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**Functional Communication Training and Visual Activity Schedules: support for
neurodiverse students in an inclusive classroom**

A thesis

submitted in partial fulfillment

of the requirements for the degree

of

Master of Applied Psychology (Behaviour Analysis)

at

The University of Waikato

by

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2026

Acknowledgements

I would like to thank my thesis supervisor, Dr Tania Blackmore, for her immense support and encouragement throughout this process. I am grateful for her guidance and feedback that empowered me to produce my best work. I would also like to thank, Dr Amarie Carnett for her support and procedural insight at various stages of this research.

I would like to thank, all the staff and teachers at the school for allowing me to conduct my research within their premises and for including me into their space. To student M and student H, I am so grateful for the opportunity work with you both and wish you nothing but the best for the future. To their guardians, thank you for trusting me and allowing your children to participate in this study.

I would also like to thank my family for being the biggest moral support all the way from India, for believing in me and silently pushing me to greatness. Finally I would like to thank Tanisha, Kamya and Sam for their companionship, support and encouragement throughout this process.

Abstract

One boy with ASD and one girl with ASD and ADHD participated in a study to examine the effectiveness of Functional Communication Training (FCT) and a Visual Activity Schedule (VAS) to reduce challenging behaviours in an inclusive classroom. A Functional Behaviour Assessment (FBA) was conducted to determine the function of behaviours presented by each student. The Open Ended Functional Assessment Interview (OFAI), ABC narrative observations and structured observations using a Functional Assessment Observation (FAO) form were conducted within the classroom. For student M, 'non-participation' emerged as a behaviour of concern, while student H engaged in 'non-instructed activity'. It was hypothesised that both behaviours were maintained by escape from tasks. FCT was implemented for student M to reduce 'non-participation' and a VAS was implemented for student H to reduce 'non-instructed activity' and increase independence in following a schedule. Student M showed a moderate reduction in 'non-participation' compared to baseline while student H did not show any difference in occurrences of 'non-instructed activity' compared to baseline, however, she did achieve independent use of the VAS. Despite the lack of change in the target behaviours for both participants, FCT and VAS interventions were approved as socially valid interventions by the class teachers. The interventions also contributed to the overall learning experiences of both students in an inclusive classroom setting.

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Introduction

Inclusivity in the classroom means that all students feel welcome and supported (Webster, 2024). A classroom is a space for effective instruction, learning, and intellectual and creative growth; it's also a space where students develop life skills such as communication and social behaviours (Howe et al., 2007). Therefore, a child's experience in the classroom forms the foundation of their development both academically and socially (Sandberg, 2016) and it becomes important that all students, irrespective of their individual needs and differences, benefit from the classroom environment. The Salamanca Statement adopted in 1994 by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), with 92 countries and 25 organisations as signatories, marked a global movement towards inclusive education and provided the early guidelines for action towards inclusive education on regional, national and international levels (UNESCO, 2009). Inclusive practice gained additional favour after the effectiveness of inclusive practice was framed in the context of human rights (UNESCO, 2005). Moreover, inclusivity in education has since been highlighted in Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) (United Nations, 2016). This article states that students with disabilities of any kind have a right to inclusive education where they receive quality education, are free from discrimination and have equal accessibility (United Nations, 2016).

An inclusive classroom can be described as a space with a welcoming and supportive environment that promotes and sustains diversity (Teschers, 2020). Meaningful involvement and participation of every student, irrespective of their disability and needs is an important caveat of inclusivity (Knight, 1999). Inclusivity entails creating a space where students with

disabilities are able to explore and learn without being excluded in any sense (Booth & Ainscow, 2016). Exclusion is not simply resolved by the physical presence of differently abled students in the classroom, it can also be propagated by conditions which limit participation opportunities for students with disabilities in the mainstream classroom (Booth, 1996). Thus, a lack of adequate support and resources in an inclusive classroom contributes to exclusion. True inclusion is achieved through supporting students as per their physical, intellectual, social and behavioural needs and challenges, while providing them an opportunity to assimilate with their peers (Webster, 2014).

Discourse amongst educators on the parameters of inclusion, its practices, and changes in policy has led to the inclusive model being adopted by Western education systems on an international scale, including in several countries such as Australia, Canada, England, and the US (Armstrong, 2018). New Zealand (NZ) has also widely adopted and increased inclusive school practice following the Picot Review and Tomorrow's Schools in 1988 which highlighted new principles for the NZ schooling system and emphasised equity in education (Fraser, Moltzen, & Ryba, 2005). NZ is also a signatory on the Salamanca Statement and Article 24 by UNCRPD, with NZ national education policies abiding by the guidelines of these initiatives (Apers, 2016). The Education Act of 1998 is also the primary legislative resource adhered to, underlining the right to equal opportunities and enrolment at all state level schools regardless of a child's needs (Education Act, 1989). This amendment specified that students with special needs also had a right to enrol in schools near to them and receive additional support required for effective learning in any mainstream school, the same as any other student in NZ. Effectively, excluding students on the basis of their disability is illegal in NZ (Ministry of Health, 2001). In 1996, the Ministry of Education (MoE) that oversees legislation of more than 2,100 schools across NZ, proposed the Special Education 2000

(SE2000) as a funding framework to support inclusive education nationwide. This document set up resource allocation according to a student's needs rather than the labels assigned to their disabilities.

According to the SE2000, students with high needs are allocated individual funding while students with mild to moderate needs are supported by the school-based funding pool. This framework aims to “achieve a world class inclusive education system over the next decade” (Ministry of Education, 1996, p.2). However, in an independent review by the MoE this system proved complex, where the resources constantly changed and hindered progress in achieving the proclaimed goal (Bourke et al., 2002). Since the establishment of the SE2000 and the Education Act 1989, different plans and policies have been implemented in an effort to improve the inclusive education initiative. Government proposals such as ‘Success for All’ in 2010, and the Disability Action Plan 2014-2018, have contributed greatly to the inclusive education movement in NZ by drawing attention to family involvement, considering the whole child, and creating a more disability friendly environment and flexible curriculums. Aided by these inclusion focused policies, NZ has seen a steady increase in the enrolment of students with special needs in their local schools (Apers, 2016). In 2015, an increase in the number of inclusive classrooms was reported in NZ during an Education Review Office (ERO) evaluation. Out of the total 152 schools included in the review, 78% were ‘mostly inclusive’, indicating an increase compared to the 50% of inclusive schools reported in 2010 (Education Review Office, 2015). The Learning Support Action Plan 2018-2025 is a recent addition to the plans and policies that aim to further develop inclusive education practices with the broad vision to “build the world’s best education system for all New Zealanders, and provide a range of different types of learning environments and settings to meet the needs of children and young people and their parents and whānau” (Ministry of Education, 2019, p.4).

However, while policies can ensure the implementation of inclusive practices, they do not ensure their effectiveness, especially in the context of students with neurodiversity.

The term neurodiversity was first used in the late 1990s by Judy Singer, an Australian autism and disability activist, to describe the neurological differences that encapsulate human genetic diversity (Silberman, 2017). Neurodiversity is frequently used as an umbrella term when referring to conditions that share presenting symptoms, such as sensory processing difficulties and social skills deficits, and a need for resources, support and accommodations, especially in health and education systems (Mirfin-Vietch et al., 2020). The term neurodiversity conforms to the social model of disability, a more empowering perspective that draws focus away from the pathology of neurological conditions and assumes and honours an individual's neurological condition as a part of human diversity. Neurodiversity can also be referred to as having a neurodevelopmental disorder. This term is frequently used diagnostically, aligning with the medical model as it focuses on the pathology and deficits experienced by individuals with neurodevelopmental disorders (Mirfin-Vietch et al., 2020). For example, The Diagnostic and Statistical Manual of Mental Disorders -Fifth edition (DSM-V) (American Psychiatric Association, 2013), defines Neurodevelopmental Disorders as:

“A group of conditions with onset in the developmental period. The disorders typically manifest early in development, often before the child enters grade school, and are characterised by developmental deficits that produce impairments of personal, social, academic, or occupational functioning. The range of developmental deficits varies from very specific limitations of learning or control of executive functions to global impairments of social skills or intelligence” (American Psychiatric Association, 2013, p. 31).

While the DSM definition is often used in the context of symptomology, the term neurodiversity is often utilised when referring to individual rights and equality and is alternatively used with neurodevelopmental disorders when referring to the behaviours and skill differences of neurodiverse individuals in education (Mirfin-Vietch et al., 2020). Variations falling under the term neurodiversity are also acknowledged by the MoE's Learning Support Action Plan (2018-2025) through its broad description:

Neurodisability is a broad term that includes (but is not limited to) dyslexia, dyspraxia, dyscalculia, dysgraphia, autism spectrum disorder, foetal alcohol spectrum disorder, attention deficit/hyperactivity disorder, trauma related disorders, and auditory visual processing disorders. It is a challenging concept because it encompasses needs across a wide spectrum of degree and intensity and can be complicated further when children and young people are 'twice-exceptional' (by having more than one condition), making it difficult to understand and respond to their needs (Ministry of Education, 2019, p.32).

As an umbrella term, neurodiversity is often used in research literature and policy to describe neurodevelopmental/other specific disorders. These disorders include Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), Learning (intellectual) and/or Developmental Disability (ID/DD), Traumatic Brain Injury (TBI), Communication Disorders (CD), Specific Learning Disorders (SLD), and Foetal Alcohol Syndrome Disorders (FASD) (Mirfin-Vietch et al., 2020). While the symptomology of each of these disorders present differently with the exception of some overlapping traits, they are often referred to by one name: neurodiversity. In a classroom, students with these disorders have different, more specific needs than those of their non-neurodiverse counterparts. These

needs are multifaceted and require a nuanced understanding to foster a supportive classroom environment (Clouder et al., 2020). For example, sensory processing differences are common in several neurodevelopmental disorders, resulting in common classroom environmental stimuli that can be overstimulating for these students and can significantly impede their ability to participate in class (Howe & Stagg, 2016). Neurodivergent students often struggle with social communication and interaction such as interpreting social cues, figurative language and initiating conversations with peers. This can lead to students isolating themselves, leaving them unable to effectively participate (Dean & Chang, 2021). Some neurodevelopmental disorders also present as executive function deficits, such as a lack of time management skills, planning and task initiation (El Wafa et al., 2020). As a result of some of these issues, neurodiverse students are also often labelled as ‘troubled’ due to misbehaviour in the classroom, with neurodiverse students often displaying behavioural challenges such as disrupting the class, aggression or harm causing behaviours. Several environmental or internal stimuli can be the cause of these disruptive behaviours, which tend to impede learning for the student and can affect students in the wider class (Weiss et al., 2020). Challenging behaviours typically presented by neurodiverse students can be attributed to different levels of anxiety, depression, stress and hyperactivity often experienced by them (Mirfin-Vietch et al., 2020). For example, students with diverse needs are three to seven times more likely to engage in challenging behaviours as compared to their non-neurodiverse counterparts (Gerow et al., 2018). Children with autism have a 94% prevalence of exhibiting behavioural challenges (Matson et al., 2010). Some aspects of neurodiverse behaviours such as engagement in rituals and routines are often viewed by others as obsessive and pointlessly ritualistic, which leads to neurodiverse students having trouble transitioning from one situation or activity to another and may facilitate the possible expression of emotional meltdowns, aggression or noncompliance in the classroom (Strain et al., 2011). These

behaviours often affect placement in inclusive settings, prevent learning for the student, risk injury to themselves or others, hinder independence and lead to social isolation for the child (Gerow et al., 2018; Strain et al., 2011). Taken together, as learners with neurodiverse needs require different strategies to thrive academically and engage in class activities, and as they have different learning styles and processing speeds, traditional teaching strategies may not be effective for them (Gadbow, 2001).

To address some of the issues facing neurodiverse students, an inclusive classroom aims to reduce the challenges faced by students with neurodiverse needs and create an environment where students can benefit from being in the classroom without experiencing exclusion (Webster, 2014). Integrating inclusivity involves the wider school community, with efforts towards inclusivity progressing from the top of the school system. School boards, leaders and administrators are responsible for abiding by the legislation, fostering a culture of diversity, prioritising support for learners who require it and encouraging staff do the same (Education Review Office, 2015). For example, schools employ Special Education Needs Co-ordinators (SENCOs) who monitor provisions to be made in classrooms and keep records of students with special needs throughout the school. They also ensure students are able to effectively transition into their learning environment and familiarise themselves with their surroundings. For example, transitioning can be difficult for students with ASD who may have difficulty processing changes to their routine (Strain et al., 2011). SENCOs make this process simpler for the student by involving staff and parents to formulate a transition plan specific to the student, making changes to class activities, giving students time and familiarising the space to help acclimate them to routine changes (Szwed, 2007). Teachers also play an important role in facilitating an inclusive environment in the classroom. Teacher perspectives and attitudes towards disabled learners affect the classroom culture of

acceptance and diversity. Students' academic performance, while dependent on teaching methods, is also highly influenced by teachers' expectations from the student, thus teachers need to genuinely believe in the capabilities of their disabled learners (Clark-Howard, 2019).

Additionally, teachers are responsible for implementing teaching strategies pertaining to students with diverse learning styles. Flexibility in lesson plans, assessment and modes of instruction are essential to accommodate students with learning differences. Altering study plans to individual students is done based on Individual Education Plans (IEPs) that contain specific objectives for the students, following the SMART model, i.e., goals that are Small, Measurable, Achievable, Relevant, and Time-bound (SMART). These apportioned goals also present areas for improvement, help track progress and maintain timelines (King et al., 2017). Teachers also collaborate and work closely with parents and other specialists like occupational therapists, speech therapists, and counsellors who all work towards a child's IEP goals and holistic development (Education Review Office, 2022). To support teachers in this process, Professional Learning and Development (PLD) enables teachers to stay informed, gain insight about their learners' unique needs and feel more prepared to provide academic support to the students who require it.

In addition to SENCOS and teachers, other teaching staff provide valuable support in understanding and identifying the needs of neurodiverse students. Resource Teachers: Learning and Behaviours (RTLBs) provide support across schools and classrooms and assist teachers to upskill and increase their capabilities (Thapaliya, 2023). Teacher aides differ from RTLBs in terms of training, responsibilities and time spent in the classroom and provide all around support to neurodiverse students. Teacher aides help students in their academic work and social skills through more individualised attention and play an important role in making

the classroom a more comfortable space for learners with special needs (Porrino et al., 2024). Another essential facet of inclusion in the classroom is assistive technology that helps students overcome barriers to learning. Its incorporation into teaching methods can vastly improve the learning experience for students who utilise them (Fernández-Batanero et al., 2022). Lastly, environmental adaptations to support student needs can include structured spaces for easier transition from one activity to another, seating the student close to the teacher for easier access to seek help and providing a quiet corner where students can move to when they are overstimulated. These changes can allow students to have some time away from often overwhelming classroom environments and can contribute to the effectiveness of other inclusive strategies and facilitate better learning for neurodiverse students (Altenmüller-Lewis, 2017).

Applied Behaviour Analysis (ABA) is a field within psychology that has provided long-standing support to individuals with neurodiversity. ABA has an extensive history of working with and helping improve the lives of neurodiverse children. ABA focuses on modifying and understanding behaviour and the systematic application of behavioural principles such as reinforcement (a consequence of a behaviour that increases the likelihood of it occurring), prompting (additional cues that support the occurrence of a specific behaviours), shaping (the process of consistently reinforcing approximations of a behaviour until its mastered) and extinction (when previously reinforced behaviour is no longer reinforced) to increase socially significant behaviours (behaviours that improve an individual's quality of life, day to day function and independence) while reducing maladaptive behaviours (behaviours that interfere with an individual's safety, daily functioning, learning or social integration) (Cooper et al., 2020; Fisher, 2021; Rasmussen et al., 2024). By experimentally identifying environmental factors that may impact behaviour

change, practitioners can design effective interventions that cater to an individual's circumstances. ABA practitioners also regularly collect objective measurements, prior to, after and during their interventions. This scientific, evidence-based approach allows practitioners to utilise a data driven framework to evaluate the efficacy of interventions (Zhang, 2024).

Behaviours in ABA are generally studied according to the A-B-C three term contingency model (Cooper et al., 2020). A-B-C stands for Antecedent- Behaviour- Consequence, where the antecedent refers to the environmental settings or events that occur prior to the behaviour (a trigger). Behaviour is the observable and measurable response that follows the antecedent and the consequence is what happens immediately after the behaviour; these events affect the likelihood of a behaviour occurring again (Cooper et al., 2020; Fox et al., 2000). The consequences that follow behaviour can also be referred to as reinforcement or punishment. Positive reinforcement occurs through the addition of a stimulus and always leads to an increase in behaviour (Cooper et al., 2020; Rasmussen et al., 2024). Likewise, the increase of behaviour due to the removal of an environmental stimulus is termed negative reinforcement. In contrast, punishment always decreases behaviour occurrence; the addition of a stimulus is termed positive punishment, and the removal of a stimulus is termed negative punishment (Cooper et al., 2020; Rasmussen et al., 2024). ABA is also concerned with determining the function of a behaviour, so behaviours are studied not only according to its topography (i.e., what it looks like) but also in the context of the environment in which it occurs. What precedes and follows the behaviour reveals its function, whereby behaviours that may look different topographically can still lead to the same function. For example, two behaviours “point at the juice” and “verbally saying ‘juice please’”, while being

topographically different serve the same function of gaining access to the same tangible item (juice).

ABA interventions primarily affect behaviour change through understanding the functions of target behaviours by utilising tools such as Functional Analysis. Carr (1977) defined the role of environmental factors in the function of a behaviour as access to attention, escape from demands/ tasks, or automatic reinforcement and emphasised the importance of identifying these maintaining factors to develop an effective intervention. Functional Analysis by itself is an analog method of arranging environmental factors to specifically study its effects on an individual's behaviour, however, it's only one part of a larger process used to determine behaviour function (Cooper et al., 2020). This larger process involves a Functional Behaviour Assessment (FBA) which is used to determine the relationship between different environmental factors and a target behaviour (Cooper et al., 2020). The FBA process generally begins with indirect assessment such as interviews, checklists, rating scales or questions to gather information about participants from the participants themselves or people familiar with them (parents, teachers, caretakers etc). These tools yield information about the behaviour (s) and the conditions in which they occur. Following indirect assessment, the FBA process involves direct assessment methods: typically through direct observations of the behaviour in the natural environment to identify its triggers and maintaining factors. The third element of an FBA is the experimental functional analysis, which is concerned with antecedents and consequents being specifically arranged in the participants environment to measure and observe their distinct effects on the target behaviour (Cooper et al., 2020). Each of these methods can be applied in conjunction or individually, depending on the intensity and frequency of behaviours presented. Through understanding the function, or why a behaviour occurs points to how it may be improved or altered (Cooper

et al., 2020). Therefore, the information yielded by an FBA enables practitioners to develop hypotheses about function to inform a more effective intervention rather than those selected indiscriminately.

Considerable evidence has demonstrated the use of ABA interventions in education to reduce problem behaviours and improve academic engagement for students (Vargas, 2013). In particular, ABA-based interventions have proven effective for neurodiverse students, including those diagnosed with ASD (Smith, 2015). For example, Early and Intensive Behavioural Intervention (EIBI) by Lovaas (1987) has been the most commonly implemented and empirically supported treatment model for ASD, focusing on both the reduction of maladaptive behaviours and development of learning skills (Roane et al., 2016). Discrete Trial Teaching (DTT) is another effective procedure which utilises several key ABA principles to teach skills through instructions that are concurrent, brief and specific while controlling extraneous factors. Responses are followed by targeted reinforcement or corrective methods. Specific instructions within the DTT process act as the discriminative stimulus i.e., an environmental signal or cue that signals the availability of reinforcement following a correct response. For example, while teaching a child to differentiate between shapes, they are presented with a specific instruction like “point to the circle” in brief, recurring fashion. A correct answer elicits reinforcement while an incorrect answer leads to no reinforcement or a correction (e.g., “no that is incorrect”) (Roane et al., 2016). Additionally, core aspects of ABA practice like consistent data collection, which allows practitioners to track a child’s progress but also determine whether methodological changes are warranted, are an inherent part of the DTT process (Roane et al., 2016).

