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Professional Development Study to Increase Engagement with Neurodiverse Learners

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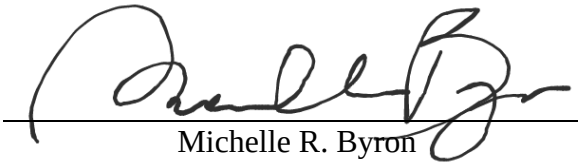
Submitted by		July 31, 2022
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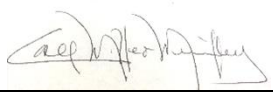
Approved by		August 1, 2022
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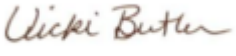
Approved by		August 1, 2022
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Abstract

This professional development study was undertaken to expand my learning around how to best engage neurodiverse learners that refuse tasks in the classroom. Low task completion and excessive demands for teacher attention commonly characterize reluctant learners. (Abramowitz and O'Leary, 1991). Task refusals can lead to aggressive behaviors such as shouting, hitting, and eloping. The student's behaviors can then become the focus of time spent in the classroom while their learning becomes secondary. In the literature I examined different approaches to motivating behavior. Through my research I discovered that extrinsic motivation and ABA therapy appeared often in the literature as an intervention for neurodiverse learners and were deemed to be the gold-standard by the Center for Disease Control (Center for Disease Control, 2022). I also examined Self-Determination Theory and intrinsic motivation and a combination of extrinsic and intrinsic approaches. My findings showed extrinsic motivation was not always successful as a singular approach, and that a combination of extrinsic motivation combined with an environment that supported intrinsic motivation was most beneficial to the student. My research also found that before employing motivational interventions, a keen understanding of the student and a trusting relationship between student and teacher needed to be established. Only then was a combination of extrinsic and intrinsic motivational interventions most effective.

Introduction

A student that is engaged in the learning sees the value and is interested in what the learning may offer them. The role of the teacher is pivotal to engaging their students (Meece et al., 1988). Teachers that provide a classroom environment that is socially supportive, intellectually challenging and supports student autonomy have found that students are more engaged in the learning process and show improved socially cooperative behaviors (Turner et al., 1998).

Problem Statement

Many elementary students that are neurodiverse refuse academic tasks and struggle to stay engaged in learning during an average school day. Neurodiverse learners can be characterized as having a diagnosis of emotional behavioral disorder (EBD), attention deficit hyperactivity disorder (ADHD) and/or autism spectrum disorder (ASD). They can wander from the classroom, request breaks, fail to stay on task, and refuse to comply with instruction when asked to perform unpreferred activities. When directed to stay on task, they can become defiant and aggressive to avoid their work. Task refusal has been observed in many student demographics and is not specific to neurodiverse learners. However, for some students with IEPs, work refusal can become a persistent obstacle in their education. Reasons for work refusals are varied. Avoidance can stem from work that is too challenging, not engaging enough, fear of failure, a power struggle or a student's inability to focus on the work because of sensory or emotional dysregulation.

One second-grade student with ASD, attending the public elementary school where I worked, characterized the neurodiverse student that vehemently refused academic tasks. This student's IEP was written with social/emotional, adaptive and behavior goals and did not include

academic goals. He was able to do grade level work but there was concern that his refusals may begin to put him behind his peers academically. This student had strong and persistent work refusals with all work tasks. Refusals took the form of pushing, kicking, hitting, and eloping from the classroom and at times the building. In addition, the student also did not play with or engage with other students. The student's Special Education teacher was ABA trained and a board-certified behavior analyst (BCBA). The teacher employed ABA practices that included visual scheduling, a token economy, contingency management, positive reinforcement, and extinction. These interventions, mostly extrinsic in nature, helped motivate him to engage in a couple of tasks each day, but he continued to be oppositional and was falling behind the class.

After three months of working with this student, he had only made minimal progress toward his behavior goal. The student enjoyed playing video games which were used as an extrinsic motivator contingent on completing work tasks. After completing three work tasks he would earn a twenty-minute break which he chose to spend playing a math video game. However, it would often take him all day to complete three tasks that would take his peers five to ten minutes on average to complete. This was due to his strong reluctance to do the work. When he refused tasks he skipped around the room, took walks, threw things out the window, crumpled up papers, argued, yelled, eloped, and shredded assignments. In January we decided as a team to investigate other approaches to try to engage this reluctant learner.

Purpose

The purpose of this study was to extend my understanding and skills around increasing engagement in neurodiverse learners that are task avoidant. A secondary objective was to learn new approaches to reduce physical behaviors and replace them with verbal communication. These are problems that arise in special education classrooms and learning best practices

surrounding student engagement and the reduction of maladaptive behaviors when students refuse academic tasks will help students be more successful and help teachers maintain a productive learning environment in the classroom. Through this study, I will be better prepared to help my students meet their IEP goals and spend more of the school day engaged in learning rather than in behavior mediation.

Questions

- Will expanding my understanding of how to motivate neurodiverse learners that repeatedly refuse tasks increase my ability to engage them in the learning?
- Will I be able to use this knowledge to help these students communicate their needs verbally rather than with physical aggression, and develop a greater sense of self-efficacy?

Methodology

In this professional development study, I looked for ways to improve my understanding of how to help students engage in their learning while at the same time reducing problem behaviors. Because the student is the end user, I chose to partner with them to better understand their needs while I refined my practice through the literature, observational journaling, and mentor feedback. This model was chosen because it required the teacher to consult the student to help formulate the definition of the problem and the ensuing solution. The data collected included observations, journal reflections, and mentor feedback.

The student observed in the study was a second-grade boy, with ASD, social emotional goals, and a Behavior Intervention Plan (BIP). The targets looked at were 1) the student's willingness to engage in academic tasks, and 2) reductions in challenging behavior.

I measured the efficacy of my practice by looking at the number of tasks the student was able to complete each day (Appendix A), the quality of the work, and his willingness to engage in learning tasks, all tasks being unpreferred at baseline. In addition, I looked at the change in the quantity of aggressive outbursts over time (Appendix B). Through journaling I was able to track the student's response to new interventions by his willingness to engage in the learning, the quality of the tasks completed each day, and how his behavior was impacted. In addition, I was able to track my own professional development and how it was impacted by my research, observations, and learnings. During the first three months of the school year, I was able to look at interventions that were driven by extrinsic motivation and evaluate the impact they had on task completion and behavior. The following five months, when social theories were applied and the team established an environment that supported intrinsic motivation, I was able to see if there was a positive change in task completion and any reductions in behavior. I was also able to look to mirrors for a reflection of my growth by gathering feedback from my teacher mentor, para educator colleagues, IEP team members the student and his family.

Data Gathering on Professional Growth

Assessment #1: Collection of Data Taken on Student goals. Daily data was taken to measure the number of tasks completed each day, whether the task was modified for engagement purposes, any maladaptive behaviors exhibited and the reflection of those behaviors on the student's unwillingness to perform a task or activity.

