, along with a brief description of respective purposes. Kernel names are italicized throughout the text.

Table 1. Kernels Included in PAX-GBG

	Kernel name in English	Description
1	PAX Vision	Collective vision board for the classroom
2	PAX Quiet	Teachers' signal for attention from students
3	Granny's Wacky Prizes ^a	Brief rewarding activity for students
4	PAX Voices	Four voice levels for use in the classroom
5	PAX Timer	Timer used to time activities
6	PAX Stix	System for randomly selecting students
7	PAX Tootle Notes	Written acknowledgements of others' <i>pax</i>
8	PAX Hands & Feet	Situation specific rules for behavior
9	OK/NOT OK	Cards used to acknowledge <i>pax</i> or <i>spleem</i>
10	The PAX Game	Modified version of the Good Behavior Game

^a Referred to as Wacky Prizes in the text.

A Swedish pilot study on PAX-GBG was published in 2017 by Ghaderi et al. (2018) indicating improved prosocial behaviors and decreased hyperactivity among students. Additionally, findings indicated a decrease in students' disruptive and inattentive behaviors.

Students' Experiences of the GBG and PAX-GBG

Although many positive outcomes for both the GBG and PAX-GBG have been found, the experiences of students have not been studied extensively. Studies on the GBG and PAX-GBG are almost exclusively quantitative and have primarily gathered data from teachers and parents. To our knowledge the few qualitative studies in the field have only gathered data from adults. For instance, Jack et al. (2020) interviewed school personnel and community members who noted that students responded well to the program, that they answered questions with confidence, and that the positive reinforcement in the program seemed to build self-esteem. They also expressed concerns about students potentially having trouble understanding the PAX kernels and being teased for using them (Jack et al., 2020). In a Swedish study, Holmdahl et al. (2023) found that teachers new to the method were initially concerned about children feeling demoralized when losing the PAX *Game* and that relationships in the classroom might be affected by the intervention. These concerns seemed to fade once the class started using the *Game*, as the teachers noticed that the students did not mind losing as much as they had feared and that the *Game* seemed to increase cohesion in the class overall (Holmdahl et al., 2023).

Data from students' point of view has typically not been collected, but there are some exceptions. O'Keeffe et al. (2021) surveyed students on their own self-regulation. O'Keeffe et al. (2017) also surveyed students on their opinions of the GBG portion of PAX-GBG and found that higher levels of student satisfaction with the *Game* was seemingly related to reduced conduct problems and hyperactivity in class as well as improved self-regulation. However, there is to our knowledge no qualitative research with a focus on students' experiences with PAX-GBG.

The Current Study

To gain insight into the impact of PAX-GBG, we aimed to explore Swedish students' experiences of working with the intervention. Our research question is 'What are Swedish 3rd grade students' feelings about and attitudes towards working with PAX-GBG?' To answer this question, we conducted a short survey as well as semi-structured interviews with 3rd grade students in three Swedish school classes using PAX-GBG regularly since grade one. Interviewing students provided an opportunity to gain a deeper and more detailed understanding of students' experiences and attitudes, compared to quantitative measures, while anchoring our results in a quantitative whole class measure.

Methodology

Study Design

To assess students' feelings about PAX-GBG we developed a tailored questionnaire allowing us to inquire about their experiences with PAX kernels in a child-friendly manner. The questionnaire was developed in the research team consisting of two licensed psychologists and two master students in psychology. The last author is an experienced specialist in child psychology. Thematic analysis, following Braun and Clarke's (2021) methodology, was chosen for its suitability in exploring both explicit and underlying meanings in interview data, aligning with our exploratory study objectives. Our methodology is grounded in a critical realist approach, influenced by Gorski's framework (Gorski, 2013).

Participants and Recruiting

Through a network of PAX instructors, we recruited participants by reaching out to three teachers from two schools in different municipalities in Sweden. Students and their caretakers received an information sheet and a consent form through teachers. Participation required written consent from caretakers and verbal consent from students. Caretakers and students were given the choice to participate in either the survey or both the survey and an interview. A total of 42 students took part in the survey, with 25 also participating in interviews. Participant characteristics are outlined in Table 2.

Table 2. Characteristics of Participants

	Interview and survey (n=25)	Survey only (n=17)	Total (n=42)
Gender			
Girls	16	10	26
Boys	9	7	16
Age			
Minimum	9 years, 1 month	8 years, 11 months	8 years, 11 months
Maximum	10 years	10 years, 1 month	10 years, 1 month

Four students were omitted from the sample due to language barriers or having less than three months of experience with PAX-GBG. In one class, interviewees were selected by drawing names, as more than ten students expressed interest in participating.

Data Collection

Age-appropriate questions for the interview guide and questionnaire were constructed based on the manual for PAX-GBG and expertise within the research team. The questionnaire contained 14 questions about how participants felt when using different kernels, with five possible answers on a scale with different color smileys and descriptions (1= Very sad, 2= Sad, 3= In between, 4= Happy and 5= Very happy). The interview guide and questionnaire were tested in a pilot study, and teachers in the main study were interviewed about their use of PAX-GBG before data collection. The pilot study and interviews informed adjustments of the interview guide and survey to make them more suited to the participants' contexts. Most notably, all questions about the *Timer* kernel were removed since this kernel was not consistently used in the classrooms. In one classroom, all questions about *Tootle Notes* were removed due to the class not using them for a long time. The survey was conducted in person with a whole class at once and all questions were read aloud. Interviews were conducted with participants one on one, lasting between 16-31 minutes.