Individual ABA elements applied in conjunction with general teaching methods have been shown to improve learning outcomes for neurodiverse students while also managing problem behaviours in the classroom (Twyman & Heward, 2018; Zhang, 2024). For example, reinforcement strategies like a classroom token economy involves points or tokens that are awarded to students for engaging in a specific social or academic behaviours. In this system, once a predetermined number of tokens have been collected, they can be redeemed for access to other reinforcing activities or items. Token economies are easy to establish and have been successfully implemented in the classroom to manage behaviours (Parsonson, 2012). Other ABA interventions have been effectively applied to reduce ‘off task’ behaviours, which may be broadly defined as behaviours ‘not on task’, or any behaviours not pertaining to a particular task such as not attending to task material e.g., walking around the classroom or talking to others. Specific behaviours in the response class (grouping of individual behaviours that share traits specified in the definition of behaviours) that serve the function of ‘escaping from the task’ such as ‘uncontrolled vocalisations’ or ‘banging on the table’ during assigned work times can also be referred to as ‘off task’ (Dowdy et al., 2023). Interventions to address these behaviours can include antecedent based interventions where classroom settings, tasks or instructions are altered to facilitate behaviour change (Gaastra et al., 2016), consequence-based interventions, which utilise reinforcement and/or punishment to reduce the occurrence of target behaviours (Gaastra et al., 2016) or self-regulation interventions that aim to develop self-control and problem solving skills that help regulate cognition and behaviours (Gaastra et al., 2016). All of these types of interventions have been effective in managing off task and disruptive behaviours of students with ADHD in the classroom (Gaastra et al., 2016). Thus, effective behaviour management for students with neurodiverse needs require interventions that consider the function of the behaviour, the environmental factors that can be altered to

facilitate behaviour change, alternative communicative strategies and reinforcers that can be included in this process (Strain et al., 2011; Zhang, 2024).

Another successful method that has been used is Functional Communication Training (FCT) (Carr & Durand, 1985). FCT involves teaching a communicative response that serves the same function as the problem behaviour. If targeting a new behaviour results in the same reinforcement as the maladaptive behaviour, it effectively reduces its occurrence (Gerow et al., 2018). Following an FBA or Functional Analysis, once the maintaining factor of a problem behaviour is identified, a functionally equivalent communicative response can be determined. This replacement behaviour is then taught to the participant and its performance is reinforced (Mancil & Boman, 2010; Tiger et al., 2008). FCT utilises a differential reinforcement (DR) schedule where an individual is taught a communicative response alternative which elicits the same reinforcement that is maintaining the target behaviour. At the same time, the target behaviour is placed on extinction i.e., its occurrence will no longer lead to reinforcement. FCT varies from other DR procedures as the alternative behaviour is a form of communication (it could be a sign, a vocalisation, an action, or anything that expresses a message to another person) (Tiger et al., 2008). For example, if the problem behaviour is ‘screaming’, which may serve a function of escape from a task, the child could be taught a replacement behaviour, which is to say “break” or “help” to access a break or receive help with the task. Screaming would then no longer result in escape from the task i.e., negative reinforcement. This replacement behaviour or Functional Communicative Response (FCR), should then remain as the only behaviour yielding reinforcement, leading to a reduction of the problem behaviour and increased use of the FCR (Tiger et al., 2008). In the last 35 years, FCT has been established as an evidence-based intervention that successfully decreases the occurrence of various problem behaviours for both adults and children

(Ghaemmaghami et al., 2020). There have been over 90 peer reviewed studies supporting the efficacy of FCT (Gerow et al., 2018). For example, Carr and Durand (1985) implemented FCT to reduce the problem behaviour of four children with developmental disabilities. The replacement behaviour of saying “Am I doing good work?” was taught to two of the children following a hypothesis that attention was the function of the behaviour and was resulting in acknowledgement from the teacher. The other two children were engaging in problem behaviour to escape from difficult tasks, so the FCR taught involved saying “I don’t understand” to signal for teacher assistance with the task. The response of engaging in each FCR was reinforced and led to a significant reduction of problem behaviours for all four children (Carr & Durand, 1985). FCT has met the empirical standards of a ‘well-established treatment’ for people with intellectual disabilities who display problem behaviours maintained by several different functions (attention, escape, access to tangibles etc.) across different settings (Kurtz et al., 2011). Since its initial application, FCT has been widely studied, applied and has found success in many different contexts. It has been established across many topographies of problem behaviours, including but not limited to aggression, self-injurious behaviours, tantrums, body rocking, oppositional behaviours (refusal to do work), hand flapping, and walking away (Mancil & Boman, 2010). It has also been effective with children with different language skills, and children who are nonverbal (Mancil & Boman, 2010). FCT has also been implemented in home settings, wherein it was found that even short term applications of FCT resulted in a decrease in problem behaviour for three out of four children, while long term treatment yielded positive results for all four children and led to increased communicative behaviours that were noted in other settings as well (Derby et al., 1997). Additionally, parent implemented FCT has also found success and has led to a reduction in challenging behaviour (Gerow et al., 2018). FCT in schools has also been successfully implemented by teachers and teacher aides, showing an increase in

communicative behaviours with teachers, decreased problem behaviours and positive interaction with peers (Cho Blair et al., 2007). However, while FCT has been widely implemented in both natural and clinical settings, limited research has focused on its implementation in inclusive school settings (Masud et al., 2022).

Students with neurodiverse needs often have trouble recognising environmental stimuli that lead to certain on task behaviours such as moving on from a task once completed, beginning a particular task once instructed, or following others who are completing the same series of tasks. These are all common situations where neurodivergent students struggle and often require additional help or prompts to follow these instructions. Prompts can include specific verbal instruction, modelling the behaviour, physical assistance, or gestures (Carnett & Tullis, 2023). In school settings, neurodiverse students may come to depend on these prompts from their teachers, teacher aides and caregivers to engage in tasks and participate (Carnett & Tullis, 2023). An alternative to prompting is the use of visual cues, which are an antecedent strategy to increase independence and reduce need for intense support in the classroom (Pierce et al., 2013). For example, four boys who were dependent on verbal prompts were taught to follow a 6-item picture-based activity schedule for after school activities to improve on task and on schedule behaviours (MacDuff et al., 1993). Following the picture schedule, the boys were able to independently change activities and also displayed increased independence in different settings (MacDuff et al., 1993). Visual cues are less intrusive prompts that can facilitate transitions, task engagement and even aid in reducing problem behaviours (Knight et al., 2014; Carnett & Tullis, 2023). An example of an effective visual cue use is the Visual Activity Schedule (VAS), which consist of pictorial/drawn representations of steps in a task or individual tasks in consequent order that provide clear directives to engage in a particular task (Carnett & Tullis, 2023). Visual activity schedules

provide visual prompts to engage with tasks, thus reducing student dependency on adults and increasing on task behaviours (i.e., engaging in the assigned task, attending to materials, orienting towards the materials). VAS are an evidence-based practice and have been effectively implemented to teach individuals with ASD and other intellectual disabilities different skills, engage in activities and increase on task behaviours (Koyama & Wang, 2011). Duttlinger et al. (2012) used VAS to determine whether students with intellectual disabilities were able to independently complete a sequence of tasks in a withdrawal design where the students' ability to complete tasks following verbal instruction with and without the activity schedule was measured. All the participants showed increased task completion with the activity schedule and exhibited increased independence of task completion in a novel setting as well (Duttlinger et al., 2012).

A further benefit is that VAS is a low effort intervention, i.e., they usually do not require expensive materials, can be adapted to the child's skill level and do not require many structural changes to the environment, enabling individuals with neurodiverse needs to be more independent and learn a variety of skills through consistent visual cues (Knight et al., 2014). Additionally, transitions between routines (e.g., moving from the lunch space to instructional setting) or within daily activities (such as moving from group work to independent work) can be facilitated via the use of a VAS (Barnett et al., 2022). The effectiveness of a VAS can be enhanced when used in conjunction with additional components such as reinforcement and prompting (Knight et al., 2014). In the context of inclusive schools, VAS can facilitate on-task behaviours for students with ASD (Macdonald et al., 2018) and increase on task academic behaviours, generalisation to settings, and academic task materials for students with ADHD and other learning disabilities (Mattson & Pinkelman, 2019). A review to assess the applicability and effectiveness of VAS to not only

increase task engagement but also reduce challenging behaviours for neurodiverse students revealed that the intervention was effective in reducing challenging behaviours (Lequia et al., 2012). However, it was also noted in this study that variations in terms of severity of ASD symptoms, and communication abilities of the students required further investigation (Lequia et al., 2012). Alternatively, VAS implemented as a stand-alone intervention may lead to no notable changes in academic engagement or reduction in challenging behaviours (Scalzo et al., 2017). While VAS have been established as a successful intervention in inclusive classrooms to increase on-task behaviours, its effectiveness on reducing challenging behaviours requires further research.

The aim of this study was to investigate the effectiveness of implementing FCT and a VAS to reduce the off-task behaviours of two children with neurodiverse needs in an inclusive classroom. Behaviours were identified as being disruptive to learning for both children, so it was hypothesised that use of FCT and a VAS would increase on-task behaviours and support improved learning.

Method

Participants

Two students participated in the study. Student H was a 6-year-old girl diagnosed with ASD and ADHD, and Student M was a 6-year-old boy diagnosed with ASD. Both participants were selected based on recommendations by the school's SENCO and classroom teachers. Informed consent was obtained from parents and guardians before any research activities were conducted. Participants were also asked for their verbal assent before the study commenced. The primary referral for both students was for off task/escape behaviours during independent work times.

Behaviour definitions: Student M

The primary behaviours of concern determined for student M were hiding during instruction and non-participation when independent work was assigned, thus leaving his work incomplete. 'Hiding' was defined as 'physically moving away from the task, the teacher or the learning area, behind or under a physical barrier such as under the table or behind the book stand, during instruction periods'. 'Non-participation' was defined as 'putting his head on the table and not orienting towards the teacher or task materials during instruction times.' Further behaviours identified included; 'Distracting others' which was defined as 'obstructing classmates ability to complete their work by engaging them in talk during independent work time' and 'Non-targeted aggression' involved a response class which included aggressive behaviours such as 'hitting, throwing/ kicking' that was not directed towards a particular person but occurred in the general classroom space as a reaction to high touch play/ or when the participant's personal items were taken by classmates.

‘Headbanging’ was a further behaviour that was noted but rarely observed and was defined as ‘shorts bursts of hitting the back of the head against a wall’.

Student M’s hiding behaviours often interrupted his learning during the instruction period and led to self-exclusion from classroom activities and learning throughout the day. Hiding behaviour was differentiated from non-participation as it did not exclusively occur in response to a task demand; it also occurred during general classroom activities such as transitioning between tasks, during the morning period or during free play. The teacher interview revealed that a lot of student M’s hiding behaviour may have been due to his lack of energy. According to the classroom teacher this lethargy could be partly attributed to student M’s food intake. He only ate what he brought from home which primarily consisted of fruits and chips. He also did not drink much water and only drank sugary fizzy drinks he brought from home. Sometimes he skipped eating his lunch during breaks all together. This may have contributed to the inconsistency in student M’s classroom behaviour; some days he was an active member of the class and completed all his work and on other days he engaged in behaviour that impeded his ability to learn (as described above). As student M did not have any support in the classroom, there was minimal intervention for his behaviour prior to this study.

Behaviour definitions: Student H

Student H had a history of disruptive behaviours that ranged in intensity. At the time of the study the main behaviours of concern were ‘crying’ which was defined as ‘reddening of facial features, trembling chin and wailing sounds emitted when instructed to do certain tasks or when not allowed to engage in a preferred activity’. She also engaged in behaviours such as ‘leaving the classroom’, which was defined as ‘unprompted elopement from the

classroom for an undetermined amount of time for unstated reasons during instruction periods'. Other observed behaviour for student H included 'non-instructed activity' which was defined as 'engaging with materials not required for a task, while orienting away from the task materials and teacher during instruction periods.'

Student H responded well to her teacher aide, usually followed the instructions given by the teacher aide and preferred to sit with her during instruction periods instead of with her classmates. She was provided with her own area in the classroom where she could work with the teacher aide's support. Her area also comprised of toys and a tent where she was able to seclude herself. As a result, student H did not engage with the classroom in general and spent a lot of time in her area. Student H did not have good attendance and her initial transition into the classroom from kindergarten had resulted in more intense behaviours, described by her classroom teacher as a 'loud screaming and crying until she was red in the face' and occasionally banging on the window/doors to leave the class. During her transition into the classroom, she would only remain in the class when the teacher aide was present and would not let her leave the class. The classroom teacher also noted that student H avoided her and tended to cry when instructed by her in any context and preferred to spend time with the teacher aide. Student H's crying and screaming had since reduced when she moved to a different classroom just prior to the beginning of this study, a change which resulted in her being more tolerant of the classroom teacher (i.e., she did not end up crying every time she was provided an instruction by the class teacher).

Setting

All assessments and interventions were held in lower primary level inclusive classrooms at a primary school in Hamilton. Each class held around 20 children, and the

students attended school from 9:00 am to 3:00 pm. The school day was divided into three blocks; block 1 was from 9:00 am to 10:45am (with a morning tea break from 10:45 am-11:15am), block 2 was from 11:15am to 12:45pm (followed by lunch from 12:45 pm-1:30 pm), and lastly block 3 was scheduled from 1:30pm to 3:00pm. Both the morning and lunch break durations comprised of play time and eating time. A typical day's activities in the classroom consisted of a class-wide literacy and vocabulary lesson, a math lesson and independent worksheets during blocks 1 and 2. Block 3 activities varied from week to week, including athletics, Kaupapa video lessons, cooking, or swimming. Both classrooms had one main classroom teacher, with a reliever assuming teaching duties in their absence. Other adults also frequented each classroom, including teacher aides assigned to individual students. While certain students in student M's class had a teacher aide, he did not have additional support, while student H had a teacher aide assigned to her.

Classroom resources varied in both classes. Student H's classroom had a separate area for neurodiverse students to work with a teacher aide and contained reinforcers and a tent for student H to spend time in. There was also a separate area with toys, such as Lego and magnetic blocks for the whole class. Student M's classroom also comprised of free access toys for the whole class but did not have a designated area for neurodiverse students or any specific reinforcers specifically for Student M. Classroom layout consisted of a learning mat in front of a white board and tv, where whole group learning was conducted and 2-3 large tables where students could do their independent work. These classroom settings were changed for term 4 due to a school wide mandate. The new classroom setting consisted of small desks in front of the tv and white board, where groups of 2-3 children were seated at each desk for both whole class learning and independent work. The mat area in the classroom was no longer utilised for learning and now served as a play area for students during free time

and for the teacher to gather students for notices and instructions during transition periods. With this change in classroom layout, there was no longer any designated space or tent for Student H in her classroom, but instead there was a cabinet allocated to her designated reinforcers and toys that were primarily accessible by the teachers. The layout changes in Student M's classroom did not alter his accessibility to toys.

Materials

Materials included as part of the Functional Behaviour Assessment (FBA) included the Open-Ended Functional Assessment Interview (O-FAI), Antecedent- Behaviour-Consequence (ABC) narrative observation form and a Functional Assessment Observation (FAO) form. The O-FAI is a 20-item interview that can be used to learn more about the range of behaviours presented by an individual, the circumstances under which the behaviours occur and the day-to-day routine and preferred activities or reinforcers. The O-FAI can also be used to gather information about ongoing or classroom interventions previously implemented for each participant. The O-FAI contains specific questions about the topography of any behaviours of concern and enables practitioners to gather information necessary to plan any intervention. Questions about potential triggers, the conditions in which the behaviour occurs and how the behaviour is managed by the interviewee also inform practitioners about the possible antecedents and consequences of the behaviour (Fryling & Baires, 2016). This form can be found in appendices A and B.

An Antecedent-Behaviour-Consequence (ABC) narrative observation form allows observers to note the circumstances around the occurrences of a target behaviour in detail. It consists of three sections, the Antecedent where the events occurring prior to the target behaviour are recorded, Behaviour where the topography of the target behaviour is described

and lastly, the Consequence section, where the events that follow the occurrences of the behaviour are noted. The ABC narrative form allows practitioners/observers to add brief descriptions in each section, providing a more comprehensive account of the chain of events. Data is only collected when a problem behaviour is observed and data collection is open ended, allowing the observers to note all the events surrounding the target behaviour (Cooper et al., 2020). This form can be found in appendices A and B.

The FAO is a direct observation form consisting of eight sections (summarised in Table 1.1). The structure of the FAO allows practitioners to note different aspects of problem behaviour events. An event includes all the instances of the target behaviour. An event begins with the occurrence of behaviour and is considered ended when there has been no occurrences of problem behaviour for three minutes. The FAO is used to collect data for behaviours with a low to moderate frequency over extended observation times. Reliable correlation between the perceived function of a particular behaviour and actual consequence informs the development of an intervention. The FAO allows practitioners to note the predictors, the perceived functions and actual consequences of the target behaviours in real time while tracking the number of occurrences of the behaviour events, making it a feasible tool for FBA in applied settings such as a school. FAO data is collected until clear patterns are observed between the target behaviours and the environmental factors, and statements about the functions of behaviours are confirmed or disconfirmed (O'Neill, 1997).

Table 1.1. Different sections of the FAO form

SECTION A	Participant details
SECTION B	observers to set time intervals for observations in accordance with a participants' daily schedule
SECTION C	space for observers to note the particular behaviours being observed
SECTION D	general predictors of problem behaviours, such as 'demand/request', 'difficult task', 'transitions', 'interruption', 'alone (no attention) and space to list other predictors specific to the participants
SECTION E	perceived function of a behaviour, such as to obtain, 'attention', 'desired item/activity' or 'self-stimulation' and to escape 'demand/request', 'activity' (specific activity to be filled in by the observer) or 'person. With additional space to write other specific maintaining factors and a column for 'unknown' factors.
SECTION F	space to note the actual consequences incurred by the behaviours in the observation setting
SECTION G	any additional notes or comments from the observers are noted in this section
SECTION H	To record the events and the date on which they were observed. Each occurrence is noted as number under the column describing the behaviours, predictor for that behaviour, its perceived function and the actual consequence following the behaviour is marked with the same number.

General Procedure

After all relevant permissions were gained from the school, consent forms were given to classroom teachers to be sent home with potential students. All research activities began after informed consent was obtained. Teachers were contacted for brief interviews, utilising the O-FAI as part of Phase 1 of the FBA. The FBA process also involved direct assessment in the form of ABC observations and structured observations using the FAO form. Once the function of the behaviours was determined, the researcher and classroom teacher discussed possible interventions to be implemented for each student. Intervention plans for each student were developed and implemented considering the function of the problem behaviour and the students' individual skill level.