Assessment #2: Dialogue and feedback from the professional learning community (PLC) and the Special Education Team. Weekly meetings were held to review data, observations of target goals, and to adjust the approach as needed. The team also looked to identify questions for inquiry and reflection and provided observations of change.

Assessment #3: Journal. The personal journal was used to capture reflections of the process, and any new observations. My learning goals were adjusted as reflections were captured and observations were made. Learning goals were reviewed and analyzed to ensure the focus and goals were maintained throughout the Professional Development study.

Literature Review

There is a lack of agreement in the literature around the use of motivational strategies to engage neurodiverse learners (Sandoval-Norton & Shkedy, 2019; Gorycki et al., 2020). Over forty years of research in behavior-based approaches with autistic children support the use of extrinsic motivational interventions (Leaf et al., 2021). This data shows compelling evidence of efficacy with rewards-based methods using Applied Behavioral Analysis (ABA) techniques (Lovaas, 1987; Smith et al., 1997; Leaf et al., 2021; Ospina et al., 2008) making it the gold standard in the treatment of autism. However, recent critics have called into question many elements of ABA including its relationship to behaviorism, promotion of learned helplessness and destruction of internal motivation (Ryan & Deci, 2017; Curry and Johnson 1992; Devita-Raeburn, 2016; Sandoval-Norton et al., 2019). Researchers have spent the past thirty years studying alternatives to using extrinsic motivation in hopes of discovering an approach that fostered internal motivation without the reliance on prompts, rewards, or punishment. Their research showed that with teacher-supported autonomy, competency and inter-relatedness, students developed a willingness to engage in the learning and became intrinsically motivated (Deci et al., 1999). Still, others looked at a combination approach that applied both extrinsic and intrinsic motivational methods and also found success (Pierce & Cameron, 2002).

A 2008 meta-analysis compared the last thirty years of research into the use of extrinsic and intrinsic motivation in neurodiverse student populations. The researchers examined behavioral and developmental interventions with neurodiverse learners (Ospina et al., 2008) and both extrinsic and intrinsic motivational methods were evaluated. Extrinsic approaches that were included in the analysis comprised therapist directed, Lovaas-based approaches like ABA, and modern ABA models like TEACCH and Pivotal Response Treatment. Intrinsic motivational approaches included social teaching methods that followed a child's interests, like the Developmental, Individual Difference, Relationship-Based (DIR-Floortime) Model, and models based on Self-Determination Theory (SDT). This meta-analysis found that most of the studies, on both sides, had methodological weaknesses bringing bias into their findings (Ospina et al., 2008). However, the research also found clinical evidence of positive outcomes when using an extrinsic approach, an intrinsic approach, and with combined methods. Despite the evidence, the authors called on the need for more controlled scientific research to be done to verify the results (Ospina et al., 2008). The lack of agreement in the literature, and the lack of solid scientific evidence leads us to examine more closely the use of extrinsic and intrinsic motivation in education.

Extrinsic Motivation

Many programs used to support engagement in neurodiverse learners use extrinsic motivation, and a reward and punishment model, to change behavior. During the 1960's at UCLA, Ole Ivar Lovaas, a psychologist and professor, applied behaviorist practices to children with autism and other behavior related conditions (Lovaas, 1987). He became a pioneer in ABA therapy and successfully reduced maladaptive behaviors, such as self-harm and stimming through physical punishment. His objective was to change behaviors to more closely resemble

neurotypical behaviors. Applied Behavioral Analysis was the result of his research and was adopted as the main treatment for autism. Modernized forms of ABA do not recommend physical punishment but are more focused on reinforcing certain behaviors that will lead children to repeat those behaviors through positive reinforcement, repetition, and extinction practices.

A common ABA approach is the use of contingency management. Contingency management uses positive reinforcement, token economies, praise, and the removal of tokens (response/cost) to change behaviors (Harlacher et al., 2006). Research into the use of contingency management showed efficacy when used with neurodiverse students to increase the student's time on task and work completion (Anhalt, et al., 1998; Coles et al., 2005). The data also showed increased compliance and task completion with elementary students (van Lier et al. 2004). When compared, the most effective interventions included the use of token economies and response cost, or loss of tokens for failure to adhere to specified behavior (Forness et al., 1997). "Mystery Motivator" and "Get 'em on Task" are two interventions that rewarded students with points that were then exchanged for prizes. The research evidence from these studies showed reduced off task behavior after two weeks (Kraemer et al., 2012). Teachers in the study rated the interventions acceptable but expressed concern that when the interventions were removed that the behaviors would not maintain or generalize to other settings (Kraemer et al., 2012). Harlacher warned that guidelines are important to the effectiveness of contingency management and this practice was more successful when planned fading of prompts and links to natural reinforcement were included (Harlacher et al., 2006). The fading of prompts and natural reinforcement was intended to reduce the over reliance on prompts and increase the student's self-efficacy.

As previously referenced, there are conflicts in the literature around the use of extrinsic motivators, such as reward-based practices and negative reinforcement. The conflicting research showed that external regulation, "motivation driven by rewards or to avoid punishment," led to no positive outcomes, was associated with reduced well-being (Howard et al., 2021) and could even decrease intrinsic motivation (Deci et al., 1999). Deci (1981) showed that extrinsic rewards undermined intrinsic motivation. When external rewards were given to encourage a task, task completion was perceived as being done for the reward and not by personal choice (Ryan & Deci, 2000). Eisenberger and Cameron (1996) presented evidence in conflict with this conclusion and found no connection between extrinsic and intrinsic motivation. A meta-analysis in 1999 provided further support for Deci's (1975) research and found that all expected tangible rewards that were contingent on performance, as well as threats and any imposed structure, undermined intrinsic motivation. (Deci et al., 1999).

Gottfried (2009) found that the use of task-extrinsic motivation, based on the child's task performance, had an adverse effect on children's academic motivation in the short-run and long run, while task-intrinsic practices, such as encouragement of children's enjoyment and engagement in the learning process, had a positive effect on their academic motivation in the short and long term (Gottfried, 2009). Using hundreds of studies Kohn and others concluded that when lured by extrinsic motivators, candy, grades, etc. the quantity of work increased in the short term, but the quality of the work became increasingly inferior (Gillett et al, 2012; Hammond & Jackson 2014; Corpus & Wormington, 2014). The criticism of extrinsic motivation is in line with recent findings on parental perspectives that rewards produced traits characterized by anxiety, encouraged dependence, and oppression (Kowalski & Froiland, 2020). Research supported the parental views and found that prompts and modeling practices produced a learned

helplessness making it difficult for learners to become autonomous. (Sandoval-Norton et al., 2019; Flink et al., 1990). In Kohn's (1993) ultimate evaluation of the studies, he concluded that extrinsic motivation using rewards were punishing, fractured relationships, ignored reasons for behaviors, discouraged risk-taking and undermined interest. (Kohn, 1993). If this is in fact the case, a teacher's use of the "carrot and stick" method is not in line with promoting a child's social development and well-being.