Data Analysis

The interviews were transcribed orthographically and analyzed using thematic analysis (Braun & Clarke, 2021) utilizing a critical realist approach (Gorski, 2013). This method involved familiarizing with the data, coding, identifying and refining themes, defining them, and then writing up the analysis, emphasizing participants' lived experiences and careful interpretation. The first and second authors independently coded the data and presented their analyses to the research team. To ensure reliability several iterations were conducted, leading to the final themes and sub-themes. Quotations are translated from Swedish to English, edited for clarity, and survey data was analyzed with SPSS, presented using descriptive statistics.

Ethical Considerations

This study was approved by the ethical review board (ref. No. 20220360301). We focused on key ethical considerations in qualitative research with children, including informed consent, power dynamics, and confidentiality (Kirk, 2007).

To obtain informed consent, participants and their caregivers received study-information through teachers and an information sheet accompanying the consent form. The information was child-friendly, and participants were assured they could withdraw at any time without explanation. During the survey and interviews, participants were instructed to respond based on their own thoughts, with no right or wrong answers. Confidentiality was ensured by conducting interviews in separate rooms, replacing names with codes during analysis, and using pseudonyms to present data.

Results

Survey Results

Results from the survey are displayed in 3. Frequencies are displayed for the two most frequently used survey answer-alternatives overall and the non-answer alternative (*Happy/ Very happy* and *Don't know*) and missing data.

Table 3. Results of the Survey

	<i>n</i> ^a	<i>M</i>	<i>SD</i>	<i>n</i>	Happy/Very happy % ^a	Don't know <i>n</i>	Missing ^b <i>n</i>
PAX Quiet	39	4.2	0.6	36	85.7	3	0
PAX Voices	41	4.4	0.7	37	88.1	1	0
PAX Stix	40	4.3	0.7	34	81.1	2	0
PAX Hands & Feet	41	4.4	0.7	36	85.7	1	0
Writing a Tootle Note ^c	30	4.8	0.5	29	85.3	4	8
Receiving a Tootle Note ^c	28	4.9	0.4	28	82.4	6	8
Playing the Game	41	4.7	0.5	40	95.2	1	0
Not making it in the Game	41	2.8	0.8	8	19.0	1	0
Making it in the Game	41	4.7	0.5	40	95.2	1	0
PAX Vision	33	4.4	0.6	32	76.2	9	0
Getting Paxed	41	4.7	0.5	40	97.5	0	1
Getting Spleemed	39	2.6	1.1	6	14.3	3	0
Teacher asking about pax and spleems	40	4.4	0.7	36	85.7	2	0

^a Excluding "don't know" and missing answers.

^b Missing answers among those who participated in the survey.

^c These questions were only answered by two of the classes in the study.

Thematic Analysis

The analysis resulted in the identification of five main themes, each further broken down into three sub-themes, as detailed in Table 4. For clarity and confidentiality, interviewers are referred to by their first names, and pseudonyms have been assigned to the students to protect their identities.

Table 4. Themes

Themes	Sub-themes
Enjoying our PAX-classroom	Calmer and quieter environment A fun and exciting treat Opportunities for appreciation
I can do this	Expecting success Making mistakes is no big deal Manageable challenges
It's tough (sometimes)	Well, it doesn't feel good Following rules isn't always easy Frustration with others
Making sense	Business as usual Clear expectations Gaining me-knowledge
Grease for the wheels	Our classroom is a democracy (and I like that) Motivation to focus Structures making it easy to do well

Theme 1: Enjoying Our PAX-Classroom

This theme encapsulates positive and enjoyable experiences in the PAX-classroom including a calmer environment, receiving treats, and being appreciated.

Calmer and Quieter Environment: Most participants described their classroom as being calmer and quieter when certain kernels were used. Many expressed an appreciation for peacefulness and a dislike for when things were loud or rowdy. Loudness and rowdiness were often used as a 'before'-example to illustrate how participants felt the kernels affected the classroom. The louder of the *Voices* (the one meter and five-meter voices) were an exception, as some felt their use in the classroom was too loud. Participants seemed to see a peaceful environment as enjoyable.

Emma: How do you feel when you play the PAX game?

Arya: It feels good that you don't hear a lot of talking all the time.

Peacefulness was also commonly described as beneficial for concentration. When asked about the different kernels, many talked about how their use led to a more peaceful environment. Specifically, the *Game*, *Voices*, and *Quiet* were described as reducing disturbances in the classroom. One participant talked about how the classroom environment changed after the *Vision* was implemented:

Emma: Can you tell me; how do you feel when thinking about your vision?

Milly: It feels good, because it's pretty nice when we have it cuz' before when we didn't have it, it was quite tough cuz' there was a lot of noise and sometimes for me when it gets a little loud, I can get a little sad sometimes because you can't concentrate very well.

Emma: Okay, and what's it like now that you have the vision?

Milly: Much better, nicer, like peace and quiet.