Phase 1: Functional Behaviour Assessment (FBA)

The first study phase involved conducting a descriptive FBA for each participant to determine behaviour function. This process began with indirect assessments using the O-FAI with student M and student H's teachers. Teachers were asked for verbal consent prior to interview. Each interview lasted approximately 45 mins. Following teacher interviews, ABC narrative observations were used to conduct direct observations for both students to identify current prevalent behaviours in the context of the classroom, their maintaining factors and function. This data was collected by the researcher on alternating days of the week for each student over a period of four weeks. For both students, ABC observation sessions were conducted throughout the school day and revealed that the problem behaviours occurred primarily in the context of the classroom during instruction periods. Based on this information, a Functional Assessment Observation (FAO) form was completed. FAO data was collected in 45 min intervals during instruction periods in all 3 blocks of the school day.

Once clear patterns emerged during the FAO data collection, occurrences of the problem behaviour were recorded via partial interval recording to establish a baseline of behaviour occurrence. The indirect and direct assessments conducted in Phase 1 were used to inform Phase 2.

Phase 2: Intervention

Student M

Following Phase 1, it was hypothesised that student M's non-participation behaviours were maintained by escape from tasks. During the interview with the class teacher she highlighted 'non-participation' as a behaviour of concern and noted that it impeded student M's learning and schoolwork. Therefore, to reduce this behaviour a Functional Communication Training (FCT) plan was implemented. This decision was made following suggestions from the teacher and considering student M's academic and communication skills, vocalisation rate and the topography of the problem behaviour. Since an FCT involves teaching an alternative communicative response that serves the same function as the prevailing problem behaviour, the response effort involved in the Functionally Communicative Response (FCR) was an important consideration prior to FCT development. If the FCR required more effort than the non-participation behaviour it is less likely to replace the problem behaviour (Rey & Gokey, 2023). Since the reinforcing factor for problem behaviour was escape from tasks, the FCR taught to student M consisted of a card with the visual of a tired child and the words "break please" on it. Use of the card by showing it to the researcher and/or teacher resulted in a brief escape from the task of 10 mins. It was determined that the response effort for this behaviour was less than the vocalisation to ask for

a ‘break’ and equal if not less response effort than non-participation while still serving the same purpose of providing an escape from the task.

The Intervention phase (Phase 2) began with a new school term, which is also when some structural changes were made to the classroom. To implement FCT and reduce the required response effort, the “break please” card was placed on the wall close to student M’s seat. The FCR was first taught to student M in block 1 using a system of most to least prompts (summarised in Table 1.2). When independent work was assigned to the class, the participant was signalled with a full verbal and gestural prompt, i.e., pointing to the card and saying “M, use the break card if you need a break.” These prompts were faded from full verbal and gestural to only gestural, then partial gestural and eventual removal of all prompts for independent responding. The prompt fading criteria was three correct responses at one prompt level. Once a break was requested, a 10-minute break from academic tasks was granted by removing all task materials, thus providing reinforcement for use of the FCR. The FCR was prompted as soon as he appeared to not want to engage in assigned work. As task completion was an additional goal for student M, at the request of the teacher, a consequent reinforcement strategy was implemented during the sixth intervention session. Upon completion of the assigned task student M received stickers of race cars. The teacher had previously implemented a reinforcement strategy with stickers and learnt that while regular stickers were reinforcing for student M, stickers of his preferred items such as dinosaurs or race cars were more valuable. Reinforcement occurred on a fixed ratio schedule of 1 correctly completed task (FR1). FCR was then taught in block 2, using the same prompting system and with the additional positive reinforcement (stickers) in place for task completion. As block 3 consisted mainly of kaupapa video lessons, swimming, or cooking activities and not many independent tasks, the FCR was not taught in this block.

Table 1.2. Prompt hierarchy for student M

Prompt level	To use the 'break please' card independently
5	point to the card and say "M, use the break card if you need a break"
4	point to the break card and say "use the break card"
3	point to the card and say "break card"
2	only point to the break card
1	nod towards the break card
0	independent use of the break card

Student H

Also informed by Phase 1, it was hypothesised that student H's problem behaviour was maintained by escape from tasks. Student H presented a range of behaviours, such as 'crying', 'leaving the classroom' and 'non-instructed activity', however, as all behaviours apart from 'non-instructed activity' had reduced as the FBA was concluded, the researcher and teacher discussed the implementation of a VAS to target 'non-instructed activity' a behaviour hypothesised to be maintained by escape from tasks. Given that student H did not participate in classroom activities, or whole class learning, and that she had already begun following a rough on task/ off task schedule (15 minutes of workbook followed by 10 minutes of play) set in place by the teacher aide, a VAS was implemented to increase her participation in the class and reduce dependency on the teacher aide to complete her tasks. Additionally, a VAS provided a routine to her school day which student H did not have. For this routine the class teacher listed four main activities, these were whole class learning (i.e., student H had to sit with the class and orient towards the teacher during a lesson), 15 minutes of independent work (i.e., she had to complete the workbook tasks assigned), 10 minute

independent play (i.e., she could use this time to engage with her reinforcers), and class clean up (i.e., she had to participate in the class clean up along with her classmates at the end of the day). The schedule was set up across block 1, 2 and 3. The first three activities repeated in block 1 and 2 in the order of: ‘whole class learning’, ‘15 minutes independent work’, and ‘10-minute independent play’. Since block 3 comprised of kaupapa video lessons, cooking and other class activities that changed every week, the VAS consisted of two activities in this block: ‘whole class learning’ and ‘class clean up’. Student H was familiarised with the transition from break time to instruction periods, thus break times were not included in the schedule except to demarcate the 3 block periods.

As the intervention began with a new school term, some structural changes were made to the class, such as assigned seating for all the students, including student H who rarely sat with her classmates during instruction periods. The designated area where student H spent most of her time during previous school terms was also restructured to consist of only a multipurpose teacher’s table and a cupboard where learning materials and a small number of student H’s toys were stored in a box. This differed from the previous arrangement where student H had a large, dedicated space and free access to a variety of toys. The intervention was developed in accordance with these changes. The VAS was constructed from pictures (taken by a phone) of student H’s workbook and her box containing her reinforcers which were added to the schedule (see Table 1.3 for an example). To depict ‘whole class learning’, a photo of student H sitting on her assigned seat during whole class learning was used (this was captured and added to the schedule by the teacher). All pictures were printed and laminated by the class teacher. These pictures represented the activity that was to occur and were arranged in order of the tasks on the white board in clear view of student H. These activities already aligned with the skills of the student, thus additional

teaching of the activities itself was not required. A most to least prompt hierarchy was implemented to teach her to follow the VAS schedule. Each task was prompted with a full verbal and gestural prompt before the task was to commence i.e., the full verbal prompt involved ‘point to the schedule and say, “H let’s see what’s next on the schedule.”’ The fading criteria was two correct responses at a prompt level (prompts are summarised in Table 1.4.). Since part of the activity schedule was already introduced to student H during baseline by the teacher aide (i.e., student H knew that after 15 minutes of independent work she would receive 10 minutes of play), she was able to independently complete these activities as part of the VAS. However, to engage in the other activities on the schedule, student H required prompts throughout the intervention, albeit they were faded to the lowest assistance prompt level required by student H to engage in the activity.

Table 1.3. Pictures used for student H’s VAS

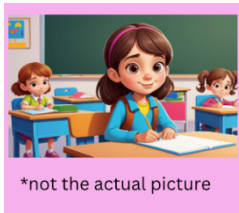
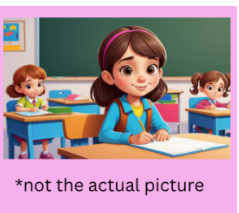
Block 1	 *not the actual picture		
	Whole class learning	15-min independent work	10-min play
Block 2	 *not the actual picture		
	Whole class learning	15-min independent work	10-min play
Block 3	 *not the actual picture		
	Whole class learning	Class clean up	

Table 1.4. Prompt hierarchy for student H

Prompt level	To independently use the VAS before engaging in an activity
5	point to the schedule and say “H, let’s see what’s next on the schedule” before each activity
4	point to the schedule and say “let’s see what’s next” before an activity
3	point to and say “what’s next” to draw attention to the schedule before an activity
2	point to the schedule before an activity
1	nod at the schedule before an activity
0	independent use of the schedule before an activity

Social validity

The Intervention Rating Profile (IRP) is a 20-item rating scale that allows researchers to examine teacher acceptability of interventions in education settings. Each item is rated on 6-point Likert scale from 1-Strongly disagree, 2- Disagree, 3-Slightly disagree, 4-Slightly agree, 5-Agree, 6- Strongly agree. This scale has a 41% variance, four secondary factors and a 0.89 internal consistency (Carter, 2010). A total score can be determined by adding all items, where a higher score indicates more acceptability and a score of 70 or less indicates moderate levels of acceptability. This scale was completed by both student M and student Hs class teachers.

Results

Phase 1 Indirect assessment: Teacher interviews

Student M

For student M, the O-FAI revealed several behaviours, the most concerning being some low frequency, non-targeted aggressive behaviour like hitting/ kicking/ throwing. According to the teacher, these behaviours only occurred when there was a conflict with another student i.e., if the other student took student M's belongings or engaged in high-touch play (play-fighting or hitting). The nature of this aggression did not target any individual student, as student M engaged in this behaviour while walking around the classroom e.g., he walked around the classroom making aggressive gestures but never contacted anyone. The teacher had not observed this kind of aggression from student M in a long while. Apart from this, the teacher noted that the most prevalent problem behaviour for student M was non-participation and hiding during class, which resulted in a lack of learning and incomplete work. According to the O-FAI, the teacher's account for the possible functions of these behaviours was escape from the task in general, or escape from an instruction or direction that involved a lot of effort from student M. When this occurred, student M was typically left alone, suggesting both behaviours were maintained through negative reinforcement. She attributed student M's hiding behaviour to lack of energy due to his eating habits and a lack of sufficient sleep.

Student H

Initial interviews for student H revealed that her behaviours of concern had changed since moving classrooms. According to the teacher, student H's crying and screaming behaviours occurred more frequently and intensely in the previous classroom, which the

teacher suggested was because the previous class was not well illuminated, had small windows and was located further away from other classrooms at the school. Since moving to another class with glass doors and a central location, student H stayed in class for longer periods than before and even attempted to be part of the class sometimes. At time of interview, her primary behaviour in the new class was leaving the class unprompted and engaging in non-instructed tasks during instruction periods, which prevented her from engaging with the classwork. The teacher also mentioned in the interview that due to student H's previous behaviours she was used to being exempt from class rules, routines and tasks. She usually did some independent exercises in her workbook while supported by the teacher aide and rarely sat with the other students for whole class learning. It was also mentioned that she tended to stay away from the class teacher and did not engage with her, preferring to work only with the teacher aide. She also had issues with attendance and was absent during many of the initial days of the FBA. Based on this information, student H's 'non-instructed activity' was the primary behaviour considered for the intervention.

Direct assessment: Observations

Student M

The ABC data captured non-participation, hiding, distracting others and one instance of non-targeted aggression, along with the events that occurred before and after their occurrence. Figure 1.1 and 1.2 suggests that student M engaged in 'non-participation', 'hiding' and 'distracting others' to escape an assigned task demand and to escape the classroom environment i.e., hiding occurred even when there was no task demand present. He engaged in non-targeted aggression in one instance to gain access to a tangible i.e., another student had taken his toy from him (see Figure 1.4). Common antecedents for student M's

behaviours included instructions/ directions, presentation of a task which resulted in non-participation, and being left alone (i.e., no task demand, or being in the classroom in general) which resulted in hiding. The FAO indicated that while 'hiding' and 'non-participation' both occurred during tasks or task related instructions given by the teacher, hiding occurred even when there was no task demand (e.g., during transitions, morning prayer time, story time, free play in the classroom and many others) and non-participation occurred more frequently and reliably when tasks were assigned. The actual consequences noted for non-participation in the FAO supports escape as a function as student M was either allowed to leave the task he had begun incomplete or was left alone and was not disturbed i.e., he was not redirected to the task, he did not gather task materials from the teacher following instruction to, and essentially ignored the teachers directed instruction. Direct observations were suspended when clear patterns emerged suggesting that non-participation behaviour occurred most often during task time and resulted in the task being avoided or student M being left alone. Thus, the hypothesis that student M's non-participation occurred to escape tasks and was maintained by negative reinforcement was supported by observations of the behaviour. Student M's 'hiding' behaviours were also noted as part of the FAO form, however, the hiding occurred both during independent work time and when there was no task demand (as an escape from the general classroom). Due to the varied circumstances of its occurrence, hiding was largely attributed to external factors such as lack of sleep and energy. Additionally, other behaviours such as 'distracting others' and 'non targeted aggression' were included in the FAO but occurred at such low frequency they were not considered as primary behaviours for the intervention.

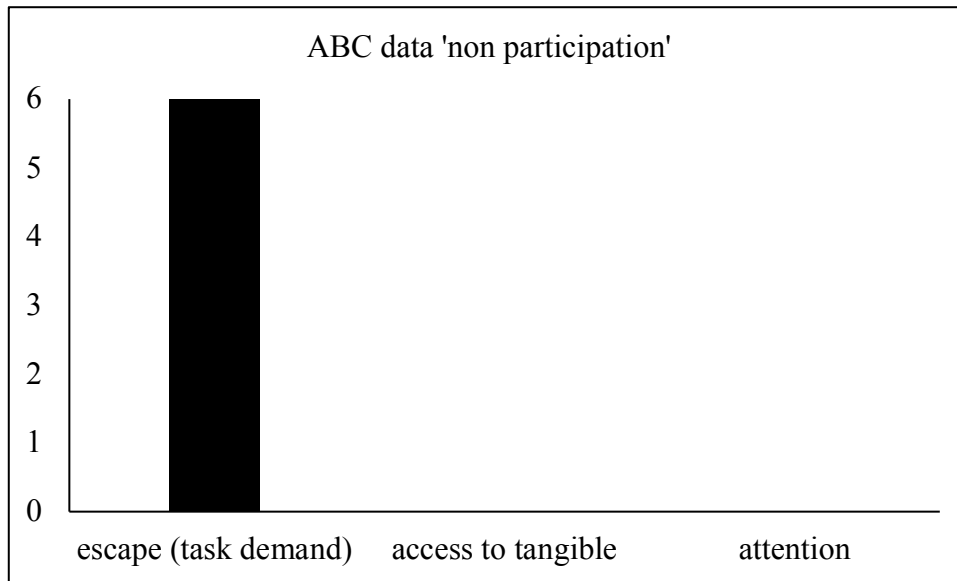


Figure 1.1. ABC data for student M's 'non participation' behaviour.

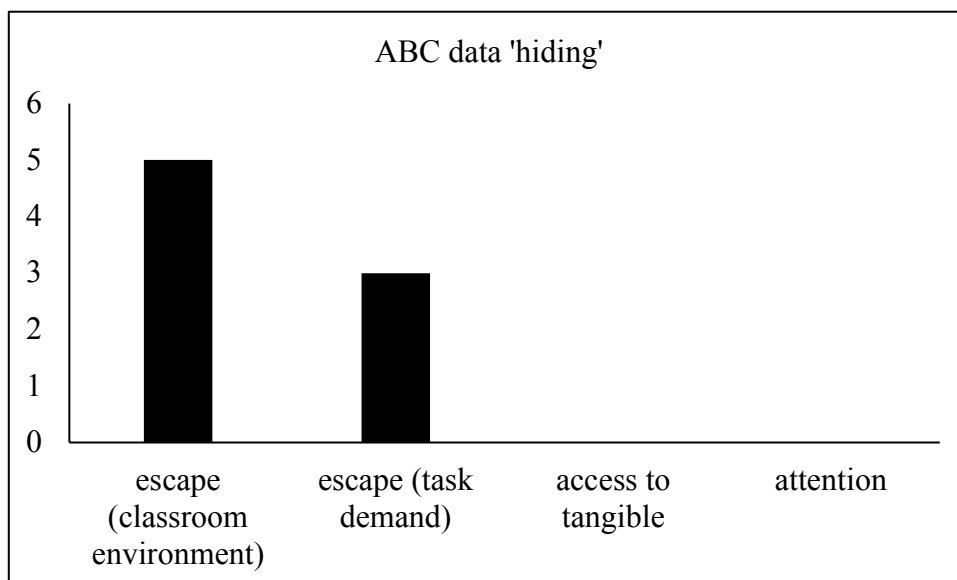


Figure 1.2. ABC data for student M's 'hiding' behaviour.

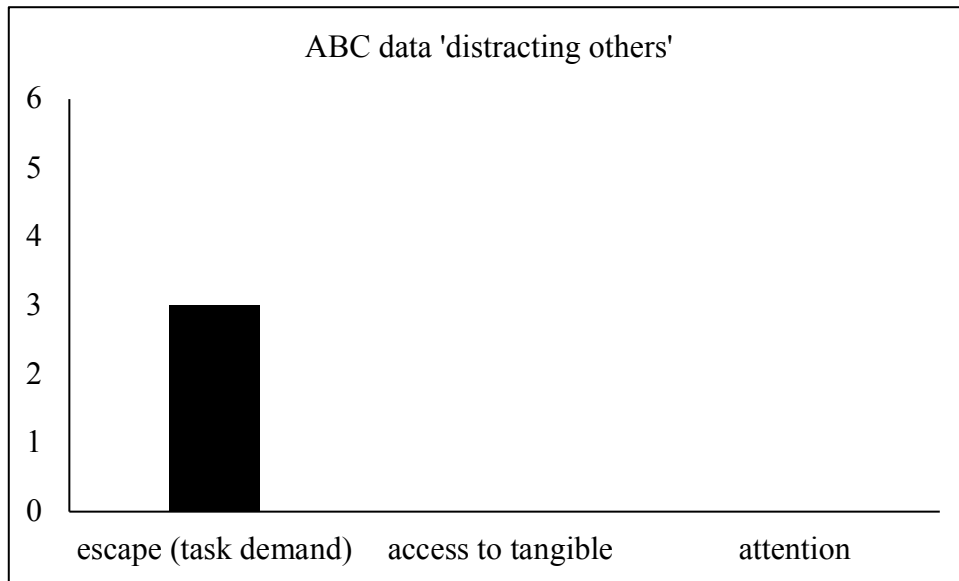


Figure 1.3. ABC data for student M's 'distracting others' behaviour.