Intrinsic Motivation

An environment that is supportive of the individual, socially and academically, showed a positive impact on the student's autonomy, independence in work tasks and potential for long term success. (Corpus, & Wormington, 2014) Self Determination Theory (SDT) research looked at the social and contextual setting beneficial to the development of intrinsic motivation and psychological well-being (Deci & Ryan, 1985; Ryan & Deci, 2000). Three innate psychological needs were identified that enhanced intrinsic motivation: competence, autonomy, and relatedness (Deci & Ryan, 1985, 1991). Their research showed that tapping into intrinsic motivation in students led to their enhanced cognitive and social development (Ryan et al., 1995). They also found that when competence, autonomy, and inter-relatedness were impeded that it led to the diminishment of motivation and well-being (Ryan & Deci, 2000).

A teaching environment that supports autonomy contributes to a *growth mindset* and development of intrinsic motivation (Hammond & Jackson, 2015). Research found that teachers that gave their students more choices, engaged their interest and understanding of the subject and encouraged independent and critical thinking supported their students' autonomy (Assor et al., 2002). There is further evidence that offering a choice of task and providing a sense of autonomy played a significant role in developing motivation in students (Wlodowski & Ginsburg, 1995;

Ryan & Deci, 2017). Deci and Ryan found that personal choice and self-direction enhanced intrinsic motivation due to a greater feeling of control over the task (Deci & Ryan, 1985). Teachers that supported autonomy in their students facilitated a desire for challenge, curiosity, and eagerness to learn (Deci et al., 1981; Flink et al., 1990; Ryan & Grolnick, 1986). In addition, when teachers supported autonomy, they were able to mediate any intrinsic motivation associated with age (Gillett et al., 2011; 2012). Further, teachers who supported their students by providing instruction, assistance and elevated expectations in an autonomy supportive manner improved self-regulation and motivation in their classrooms (Reeve & Jang, 2006).

Providing students with choice and work that is challenging yet attainable has been shown to foster a sense of competence and willingness to try. Albert Bandura's self-efficacy theory reveals that a student's belief in their ability to regulate their own learning and master tasks determines their level of motivation (Bandura, 1993). Bandura found that when students gained mastery over a task, they increased their sense of self-efficacy and enhanced their performance (Bandura & Jourden, 1991). Collins showed that student self-doubt was a greater determiner of success on a math test than their actual ability (Bouffard-Bouchard, 1990). These findings led Evans (1999) to identify the importance of matching the task to the student's ability. He found this fostered a sense of competency in students. In other research, the development of competency and self-efficacy were found to be key factors in a child's sense of well-being (Liegghio et al. 2010) and that competence must be accompanied by autonomy to foster intrinsic motivation (Ryan, 1982). When students felt capable of performing a task, it built their confidence and willingness to engage in the work and take risks with more challenging tasks. For example, Margolis found that linking new work to recent successes built a feeling of competence

in the learner (Margolis et al. 2004). Jang found that there was a relationship between feeling safe and trusting their environment to taking risks (Reeve & Jang, 2006).

A trusting and supportive relationship between teacher and student and classmates and student provides a setting that encourages trust, risk-taking and a cooperative learning environment fostering intrinsic motivation in the student. Relationships are based on validation, affirmation, and mutual respect (Hammond & Jackson, 2015) and at the core of human relationships is trust (Porges, 2011). Research showed that teachers that provided motivational support to their students positively influenced students' feelings of autonomy and competency (Vallerand et al., 1997; Taylor & Ntoumanis, 2007) leading to more academic risk taking. Mahoney and Perales (2005) showed in their study using relationship-focused intervention with autistic children, that enhanced student-teacher relationships resulted in significant improvements in positive social interactions and in social-emotional function. In Farley's investigation with children with emotional behavioral disorders (EBDs) the data showed that to achieve motivation in students it was necessary for teachers to be highly engaged, enthusiastic and individualized to student's unique characteristics and cultural backgrounds (Farley et al., 2012). This research was supported by earlier studies that showed that student motivation depended in part on the degree of support and involvement from the teacher (Furrer & Skinner, 2003).

Links between Intrinsic and Extrinsic Motivation

There are contrary findings in the literature when it comes to the use of extrinsic and intrinsic motivation when used together. In the research, extrinsic motivation has shown a correlation with intrinsic motivation (Deci et al., 1999) As first theorized by Deci and Ryan in Cognitive Evaluation Theory (CET), when negative performance feedback was given, it

diminished intrinsic motivation whereas positive feedback enhanced it (Deci & Ryan, 1985). Researchers conducted a meta-analysis that refuted Deci and Ryan's claims and found instead that extrinsic motivation had no effect on intrinsic motivation and that motivation was determined by the perceived importance of the task (Eisenberger et al., 1999). Rewards that conveyed a task was trivial reduced intrinsic motivation whereas a reward that conveyed a task's personal or social significance increased intrinsic motivation (Eisenberger et al., 1999). Deci et al. responded by refuting Eisenberger et al. and Lepper, Henderlong & Gringas' responses citing pitfalls with using meta-analyses and misunderstandings of their methodology.

Some researchers have looked at using extrinsic motivation as a first line intervention because it provided an immediate response while they worked on developing an environment that supported intrinsic motivation. Research showed efficacy with a combination approach that effectively used extrinsic motivation to help jump-start students into engagement (Cameron & Pierce, 2002). Once students engaged in a task and felt successful, they were able to develop feelings of competence. When teachers then supported the student's autonomy, it led to increased intrinsic motivation in the student (Cameron & Pierce, 2002). Cameron and Pierce denied the evidence surrounding rewards as reducing motivation and found that positive reinforcement and rewards could be used to enhance performance and enjoyment. They discovered that it was punishment that led to a sense of defeatism. Reward systems also led to defeatism but only when used to coerce and benefit those in power (Cameron & Pierce, 2002). The authors referred to a large body of evidence that supported the use of positive reinforcement in education and in business. The more students found learning activities pleasurable or valuable the more positive their outcomes, regardless of the use of contingent rewards or punishment (Cameron & Pierce 2002; Guay, 2010). Their research also found that reinforcers were not the

same for everyone. One student responded to verbal reinforcers from a teacher such as words of praise for a job well done, whereas another student did not see this as positive reinforcement. (Cameron & Pierce, 2002). The controversy in the findings leaves room for more inquiry and leads us back to the importance of differentiation with students. By first identifying what is behind a learner's reluctance to engage in the work through relationship development, matching their task to their ability, and then learning what works for that student as a positive reinforcement tool the teacher is able to support the student's autonomy and potential for developing intrinsic motivation.