A better environment for concentration was linked to improved schoolwork conditions. Participants appreciated PAX-GBG for creating a peaceful atmosphere, describing classrooms with PAX-GBG as orderly compared to chaotic without it. When asked about *PAX Quiet*, one participant said:

Charlotta: I feel calm because if it's like a bunch of chaos and she grabs the [*PAX Quiet* harmonica] everyone like, gets quiet and listens, 'cuz they know what they should do, you know the zero-centimeter voice and a peace sign and look at her so she knows we're listening.

This split, along with several descriptions of the perceived positive consequences of the kernels, indicates that some participants saw the method itself as a source of change in the classroom. The change in environment was sometimes attributed in part to the teacher.

A Fun and Exciting Treat: Participants described feeling excited, having fun, and experiencing joy when using PAX-GBG in their classroom, most notably in reference to playing the *Game*, participating in *Granny's Wacky Prizes*, as well as giving and receiving *Tootle Notes*. Some also said that using *Quiet* or *Stix* was fun. Some participants expressed that the fun of *Granny's Wacky Prizes* was that they were something special and exciting, often talked about as a reward for being good. For example, one student described playing the *Game* as a treat:

Aleksander: It feels fun and it's, not exactly like you're celebrating someone's birthday, but it feels fun that you get to do a game with the whole class.

Participants also described feeling good when they could show their skills and knowledge. Being called upon by the teacher using *Stix* was fun. For some it was only fun if they felt that they could give a proper answer. Some also expressed an appreciation for hearing what others had to say.

Stina: How do you feel when the teacher draws your stick?

Hiba: Well, it's kinda fun that you get to say something or explain or something, but also if your stick doesn't get drawn it is also fun to hear what other people say.

Participants talked about paxing, telling someone that they had done a pax, as something fun and nice for both the one paxing and the one being paxed. *Tootle Notes* were described in a similar way. These activities were both described as having the potential to make a bad day better. One participant described how it felt to be paxed:

Filippa: Mm, it felt good because I get, like, warm inside.

Emma: Okay, and warm inside, what does that mean to you?

Filippa: I get, like happy and get hyped.

Many of the kernels seemed to allow participants to engage in activities that were naturally gratifying. Sometimes this gratification was seen as a treat for being good and sometimes it seemed that it was experienced as a natural part of being in school.

Opportunities for Appreciation: Students sometimes described being paxed and receiving *Tootle Notes* as a nice recognition of their efforts making them feel noticed. Participants also mentioned that it felt good to pax others, since it made them feel happy. These kernels seemed to provide participants with opportunities to express and receive appreciation. One participant described being paxed like this:

Dahlia: It feels good!

Stina: Is there something specific that feels good about that?

Dahlia: Uhm, you know you've done something good, or maybe, you also know before they tell you, that you've done something good, but then you know, if somebody paxes you maybe you also know that the others have paid attention to it.

The gratification felt when doing something good was seemingly amplified by receiving recognition and appreciation.

Theme 2: I Can Do This

This theme reflects how participants highlighted their achievements and successes while deemphasizing mistakes and failures, conveying that they felt capable in relation to PAX-GBG.

Expecting Success: Many participants seemed to share the experience of usually being successful in doing pax and not doing many spleems. Similarly, some described receiving a lot of positive feedback from their teachers and rarely or never being told they had done a spleem. Participants also said that all teams usually succeeded in the *PAX Game*; indeed, most could not recall the last time their team or any team had lost.

Stina: How do you feel when you play the PAX game?

Leja: Good.

Stina: In what way?

Leja: Like you get happy from it, 'cuz, our table usually makes it, usually we get like one spleem. We've never gotten like, that we couldn't join [in doing the *Wacky Prize*]. Maybe it happened once but if it did, I don't remember it.

Most participants described that they considered the rules agreed upon in their *Vision* to be easy to adhere to, both for themselves and for their peers, with some exceptions for the occasional mishap. When asked about the difficulty of adhering to the *Vision* rules set for a specific lesson, one participant said:

Hiba: It's usually pretty easy, I think.

Stina: Pretty easy?

Hiba: Yeah 'cuz we've been doing it for long now since first grade or something.

Doing pax and avoiding spleems was considered easy by most participants. This notion conveyed an expectation of doing well most of the time and of being capable in relation to the collective rules decided on in the *Vision*.

Manageable Challenges: Participants sometimes described emotions or situations that felt boring or difficult, like not getting to join *Granny's Wacky Prizes* or not being drawn when *Stix* were used, as being tolerable because the emotions were not severe or because they were fleeting. For example, one participant felt a little sad when being told they had done a spleem, but at the same time felt that it was okay:

Emma: Has [the teacher] ever told you that you did a spleem?

Sophie: Oh, it was a long time ago she said that, I don't remember.

Emma: It was a long time ago. So, you don't remember what it felt like?

Sophie: It was- I got a little tiny bit sad, it was okay for me.

Other participants spoke more specifically about these situations, some of which could be understood as ways to manage them. For example, when asked what it felt like to not join the *Wacky Prizes*, some said it wasn't a big deal to them since they knew they would have more chances in the future. Some said they felt happy for others that participated. One participant explained how they felt when their team didn't win the *Game*:

Anni: It's a little boring but you are happy for the others, I mean sometimes maybe you can't join and then maybe some other time someone else can't join and then you have to give each other that.