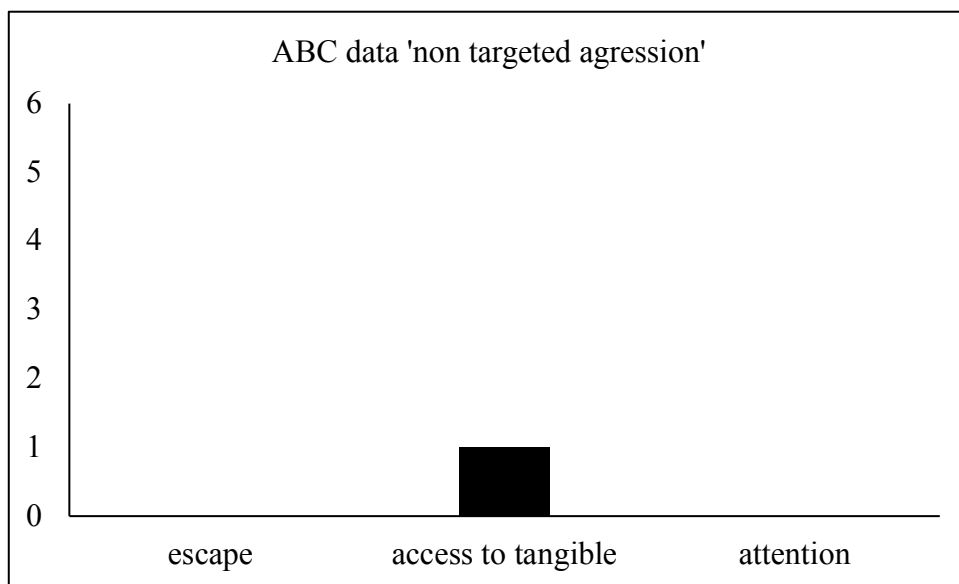


Figure 1.4. ABC data for student M's 'non targeted aggression' behaviour

Student H

Following the interview, ABC narrative data was also collected for student H to identify the behaviours she currently engaged in and the situations surrounding their occurrence. ABC data suggested that student H engaged in 'non-instructed activity' to escape

tasks and gain access to tangibles during instruction periods. Similarly, 'leaving the classroom' also served the purpose of both escaping a task and access to a tangible, i.e., the playground. Student H's 'crying' behaviour occurred when she was denied access to tangibles by the class teacher. When FAO observations began, student H's elopement behaviour occurred frequently, along with 'non-instructed activity'. Both behaviours seemed to serve two functions, of escape from the task and to obtain a reinforcing object or activity (access to a tangible). However, more prominent patterns of behaviours emerged once student H's attendance improved and her 'leaving the classroom' behaviour reduced. Subsequently the teacher also noted that there were more instances where she sat with her classmates during a lesson, followed instructions and engaged with the class teacher more often without crying. However, student H rarely did her independent tasks (workbook) and tended to engage in non-instructed activities instead, since student H did not have a classroom routine she adhered to and she engaged in tasks in her own time. Towards the end of the observation period, about 2 weeks before the FBA phase ended, a timed condition was introduced by the teacher aide where student H got 15 minutes on the timer to do her workbook task, following which she received 10 minutes of a reinforcing activity. Following this addition, student H engaged in her independent tasks more regularly. While student H still did not comply with the same classroom routine and activities as her classmates, she learnt that she would receive time to do a reinforcing activity after she completed her workbook tasks. As the FBA phase ended, 'crying' and 'leaving the classroom' instances had reduced. The FAO data showed that the function of her behaviour was escape from task demands, which was maintained through negative reinforcement as student H was not redirected to the task and was allowed to escape re-engaging with it.

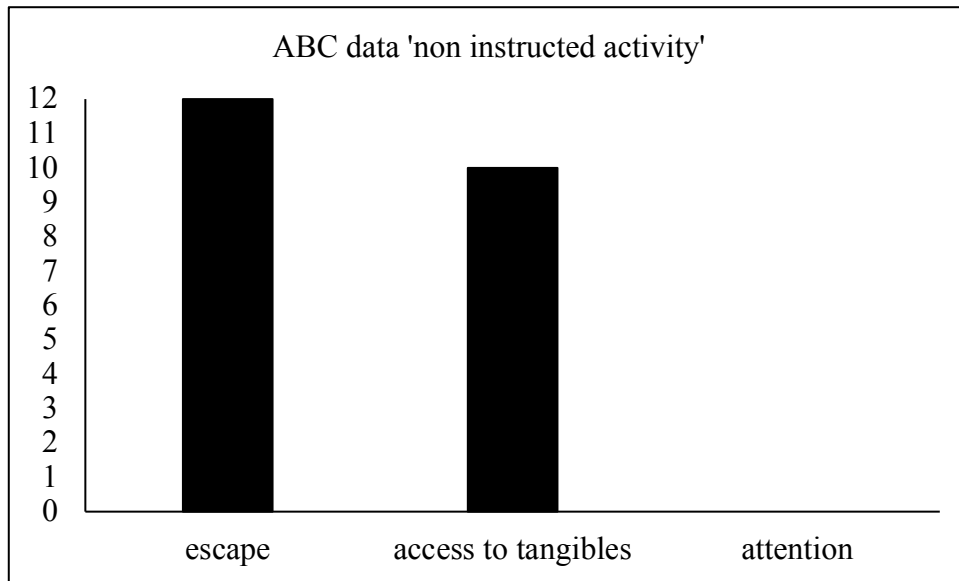


Figure 1.5. ABC data for student H's 'non instructed activity' behaviour.

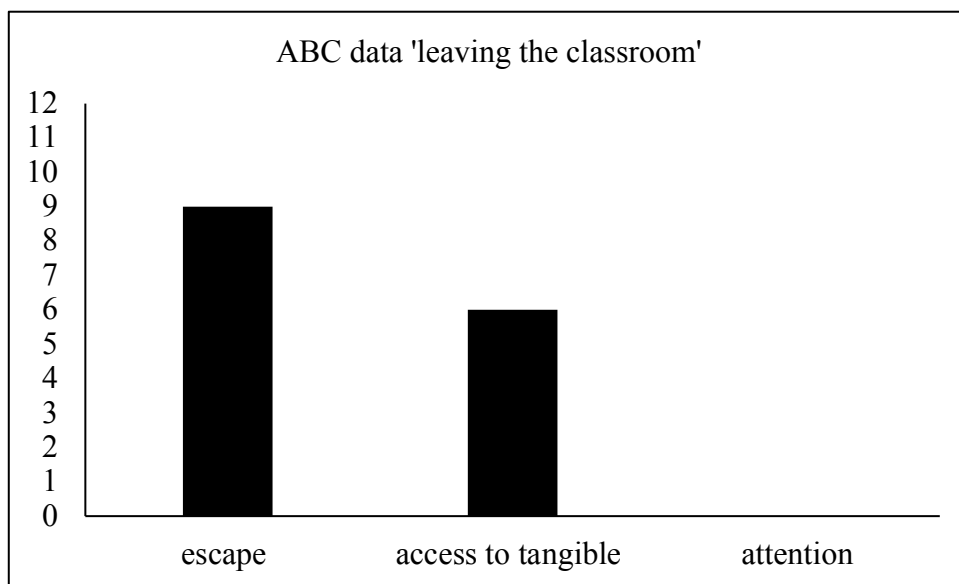


Figure 1.6. ABC data for student H's 'leaving the classroom behaviour'.

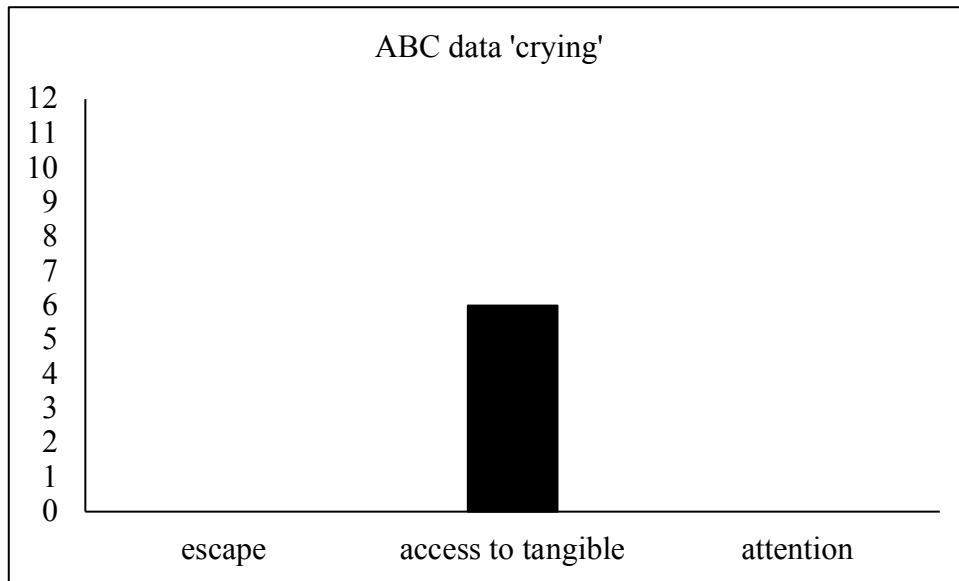


Figure 1.7. ABC data for student H's 'crying' behaviour.

Phase 2 results

Student M

To address student M's non-participation, FCT was used to teach student M use of a 'break please' card (FCR). 'Student M's non-participation behaviours were measured blockwise via partial interval recording. During baseline, non-participation behaviours during block 1 remained steady at 50% occurrence (calculated by dividing the number of intervals in which behaviour occurred by the total number of intervals and multiplying by 100) (see Figure 2.1). After the intervention was introduced in block 1, non-participation decreased initially until session 6, after which occurrences increased gradually to reach 100% in session 9 along with use of the FCR at 100%. In session 10, consequent reinforcement in the form of higher preferred stickers for task completion was added following a recommendation by the class teacher. Following this addition, non-participation behaviour decreased and remained steady for three days. At session 13 FCR use decreased by half however, occurrence of non-participation also decreased to 16.6% by session 14. Following this, use of the FCR remained

at 50% for two sessions. At session 18, FCR use increased to 100% and non-participation increased to 66.6%. In the following few sessions, use of the FCR reduced to 0 and non-participation remained steady at around 33.3-50-% until the end of the intervention phase. The use of the FCR remained at 0 and occurrences of non-participation also remained at 33.3% during the maintenance phase. Non-participation behaviour in block 2 (during baseline) varied between 50-83.3%. Similar to block 1, following baseline non-participation decreased steadily to 16.6% while use of the FCR showed an initial increase to 100%. FCR use then began to decrease from session 21 where it reached 0 levels for the remainder of the intervention and maintenance phases. Occurrences of non-participation were variable for the rest of the intervention and maintenance phases. Since independent tasks were rarely assigned in block 3, which primarily consisted of kaupapa, swimming, cooking and other class activities, occurrence of non-participation was low or 0 in block 3. As FCR was not introduced in block 3 use of FCR data was not collected.

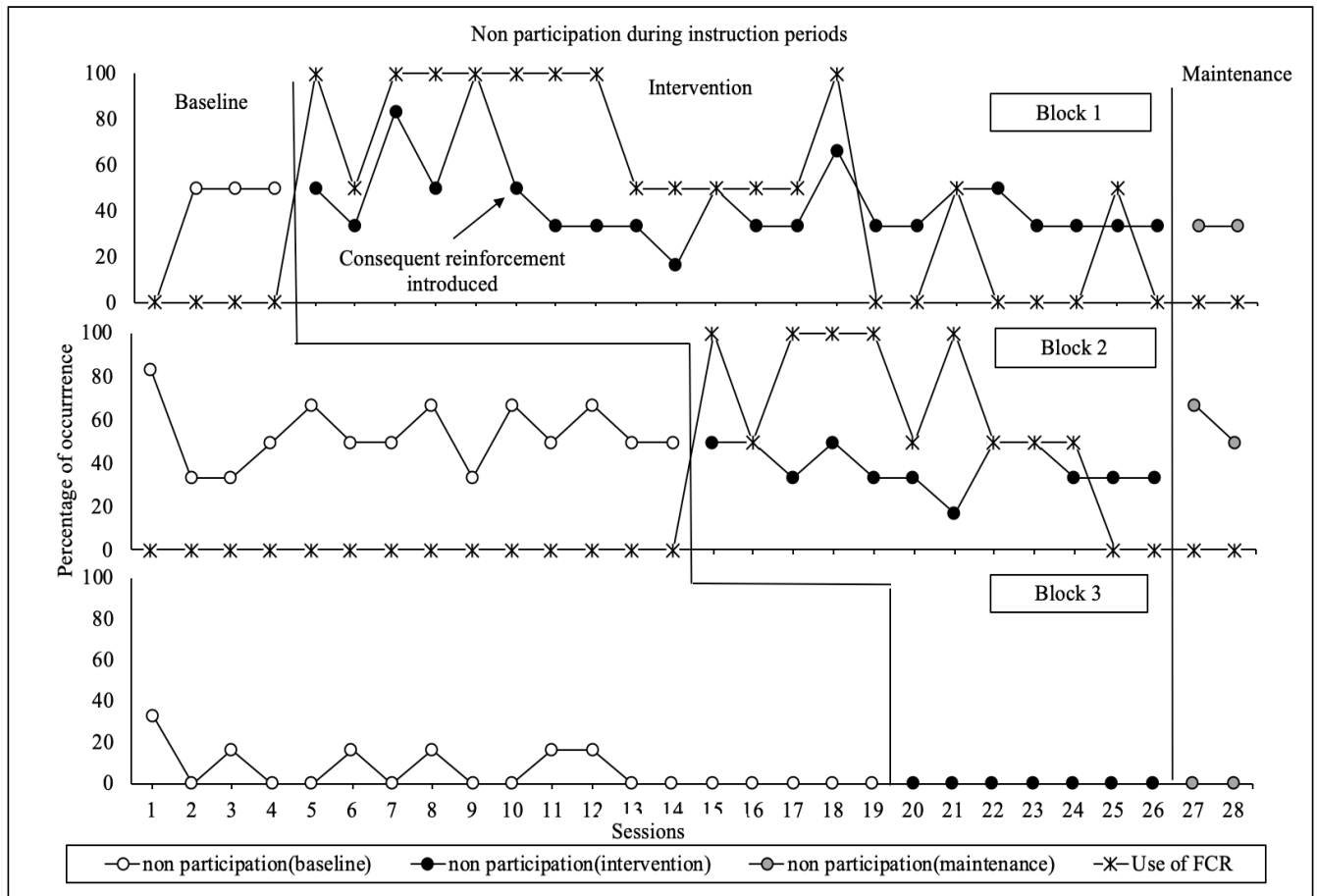


Figure 2.1. Percentage of occurrences of ‘non-participation’ and use of the FCR recorded across 3 learning blocks of the school day for student M.

Student H

Student H’s ‘non-instructed activity’ behaviour was measured via partial interval recording and graphed according to the three blocks and the activities depicted in the VAS that were divided throughout the day block wise. In block 1 and 2, there were three activities repeated and in the same order (whole class learning, 15-minute independent work, 10-minute play), and in block 3 there were two activities (whole class learning, and class clean up). Figure 2.2 shows engagement in non-instructed activity across the three classroom blocks. During baseline, occurrence of non-instructed activities ranged from 33.3 to 66.6% for all three blocks. In block 1, after the intervention was introduced, non-instructed activity

increased gradually to 66.6% in session 8. Throughout the following sessions, occurrences ranged from 33.3-50% and remained at 33.3% in session 17 until the intervention ended. Non-instructed activity remained at 33.3% in the first maintenance session but reduced to 16.6% in the second follow up session. In block 2 non-instructed activity increased to 66.6% in session 8, following which occurrences fluctuated until session 17. From session 17, occurrences decreased to 16.6% as the intervention phase ended. Non-instructed activity increased to baseline levels in the maintenance phase, from 33.3% in the first session to 50% in the second follow up. In block 3, occurrences of non-instructed activity were steady from 33.3-50% throughout the intervention and remained at 33.3% as the intervention ended and during the maintenance phase. Generally, across both baseline and intervention phases for all blocks, non-instructed activity remained variable and did not present much decrease.

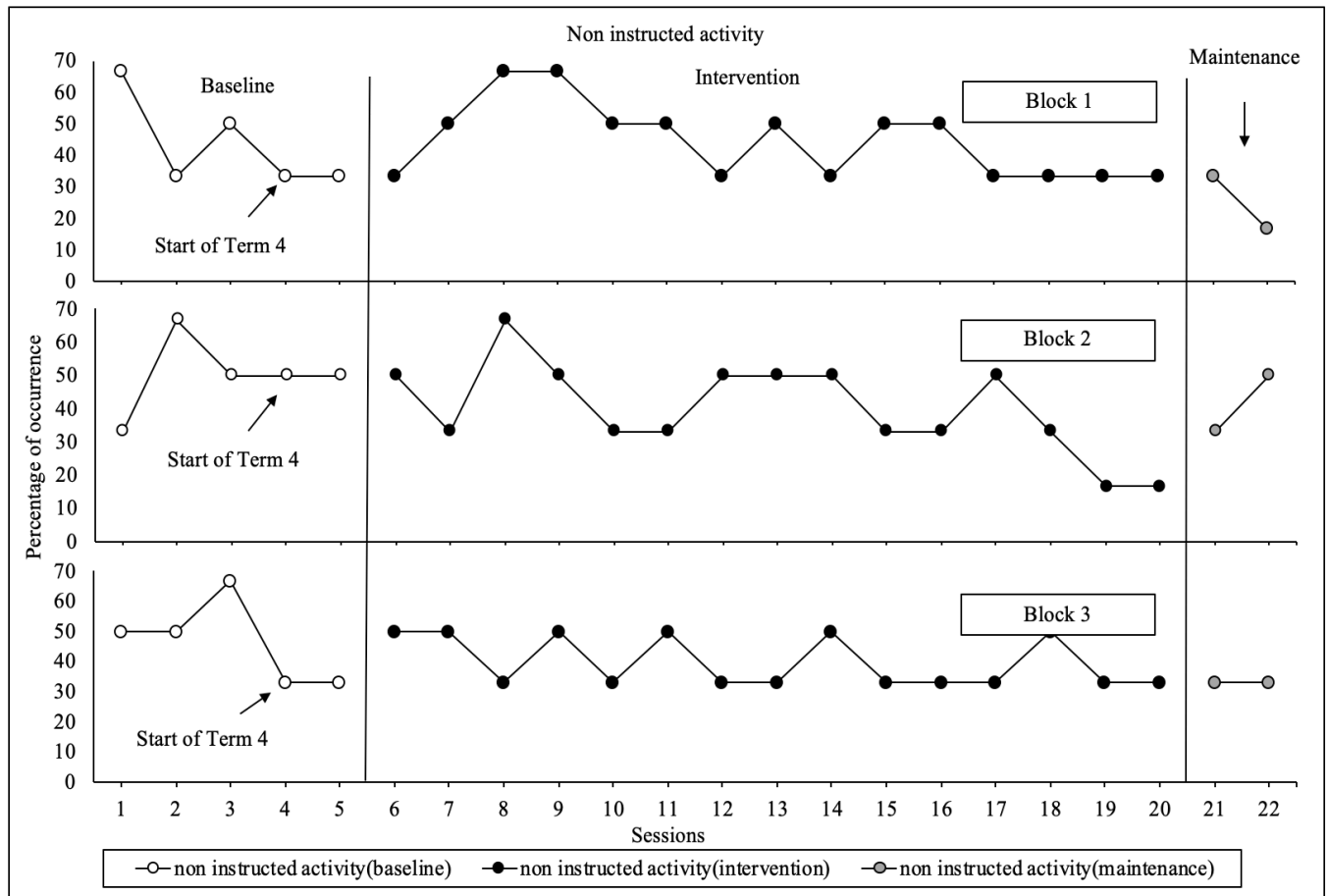


Figure 2.2. Percentage of occurrences of ‘non-instructed activity’ recorded across 3 learning blocks for student H.

Figure 2.3 shows prompting required for the use of the VAS across whole class learning that occurred in all three blocks. Use of prompts decreased across sessions but use of prompt level 2 occurred for multiple consecutive sessions in all three blocks. Prompt levels decreased to 0 (independent use of VAS) only twice in block 1 at session 12 and session 15 as the intervention ended and never decreased to 0 in block 2. Independent VAS use continued in the maintenance phase for block 1 and remained at prompt level 2 in block 2. In block 3, independent use only occurred in the final session (session 15) but continued into the maintenance phase.