Reflection

I began my study in the fall of 2021. At the time, I was a para educator in an elementary school and was assigned to assist a second-grade boy with ASD during a small portion of his day. The student, I will refer to as Stephan, had been moved to our program from another elementary school because his behavior warranted a special education program with behavioral focus and expertise. At the time, the special education teacher who ran the program had a Ph.D. with an ABA background from the University of Washington where she had been a professor. The teacher was highly qualified and experienced in working with autistic children. The student did not make eye contact, spoke without prosody, showed fear and anxiety in large groups, especially at the start and end of the day when the children entered and left the school, as well as, during transitions to lunch, recesses, and specialists. When asked to perform any school-related task or activity, he would respond by running and hiding, yelling, crying, tantruming, hitting, and kicking. He refused to enter his general education classroom but was willing to maintain a desk space in the ILC. The student showed signs of sensory processing disorder. He was agitated by loud noises and showed sensory-seeking behaviors. He would roll his body along the cabinets,

walls, and doors. He also pushed his body into teachers and would hit them on the arms in a repetitive motion. He also showed stimming behavior by skipping in circles in the classroom until re-directed. When asked to do a reading or writing task, he refused by ignoring, moving about the classroom, leaving the classroom, shouting, yelling, and tantruming. He would say, “It is too hard,” “It is too much work,” or “It takes too long” often tearing up assignments. Stephan was academically at grade level and was a strong reader, but preferred being read to by an adult. He sought out this connection with others. He also enjoyed math, if the work was review, but refused new material. He showed interest in wanting to use computers and often went to the teacher’s desk to try to gain access to the computer.

Extrinsic Interventions

Stephan was assigned a one-to-one para educator that rotated a couple of times throughout the day. He began his morning at the front door to the school, not wanting to enter, trying to walk toward the parking lot, requiring two adults to ensure he was not a flight risk. During this time, he pushed, hit, and kicked refusing to enter the school. His refusals went on for approximately fifteen minutes and at times up to forty minutes. Once in the building he would walk to his general education classroom and look through the window but refused to enter. He would then walk up to the ILC and work there for the rest of the day. Early on, to address his refusal to enter the building, the team offered the elevator which led to the ILC classroom. This took him away from the crowd of children entering the building and to a hall where he could go up to the third floor. Changing the route helped relieve the anxiety he felt from the large group of children and reduced the noise factor that also increased his anxiety level.

Once in the classroom Stephen would drop his backpack in the middle of the floor and kick off his boots. He would walk to his table briefly and then begin skipping around the room.

He showed fear when other children entered and would move closer to teachers. He refused to acknowledge any direction to begin tasks for up to an hour and a half. During this time, he was willing to go on walks around the school, indoors and outside. Body movement was calming and regulated him. During the first week of school, the teacher introduced him to a visual schedule, a common ABA intervention. He responded positively and liked to read the schedule, but complained it was too much work. The visual schedule was then simplified to reduce the number of tasks. The schedule consisted of two jobs followed by a ten-minute break; this rotation was the schedule throughout the day. The break was contingent on completing the work, another commonly applied ABA intervention. Stephan responded to the visual schedule and was willing to do two jobs followed by a break given for completing the jobs. However, it soon became apparent that he was willing to do math worksheets but was unwilling to do any writing. He refused the writing tasks and would spend hours arguing that often included tantrums, whining, crying, and eloping. These behaviors were ignored using the extinction method to discourage the maladaptive behavior. Stephan's response was to push into the teacher and grab at their clothing and limbs while continuing to yell in defiance. To encourage him to work the team implemented a token/reward system and points were earned for work-related tasks. When he received thirty points, or completed three tasks, he was allowed a Mega Break that lasted for twenty minutes. Stephan liked math and enjoyed adding up the points and checking them off, working toward the mega break. During his mega break, he used the computer to play a math game that he enjoyed. Eventually, this combination of a visual schedule and a reward/point system was helpful in reducing some of the bigger behaviors, but Stephan still refused any writing tasks. Writing tasks were chunked into smaller tasks, for example, one page in a handwriting book copying letters and a sentence. Although the tasks were below his ability they were employed as a step toward

larger writing tasks. However, this proved to be an ineffective practice and he continued to tear up his assignments and often eloped from the classroom.

Stephan's big behaviors and work refusals were still occurring in December, and he was averaging 1-2 tasks per day. He was also continuing to have tantrums and large upsets around going to lunch, recess, and specialists. Oftentimes he was only willing to eat in the hall to the ILC where a student had hung a sign over a desk that read, "You can eat here." Because the rule was in writing, Stephan believed that was the only place he was allowed to eat. Even when teachers explained to him that he could eat in the classroom at his desk, he refused to believe them. The team noticed this and began to write rules on signs and placed them around the classroom to some positive effect. In addition, Stephan was not interacting with other students. He refused to attend class, social skills group, any of the five specialists or recess. When students came into the classroom, he would either ignore them or watch them from afar. When encouraged to engage by adults or peers, he refused or ignored the request.

Intrinsic Interventions

Just before the winter holiday break, the special education teacher was transferred to another elementary school in our district to develop another behavior-based ILC due to high demand in the district. At that time, the special education teacher position was open, and I was hired to replace her. I learned a variety of interventional methods from this teacher, many based on ABA practices. I had seen some of these interventions be quite effective with Stephan, but his refusal behavior continued to interfere with his academic and social progress. The departing Special Education Teacher verbalized frustration with Stephan's continued escalations, reluctance to work, and refusal to engage with his peers one on one and in group activities. I used this opportunity to delve deeper into my research to try to identify alternative methods of

engaging Stephan in the work and potentially expanding his social interactions. The literature led me to the researchers Deci and Ryan and Self-Determination Theory. Self-Determination Theory states that when autonomy, competency, and interrelatedness are all supported, intrinsic motivation can develop. My hope for Stephan was that he would be able to find success in his work and feel encouraged to continue feeling the self-satisfaction that comes with accomplishment. As I looked deeper into the idea of building intrinsic motivation, I was concerned with my findings that reward-based motivation could inhibit or block altogether the development of intrinsic motivation and could contribute to learned helplessness. It was my goal for Stephan to make a conscious choice to learn and not for him to be manipulated by the promise of tangible rewards. I had seen that the visual schedule was effective with Stephan and that he enjoyed the point system that awarded him a longer break in exchange for three tasks. However, he was still very resistant to the idea of writing and did not read on his own for enjoyment. As I consulted with Stephan's team and my teacher mentor, we discussed the three key components of Self-Determination Theory and how we could support our student using this ideology. To support our student's autonomy, we decided to offer more choice in his order of tasks and how he showed his learning by giving him more flexibility in subject matter and the way he wanted to present the knowledge. To support competency, we knew that he could do grade-level work but noticed he did not like to make mistakes and when the work became challenging, he would refuse the task rather than potentially make an error or ask for help. Finally, we identified as a team that we did not really know Stephen or his family very well. We did not feel as a group that we had developed a trusting relationship with Stephan. We had done little, as a team, to learn about Stephan and his likes and dislikes, why he did not want to work and what he was feeling. When we asked him questions about himself, his likes, or dislikes, he

often did not answer or responded with “I don’t know.” We decided that we needed to develop a relationship with Stephen and develop trust between us. I had learned from the literature that trust allowed one to be vulnerable and fostered a willingness to take academic risks. In addition, we knew that his father was his main caretaker, and we wanted to see if we could form a partnership with him to help Stephen be successful. We planned to step away from the work demands and learn more about our student.