It seemed that participants sometimes focused on positive aspects when facing potentially difficult situations such as missing out on the *Wacky Prize*.

Making Mistakes Is No Big Deal: Many participants described that doing something wrong was not a big deal, most often when talking about doing spleems. They often considered spleems to be accidental and acceptable, particularly regarding themselves but also others. For instance, one participant described how it felt to be told by a teacher that they had done a spleem:

Selina: Pretty okay cuz' well, everyone makes mistakes at some point in their life, because you can't be a human if you haven't made mistakes. Sooo it feels a little up and down, sometimes like 'okay I won't do that again' or sometimes like 'oops, I did that on purpose'.

Many felt it was okay to make occasional mistakes, though some believed this was acceptable only if unintentional. Others felt indifferent about others' mistakes, considering it none of their business. When making mistakes themselves, students felt they could improve in the future.

Emma: Do you usually think about anything in particular, if you're out [of the *Game*]?

Judith: I mean sometimes I think 'we could've done better' although sometimes I think 'no it just happened like that so, so yeah then we won't do that next time, it won't happen more times' is what we think then, although of course it happened a couple of times.

Thoughts such as 'I'm learning' and 'everybody makes mistakes' were sometimes mentioned by participants in reference to experiences of mistakes and setbacks. Some described a sense of reassurance, saying they could just try again next time if they failed at something. Others regarded these situations as opportunities for feedback, both for themselves and for others, that could help one avoid making the same mistake again.

Theme 3: It's Tough (Sometimes)

This theme encapsulates experiences of sadness, anger, and frustration as well as the context of these feelings. Though descriptions of these feelings were present in most interviews, participants often described them as infrequently experienced in relation to PAX-GBG, especially in recent memory. For example, many could not remember how it felt to miss out on *Granny's Wacky Prizes* and would instead describe how they expected to feel if it were to happen.

Well, It Doesn't Feel Good: Some participants described negative emotions such as feeling sad or bad, often in reference to doing spleems, while conveying that in their context those feelings were only natural. For example, not feeling good was described as an obvious consequence of losing a game or being spleemed since participants wanted to do well. One participant jokingly described how they felt about being paxed and spleemed with the *OK/NOT OK* cards:

Anni: It feels good when she points at pax, but it does not feel good when she points at spleem, y'know (laughter).

The feelings in these experiences varied; some described it as embarrassing or not very nice, while others expressed that they felt down after they had done something wrong. A few said that, in reference to their team losing the game, they might feel like they were to blame.

Stina: Can you remember anything about what it felt like when your team performed so many spleems during the game that you were out?

Leja: I mean it doesn't feel good right? That's obvious, because then you blame yourself, maybe it's not even me who's done something, but it feels like I did something because our table lost, then it kinda feels like everyone has done something wrong except like one.

Stina: Okay, what's that like?

Leja: Not fun.

Some students described nervousness when the teacher drew *Stix* and asked them to answer a question, they didn't know the answer to. A few also said that some of *Granny's Wacky Prizes* were physically unpleasant or challenging to take part in. For example, some described feeling dizzy when the prize was to spin on the spot, or tired when the prize was a physical exercise.

Following Rules Isn't Always Easy: Participants identified two main challenges in following PAX and avoiding spleems: inherent difficulties and random circumstances. Inherent difficulties included pent-up energy, wanting to talk to friends, and forgetting the rules:

Stina: Is it usually easy, difficult, or in between to do what the vision says? Like doing pax and not doing spleems.

Lage: In between.

Stina: In between? How so?

Lage: I mean if you, there are a lot of rules on the board and I'm pretty forgetful, so I forget these rules very quickly.

Participants' experiences of random inconveniences with the use of the different kernels were often described as isolated incidents.

Frustration With Others: Participants sometimes expressed feelings of dissatisfaction and injustice in relation to others. Specifically, some experienced others doing spleems during the *Game* as annoying, while some also said that they might be frustrated but not angry with others. These sentiments were often mentioned along with a strong desire to win the *Game* to join in on the *Wacky Prizes*. Some described feeling that their peers had not put in enough effort and when this led to their team failing in the *Game* it was perceived as unfair:

Emma: How do you feel when someone at your table does a spleem during the game?

Milly: Ehm, I mean they usually don't perform spleems by accident, they usually do it on purpose and you can tell 'cuz they're fooling around and laughing and stuff, that's very hard because you didn't do a spleem yourself I don't think you deserve to not get the wacky prize when you haven't done a spleem.

Frustration was seldom described as expressed at others. Some described holding back because they felt empathetic, as they themselves had done spleems in the past. Others described how expectations of restraint influenced them. For example, one participant said, "I feel angry, want to start screaming, but I know that I'm not allowed" (Merve). For two of the classes interviewed, the act of telling someone off for doing a spleem was a spleem, which meant doing so was against the rules. Many mentioned this as a reason for not telling others they had done spleems.

Theme 4: Making Sense

This theme illustrates both how PAX-GBG was perceived by participants as making sense and how they were assisted in making sense of things by the method. The theme encapsulates participants' feelings of being on top of things, knowing what to expect of their school-experiences, and what was expected of them.