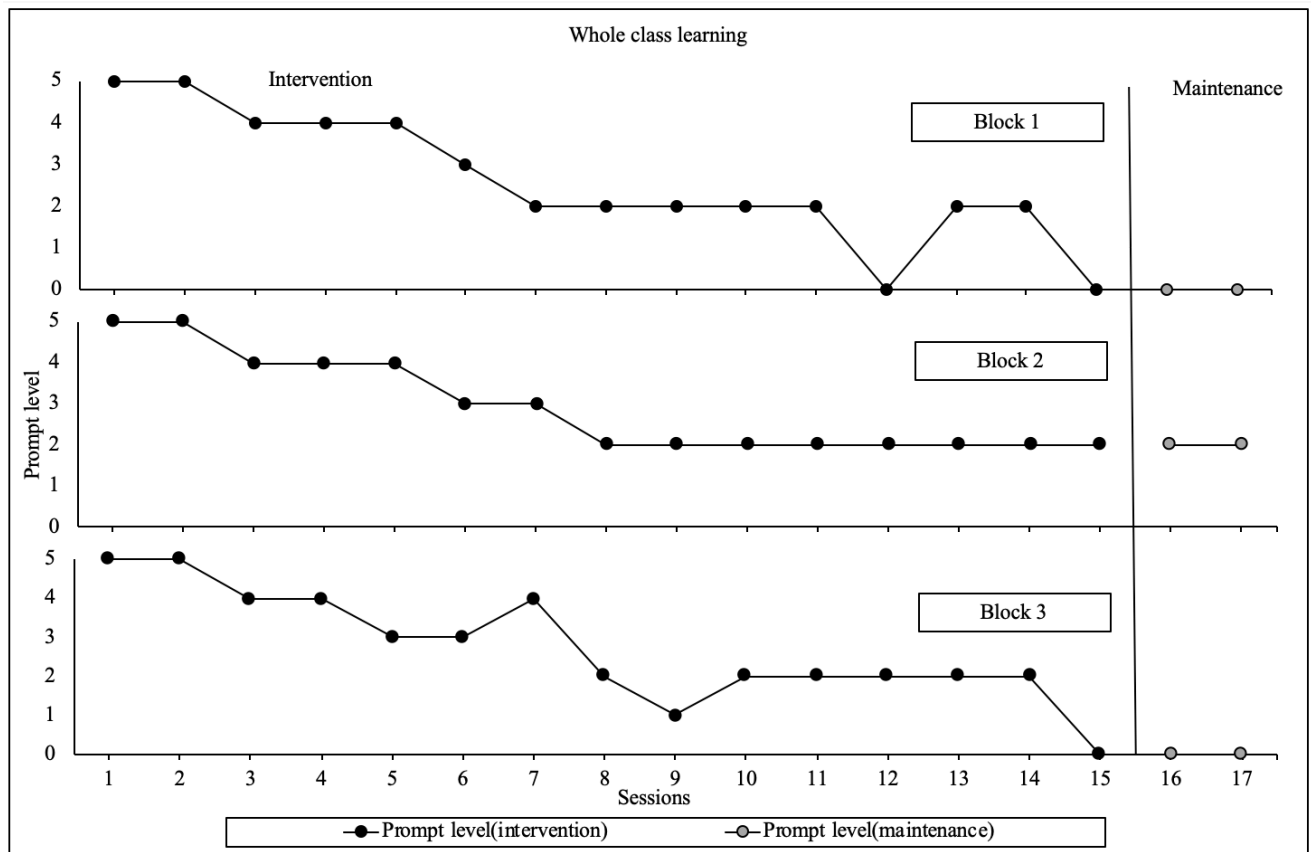


Figure 2.3. Prompt levels required for student H to use the VAS for ‘whole class learning’ across 3 learning blocks.

Figure 2.4 shows the use of prompting required for the use of the VAS for 15 min independent work. Note that independent work only occurred in blocks 1 and 2. Prompt levels were reduced consistently throughout block 1 and block 2 and had reduced to 0 by session 11 in block 1. Independent use continued throughout the end of the intervention and the maintenance sessions for this block. However, in block 2, independent use of the VAS occurred in session 10 and 11, but prompt level 1 and 2 were still required for session 12 and 14. Independent use occurred again in session 15 and continued through to the maintenance phase.

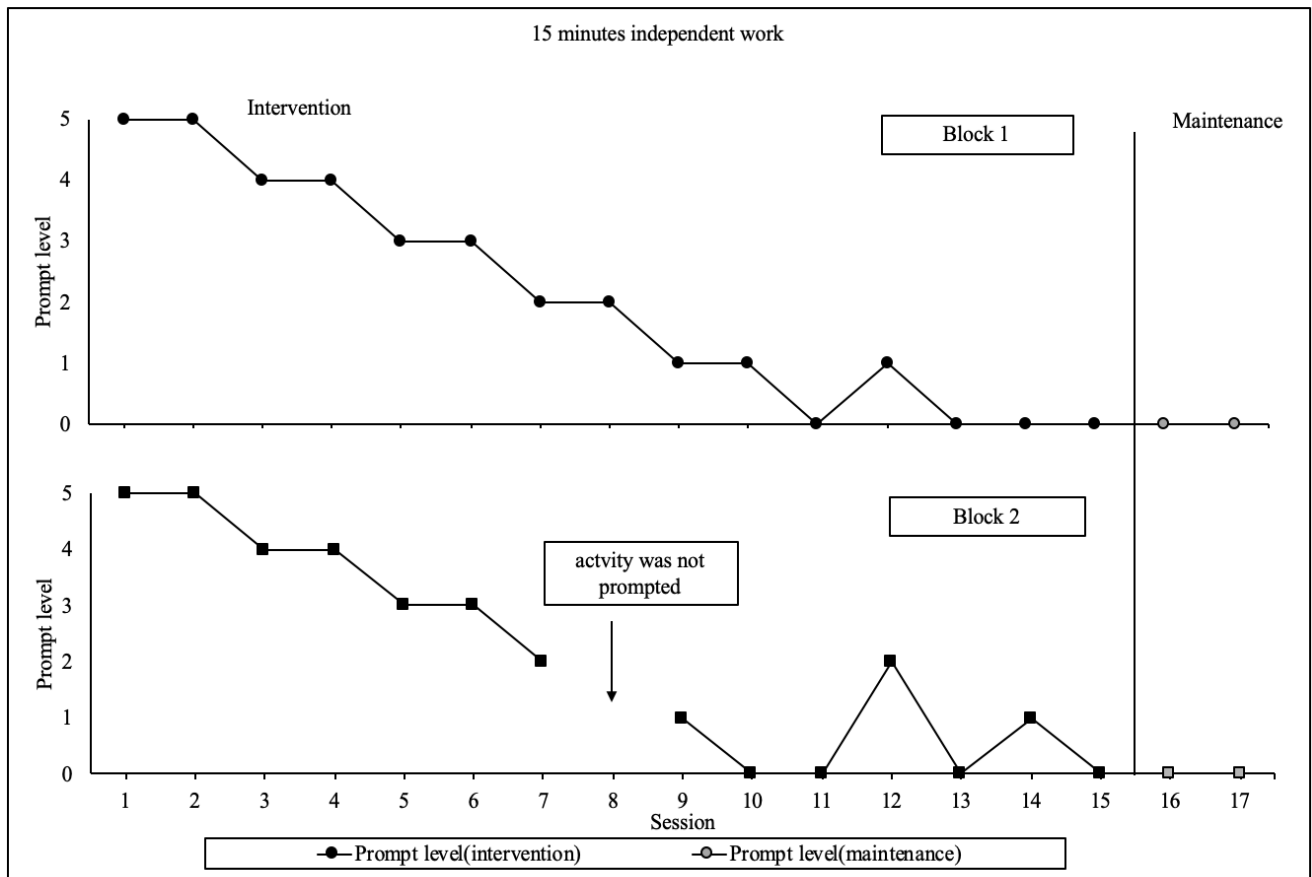


Figure 2.4. Prompt levels required for student H to use the VAS for ‘15 minutes independent work’ across 2 learning blocks.

Figure 2.5 shows the data for the ‘10-minute play’ activity in block 1 and 2. Note that 10-minute play only occurred in blocks 1 and 2. As 10-min play served as reinforcement for doing the previous activity (15-min independent work), prompts were faded relatively quickly and student H was able to independently use the VAS and engage in the activity by session 10 in block 1 and in session 9 in block 2. Independent use of the VAS then continued for both blocks for the remainder of the intervention and maintenance phases. As it had already been implemented by the teacher aide, Student H was familiar that the activity ‘15-minute independent work’ would be followed by ‘10-minute play’, hence it required fewer sessions for her to independently engage with the VAS for these activities. These activities were not prompted in session 8, as a class activity was conducted during that session instead.

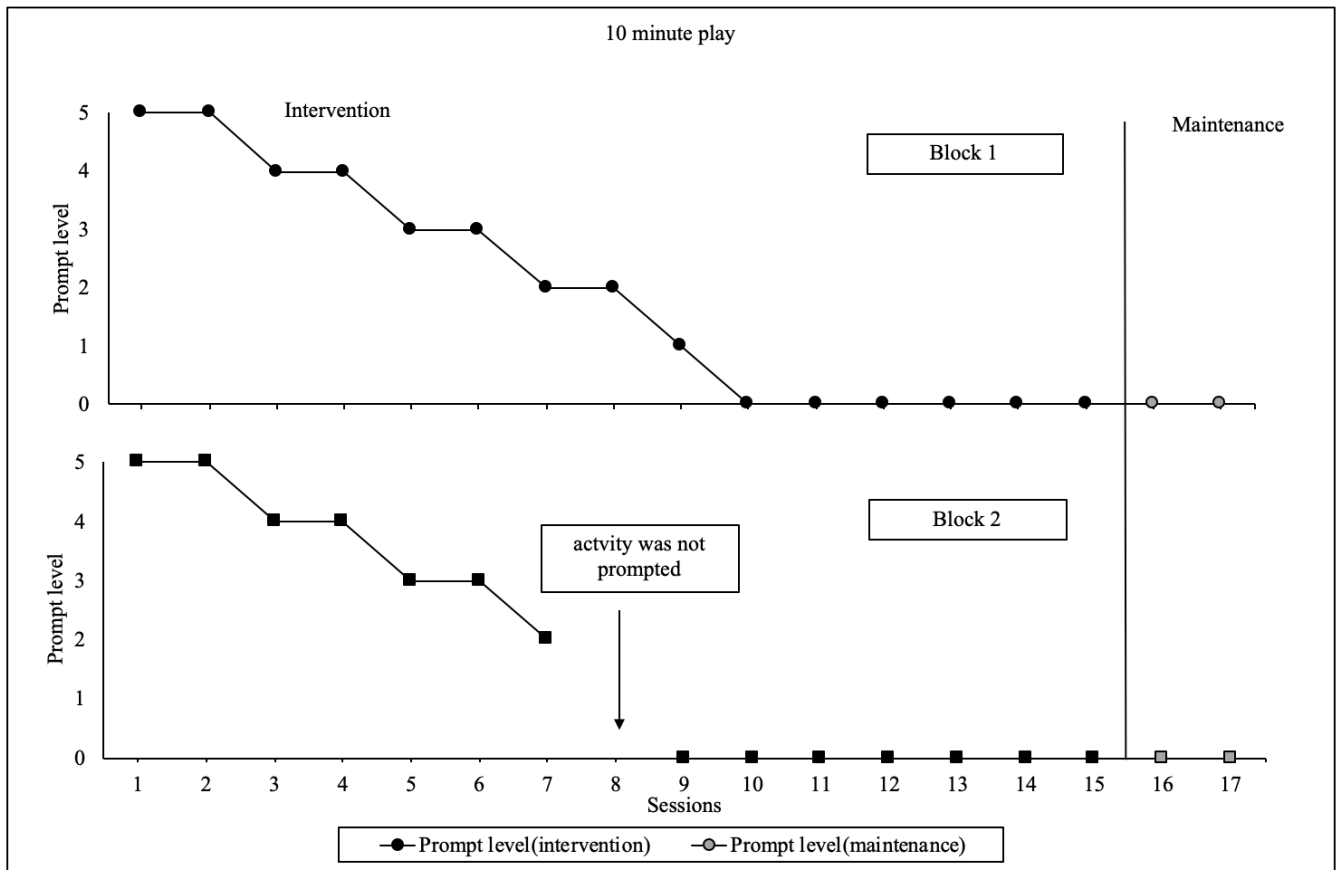


Figure 2.5. Prompt levels required for student H to use the VAS for ‘10 minute play’ across 2 learning blocks.

Figure 2.6 shows the data for the last activity, ‘class cleanup’, which only occurred in block 3 before the school day ended. Prompt levels were consistently faded until session 14 when independent VAS use was recorded. Independent use continued throughout the end of the intervention and maintenance phases.

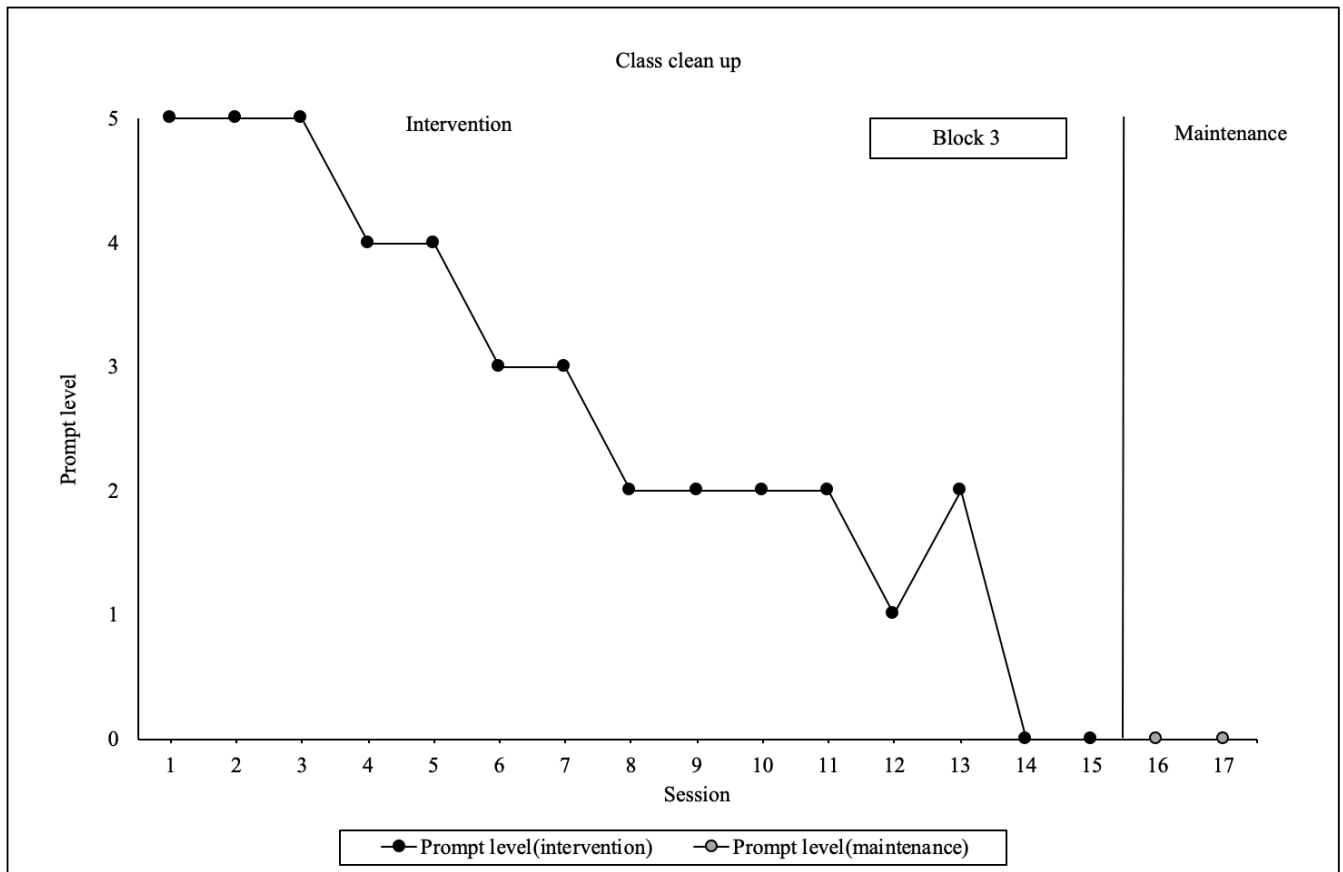


Figure 2.6. Prompt levels required for student H to use the VAS for ‘class clean up’ during block 3.

Social Validity

The IRP was filled out by both teachers on the last day of the follow up sessions. For student M, the FCT intervention scored a 109 on the rating scale. The VAS was scored 116 by student H’s teacher. Hence, both interventions were rated as acceptable by both teachers for application in the classroom setting to reduce behaviour change for these students.

Discussion

This study aimed to investigate the effectiveness of FCT and a VAS to reduce problem behaviour in two neurodiverse students - student M, a 6-year-old boy diagnosed with ASD and student H, a 6-year-old girl diagnosed with ASD and ADHD - in an inclusive classroom setting. An FBA was conducted and began with teacher interviews using the O-FAI followed by direct ABC narrative observations and structured observations utilising the FAO. The FBA identified that both participants engaged in behaviours that were maintained by escape from a task (negative reinforcement), but behaviour topographies varied, hence, a different intervention was implemented for each student. An FCT intervention was implemented to reduce ‘non-participation’ behaviour for student M, however, it was only moderately effective. For student H, a VAS was implemented to decrease ‘non-instructed activity’ and improve independence. While the VAS was ineffective in sufficiently reducing non-instructed activity, student H did achieve independent use of the VAS.

For student M, the target behaviour for intervention focused on his ‘non-participation’ which functioned as an escape from task demands presented in class. FCT for student M led to a moderate decrease in the occurrence of non-participation across all blocks for a short period. These findings do not align with a review investigating the effectiveness of FCT to reduce challenging behaviour for neurodiverse students in education settings (Corr et al. 2025). This review reported significant and positive long-term effects of FCT (Corr et al., 2025). FCT implemented specifically in inclusive classroom settings have also yielded significant results, for example, Reeves et al. (2017) successfully implemented an FCT programme to reduce off task behaviours for three students with ASD in an inclusive classroom. Walker and Snell (2016) were also able to train paraprofessionals to deliver and implement FCT to reduce challenging behaviours for three neurodiverse students where the

intervention yielded positive results and led to an increased use of appropriate communicative behaviours. FCT has also been utilised by parents to reduce disruptive behaviours in home settings (Derby et al., 1997). Since its implementation, FCT's efficacy has been continually supported by research (Ghaemmaghami et al., 2020). However, despite the wide evidence-base, results from the current study do not provide strong support for the positive implications of FCT to reduce non-participation behaviour for student M, given that only a moderate decrease from baseline levels was recorded.

A number of factors may have impacted on the findings reported here. Behaviour function may have been a factor. While it was determined via FBA that student M's behaviours served the function of escape (i.e., it occurred reliably when a task was assigned), it is possible that the function of his non-participation behaviour was incorrect. The function of a problem behaviour informs practitioners of the reinforcing factors that maintain its occurrence. These reinforcement contingencies, once identified, are utilised to develop interventions that aim to reduce the problem behaviour. Inaccurate behaviour function leads to ineffective behavioural interventions that can not only fail to result in behaviour change but inadvertently continue to provide reinforcement for the problem behaviour and thus increase its occurrence (Cooper et al., 2020). Specific to FCT itself, a communicative response that serves the same function as the problem behaviour is taught with the aim that targeting a functionally equivalent behaviour results in the same reinforcement as the maladaptive behaviour, reducing its occurrence (Gerow et al., 2018). The fact that the target behaviour of non-participation in this study generally did not reduce suggests that function may not have been correctly identified. To verify behaviour function, usually a Functional Analysis (FA) is also conducted, which consists of altering contingencies in an individual's natural environment to study the effect on the problem behaviour (Cooper et al., 2020). An

FA was not conducted for student M in this case as his behaviour occurred during instruction periods in an inclusive classroom and any alterations made to his environment may have disrupted or been unsafe for the entire class and the class teacher. Additionally, as the intervention was to be implemented in the classroom setting as it was, any alterations could impact the effectiveness of the intervention. Even after an FA is conducted, it is possible to get an undifferentiated result for behaviour function if a behaviour is maintained by multiple factors (Cooper et al., 2020). A Brief FA could have been conducted, where brief trials are conducted across four different conditions (demand, tangible, attention and control). In these trials the student is given the opportunity to engage in the behaviour when presented by each condition for a short, stipulated time after which the condition is changed. The number of trials in each condition where the behaviour occurs is calculated to determine the function of the behaviour (Sigafoos & Saggers, 1995). For student M, as his behaviour was non-participation (topography of passive inaction), a BFA may have also yielded an inconclusive result.