After we returned from winter break in January work tasks took a back seat to relationship building for the first couple of weeks. Two new para educators were hired to work with Stephan, and I would be the lead teacher. By this time Stephan had permanent space in my room, so I was able to observe his responses throughout the day. I had seen him play chess the first week of school and decided that was where we would start. We discovered that he loved games and incorporated games into his day to build rapport.

Our day with Stephen began at drop-off and then we went directly to the cafeteria for breakfast. We noticed that he had bigger behaviors in the morning before lunch and so we made sure that he was not hungry. By entering the building through the cafeteria with only a few other students, he was able to bypass the bustling and noisy halls that contributed to his stress levels. During breakfast, his para educator read books to him and engaged in conversation around the books. In this relaxed environment without academic expectations, he was more willing to open up to conversation. When he reached the classroom, we also had a slow start. We began with conversation and a morning routine of hanging his backpack and jacket in the closet and then helping to change the calendar date in the room before checking his schedule. Often, he then skipped in circles around the room. We allowed him to continue stimming for several minutes before re-directing him and talking about his body, saying, “It looks like your body needs to

move this morning." When re-directed to his seat if he continued to get up to move about the room, we again drew attention to his body and identified that his body needed movement, at this time he went to the OT/PT room to bounce on the ball, swing or walk on obstacle courses. We also noticed that he would move into the personal space of the paraeducator or teacher, pushing his body into them. Even as they moved away, he would pursue them until he was able to encounter their body. We identified this as sensory-seeking behavior and began a routine of rolling him into a bean bag and applying pressure and then releasing him. He loved this and called it a taco and would ask us to add toppings and roll him again. Initially we prompted him to request the "taco roll" when we noticed him sensory seeking, and eventually, he began to initiate the request. Early on we allowed this to go on for 20 minutes or more, often not beginning work tasks until he had been in school for an hour. It was clear that sensory processing disorder was interfering with his ability to follow a schedule and it was important for him to be able to identify what his body needed.

After a couple of weeks of low demands and heightened social interaction with Stephan his tantruming declined. He also began sitting closer and engaged with teachers. He still did not engage with any peers in the room. He reluctantly began to eat lunch in the cafeteria wearing headphones and began attending recess. He did not interact with others during lunch and at recess, rather he would stay with his para and walk around the yard observing nature and did not seem to notice other students. When we asked him a question and he did not respond, we would point out that we had asked a question and that we were expecting some type of response. He responded well to this and became increasingly more engaged. When he did not respond we would draw attention to it and that would prompt him to respond. When he did not respond he appeared to be lost in thought or distracted.

By February, Stephan was beginning to trust us and share his feelings. We realized that his social anxiety was severe and much of the behavior was a reaction to the anxiety. He still did not want to attend lunch or recess but enjoyed being pulled along by two teachers while his boots slid along the surface of the slippery floors. He enjoyed this so much that we were able to have one of us on either side holding a hand and him sliding across the floor anywhere we wanted him to go in the school. We slowly faded this activity, but by this time he was willing to go with us anywhere in the school. We began walking him to his specialists to observe through the window. We took him into the class when nobody else was there to explore the environment and meet the teacher. We could see he was interested in attending but he would not walk through the door and often said, “I’m afraid.” By offering him a special job to perform in each class, he was eventually willing to not only enter the specialist class but attended them in full.

We noticed he also had a rigidity of thought and was only willing to do things in certain ways. For example, he would only walk into the cafeteria with his own class. He would wait in the hall to join the line. If he arrived late and missed the line, he would run back to the ILC and eat his lunch there. The IEP Team met, and we adjusted Stephen’s schedule to allow ample time for transitions and ensure there were no surprises in his day.

We also learned that Stephan had quite a sense of humor and used this to continue to build a connection with him. We discovered a book series that he loved that was all about rules, but also about breaking rules. In one of the chapters the boy put tacks on the teacher’s chair and got into trouble. He thought this kind of pranking was hilarious and put pins on my chair as a joke. He did it in an obvious way asking me for the pins, showing that he wanted to connect with me by including me in the joke. It was clear that his trust in our team was growing, and he was ready to take more risks.

The team wanted to support his feelings around competency by ensuring he could do the work, pre-teaching concepts, and then slowly introducing them into a game. Academically, we began each day with a task he enjoyed, math. His morning math work was often fluency practice. We found once he started doing a job it was easier to transition to the next job. It was the initial start that was difficult. We noticed that when he felt competent with math, he was willing to do the work, but anything that he might not be able to do he avoided or refused. We then would pre-teach a math concept and play games to practice the new concept. Once he was comfortable enough with it, we would be able to test him on it. At first, we cut the word test off the exam because it also caused anxiety and refusals. We then approached spelling the same way. We tried numerous ways to present the work in a way that felt more fun. For example, many of his spelling words had to do with food and food preparation, so we decided to have him write a menu. This was our first successful spelling test. He was able to do the work, without feeling like he was being evaluated. In response, we developed a new game with his spelling words to help him study them, and he responded and enjoyed learning them. Once he felt comfortable with the words, over time he became less resistant to spelling tests. We had shown him a way to be successful with his work in a fun way and this built his self-efficacy. By early March he was more cooperative and engaged with adults and the work. When we pushed him outside of his comfort zone, he would regress to the occasional tantrum, tearing up work, or eloping from the classroom, but bigger behaviors like hitting and turning over furniture were becoming rare.

To support autonomy Stephen was given a choice of the order of tasks and subject matter for writing assignments. Once he was assigned to research and write a biography on a civil rights hero. After a week of researching and not choosing a subject, he came across Alan Turing, the inventor of the first electronic computer. This was a person that interested him. We consulted

with his general education teacher and decided that the goal of the lesson was writing a biography, not necessarily about the civil rights movement. So, we encouraged him to follow his interest and although it was still a struggle to produce written work, he was willing and produced two pages on Alan Turing. During this time, we realized that he would write each letter very carefully and then erase and re-write them. He said he did not like writing because "It took too long." We suggested he use the computer, but because his ability to type was not much faster, he tired of this approach as well. We were able to move him through the assignment by taking turns writing sentences, reducing the workload which was acceptable to him. When he had completed the project, he was excited to share it with his gen ed teacher and his father. Future writing assignments were easier for him to engage in but still posed the biggest resistance in his day. A sense of pride in his accomplishment and how hard he had worked had a positive impact on him. He became more willing to work on writing projects, but it was necessary to use a graphic organizer and break them down into a few sentences at a time over many days. When he had worked on a project for three weeks, we partnered with his father and offered to send the work home with him, which he could do in the evening instead of playing video games. He never took us up on this but instead chose to finish his work before the end of the day. Even if he resisted doing the task all day, he would finish in the final twenty minutes of the school day. His father's influence, by making video games contingent on completed work, was an example that extrinsic motivation still played a role in task completion with longer assignments.