Business as Usual: Participants often described their experiences as ordinary and felt using different kernels was normal. Some viewed the impact of kernels on their school day as logical and neutral. As expressed, when a participant talked about *Stix*:

Emma: How do you feel when the teacher pulls someone else's stick?

Luke: That feels completely normal.

Emma: Feels completely normal?

Luke: Yeah, that she pulls someone else's stick, it's not very often she pulls mine, 'cuz it's one stick out of twenty-six.

PAX-GBG was described by some participants as a natural part of their everyday classroom life. Additionally, many gave detailed descriptions of the kernels, their purposes, and rules, displaying a familiarity with the method.

Clear Expectations: Many participants described that certain kernels made expectations clear and helped them understand what to do in different situations. The *Vision* and *Voices* were often mentioned in this context, as well as the

act of deciding on specific pax and spleems to act on before class. Some participants talked about how visual and verbal reminders of decided upon pax and spleems were helpful, making the rules more accessible to them. These reminders could also give participants ideas for positive things to do and help them remember how not to behave, with the visual aspect being a key part for some.

Stina: How come it's easy do you think?

Milan: Because you just look at the pax and look at the spleems and then you do and then you look, like okay, you're not supposed to do those now, those things, but you're supposed to do those.

Like above, participants sometimes conveyed an understanding of rules as being specific to certain situations and made clear distinctions between perceived do's and don'ts. The clarification of expectations also seemed to help participants focus on certain behaviors.

Stina: What do you think about the teacher asking the class about which pax and spleems you should focus on before a new lesson or a new task?

Merve: I think that is pretty good, so that you don't mix up different things.

Stina: Mix up different things?

Merve: Yes, like for example that today's pax is PAX hands and feet, and so the teacher will look for those things, and then it gets pretty confusing, and then [what if] there are no determined pax instead there are thousands of pax.

The description could indicate an appreciation of specificity as opposed to uncertainty regarding expected behaviors.

Gaining Me-Knowledge. Participants described gaining insights about their own behavior from others when talking about being paxed and spleemed or getting *Tootle Notes*. For example, many described being paxed as confirming positive actions.

Emma: What did it feel like when she used the [OK/NOT OK] cards to show you 'pax' or 'spleem'?

Fares: I mean if she does pax then it feels good, cuz' then I know I've done something good, and spleem then I know I've done something a little worse and then maybe I should stop that.

Being spleemed was sometimes perceived as providing insight by participants, indicating that they preferred to know if and what they were doing wrong. Being alerted to this seemed to be seen as an opportunity for correction.

Emma: How did you feel when she said that that might be a spleem?

Milly: It felt good 'cuz then you don't think like that there are people that go on and look at you all the time and say- kinda like chatting with a friend saying, 'look at that, that's not allowed, that's not allowed', you want to know what you're doing wrong.

Some participants described their experiences with being told they had performed a spleem as useful information. For some this sentiment seemed to be associated with a concern for negative social aspects of doing things they were not supposed to, where being alerted to mistakes might have been considered a relief. Additionally, students described a preference for truthful and directed paxing, suggesting that they didn't appreciate disingenuous paxing.

This attitude was described both when being paxed and when paxing others.

Theme 5: Grease for the Wheels

This theme illustrates how participants found the contents of PAX-GBG to be helpful in their everyday school-life. More specifically, the method was described as playing a part in increasing behaviors that they themselves wanted in the classroom while decreasing unwanted behavior.

Our Classroom Is a Democracy (and I Like That). When asked about students being part of decision-making in the classroom, primarily regarding the *Vision*, participants conveyed a positive attitude towards collective decision-making. Many participants described that it was important and beneficial that everyone was involved.

Stina: What do you think about all you guys being included in deciding what's on the vision?

Merve: I think it's really good cuz' then we learn more about what it's like being an adult in democracy and all the other things that you have to decide together.

Being consulted was considered by some an opportunity to shape rules in the classroom according to the students' wishes and needs. For instance, one participant described how student involvement could make pax and spleems more suited to the capabilities of their class:

Stina: How did it feel to participate in adding or changing things?

Hiba: It feels good, I mean, if you think there's something we maybe aren't so good at in our class and you think of it, we can add this cuz this we weren't very good at then you can add that.

Participants felt they had valuable self-knowledge for making informed decisions in school and believed students should help decide the rules, as they are the most affected by them. One participant compared getting to make more decisions now to how they felt in kindergarten:

Emma: What do you think about you guys joining in and deciding what's on [the *Vision* board]?

Luke: I think that's great, because in kindergarten you could only follow the rules, yeah 'these are the rules there are' and you're like 'okay' but now eh you can decide a little more, I think that feels good.

It seemed that collective decision-making allowed participants to feel a sense of agency, ownership of the rules and made decisions more adjusted to their skills and interests. We also understood this as making it more attractive to follow rules and adhere to decisions. Additionally, being a part of decision-making was described as fun and enjoyable.

Motivation to Focus. Participants described being motivated to focus on schoolwork and rules by rewards. This was mainly talked about in relation to the *Game* and *Granny's Wacky Prizes*. Students expressed liking and even loving *Granny's Wacky Prizes* and described it as great motivation, both for themselves and for their classmates, to not do spleems. Many also talked about getting paxed as motivation to do more pax. Participants described how putting in extra effort during the *Game* was made easier with the knowledge of a coming reward. The reward seemed to help them focus on the rules of the *Game* and their schoolwork:

Stina: What do you think about the wacky prizes, what are they like?