A further possible factor that may have impacted on the current findings was student M's eating and sleep behaviour. Anecdotally, student M's eating habits were irregular, and his diet consisted of chips and sugary drinks that may have led to a rapid decline in energy throughout the school day. Thus, his hiding and his non-participation behaviour could possibly be attributed to this resulting lack of energy following a decline in blood sugar levels. It was also reported that student M had some deficits in sleep behaviour, which may have also been contributing to his lack of energy, leading to student M's non-participation and reduced use of the FCR. There is an association between feeding problems and behavioural issues in children with ASD (Leader et al., 2020). Similarly, individuals with ASD tend to have issues with sleep, which does impact behaviour (Goldman et al., 2011). A

food and sleep diary for student M, completed at home and at school could have been used to collect data to support whether feeding and/or sleep issues were impacting the intervention. At the time of this study, these were confounding variables that could not be controlled.

As the intervention progressed the use of the FCR also reduced to the point that student M was not using the FCR at all as the intervention ended. The topography of his ‘non-participation’ behaviour involved passive inaction i.e., student M putting his head on the table and not orienting to the task materials. This behaviour required minimal response effort from student M, where the response effort required to use the FCR (i.e., to orient toward and lift the card to show the teacher and wait for the teacher’s acknowledgement) was more effortful. This discrepancy in the response effort required to engage in each behaviour may explain his reduced use of the FCR (Wilder et al., 2020). The response effort required to engage in a behaviour affects the reinforcement value. Behaviours requiring higher effort also need high magnitude reinforcement to ensure response occurrence (Rey & Gokey, 2023). For FCT it is important that the replacement behaviour requires less effort than the problem behaviour. When communicative behaviour requires more effort than the problem behaviour it fails to occur at higher rates than the problem behaviour, and thus does not replace that behaviour (Rey & Gokey, 2023). New functionally equivalent behaviours tend to occur more frequently than the problem behaviour when they require less or equal response effort than the problem behaviour itself (Horner & Day, 1991; Wilder et al., 2020). The class teacher also hypothesised that student M did not use the FCR because he was the only student in the class required to use it to access a break while his classmates did not have any such system. Therefore, the intervention itself may have added to student M’s social isolation, which students with ASD already struggle with in inclusive classrooms (Mamas et al., 2021).

Student M's non-participation did not occur in block 3, as it involved class activities such as kaupapa video lessons, swimming or athletics practice. This suggests that block 3 learning was more engaging and reinforcing for student M. It was not known if he had received any formal academic assessment however, observations revealed he tended to engage in non-participation whenever a task demand (involving independent writing) were presented. Therefore, the FCT intervention was also set up to facilitate task completion (introduction of consequent reinforcement). The reduced use of the FCR may have also occurred due to the consequent reinforcement strategy that was implemented to increase independent task completion. This strategy involved student M receiving high value reinforcers (stickers of race cars and dinosaurs) upon completion of a task. The reinforcement schedule originally aimed to increase task completion but may have also impacted the reinforcement value of the FCR. In this case the stickers, which are arbitrary reinforcers (i.e., reinforcers that are not functionally related to the behaviour) may have become competing reinforcers that led to a reduction in non-participation for a few sessions during the intervention phase. While the mechanisms behind the role of positive reinforcement in reducing behaviour maintained by negative reinforcement are not completely understood, the results for student M may contribute to the current literature in this area. Previous research has included the presentation of edible items as positive reinforcement where the edible was almost always more effective than escape (Kodak et al., 2007). Several possible explanations have been theorised, however, a single explanation has not yet been determined, and its effectiveness may vary from person to person, thus further research is required to better understand the mechanism of positive reinforcement to reduce negatively reinforced behaviours (Payne & Dozier, 2013). Other studies which have implemented FCT to reduce negatively reinforced behaviours (escape maintained behaviour) also included additional treatment components such as non-contingent escape (NCE) (Mildon et al., 2004) and

chained schedules to increase task completion (Zangrillo et al., 2016) which may have improved FCT effectiveness. In the current study, the addition of consequent reinforcement only temporarily reduced non-participation behaviour in student M. Therefore, no experimental control was seen for the FCT intervention, and it cannot be definitively stated that there was an effect of the intervention compared to baseline, i.e. the data does not present a functional relationship for student M.

For student H, a VAS was implemented to reduce the behaviour of ‘non-instructed activity’. While occurrences of non-instructed activity were variable throughout the intervention phase, they generally remained steady at around baseline levels as the intervention phase ended. At the start of term 4 (and during baseline data collection) structural changes were made to the classroom which may have impacted student H’s occurrences of non-instructed activity behaviour. These changes included removal of student H’s designated area, where she had toys and a tent she used to seclude herself in. Her toys were transferred to a box that was kept in a cupboard, which made her access to them more difficult. Additionally, student H was assigned a permanent seat directly in front of the class teacher as part of the assigned seating system. In the previous school term, students had to sit on the learning mat on the floor in random order during whole class learning and for independent tasks they had large tables to work on. In that setting, student H did not sit on the floor during whole class learning, instead she sat on a multipurpose table at the back of the class or in her area and did not engage in the lesson delivered by the class teacher. The new seating system may have allowed her to participate in the lesson and thus reduce occurrences of non-instructed activity during the second half of the baseline period. Even though non instructed activity increased during the intervention phase, manipulating environmental variables in the classroom have been found to have a positive impact on engagement and

decreased challenging behaviours of students with ASD and other disabilities and complemented the effectiveness of individual behaviour interventions (Jackson et al., 2022). It is possible that changes in the environmental setting could be accredited to change in student H's non-instructed activity noted specifically during baseline because a previous change in classroom location had also altered her behaviours (i.e., she did not engage in crying behaviours mentioned by the teacher in the initial interview following a classroom change). It is important to note that the classroom location change occurred before the study had commenced and any changes in occurrences of crying and screaming were recorded only as part of the interview, they were not observed by the researcher. Additionally, the effect of these environmental changes were not corroborated by overall data since they did not result in any reductions in non-instructed activity throughout the intervention. It is possible that due to the introduction of the intervention so soon after the structural changes were implemented no steady patterns of reduced non-instructed activity emerged, however, this possibility cannot be supported by the data collected for student H.

Despite part of the baseline data being collected in two different settings (i.e., the classroom with the structural changes in term 4), there was negligible change in non-instructed activity recorded as a result of the VAS itself. Non-instructed activity remained variable in block 1 and did not reduce below baseline levels, however, in block 2 while this variability persisted, there was a slight decline as the intervention phase ended. In block 3, data remained variable. These findings differ from studies where use of a VAS has successfully reduced problem behaviours and increased on task behaviours for students with neurodiverse needs (Lequia et al., 2012; Spriggs et al., 2016; Thomas & Karuppali, 2022). Student H's lack of behaviour change could be a result of the 'non- instructed activity' she was engaging in continuing to yield negative reinforcement even after the intervention was

implemented. That is, when student H was off task and engaged in activities not related to the task assigned, she was seldom redirected back to the task and was allowed to divert herself. A lack of reliable and consistent redirection to the task likely maintained the escape function. Resourcing pressures on teachers means that the teacher herself was not always able to redirect student H to complete her work, and although she had a teacher aide, she was only present for two hours in the school day. In addition, there was an absence of positive reinforcement for on task behaviour (Rey & Gokey, 2023) i.e., student H was not positively reinforced for engaging with a task to completion. A study by Scalzo et al., (2017) found that VAS implemented as a stand-alone intervention to reduce challenging behaviours for three boys with ASD, did not result in any changes in challenging behaviour or improvements in task engagement. However, when a reinforcement condition was added to the intervention, challenging behaviour reduced and more task engagement was recorded (Scalzo et al., 2017). It's important to note that the challenging behaviours targeted in this study were tangibly maintained (except one boy, whose behaviour was maintained by both tangibles and escape) while the FBA for student H's behaviour revealed her non instructed activity was primarily maintained by escape. Scalzo et al. (2017) suggest that the role of VAS in providing advance notice of an upcoming undesirable event (task) can explain the lack of behaviour reduction. They state that in certain cases, the VAS functions as a stimulus signalling an aversive event (task) which increases the value of reinforcement (escape from task) (Scalzo et al., 2017). This mechanism could also explain the occurrence of student H's non-instructed activity after the VAS was implemented.

While student H's non-instructed activity did not decrease, she did at times achieve almost full independent use of the VAS. Student H's increased independence aligns with the findings of studies where VAS was implemented to improve independence for

neurodivergent students (Lequia et al., 2012; Liang et al., 2024; Spriggs et al., 2016).

However, while prompting data indicated that student H was using the VAS and had at least begun the tasks listed in the schedule, data on task completion was not recorded. Thus, from the data collected student H was able to independently use the VAS but her non-instructed activity continued to yield escape and task completion received no consequence (i.e., positive reinforcement). As task completion was not positively reinforced, occurrences of non-instructed activity were not mediated (Hoch et al., 2002). While the VAS did not have a major impact on the occurrence of non-instructed activity, it did enable student H to participate in the class and she learnt to follow a classroom routine which was not taught to her previously. She was also engaging in more positive interactions with the class teacher and her classmates, but this change in behaviour could be related to the classroom changes mentioned previously.

Limitations

This study has several limitations. While data collected was for reduction of ‘non-instructed activity’ and ‘non-participation’, which were negatively reinforced escape behaviours, additional data for on task behaviour would have provided more insight as to the effectiveness of the interventions since both students engaged in escape maintained behaviour. For student M, this data could have revealed the effect of the consequent reinforcement strategy on increased task engagement. Studies on VAS primarily focus on the increase of on task behaviour rather than the decrease of off task behaviours, where a VAS has produced increases in task engagement (Lequia et al., 2012; Liang et al., 2024). On task data for student H would have provided insight on the effectiveness of the VAS on her task completion rather than just indicating tasks being started. Secondly, even though follow up data was collected in a maintenance phase, there was only a 5-day gap between the end of the

intervention and the maintenance sessions due to time constraints as the school term was ending. Thirdly, data related to student M's daily food intake and sleep duration were not able to be collected. These factors may have contributed to his non-participation behaviour. Student M was informally observed to be drinking one 400 ml bottle of Coca-Cola per day with at times, little food intake. A food diary would have helped to provide a more thorough account of the biological variables that may have been impacting his engagement in class activities. A procedural limitation was that the intervention was only implemented for a few weeks where the researcher was in each classroom on alternating days. This impeded data collection, where a longer, more consistent intervention period may have yielded better results. An additional limitation is the lack of data collection for both students on the days when the researcher was not present in the classroom. This data, if collected, would have provided further insight on the effectiveness of the interventions.

Conclusion

The aim of this study was to evaluate the effectiveness of FCT and VAS on challenging behaviours presented by two neurodiverse students in an inclusive classroom. While the VAS did not produce any changes in the target behaviour and FCT only led to a moderate reduction of the target behaviour, these results do not comment on the effectiveness of these interventions when viewed with the considerable evidence-base that exists for their implementation in education settings. There was, however, mild changes in the behaviours of both participants. Positive reinforcement added to FCT enabled student M to improve task completion, while the VAS and its independent use taught student H to follow a routine in the classroom while participating in learning with her classmates. Additionally, the intervention itself ensured both class teachers were provided with more support for these students than

they had prior to its implementation. Thus, behavioural interventions in inclusive classrooms add to the learning experience and, while not effective due to a variety of factors in the current study, can support the needs of neurodiverse students in inclusive classrooms. Additionally, both interventions were highly rated by both class teachers on the IRP, thus were considered to be socially valid.

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Appendix A (student M)

Open-Ended Functional Assessment Interview
Developed by Gregory P. Hanley, Ph.D., BCBA-D (Developed August, 2002; Revised: August, 2009)

Date of Interview: 30/7/25 Child/Client: Student M Interviewer: Mahi
Respondent: class teacher Respondent's relation to child/client: _____

RELEVANT BACKGROUND INFORMATION

1. His/her date of birth: _____ Age: 6 yrs 6 mo ☐ Check one: Male ☒ Female ☐

2. Describe his/her language abilities:
Fluent but sometimes mumbles so he can be hard to understand sometimes.

3. Describe his/her play skills and preferred toys or leisure activities:
He likes Lego and magnetic blocks but doesn't go out as the way to engage in play.

4. What else does he/she prefer?
He carries a blanket and a plushie, also enjoys or mine craft related videos and drama and com.

QUESTIONS TO INFORM THE DESIGN OF A FUNCTIONAL ANALYSIS

⇒ To develop objective definitions of observable problem behaviors:

5. What are the problem behaviors? What do they look like?
He doesn't attempt tasks sometimes and only he sitting in his desk with his head down, sometimes gets angry and will hit the air and kick the air.

⇒ To determine which problem behavior(s) will be targeted in the functional analysis:

6. What is the single-most concerning problem behavior?
He hides sometimes and will not participate in the class at all - hitting is also a concern but it does not occur often (last it occurred 3 weeks ago)

7. What are the top 3 most concerning problem behaviors? Are there other behaviors of concern?
lack of participation, hiding, hitting
head banging (sometimes the teacher has seen him bang his head on the form wall, though it not happen often)

- ⇒ To determine the precautions required when conducting the functional analysis:
8. Describe the range of intensities of the problem behaviors and the extent to which he/she or others may be hurt or injured from the problem behavior.

most behavior is not very intense or violent as except when someone takes his stuff and he gets angry and hits the air - that can be intense

- ⇒ To assist in identifying precursors to dangerous problem behaviors that may be targeted in the functional analysis instead of more dangerous problem behaviors:

9. Do the different types of problem behavior tend to occur in bursts or clusters and/or does any type of problem behavior typically precede another type of problem behavior (e.g., yells preceding hits)?

he will either hide and the entire day → he will be low energy but sometimes when he does not participate he will hide later in the day

- ⇒ To determine the antecedent conditions that may be incorporated into the functional analysis test conditions:
10. Under what conditions or situations are the problem behaviors most likely to occur?

- hiding occurs when he has not had proper sleep the night before (teacher has asked parent)
- hitting only occurs when someone triggers him or takes his stuff.

11. Do the problem behaviors reliably occur during any particular activities?

He tends to be slowed down and does not complete most of his tasks that the kids have to complete independently.
- usually he will be low energy and hide and other he will complete all his work

12. What seems to trigger the problem behavior?

Hitting is triggered when someone takes his stuff or when the boys are playfighting or get too close to him.
Hiding seems to occur whenever he's tired and he tends to not participate when independent task is assigned

13. Does problem behavior occur when you break routines or interrupt activities? If so, describe.

non participation happens more often when a new teacher is in class - but the class teacher tries to ensure only known relief teachers substitute for her on the days she is not there.

14. Does the problem behavior occur when it appears that he/she won't get his/her way? If so, describe the

probably hides under the table and behind the bookcase

- ⇒ To determine the test condition(s) that should be conducted and the specific type(s) of consequences that may be incorporated into the test condition(s):

15. How do you and others react or respond to the problem behavior?

when he hides the teacher usually lets him join the class at his time, if he does not complete his work the teacher is usually fine with it.

16. What do you and others do to calm him/her down once he/she engaged in the problem behavior?

when he gets aggruion he is given space and the teacher talks to him in a calm voice - and if someone has taken his things she ensure his stuff is given back.

17. What do you and others do to distract him/her from engaging in the problem behavior?

when possible the teacher will sit with him to explain a new concept to him so that he completes his work, sometimes the teacher will do the work for him when sitting with him.

- ⇒ In addition to the above information, to assist in developing a hunch as to why problem behavior is occurring and to assist in determining the test condition(s) to be conducted:

18. What do you think he/she is trying to communicate with his/her problem behavior, if anything?

that he does not want to do his work (non-participation), that he is tired (tiring) - that he is angry and wants his stuff back (aggression)

19. Do you think this problem behavior is a form of self stimulation? If so, what gives you that impression?

Probably only his headbanging even though the teacher is not sure and it's occurred every early -

20. Why do you think he/she is engaging in the problem behavior?

because he doesn't want to complete his work or he is too tired to be in school.

Submit by E-mail

①

Student: M

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
22/7	11:05	11:30	Class came back from morning tea	hid under the teacher's table	left alone until 2 block tasks began and teacher called him
	11:32	11:50	Teacher instructed M to begin work	grabbed the worksheet and returned to hiding space	task wasn't completed + M was left alone
22/7	11:56	12:10	Teacher was reading a story	put his head on the table but looked at the teacher	able to listen to the story (but it was not really participation)
	12:12	12:45	Teacher began new task	Head on the table and eyes closed	able to avoid task demand
	1:33	2:50	end of lunch + return to instruction	went to hiding space	left alone + able to avoid all participation

Target Behaviors:

②

Student: M

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
24/7	12:10	12:16	2nd independent task assigned	sat with his head in his hands	did not begin task 2, it was timed out
	12:36	12:45	independent series of tasks to complete	repetitive action of hitting his soft toy on all the desks in class	tasks were timed out (lunch) and left incomplete
	1:46	3:00	Kaupapa worksheets were assigned	hid near the book case but still seemed to be listening	stayed in the corner until home time (parent packed up his stuff for him)
25/7	10:12	10:20	independent tasks were assigned	M did not attempt begin work, instead went to his desk slouched	tasks were delayed - only began work once prompted
	10:33	10:41	ongoing independent work	passed working and slouched back on the desk	managed to avoid the work until prompted to get back

Target Behaviors:

(3)

Student: ML

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
25/7	12:23	12:45	a classmate took his plushie	got very angry and displayed aggression like kicking the chair	remained agitated but sat in the corner after instructed by teacher to calm down.
25/7	1:30	1:50	work assigned	Sitting on the ground near his desk, under blanket	work completely avoided
	1:53	3:00	change of activity	crawled to the corner	stayed there silently in the corner until break time.
31/7	10:16	10:23	independent work	walked around the class with his book in his hand	work delayed but did get back to it when directed by the teacher
	1:44	1:49	Kaupapa workbooks given	hunched on his table with his blanket	work avoided until task was timed out.