By the middle of March, Stephan was regularly attending all his specialist classes, Art, Music, STEM, Library, and Physical Education (P.E.), eating lunch daily in the cafeteria and attending two recesses each day. He had begun to recognize children in his class. The children understood that he was shy and tried to speak to him during specialists and asked him to join

activities. He slowly began to respond with one or two words, but still chose not to join in group activities. He eventually began to join P.E. games but did not like to lose and would become upset and run from the room back to class. He refused to attend social groups but had begun to interact with one or two peers that came in for a Lego break. He would stop working and watch them. In time he slowly moved closer to see what they were doing, and we helped to initiate play with the peer. Eventually, he was willing to join in and began initiating play independently and unprompted. He had begun joining his general education classroom when they lined up to go to lunch and walked down with them to the cafeteria, but he still would not enter the classroom. We again gave him a job to do in the classroom, organizing the books, hoping it would help him feel more comfortable. Despite liking his teacher, this was still met with hesitation and was not effective. By late spring we began sitting outside of his class during math. Once his teacher had finished the lesson, often the students would rotate into the hallway for math activities. Stephan was able to stay during this time and interacted with students during the activity. He still would not enter the classroom but was making good strides socially and was keeping up with his peers academically.

Implications

The final months of the school year Stephan continued to make strong progress with controlling his behavior, social skills, and willingness to engage in tasks without refusal. Our initial approach had been strictly using extrinsic motivation without applying social theory. We were able to make progress in reducing some of the behaviors and following a schedule, but the amount of work he was producing in a day was not meeting expectations and the better part of the day was spent addressing behaviors. When we took a closer look at Stephan and applied principles that supported the development of intrinsic motivation, we were able to move Stephan

forward. We discovered that interventions were only successful when we understood the problem and the only way to understand the problem was to understand the individual. In the first part of the year, Stephan's sensory needs and social anxiety were not well understood and not addressed, therefore they continued to express themselves as maladaptive behaviors. It was not until we were able to step back and understand the child and what was triggering many of the behaviors that we were able to adjust our methods to meet his needs so that he could be successful. At times we found extrinsic motivation to be helpful in getting him to the table and willing to engage and in other scenarios we used principles of intrinsic motivation to help build his self-confidence and trust in the people and the process. It came down to honoring the individual and tailoring interventions to the specific needs of our student to successfully support his engagement in learning.

Limitations

Due to the limited scope of this professional development study, recommendations were based on a single student. Outcomes also were specific to a single neurodiverse student that was characterized as a reluctant learner due to his rejection of tasks by showing physical aggression and frustration. This study was not designed to perform a comprehensive analysis of ABA therapy, but to identify alternative interventions that could be used to greater task and engagement and help mediate extreme behaviors triggered by task requests.

Recommendations

My experience with both extrinsic and intrinsic motivational interventions led me to see the value in each, but also the risk of using extrinsic motivation without first developing a trusting relationship between student and teacher or para educator. In the best interest of my students, it was also important to learn from the criticisms surrounding extrinsic motivators. I was concerned with students developing a sense of helplessness. To avoid this, it was important to ensure the fading of prompts, teach environmental cues, and support student autonomy by providing choice and feelings of competency. To address concerns around learned helplessness it is preferred to develop independent learners rather than dependent learners. Students that are independent learners show greater achievement and a sense of well-being. I also found during my study that co-morbidities can be disguised by behavior, and it is important to thresh out what the behavior is communicating prior to determining an intervention. In my experience, social anxiety and sensory processing disorder played a significant role in the student's behavior. It was not always the task that the student was refusing, at times it was the environment, or the way his body was feeling that interfered with his engagement in the learning. When those were

addressed, the aggressive behaviors were mediated, and the learning was more accessible. In a future study, it would be interesting to examine the relationship between autism and anxiety.

Professional Growth Plan

I will develop a habit of putting the student first and building that relationship prior to trying to solve behavioral problems. I will build an environment that emphasizes observation and responds to needs not assumptions. I will also work to build a feeling of competency in my students and support their autonomy. Through this research, I will be better prepared to help students learn to manage their own behaviors and engage in the learning process, providing them with an avenue to achieve a greater sense of well-being and academic success.

WASHINGTON STATE EDUCATOR PROFESSIONAL GROWTH PLAN (PGP) TEMPLATE

Educator information	
First name: Michelle.	Last name: Byron
Certificate number or birthdate: June 1, 1966	
District or agency: Bainbridge Island	Academic year: 2022-23

Self-assessment and goal selection

1. Self-assessment. Use a self-assessment to identify an area of focus that will lead to your professional growth. You might choose to use one of the self-assessments based on the certificate standards for your role, or you might choose to use another self-assessment.
    - What is the name of the self-assessment you used?
      WA PESB Self-Assessment Worksheet for Professional Growth Plans/Teacher

2. Personalized area of focus. Based on your self-assessment, what area or topic will you focus your learning around that will lead to your professional growth?
    - What is your area of focus?
      Based on my self-assessment I would like to use research to improve my practice and improve student learning with a focus on engaging neurodiverse students in the learning process by establishing a safe and positive learning environment.

3. Standards. The area of focus for your professional growth goal needs to align to at least one standard from at least one of the following:

   Cultural competency, diversity, equity and inclusion standards, **or**
   Social Emotional Learning (SEL) standards, benchmarks, and indicators, **or**
   Professional role standards

   - To what standard did you align your area of focus (include name of standards used and standard number or other identifier):
     - I aligned my area of focus with Exceptional Needs Standards and with SEL Standards.
   - I chose Exceptional Needs Standard IX - Learning Environment and SEL Standard 3, My focus will be to establish a learning environment that is safe and positive and encourages self-efficacy .Benchmark 3. SEL Standard 3 focuses on self-efficacy. Standard 3: Self-Efficacy—Individual can motivate themselves, to persevere and see themselves as capable.
     Benchmark 3A: Demonstrates the skills to set, monitor, adapt, persevere, achieve, and evaluate goals. Benchmark 3B: Demonstrates problem-solving skills to engage responsibly in a variety of situations

4. Professional growth goals. Professional growth goals are goals that you set for your own professional growth, not for the growth of your students (although your own professional growth will have an impact on the growth of your students). What would you like to learn this year? In what specific area would you like to grow?

   - What is your goal for your professional growth?
     To Validate all students and establish a safe and positive learning environment that is intellectually, physically, and emotionally safe and where students participate actively.