Lage: Really good, they're very fun and, how do you say, they make kids more focused.

Stina: Okay, in what way do you become more focused?

Lage: Cuz' kids like to have fun and when you do these and don't do spleems then when you do the wacky prize you get to have fun.

Participants also seemed to be motivated to do well by mistakes made during the *Game*. Some said that the more spleems were attributed to their team, the more thoughts they had about avoiding spleems. These experiences were sometimes described as stressful and could lead to students reminding or encouraging each other to follow the rules. A few also said that they and others tried harder to adhere to the rules even though they were not the ones performing the spleems. When asked what others on their team did if someone in it performed a spleem, one participant said:

Judith: They don't say that you've done a spleem, but they say, 'let's paxy so we're not out [of the game]'.

Students also described the *Game* as a fun challenge and conveyed a strong desire to succeed. Some described losing as a motivation to perform better when given a new chance. One participant said when asked how it felt to not win the *Game*:

Selina: Mm it felt like, next time we'll get to catch up in this race and win.

Stina: Okay, so you got excited about doing it again maybe?

Selina: Yeah, you want a rematch even though you don't win a golden cup or... the world's best pax-team or anything.

It seemed that both the possibility of success and the possibility of failure motivated participants. This indicated that the *Game's* somewhat competitive format made it motivating for participants, not only because of the *Wacky Prizes*.

Structures Making it Easy to Do Well. Participants described kernels as aiding them in performing appropriate behaviors or refraining from doing inappropriate things. The rules that PAX-GBG provided were described as effective in managing both individual and collective classroom behavior which students liked and appreciated. Participants seemed to associate this with a calm classroom and a greater ability to focus. The kernels were perceived by students as helpful for the teacher when managing the daily classroom activities, getting students to settle down or giving feedback. One student described how using the *Voices* helped the class to calm down:

Stina: What do you think about the class using the PAX voices sometimes?

Nella: It's good that we have them. If we didn't have them nobody would've understood that we must take it easy like, that it's not supposed to be chaos, dirty tables and, I mean it just feels nice that we have them, without them we would've had no help except [our teacher] would've screamed at us to be quiet or she would've blown that whistle or whatever it is.

Some seemed to feel that the kernels taught them how to behave differently. One participant described developing skills using *Hands and Feet*:

Stina: How do you feel using PAX hands and feet?

Filippa: It feels nice, because I often run around, but when I *use* it I kind of learn to be more still.

Participants often gave examples of which situations the different *Voices* were best suited for, indicating they associated specific voices to specific situations. They also said that choosing specific pax and spleems for a specific lesson was good since different lessons required different things from them. When asked about the class using *Voices*, one participant said:

Elisa: I mean I think it's good because, if we for example play PAX games, they can write on [the whiteboard] what voice we should use, for example if we're doing a science test or whatever it might be, and we use the zero-centimeter voice until everyone's done. And then if we're just writing in the workbook, we usually use the one-meter voice but if things get too loud, we can use the ten-centimeter voice.

Some described referring to the collective rules when attempting to uphold personal boundaries, seemingly using pax and spleems as tools to help them promote their integrity. One sentiment was that *Hands and Feet* specifically kept students from bothering each other.

Estelle: But if you're maybe bothering a friend all the time and then maybe you say, 'PAX hands and feet' and then maybe they'll stop.

Students also seemed to think of pax and spleems as a way of giving feedback to each other about do's and don'ts. Using pax and spleems this way was sometimes seen by students as a nicer way of telling someone off or giving them inspiration on how to respond to and handle feedback.

Emma: Is there anything that you like about working with PAX?

Fares: Mm, well you could tell someone like normal, then you could say like 'could you be a little quieter' while now you can say, yeah in a different way about pax, kinda like 'don't forget to use the zero-centimeter voice' or something like that.

Emma: What's different about saying it like that?

Fares: then maybe you remember 'pax, right that's the thing you're supposed to do' and then you can keep on doing other nice pax things.

Participants seemed to feel that kernels were helpful in regulating their own and others behavior.

Discussion

Current research on GBG and PAX-GBG has mainly been quantitative, focusing on class-wide behavior and teacher perspectives. Little attention has been given to elementary school students' thoughts and feelings about participation. Our results indicate that the participants generally had positive attitudes and feelings toward working with PAX-GBG, appreciating the calmness it brought to the classroom and enjoying the fun and excitement of certain kernels. Although some experienced challenges, they were generally found manageable, viewing PAX-GBG as helpful.

Enjoyable Experiences and Positive Attitudes

Our results indicate that the participants enjoyed using PAX-GBG and had positive opinions of the method. Participants seemed to appreciate PAX-GBG for making the classroom more peaceful and quieter, in turn appreciated for being pleasant. The method also seemed to provide enjoyment in terms of fun and excitement, where experiences of the *Game* and *Granny's Wacky Prizes* were prominent. Findings regarding students' positive attitudes with PAX-GBG are in line with previous results showing high student satisfaction with the *Game* part of the method. For example, O'Keeffe et al. (2017), as a social validity measure in an RCT, the researchers let the students rate their satisfaction with the *Game* in a questionnaire with the item "Are you happy with the PAX Game?". Most of the students (94,5 %) answered "yes" or "YES!", where only 2,1 % answered "no" or "NO!". The rest were undecided or did not understand the question. That participants liked *Granny's Wacky Prizes* is perhaps not surprising, as this kernel is designed to be a rewarding reinforcement of appropriate behavior (Johansson et al., 2020). However, participants also described having fun with parts of the method which are not specifically meant to be rewarding. This suggests that the design of the kernels is appealing, well suited, and age appropriate. Participants also expressed that using some kernels, such as *Tootle Notes*, was gratifying because it made them feel happy and noticed.