Target Behaviors:

(joined the jumping exercise after this)

(4)

Student: ML

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
1/8	11:17	11:42	time for independent work	called on his friends, talked to them and distracted them	work avoided and left incomplete
1/8	12:35	12:45	instructed to help his friends tidy up	Sat on his desk with his head on the table	task demand avoided - left alone
	1:35	1:56	video lesson	Sat under the teacher's table to listen	left alone (still paid attention and answered questions)
	2:35	3:00	jumping game with the class	while other children played ML just sat behind the bookcase	participation avoided

Target Behaviors:

M - non participation - Baseline

Date- 9/9/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	-	-	-	9:15 10:00
2	Interval	1	2	3	
	(+/-)	-	-	-	10:00 10:45
3	Interval	1	2	3	
	(+/-)	+	+	+	11:15 12:00
4	Interval	1	2	3	
	(+/-)	+	+	-	12:00 12:45
5	Interval	1	2	3	
	(+/-)	+	+	-	1:30 2:15
6	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

Total = $\frac{7}{19} \times 100 = 36.8\%$ occurrence
for day

Block 1 - 0% occurrence

Block 2 = $\frac{5}{6} \times 100 = 83.3\%$ occurrence

Block 3 = $\frac{2}{6} \times 100 = 33.3\%$ occurrence

M - non-participation,

Date- 11/9/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	+	9:15 10:00
2	Interval	1	2	3	
	(+/-)	-	-	-	10:00 10:45
3	Interval	1	2	3	
	(+/-)	-	-	-	11:15 12:00
4	Interval	1	2	3	
	(+/-)	-	+	+	12:00 12:45
5	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
6	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

Total - $\frac{5}{18} \times 100 = 27.7\%$ occurrence
for the day

Block 1 = $\frac{3}{6} \times 100 = 50\%$ occurrence

Block 2 = $\frac{2}{6} \times 100 = 33.3\%$

Block 3 = 0%

M - non participation

Date- 15/9/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	-	-	+	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total} = \frac{5}{18} \times 100 = 27.7\%$$

(day)

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

M- non participation

Date- 18/4/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
	(+/-)	-	+	-	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	+	+	10:00 10:45
—	Interval	1	2	3	
	(+/-)	-	-	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	+	+	+	12:00 12:45
—	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total} = \frac{6}{18} \times 100 = 33.3\% \text{ occurrence (day)}$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\% \text{ occurrence}$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\% \text{ occurrence}$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\% \text{ occurrence}$$

Student M

Step 0- point to the card and say "M, use the break card if you need a break"

Step -1 point to the break card "use the break card"

Step 2- point to the card and say "break card"

Step 3- only point to the card

Step 4- nod towards the card

Step 5- independent use of the break card

Prompt fading criteria- 3 consecutive correct responses on a prompt level

DATE	TIME/ BLOCK	PROMPT LEVEL	RESPONSE (y/n)	NOTES Tasks completed?
6/10/25	9:53 am (Block 1)	0	Y	Y
6/10/25	10:22 am (Block 1)	0	Y	Y
8/10/25	9:46 am (Block 1)	0	Y	Y
10/10/25	9:39 am (Block 1)	1	Y	N
10/10/25	10:28 am (Block 1)	1	Y	N
14/10/25	9:50 am (Block 1)	1	Y	Y
14/10/25	10:33 am (Block 1)	2	Y	N
16/10/25	10:06 am (Block 1)	2	N	N
16/10/25	10:08 am	2	Y	N
16/10/25	10:38 am	2	Y	N
20/10/25	9:48 am	2	Y	Y
20/10/25	10:30 am	3	Y	Y
22/10/25	9:50 am	3	Y	Y
22/10/25	10:18 am	5	Y	Y
24/10/25	9:47 am	5	N	N
24/10/25	9:51 am	3	Y	Y (received sticker once work was completed)

Block
1

consequent
strategy
(stickers)

②

Student M

Step 0- point to the card and say "M, use the break card if you need a break"

Step -1 point to the break card "use the break card"

Step 2- point to the card and say "break card"

Step 3- only point to the card

Step 4- nod towards the card

Step 5- independent use of the break card

Prompt fading criteria- 3 consecutive correct responses on a prompt level

	DATE	TIME/ BLOCK	PROMPT LEVEL	RESPONSE (y/n)	NOTES Tasks completed?
Block 1	24/10/25	10:24am	3	Y	Y
	28/10/25	10:36am	5	Y	Y (used break card by himself)
	30/10/25	10:37am	5	Y	Y
	31/10/25	9:35am	5	Y	Y
Block 2	3/11/25	11:46am (Block 2)	3	Y	Y
	3/11/25	12:32pm (Block 2)	3	Y	Y
	4/11/25	11:55am (Block 2)	3	Y	Y
	6/11/25	12:02pm (Block 2)	5	Y	Y → used card even before prompt
	6/11/25	12:35pm	5	Y	Y
	7/11/25	11:49am	5	N	N → was given 60 seconds before prompt delivery
	7/11/25	11:50am	3	Y	N
	7/11/25	12:22pm	5	Y	Y → used card as task was assigned
	11/11/25	11:57am	5	Y	Y
	11/11/25	12:28pm	5	Y	Y

Student M

DATE	TIME/BLOCK	FCR (y/n)	PROMPTED/ INDEPENDENT (P/I)	TASK COMPLETED (Y/N)	Reinforcement given (Y/N)
4/11/25	Block 1 (9:37am)	Y	1	Y	Y
4/11/25	Block 1 (10:21am)	N	-	Y	Y
6/11/25	Block 2 (9:50am)	Y	1	Y	Y
6/11/25	Block 2 (10:27am)	N	-	Y	Y
7/11/25	(Block 1) (10:06am)	Y	1	N	N
7/11/25	Block 1 (10:38am)	Y	1	N	N
11/11/25	Block 1 (9:41am)	N	-	Y	Y
11/11/25	Block 1 (10:20am)	N	-	Y	Y
13/11/25	Block 1 (9:57am)	N	-	Y	Y
13/11/25	Block 2 (11:53am)	Y	1	Y	Y
13/11/25	Block 2 (12:26pm)	N	-	Y	Y
13/11/25	Block 3 (2:21pm)	N	-	Y	Y
17/11/25	Block 1 (9:51am)	N	-	Y	Y
17/11/25	Block 1 (10:21am)	Y	1	Y	Y
17/11/25	Block 2 (11:33am)	Y	1	Y	Y
17/11/25	Block 2 (12:30pm)	N	-	Y	Y
17/11/25	Block 3 (2:22pm)	N	-	Y	Y
19/11/25	Block 1 (10:11am)	N	-	Y	Y
19/11/25	Block 2 (11:47am)	Y	1	Y	Y
19/11/25	Block 2 (12:26pm)	N	-	Y	Y
20/11/25	Block 1 (9:48am)	N	-	Y	Y
20/11/25	Block 1 (10:20am)	N	-	Y	Y

DATE	TIME/BLOCK	FCR (y/n)	PROMPTED/ INDEPENDENT (P/I)	TASK COMPLETED (Y/N)	Reinforcement given (Y/N)
20/11/25	Block 2 11:41am	Y	1	N	N
20/11/25	Block 2 12:19pm	N	-	Y	Y
24/11/25	Block 1 9:56am	N	-	Y	Y
24/11/25	Block 1 10:24am	N	-	Y	Y
24/11/25	Block 2 11:38pm	N	-	N	N
24/11/25	Block 2 12:12pm	Y	1	Y	Y
24/11/25	Block 3 2:23pm	N	-	Y	Y
25/11/25	Block 1 9:55am	Y	1	Y	Y
25/11/25	Block 1 11:39am	N	-	Y	Y
25/11/25	Block 2 12:18pm	N	-	Y	Y
28/11/25	Block 1 10:08am	N	-	Y	Y
28/11/25	Block 2 11:47am	N	-	Y	Y
28/11/25	Block 2 12:24pm	N	-	Y	Y
5/12/25	Block 1 10:17am	N	-	Y	Y
5/12/25	Block 2 11:53am	N	-	N	N
5/12/25	Block 2 12:22pm	N	-	N	N
5/12/25	Block 3 2:18pm	N	-	Y	Y
11/12/25	Block 1	N	-	N	N
11/12/25	Block 1	N	-	Y	Y
11/12/25	Block 2	N	-	Y	Y
11/12/25	Block 2	N	-	Y	Y

maintains

①

M - non participation

Date- 6/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

✓ -

2

-

3

Interval	1	2	3	TIME
(+/-)	+	+	+	9:15 10:00
Interval	1	2	3	
(+/-)	-	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	+	+	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	+	-	2:15 3:00

Total occurrences: $\frac{7}{18} \times 100 = 38.8\%$

Block 1 = $\frac{3}{6} \times 100 = 50\%$

Block 2 = $\frac{4}{6} \times 100 = 66.6\%$

Block 3 = $\frac{0}{6} \times 100 = 0\%$

②

M

Date- 8/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	-	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	-	-	-	11:15 12:00
Interval	1	2	3	
(+/-)	+	+	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	+	+	-	2:15 3:00

$$\text{Total occurrences} = \frac{5}{18} \times 100 = 27.7\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{1}{6} \times 100 = 16.6\%$$

P.T.O

③

M - non participation

Date- 10/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Block 1	Interval	1	2	3	TIME
	(+/-)	+	+	+	9:15 10:00
1	Interval	1	2	3	
	(+/-)	+	+	-	10:00 10:45
2	Interval	1	2	3	
	(+/-)	+	+	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	-	-	+	12:00 12:45
3	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{8}{18} \times 100 = 44.4\%$$

$$\text{Block 1} = \frac{5}{6} \times 100 = 83.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

4)

M - non participation

Date- 14/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

-

2

-

3

Interval	1	2	3	TIME
(+/-)	-	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	+	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	+	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{8}{18} \times 100 = 44.4\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 3} = \frac{1}{6} \times 100 = 16.6\%$$

P.T.O

⑤

M - non participation

Date- 16/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

-

2

-

3

Interval	1	2	3	TIME
(+/-)	+	+	+	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	-	-	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	+	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{9}{18} \times 100 = 55.5\%$$

$$\text{Block 1} = \frac{6}{6} \times 100 = 100\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

M - non participation

→ Striken einflusspunkt implemented from today

Date- 20/10/20

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Block

1

Interval	1	2	3	TIME
(+/-)	+	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	-	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	+	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

2

3

$$\text{Total occurrences} = \frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

P.T.O

⑦

M

Date- 22/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

Interval	1	2	3	TIME
(+/-)	-	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	-	+	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	+	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

2

3

$$\text{Total occurrences} = \frac{6}{18} \times 100 = 33.3\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{1}{6} \times 100 = 16.6\%$$

⑧

M - non participation

Date- 24/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	-	9:15 10:00
2	Interval	1	2	3	
	(+/-)	-	-	- ⁺	10:00 10:45
3	Interval	1	2	3	
	(+/-)	+	+	-	11:15 12:00
3	Interval	1	2	3	
	(+/-)	-	+	+	12:00 12:45
3	Interval	1	2	3	
	(+/-)	+	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 3} = \frac{1}{6} \times 100 = 16.6\%$$

⑨

M - non participation

Date-28/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	+	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{5}{18} \times 100 = 27.7\%$$

$$\text{Block 1} = \frac{2}{6} = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

⑩ M - nm participation

Date- 30/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

Interval	1	2	3	TIME
(+/-)	-	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

2

3

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{1}{6} \times 100 = 16.6\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

(11)

Date- 31/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	-	9:15 10:00
2	Interval	1	2	3	
	(+/-)	+	-	-	10:00 10:45
3	Interval	1	2	3	
	(+/-)	+	+	-	11:15 12:00
4	Interval	1	2	3	
	(+/-)	+	-	-	12:00 12:45
5	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
6	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{6}{18} \times 100 = 33.37$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0$$

(12)

M - non participation

Date- 4/11/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Block

1

-

2

-

3

Interval	1	2	3	TIME
(+/-)	+	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	+	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{5}{18} \times 100 = 27.7\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

P.T.O

13

Date- 6/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Block 1	Interval	1	2	3	TIME
	(+/-)	-	+	-	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	-	+	10:00 10:45
2	Interval	1	2	3	
	(+/-)	-	-	+	11:15 12:00
2	Interval	1	2	3	
	(+/-)	+	-	-	12:00 12:45
3	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

⑭

M - non participation

Date- 7/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

Interval	1	2	3	TIME
(+/-)	+	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

2

3

$$\text{Total Occurrences} = \frac{7}{18} \times 100 = 33.3\%$$

$$\text{Block 1} = \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0$$

PTO

1 (15)

M - non participation

Date- 11/11/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

Interval	1	2	3	TIME
(+/-)	-	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

2

3

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

16

M - Non Participation

Date- 13/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	+	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0$$

①7

M - non participation

Date- 17/11/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Block

1

-

2

-

3

Interval	1	2	3	TIME
(+/-)	+	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	+	-	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{1}{6} \times 100 = 16.6\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

18

M

Date- 19/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	+	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

Total occurrences = $\frac{6}{18} \times 100 = 33.3\%$

Block 1 = $\frac{3}{6} \times 100 = 50\%$

Block 2 = $\frac{3}{6} \times 100 = 50\%$

Block 3 = $\frac{0}{6} \times 100 = 0\%$

(19)

M - non participation

Date- 20/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	+	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	+	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{5}{19} \times 100 = 26.3\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

20

M - non Participation

Date- 24/11/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
	(+/-)	+	-	-	9:15 10:00
1	Interval	1	2	3	
	(+/-)	+	-	-	10:00 10:45
—	Interval	1	2	3	
	(+/-)	-	+	+	11:15 12:00
2	Interval	1	2	3	
	(+/-)	-	-	-	12:00 12:45
—	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

(21)

M - non participation

Date-25/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Blocks

1

Interval	1	2	3	TIME
(+/-)	+	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	-	-	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

2

-

3

$$\text{Totals occurrence} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

22

M - non participation

Date- 28/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	-	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	+		-	10:00 10:45
Interval	1	2	3	
(+/-)	+	-	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	+	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

M - non participation (maintain natural)

Date- 5/12/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	-	9:15 10:00
2	Interval	1	2	3	
	(+/-)	-	-	-	10:00 10:45
3	Interval	1	2	3	
	(+/-)	+	+	-	11:15 12:00
4	Interval	1	2	3	
	(+/-)	+	+	-	12:00 12:45
5	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
6	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{6}{18} \times 100 = 33.3\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

M-nm participation (maintenance trial)

Date- 11/12/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Block 1	Interval	1	2	3	TIME
	(+/-)	+	-	-	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	+	-	10:00 10:45
-	Interval	1	2	3	
	(+/-)	+	+	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	+	-	-	12:00 12:45
-	Interval	1	2	3	
	(+/-)	-	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\text{Total occurrences} = \frac{5}{18} \times 100 = 27.7\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{0}{6} \times 100 = 0\%$$

The purpose of this questionnaire is to obtain information that will aid in selection of classroom interventions. These interventions will be used by teachers of children with behavior problems. Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. Teachers are likely to use this intervention because it requires few technical skills.	1	2	3	4	5	6
2. Teachers are likely to use this intervention because it requires little training to implement effectively.	1	2	3	4	5	6
3. Most teachers would find the intervention suitable for the behavior problem described.	1	2	3	4	5	6
4. Most teachers would find this intervention appropriate for behavior problems in addition to the one described.	1	2	3	4	5	6
5. The child's behavior problem is severe enough to warrant use of this intervention.	1	2	3	4	5	6
6. This intervention would be appropriate for use before making a referral.	1	2	3	4	5	6
7. This intervention would not be difficult to implement in a classroom with 30 other students.	1	2	3	4	5	6
8. This intervention is practical in the amount of time required for parent contact.	1	2	3	4	5	6
9. This intervention is practical in the amount of time required for contact with school staff.	1	2	3	4	5	6
10. This intervention is practical in the amount of time required for recordkeeping.	1	2	3	4	5	6
11. This intervention is practical in the amount of out-of-school time required for implementation.	1	2	3	4	5	6
12. This intervention would not be disruptive to other students.	1	2	3	4	5	6
13. It would not be difficult to use this intervention and still meet the needs of other students.	1	2	3	4	5	6
14. This intervention should prove effective in changing the child's problem behavior.	1	2	3	4	5	6
15. This would be an acceptable intervention for the child's problem behavior.	1	2	3	4	5	6
16. This intervention would not result in negative side effects for the child.	1	2	3	4	5	6
17. This intervention would not result in risk to the child.	1	2	3	4	5	6
18. This intervention would not be considered a "last resort."	1	2	3	4	5	6
19. Overall, this intervention would be beneficial for the child.	1	2	3	4	5	6
20. I would be willing to use this intervention in the classroom setting.	1	2	3	4	5	6

FIGURE 3.5 Intervention Rating Profile.

From Witt, J. C., & Martens, B. K. (1983). Assessing the acceptability of behavioral interventions used in classrooms. *Psychology in the Schools*, 20, 510-517. Reprinted with permission.

Appendix B (student H)

Open-Ended Functional Assessment Interview
 Developed by Gregory P. Hanley, Ph.D., BCBA-D (Developed August, 2002; Revised: August, 2009)

Date of Interview: 11/7/25 Child/Client: Student H Interviewer: Mah
 Respondent: Class teacher Respondent's relation to child/client: _____

RELEVANT BACKGROUND INFORMATION

1. His/her date of birth: _____ Age: _____ yrs _____ mo ☐ Check one: Male ☐ Female ☒
2. Describe his/her language abilities:
generally fluent, babbles a lot, making her hard to understand
3. Describe his/her play skills and preferred toys or leisure activities:
has a designated area where she spends most of her time, make believe play is her favorite, has access to sensory toys - does engage with other students during group play - but not always.
4. What else does he/she prefer?
she loves the playground and being outside the classroom, coloring and any toys she brings from home.

QUESTIONS TO INFORM THE DESIGN OF A FUNCTIONAL ANALYSIS

⇒ To develop objective definitions of observable problem behaviors:

5. What are the problem behaviors? What do they look like?

Screaming and crying when brought to school, unable to let parent leave/teacher and leave the class. Banging on the glass and leaving the class.

⇒ To determine which problem behavior(s) will be targeted in the functional analysis:

6. What is the single-most concerning problem behavior?

Screaming and crying fits the most to occur pretty often in previous classroom but have barely occurred since classroom change - more settled but does leave the class unprompted pretty often.

7. What are the top 3 most concerning problem behaviors? Are there other behaviors of concern?

- ① screaming + crying pretty intense when it occurred.
- ② leaving the classroom (occasional banging in the window)
- ③ not sitting with class/classroom teachers at all.

⇒ To determine the precautions required when conducting the functional analysis:

8. Describe the range of intensities of the problem behaviors and the extent to which he/she or others may be hurt or injured from the problem behavior.

Idea tantrums used to be pretty scary as she would turn red and was difficult to calm - though usually did not lead to any violence.

⇒ To assist in identifying precursors to dangerous problem behaviors that may be targeted in the functional analysis instead of more dangerous problem behaviors:

9. Do the different types of problem behavior tend to occur in bursts or clusters and/or does any type of problem behavior typically precede another type of problem behavior (e.g., yells preceding hits)?

Initially, everyday started with tantrums as she did not want to be here, or hear ^{teacher} her. She does not like working with class teacher. But there aren't any specific things that set her off, mostly it's when she doesn't get her way.

⇒ To determine the antecedent conditions that may be incorporated into the functional analysis test conditions:

10. Under what conditions or situations are the problem behaviors most likely to occur?

She just cannot sit in the class for too long, tends to leave pretty often during class time or especially when teacher aid is not in the classroom.

11. Do the problem behaviors reliably occur during any particular activities?

Tantrum behaviours have definitely reduced after the classroom change but she'll still cry if the teacher is giving her a instruction or is reprimanded by her.

12. What seems to trigger the problem behavior?

- classroom teacher, direct instructions or reprimands

13. Does problem behavior occur when you break routines or interrupt activities? If so, describe.

She's not been in the class consistently enough to build a routine, she does most of the work with the teacher aid, occasionally will join the class in an activity.

14. Does the problem behavior occur when it appears that he/she won't get his/her way? If so, describe the

Yes, many times it's when she's stopped from doing something that she wants. But that also because it's the teacher, she's happy to listen to the teacher aid.

- ⇒ To determine the test condition(s) that should be conducted and the specific type(s) of consequences that may be incorporated into the test condition(s):

15. How do you and others react or respond to the problem behavior?

Initially her tantrums were intense that the teacher (self identified trigger) stayed away. Priority was that she stay in the class even if she does her own thing.

16. What do you and others do to calm him/her down once he/she engaged in the problem behavior?

Usually after she's been crying, ask her to find her calm and leave her to her space, she usually finds inside her tent.