     To develop a plan for each student that identifies their goals, their personal motivators, and a way for them to visualize their growth toward their goals.

   - Describe how this goal relates to your self-assessment:
     These goals relate to my self-assessment because I have just completed research identifying the importance of validating the individual student and providing a safe and positive learning environment for students to develop a sense of self-efficacy.

   - Describe how this goal relates to your focus area identified in question two:
     My goal is to enhance my teaching and student learning by providing a learning environment that is optimal for student social and academic development. It is through this environment that I hope to improve student engagement in the learning process.

Intended outcomes

5. Educator outcomes. Professional growth creates outcomes. Educator outcomes refers to some new skill or ability that you, the educator, are able to do or some skill or ability that you can improve based on your learning.

    - What will you be able to do as a result of attaining your professional growth goal that you are not able to do now? What skill or ability will you have improved upon?
      The outcomes that I hope to attain through this process includes the ability to develop a structured and supportive setting with clear expectations that is productive, safe and predictable and involves the students in the process.

6. Student outcomes. As noted previously, students are impacted by educator learning and growth.

    - What impact will attaining your professional growth goal have on students?
      Students will become empowered by being part of the process, become more self-directed, able to set goals, persevere through tasks to completion, feel a sense of competency, visualize their progress and begin to develop intrinsic motivation to engage in learning.

Professional growth action plan and evidence

Complete the three column chart below.
In the *left column*, list the professional growth activity you plan to complete.
In the *middle column*, list at least one piece of evidence you plan to collect for that activity.
In the *right column*, describe the evidence you finally collected.

You do not need to use all the available rows. Additionally, if you need more rows, complete and attach this supplemental chart.

7. Activities. List your professional growth activities (one per row). In order to increase your learning and accomplish your goal, you will need to engage in specific growth activities. Examples of activities you could engage in may include, but are not limited to attending training, participating in a book study, researching specific information, observing other educators, etc. Activities	8. Proposed evidence. List the evidence you plan to plan to use to verify your engagement in your professional growth activities. Evidence may include, but is not limited to professional learning reflections, professional learning community (PLC) notes, certificates of completion, programs implemented, videos of lessons, and other adult data. If desired, you may also plan to collect	9. Evidence collected. Describe the evidence that you collected for your professional growth goal and, if desired, the impact on students. Provide the evidence and documentation to the certified educator, either supervisor or colleague, who will be reviewing this professional growth plan. The same evidence can be used for multiple activities.

should connect back to your goal.	evidence regarding the impact of your professional growth on students. Evidence of your professional growth impact on students may include, but is not limited to student work, student reflections, notes from observing students, student test scores, attendance rates, and other student data. The same evidence can be used for multiple activities.	
A PD course or research on building self-efficacy in classroom	A certificate for PD Hours or reflections	Click here to enter text.
Researching Classroom Management Techniques specific to work with neurodiverse students.	A certificate for PD hours or reflection	Click here to enter text.
Establishing a PLC in district to share best practices	Regular quarterly meeting with PLC during the school year	Click here to enter text.
Create a study group with Special education team in school to share ideas and scenarios of what works and does not work.	Reading list and Notes and reflections gathered from the meetings..	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.

Reflection

10. Reflection. Reflect on your professional learning, outcomes from the PGP activities, and next steps that might guide your future professional growth.

    - Share what you learned through the various activities you completed:
      Click here to enter text.

- What was the outcome of your professional learning? What can you do now that you didn't before, or what professional skill or ability did you improve?
  Click here to enter text.
- What impact did/will your professional learning and growth have on students?
- Click here to enter text.
- What are the next steps you might take to guide your future professional growth?
  Click here to enter text.

Review

The falsification or deliberate misrepresentation, including omission, of a material fact on this form is an act of unprofessional conduct and subjects the certificate holder to revocation of their certificate under RCW 28A.410.090(6), and chapters 181-86 and 181-87 WAC. This form should be retained by the holder for possible dispute.

I declare under penalty of perjury under the laws of the State of Washington that I have completed the professional growth plan and submitted evidence to that effect. The falsification or deliberate misrepresentation, including omission, of a material fact on this form is an act of unprofessional conduct and subjects the certificate holder to revocation of their certificate under RCW 28A.410.090(6), and chapters 181-86 and 181-87 WAC.

Educator signature
Click here to enter text.
Print name
Click here to enter text.
Date

I declare under penalty of perjury under the laws of the State of Washington that I have reviewed the professional growth plan and evidence to that effect. The falsification or deliberate misrepresentation, including omission, of a material fact on this form is an act of unprofessional conduct and subjects the certificate holder to revocation of their certificate under RCW 28A.410.090(6), and chapters 181-86 and 181-87 WAC.

Educator reviewer signature
Click here to enter text.
Print name
Click here to enter text.
Date

APPENDIX

For information regarding your Washington state educator certificate, including information on certificate renewal, please consult the OSPI Certification Office website at http://www.k12.wa.us/certification/ or email cert@k12.wa.us.
Only one PGP may be completed each year between July 1 of one year and June 30 of the next. Completion includes review by another educator who holds a Washington state teacher, administrator,

paraeducator, or educational staff associate certificate (WAC 181-85-033). Learn more about PGPs: https://www.pesb.wa.gov/workforce/developing-current-educators/pgp/
Individuals who complete an annual professional growth plan are eligible for 25 continuing education credit hours (WAC 181-85-033). The verification form which may be used to document these clock hours can be found here: http://www.k12.wa.us/certification/ClockhoursDocumentation.aspx
Collaboration can be a positive tactic for support and professional learning. This can include collaborating on common goals, completing activities together, such as training or bookstudies, supporting each other in PGP completion, and reviewing each other's PGPs.

Resources

- PGP supporting documents: https://www.pesb.wa.gov/workforce/developing-current-educators/pgp/pgp-forms-and-support-materials/
- PGP examples by educator role: https://www.pesb.wa.gov/workforce/developing-current-educators/pgp/pgp-examples-by-role/
- Frequently asked questions about PGPs: https://www.pesb.wa.gov/workforce/developing-current-educators/pgp/pgp-faq/