Difficult Experiences and Attitudes Towards Them

In the survey, the question about how one felt when being spleemed and failing in the *Game* stood out with more neutral and negative responses, indicating that these aspects were more unpleasant than other parts of the method. This was not the case for the question about playing the *Game* itself. The *Game* was also mentioned in many of the more positively connotated themes. This might suggest that a high regard for the *Game* was not necessarily lessened by adverse experiences of failing in it.

Experiences of being spleemed and failing in the *Game* also stood out in the thematic analysis, especially in sub-themes related to negative emotions (such as *well, it doesn't feel good* and *frustration with others*). As such, they seemed to be the two most taxing experiences associated with PAX-GBG.

The thematic analyses captured different reactions to and attitudes towards potentially difficult experiences. Sometimes spleems were considered understandable and unavoidable occurrences. Participants also talked about negative emotions as an understandable consequence of doing something wrong. Sometimes potentially difficult experiences, such as being spleemed, were described as having mild and short-lived emotional consequences. Such experiences were also described by some as unfair. Summarily, these results suggest that occasionally feeling emotions such as sadness and frustration was seen as a natural and acceptable aspect of being in school and using PAX-GBG by some, while they were seen as part of an unfair and undeserved aspect by others.

Attitudes expressed in themes can be understood as strategies to manage negative emotional impact. Participants seemed to minimize the negative connotations of mistakes and failures while also highlighting successes, for example by talking about mistakes as possibilities for learning. These attitudes can be seen as ways of lessening the emotional impact of mistakes and failures by focusing on more positive aspects.

How PAX-GBG Can Facilitate Positive Behaviors

The results suggest that the participants saw PAX-GBG as contributing to a better study environment, for example by leading to a more peaceful and quieter classroom. Previous research has found the method effective in reducing students' disruptive behaviors (Flower et al., 2014) which could provide context to the experiences of our participants. Peacefulness was, in turn, appreciated for making it easier to focus on schoolwork. This is in line with research on PAX-GBG finding the method to effectively increase school performance, especially for low performing students (Weis et al., 2015).

Participants conveyed experiencing PAX-GBG as helpful in promoting appropriate behavior and curbing inappropriate behavior. For example, rules and general expectations were described as understandable and available to students, making it easier to act in accordance with them. This seemed to be happening in part using new terms such as pax and spleem or categorizations such as different voice levels of *Voices* with designated uses. The specificity in these terms seemed to aid participants in understanding how to adjust their behavior to different situations. Participants seemed to appreciate the feedback that is part of the method, in part due to how it informed their future behavior. Again, this seemed to make it easier for students to know whether their behavior was appropriate or not.

Our results suggest how PAX-GBG can motivate students to adhere to rules beyond clarifying them. Most notably, there were indications that the method facilitated doing what one was supposed to in class, primarily in terms of focusing on schoolwork, by rewarding good behavior and giving positive feedback. An expectation of receiving these kinds of rewards after behaving appropriately was also expressed. The motivation to adhere to the rules described here could be seen as extrinsic (Akin-Little & Little, 2019) and exemplifies how appropriate behavior is reinforced by external rewards, which is in part how PAX-GBG is intended to work (Johansson et al., 2020).

Extrinsic motivation has been argued as inferior to intrinsic motivation for children's education (Deci & Ryan, 2013; Kohn, 2018). In our interviews, students described experiences of inherent enjoyment of PAX-GBG and related behavior. For example, students described how they enjoyed playing *The Game* in part because the classroom was quiet and they could work on their assignments, not only in relation to expecting rewards. Similarly, they described feeling good about getting to show their knowledge when being called upon and being happy when engaging in prosocial behavior, like writing *Tootle Notes*. These feelings may all be understood as intrinsically motivating (Akin-Little & Little, 2019) appropriate behavior in the classroom. Though it is difficult to know whether they were related to the use of PAX-GBG, it seems that PAX-GBG created opportunities for such experiences to occur.

Students also described different ways in which following rules was facilitated. There was an appreciation for being involved in the rulemaking process, in part because it made the rules more relevant and adjusted to the students themselves. In turn, this seemed to make the prospect of following rules more attractive. Furthermore, positive feedback and appreciation in the form of being paxed and receiving *Tootle Notes* seemed to make the prospect of doing pax more attractive. This illustrates how a network of verbal relations that focus on the positive value of contextually appropriate and prosocial behavior in the classroom may make it more reinforcing to engage in such behavior in turn, as described by Johansson et al. (2020). These findings may provide some context to previous research showing PAX-GBG to be effective in decreasing students' conduct problems (Chartier et al., 2022; Streimann et al., 2020).

Furthermore, the concept of self-regulation was reflected in several themes, exemplifying how participants felt some kernels aided them in regulating their behavior. Students seemed to feel that feedback communicated through pax and spleems helped them think ahead and act differently in future situations. Additionally, the prospects of rewards or missing out on a reward seemed to motivate self-regulatory actions. These results support the idea that PAX-GBG gives students opportunities to practice and improve self-regulation (Johansson et al., 2020; O'Keeffe et al., 2021). Furthermore, it suggests that students can see PAX-GBG as helpful in their efforts to self-regulate.

Some generated themes align with the concept of 'Sense of Coherence' (SOC), a salutogenic theory emphasizing comprehensibility, manageability, and meaningfulness as key health influences (Antonovsky, 1987). SOC is negatively associated with mental health issues across all ages (Eriksson & Lindström, 2006; Schäfer et al., 2023). Individuals with a strong SOC perceive their environment as predictable, trust in their ability, and feel equipped to handle challenges (Antonovsky, 1987).

General Observations

Participants were recruited based on experience with PAX-GBG and teachers' adherence to the method as considered by PAX-instructors. This may have led to the inclusion of teachers and classes generally skilled and successful with PAX-GBG, perhaps limiting the variation of student's experiences with the method to mainly positive ones. Although we did not specifically investigate the teachers' attitudes to PAX-GBG in this study and cannot say for sure, it is reasonable to assume due to them being recommended for inclusion in the study by PAX-instructors that they also held generally positive attitudes towards the method. This may also indicate that our sample's experiences were positively skewed, as there are findings from implementation research indicating that teachers' attitudes towards working with PAX-GBG is associated with both quality and dose of the intervention (Domitrovich et al., 2015). Our results should be interpreted considering these observations.

When the participants talked about doing spleems they often used the term interchangeably with 'making mistakes' or 'doing something wrong'. Similarly, when discussing pax, the term was often used interchangeably with 'doing something good'. This suggests that the concepts of spleems and pax were not easily separated from pre-existing concepts for students, which may have affected the interpretation of data.

Conclusions

Our study is one of the first to qualitatively explore students' feelings and attitudes regarding PAX-GBG. Overall, this study highlights students' positive attitudes towards the method and their enjoyment of its use, providing a deeper understanding of what aspects of the method they appreciate and why, such as fostering a calmer environment and promoting fun. Negative feelings and attitudes were primarily expressed in relation to missing out on rewards or receiving negative feedback. These experiences were further contextualized by students' positive attitudes towards making mistakes. The results indicate that PAX-GBG can serve as a satisfactory intervention from a student perspective.

Recommendations

As discussed previously, participants' attitudes regarding mistakes and failures can be understood as different strategies of minimizing or managing negative emotional impact. Our results indicate that these attitudes may be useful to students when they are available to them, highlighting their relevance and possible utilization in the implementation of PAX-GBG. Our results further suggest that the involvement of everyone in the PAX-GBG classroom is perceived as important to students, and when considered, might provide a sense of agency and ownership of its rules.

Limitations

The questionnaire lacks standardization, affecting validity and reliability, hindering result generalizability. Additionally, the cross-sectional design limits the reliability of the results. Therefore, the findings are only indicative.

Students completed the survey in class, with limited privacy, potentially leading to adjustments in responses to conform to peer pressure. Moreover, certain questions, notably those concerning the *Vision* and *Tootle Notes*, received frequent "don't know" responses, possibly due to difficulty or ambiguity.

Further limitations include the construct validity of PAX-GBG as almost all participants had worked with the method since first grade having little to compare the method to. Additionally, the method may be difficult to isolate as a singular concept, separate from school itself. To capture the differences in experiencing school with and without PAX-GBG, future research may benefit from interviewing students who began using PAX-GBG at a later stage.

There is a need for further research specifically investigating how PAX-GBG is experienced by students with academic, behavioral, or social issues, one reason being the concerns that surround their participation in the intervention. Although such research comes with its own set of ethical and methodological challenges it has the potential to provide insights useful for adaptation and implementation of the PAX-GBG intervention.

The discussed similarities between the results of the thematic analysis and the concept of SOC motivates further research into a possible relationship between participation in PAX-GBG and student's SOC. Specifically, as SOC is negatively associated with mental health problems (Schäfer et al., 2023) investigating whether PAX-GBG is a SOC-fostering intervention could provide additional knowledge on the intervention's benefits.

Lastly, our study shows that consulting students on their own experiences of PAX-GBG is a viable path to gaining new insights regarding the impact of PAX-GBG, and we encourage future research to continue exploring this field.

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Conflict of Interest

The authors report there are no competing interests to declare.

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Data availability statement

Data will be available upon reasonable request.

Authorship Contribution Statement

Hübinette: Concept and design, data acquisition, data analysis / interpretation, drafting manuscript, critical revision of manuscript, statistical analysis, final approval. Udén: Concept and design, data acquisition, data analysis / interpretation, drafting manuscript, critical revision of manuscript, statistical analysis, final approval. Nilsson: Concept and design, data acquisition, data analysis / interpretation, critical revision of manuscript, statistical analysis, admin, technical or material support, supervision, final approval. Schad: Concept and design, data analysis / interpretation, critical revision of manuscript, statistical analysis, admin, technical or material support, supervision, final approval.

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