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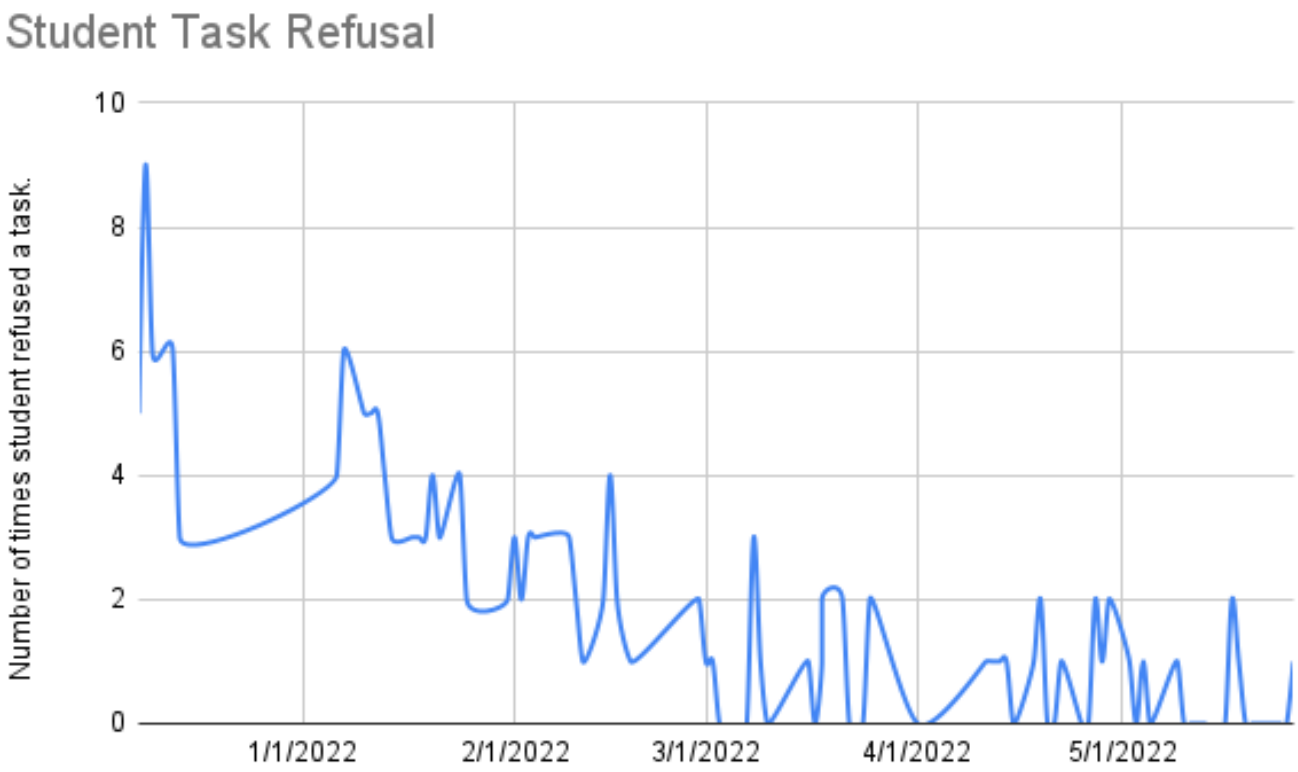
Appendix A

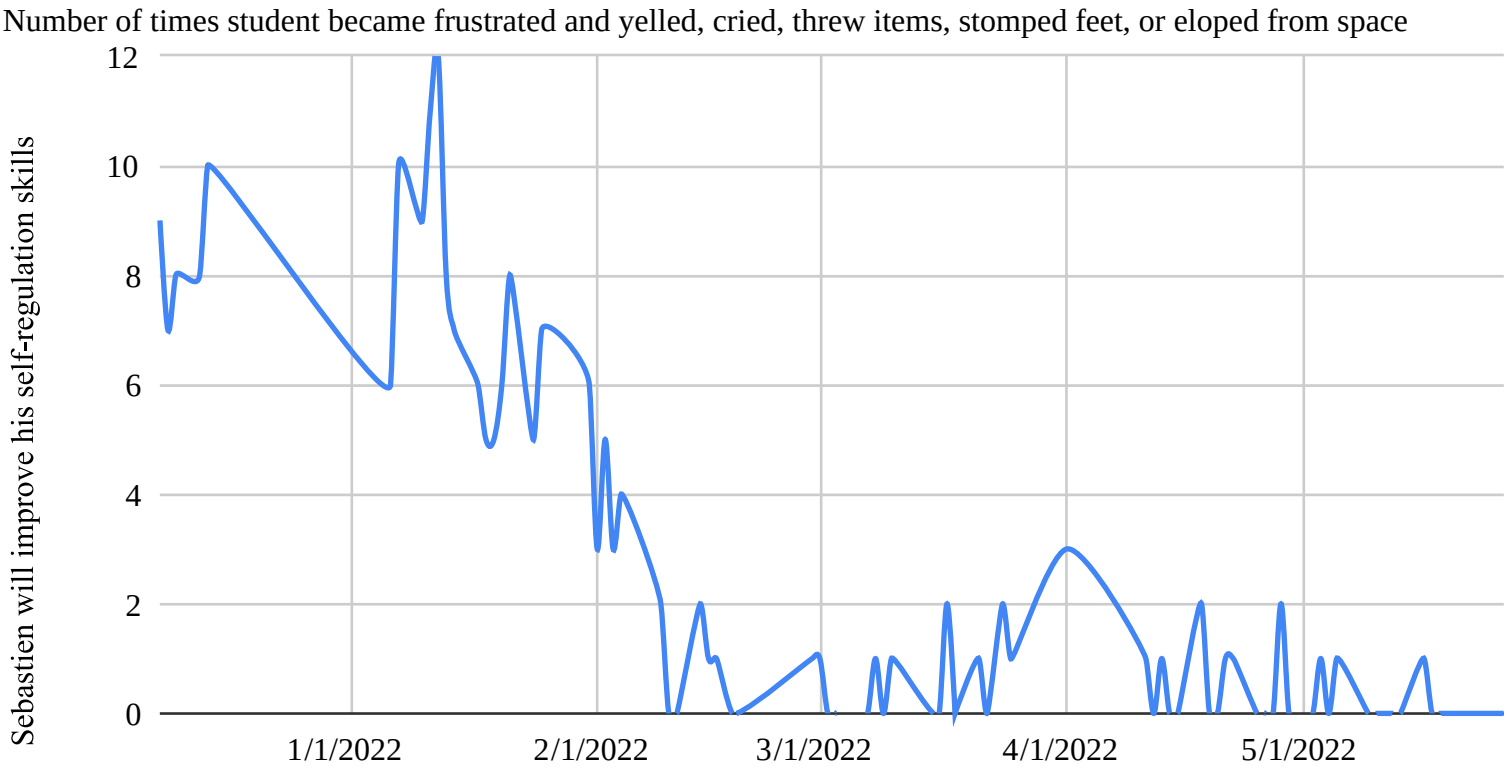
Graph of Student Task Refusals per Day

The number of times the student refused a work task each day from December through May 2022.



Appendix B

Graph of Behavior Change over Time in response to Task Requests



Author's Note

The author received her bachelor's degree from the University of California, Berkeley in 1988. She has worked in elementary special education for four years since 2018. Three of those years were spent as a para-educator in a behavior-based ILC program. The author also taught two years of Extended School Year in the summer with students ranging from pre-school to high school. In January 2022 she was hired to teach special education in a behavior-based ILC. The author is currently pursuing a master's degree in Teaching from the City University of Seattle with K-8 certification and an endorsement in Special Education.