17. What do you and others do to distract him/her from engaging in the problem behavior?

Often her behavior occurs without the teacher's notice, however, when the teacher aide is present she is taken out of the class to calm down.

- ⇒ In addition to the above information, to assist in developing a hunch as to why problem behavior is occurring and to assist in determining the test condition(s) to be conducted:

18. What do you think he/she is trying to communicate with his/her problem behavior, if anything?

— that she does not want to engage in the classroom, something more preferable is always there for her to do.

19. Do you think this problem behavior is a form of self stimulation? If so, what gives you that impression?

no. It occurs in relation classroom circumstances.

20. Why do you think he/she is engaging in the problem behavior?

— access to her preferred item.
— avoiding another instructions and directives.

Student: 14

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
14/7/25	10:08	10:17	Asked to do her workbook instead of iPad	crying	ran to her corner to cry - demand avoided.
14/7/25	10:32	10:45	left alone in her area with some toys	left the class	got to run around the class and swing in the pole - more preferred activity
14/7/25	11:15	11:23	End of morning tea - the class is coming back from eating time	Broke away from the class and ran away to play	got time to play on the playground + preferred activity
	11:38	11:41	told to clean up the big mess she made while playing	leaving the class	able to physically avoid demand + got to play in the playground
	12:17	12:25	Asked to do her workbook	left her workbook went to her area + rummaged with the glue sticks	avoided her workbook (not a preferred activity)

Target Behaviors:

- leaving the class
- crying, screaming

Student: 14

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
14/7/25	12:33	12:45	the classroom was doing a vocabulary lesson	moved away and fidgeted with markers + magnets	avoided participating demands from the class teacher (not a preferred activity)
	1:46	2:01	was called back in when she left the class to fidget with her bag	crying and saying 'I want to go home'	was consoled with 'it's almost home time'
15/7/25	9:32	9:49	class teacher was in the middle of the lesson	left the class to play in the playground	got 15 mins on the playground before teacher brought her in.
	10:30	10:42	Class teacher asked everyone to sit on the mat for a lesson	rearranged the magnets on the whiteboard	able to avoid whole class learning
	11:52	12:07	classroom teacher asked her to do workbook	Sat inside the tent with her stinky toy	avoided classroom teacher in her corner... with preferred item

Target Behaviors:

3

Student: H

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
15/7	12:22	12:38	asked to do her workbook	went into her tent with an iPad	workbook was avoided as it was lunch by the time she came out
15/7	1:52	2:08	was in her corner during class wide activity	left the class	got to run around playground until called back in by teacher
	2:42	2:44	teacher asked her to pack up for the day	crying and saying "teacher is mean"	Sat in the corner and demand avoided - mom came to pick her up soon after
21/7	9:20	9:35	class teacher was giving a behaviour lesson	Student H sat on the big table and played with items	did not sit with classmates + access to tangibles.
	9:49	10:12	instructed to do her workbook	left her work to sharpen class pencils	avoided workbook

Returned to school after 3 day absence the previous week

Target Behaviors:

4

Student: H

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
21/7	10:22	10:36	given workbook task to complete	sat to do it but used the markers to draw instead	allowed to draw until teacher said and tucked her
21/7	10:39	10:50	teacher asked student H to stop playing with iPad and go to play	stayed crying	eventually left the class when she was reassured that student H can play with iPad after break
21/7	11:21	11:26	when the class was coming back after eating time	spent time near the tree with flowers	wasn't called back to class until the entire class was tucked
	11:31	12:03	entire class was instructed by class teacher from leaving on the mat.	after sitting down immediately left for her area and stayed there	did not participate in the learning - was not called back until she returned by herself to participate in brain
	12:22	12:25	teacher said asked her to come back to her workbook	left work and went to her area and played with her toys	avoided workbook + break (danced) until teacher said + participated in activity

Target Behaviors:

5

Student: H

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
21/7	12:31	12:45	was playing in her area by herself	ran out the class for the playground	managed to stay out there until lunch + preferred activity
	1:41	2:01	class teacher instructed H and the class about some learning	separated from the class to play in her area	was able to stay in her area until she wanted to join the class + preferred activity
	2:21	2:50	H made a mess that class teacher asked her to clean	crying and leaving the classroom	stayed out there avoided demand until mum came to pick her up
23/7	9:47	9:50	teacher aide refused to give H a toy she wanted until she did work	crying	avoided work but did not use her toy
23/7	9:53	9:56	given a worksheet to do with the rest of the class	moved away from her work to play with male	avoided work (markers are not preferred activity)

Consistent school happy and joined the class in the morning

Target Behaviors:

6

Student: H

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
23/7	10:11	10:23	was sitting with her workbook	left the class and ran behind older kids	avoided work (older kids often entertain her - was brought back by them)
21	10:28	10:32	asked by teacher aide to do workbook	went to a classmate's table and used the 'pack'	avoided demand until redirected
23/7	10:37	10:41	was doing her workbook with teacher aide	moved away from her work to remove blue tack from window	work avoided until prompted
23/7	11:23	11:50	class was beginning a lesson when it said she wanted water	started re-arranging drink bottles	class work avoided until class teacher came
21	12:18	12:36	class with instructions	moved away from mat and into her area	engage in preferred activity until a video was played - which H was interested in

Target Behaviors:

⑦

Student: LT

A-B-C (Antecedent-Behavior-Consequence) Data Sheet: Narrative

Date	Start Time	End Time	Antecedent	Behavior	Consequence
23/7	12:42	12:42	video lesson was going on	Left the class saying "playtime" when other kids were out	was asked to come back by class teacher and wait
L1	1:46	2:00	teacher was giving instructions for kaupapa	Spent the lesson playing with the babies	was left alone until redirected
L1	2:09	2:20	class was doing a kaupapa lesson	motioned to her area to play with her toys	able to engage in preferred activity by herself after a while

Target Behaviors:

① Baseline

A non instructed activity

Date- 16/9/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	+	9:15 10:00
2	Interval	1	2	3	
	(+/-)	-	+	-	10:00 10:45
3	Interval	1	2	3	
	(+/-)	-	-	-	11:15 12:00
4	Interval	1	2	3	
	(+/-)	+	+	-	12:00 12:45
5	Interval	1	2	3	
	(+/-)	+	+	-	1:30 2:15
6	Interval	1	2	3	
	(+/-)	-	-	+	2:15 3:00

$$\text{Total} = \frac{9}{18} = 50\%$$

$$\text{Block 1} - \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 2} - \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{3}{6} \times 100 = 50\%$$

P.T.O

② Non-instructed activities

Date- 17/9/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	+	-	+	9:15 10:00
Interval	1	2	3	
(+/-)	-	-	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	+	+	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	+	2:15 3:00

$$\text{Total} = \frac{9}{18} \times 100 = 50\% \text{ occurrences}$$

$$\text{Block 1} - \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} - \frac{4}{6} \times 100 = 66.6$$

$$\text{Block 3} - \frac{3}{6} \times 100 = 50\%$$

P.T.O

③

H - non instructed activities

Date- 19/9/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

—

2

—

3

Interval	1	2	3	TIME
(+/-)	—	+	+	9:15 10:00
Interval	1	2	3	
(+/-)	—	—	+	10:00 10:45
Interval	1	2	3	
(+/-)	—	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	—	—	+	12:00 12:45
Interval	1	2	3	
(+/-)	—	+	+	1:30 2:15
Interval	1	2	3	
(+/-)	—	+	+	2:15 3:00

$$\text{Total} = \frac{8}{18} \times 100 = 44.4\% \text{ occurrences}$$

$$\text{Block 1} - \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} - \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} - \frac{4}{6} \times 100 = 66.6\%$$

④

B - non-instructed

Date- 7/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
1 (+/-)	—	+	+	9:15 10:00
Interval	1	2	3	
(+/-)	—	—	—	10:00 10:45
Interval	1	2	3	
(+/-)	—	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	—	—	+	12:00 12:45
Interval	1	2	3	
(+/-)	—	—	+	1:30 2:15
Interval	1	2	3	
(+/-)	—	+	—	2:15 3:00

$$\text{Total} - \frac{7}{18} \times 100 = 38.8\%$$

$$B1 - \frac{2}{6} \times 100 = 33.3\%$$

$$B2 - \frac{3}{6} \times 100 = 50\%$$

$$B3 = \frac{2}{6} \times 100 = 33.3\%$$

⑤

student H - non instructed activity

Date- 9/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

—

2

—

3

Interval	1	2	3	TIME
(+/-)	-	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	+	-	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	+	+	12:00 12:45
Interval	1	2	3	
(+/-)	-	+	-	1:30 2:15
Interval	1	2	3	
(+/-)	+	-	-	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

①

prompt numbers have been changed for the graph
 $0=5, 1=4, 2=3, 3=2, 4=1, 5=0$

Student H

- 5 Step 0- point to the schedule and say "H, let's see what's next on the schedule" before each activity
 4 Step 1- point to the schedule and say "let's see what's next" before an activity
 3 Step 2- point to and say "what's next" to draw attention to the schedule before an activity
 2 Step 3- point to the schedule before an activity
 1 Step 4- nod at the schedule before an activity
 0 Step 5- independent use of the schedule before an activity

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 2 consecutive sessions (days) on a prompt level

This key was only used as ref while data collection.

Activities-

- 1- Whole class learning 2- 15 min independent work time 3- 10 min play
 BREAK
 4- Whole class learning 5- 15 min work time 6- 10 min play
 LUNCH
 7- whole class learning 8- class clean up

(each activity has a graph depicting prompt use at diff times of day)

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
3/10/25	1	0	N	wanted to play - was prompted to be seated
3/10/25	1	0	Y	
3/10/25	2	0	Y	- knew what to do
3/10/25	3	0	Y	remembered old system of doing work book before reinforcement)
3/10/25	4	0	Y	
"	5	0	Y	
"	6	0	Y	
"	7	0	Y	
"	8	0	N	did not participate in cleaning
"	8	0	Y	was redirected by class teacher
5/10/25	1	0	Y	
15/10/25	2	0	Y	
15/10/25	3	0	Y	

②

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
15/10/25	4	0	Y	
15/10/25	5	0	Y	
15/10/25	6	0	Y	
15/10/25	7	0	Y	
"	8	0	N	did not respond to first prompt
	8	0	Y	
17/10/25	1	1	Y	
17/10/25	2	1	Y	
"	3	1	Y	
"	4	1	Y	
"	5	1	Y	
"	6	1	Y	
17/10/25	7	1	Y	
17/10/25	8	1	N	
17/10/25	8	0	Y	

③

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 2 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
21/10/25	1	1	Y	
21/10/25	2	1	Y	
21/10/25	3	1	Y	
21/10/25	4	1	Y	
"	5	1	Y	
"	6	1	Y	
"	7	1	Y	
"	8	1	Y	joined her classmates
23/10/25	1	2	N	- did not respond (learning) "what's next"
23/10/25	1	1	Y	
23/10/25	2	2	Y	
"	3	2	Y	
"	4	2	N	- needed a full sentence prompt
"	4	1	Y	
"	5	2	Y	
"	6	2	Y	
23/10/25	7	2	Y	

(4)

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
23/10/25	8	2	N	
"	8	1	Y	On the second prompt followed
27/10/25	1	2	Y	her classmate in cleaning
27/10/25	2	2	Y	
27/10	3	2	Y	
27/10	4	2	Y	
27/10	5	2	Y	
"	6	2	Y	
"	7	2	Y	
27/10/25	8	2	Y	
29/10/25	1	3	Y	
29/10/25	2	3	Y	
29/10	3	3	Y	
29/10	4	3	N	- needed verbal prompt -
29/10	4	2	Y	
"	5	3	Y	
"	6	3	Y	

⑤

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
27/10	7	3	N	- did not follow schedule until 3rd prompt
29/10	7	2	N	
29/10	7	1	Y	
29/10/25	8	3	N	
29/10	8	2	Y	
3/11	1	3	Y	
3/11	2	3	Y	
"	3	3	Y	
"	4	3	Y	
"	5	—	—	- class went
3/11	6	—	—	no work book on screen for 10 min
3/11	7	3	Y	play
3/11	8	3	Y	- Said "clean up!" when prompted
5/11/25	1	4	N	
5/11/25	1	3	Y	
5/11	2	4	Y	
5/11	3	4	Y	

⑥

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
5/11/25	4	4	N	- required reprompting
5/11/25	4	3	Y	
5/11/25	5	4	Y	
"	6	5	Y	
"	7	4	Y	
"	8	4	N	
"	8	3	Y	
10/11/25	1	4	N	
10/11	1	3	Y	
10/11	2	4	N	
10/11/25	2	3	Y	
10/11/25	3	5	Y	- referred to schedule by herself
10/11	4	4	N	
10/11	4	3	Y	
10/11	4	2	Y	- required 3 prompts
10/11	5	5	Y	{ - knew what to do
10/11	6	5	Y	

⑦

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1-Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
10/11/25	7	4	N	
10/11	7	3	Y	
10/11	8	4	N	
10/11	8	3	Y	
12/11/25	1	3	Y	- last mastered prompt
12/11/25	2	5	Y	} Know what to do
12/11/25	3	5	Y	
12/11	4	3	Y	- last mastered prompt used
12/11	5	5	Y	} Independent
12/11	6	5	Y	
12/11/25	7	3	Y	} last mastered prompt used
12/11/25	8	3	Y	

8

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
14/11/25	1	5	Y	- used and joined class
14/11/25	2	5	N	- did not engage independently
14/11/25	2	4	Y	
14/11/25	3	5	Y	- knew it was play
"	4	4	N	- prompt level increased
14/11	4	3	Y	
14/11	5	4	N	- higher prompt
14/11/25	5	3	Y	
"	6	5	Y	- knew it was play
"	7	4	N	
"	7	3	Y	
"	8	4	Y	prompt level (4) not yielding response
18/11/25	1	5	N	
18/11/25	1	4	N	- retrieval (4)
18/11/25	1	3	Y	
18/11	2	5	Y	2 ±
18/11	3	5	Y	3 ±

⑨

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
18/11/25	4	4	N	- att'n to the direction to the schedule
18/11/25	4	3	Y	(pointing is more obv)
18/11/25	5	5	Y	? independent
18/11/25	6	5	Y	
18/11	7	4	N	-(4)X
18/11	7	3	Y	
18/11	8	4	N	-(4)X
18/11	8	3	Y	
26/11/12	1	3	Y	
26/11/12	2	5	Y	? I
26/11	3	5	Y	
26/11	4	3	Y	
26/11	5	5	N	
26/11	5	1	Y	- last mastered prompt
26/11	6	5	Y	- I
26/11	7	3	Y	
26/11/25	8	5	Y	

→ prompt (3) - last mastered prompt for many of these activities.

Maintaining activity schedule

Prompt fading criteria- learner uses 80-100% of activity schedule correctly for 3 consecutive sessions (days) on a prompt level

Activities-

1- Whole class learning 2- 15 min independent work time 3- 10 min play

BREAK

4- Whole class learning 5- 15 min work time 6- 10 min play

LUNCH

7- whole class learning 8- class clean up

DATE	activity number	PROMPT LEVEL	RESPONSE (y/n)	NOTES
4/12/25	1	5	y	} I
4/12/25	2	5	y	
4/12/25	3	5	y	
	4	3	y	} I
	5	5	y	
	6	5	y	
	7	5	y	
	8	5	y	- joined the class in cleaning
11/12/25	1	5	y	} I
11/12/25	2	5	y	
11/12/25	3	5	y	
	4	3	y	- post break time teacher said, red section is required
	5	5	y	
	6	5	y	
	7	5	y	- post break time
	8	5	y	

Intervention

① H non instructed activity

Date- 13/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
	(+/-)	-	-	+	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	-	+	10:00 10:45
	Interval	1	2	3	
	(+/-)	-	+	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	-	+	+	12:00 12:45
	Interval	1	2	3	
	(+/-)	-	+	+	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	+	2:15 3:00

$$\frac{8}{18} \times 100 = 44.4\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{3}{6} = 50\%$$

② H - non instructed activity

Date- 15/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	-	9:15 10:00
—	Interval	1	2	3	
	(+/-)	—	+	— ⁺	10:00 10:45
2	Interval	1	2	3	
	(+/-)	—	+	—	11:15 12:00
—	Interval	1	2	3	
	(+/-)	+	—	—	12:00 12:45
3	Interval	1	2	3	
	(+/-)	+	+	—	1:30 2:15
	Interval	1	2	3	
	(+/-)	+	—	—	2:15 3:00

$$\text{Total Occurrences} = \frac{8}{18} \times 100 = 44.4\%$$

$$B1 = \frac{3}{6} \times 100 = 50\%$$

$$B2 = \frac{2}{6} \times 100 = 33.3\%$$

$$B3 = \frac{3}{6} \times 100 = 50\%$$

② H - non instructed activity

Date- 15/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	+	+	-	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	+	-	10:00 10:45
2	Interval	1	2	3	
	(+/-)	-	+	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	+	-	-	12:00 12:45
3	Interval	1	2	3	
	(+/-)	+	+	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	+	-	-	2:15 3:00

$$\text{Total Occurrences} = \frac{8}{18} \times 100 = 44.4\%$$

$$B1 = \frac{3}{6} \times 100 = 50\%$$

$$B2 = \frac{2}{6} \times 100 = 33.3\%$$

$$B3 = \frac{3}{6} \times 100 = 50\%$$

③

H- non instructed activity

Date- 17/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
	(+/-)	+	+	-	9:15 10:00
1	Interval	1	2	3	
	(+/-)	+	-	+	10:00 10:45
—	Interval	1	2	3	
	(+/-)	-	+	+	11:15 12:00
2	Interval	1	2	3	
	(+/-)	+	-	+	12:00 12:45
—	Interval	1	2	3	
	(+/-)	-	+	+	1:30 2:15
3	Interval	1	2	3	
	(+/-)	+	-	-	2:15 3:00

Total
occurring = $\frac{10}{18} \times 100 = 55.5\%$

Block 1 = $\frac{4}{6} \times 100 = 66.6\%$

Block 2 = $\frac{4}{6} \times 100 = 66.6\%$

Block 3 = $\frac{2}{6} \times 100 = 33.3\%$

④

H- non instructed activity

Date- 21/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	—	+	+	9:15 10:00
Interval	1	2	3	
(+/-)	+	—	+	10:00 10:45
Interval	1	2	3	
(+/-)	—	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	—	—	12:00 12:45
Interval	1	2	3	
(+/-)	—	+	+	1:30 2:15
Interval	1	2	3	
(+/-)	+	—	—	2:15 3:00

$$\frac{10}{18} \times 100 = 55.5\%$$

$$\text{Block 1} = \frac{4}{6} \times 100 = 66.6\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{3}{6} \times 100 = 50\%$$

⑥

H - non instructed activity

Date- 27/10/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

Interval	1	2	3	TIME
(+/-)	+	-	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	-	+	+	1:30 2:15
Interval	1	2	3	
(+/-)	-	+	-	2:15 3:00

2

-

3

$$\frac{8}{18} \times 100 = 44.4\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{3}{6} \times 100 = 50\%$$

⑦

H - non instuded activity

Date- 29/10/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

—

2

—

3

Interval	1	2	3	TIME
(+/-)	—	—	+	9:15 10:00
Interval	1	2	3	
(+/-)	—	+	—	10:00 10:45
Interval	1	2	3	
(+/-)	—	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	+	—	—	12:00 12:45
Interval	1	2	3	
(+/-)	—	+	—	1:30 2:15
Interval	1	2	3	
(+/-)	—	+	—	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

⑧

H-non instructed

Date- 3/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
	(+/-)	-	-	+	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	-	- ⁺	10:00 10:45
-	Interval	1	2	3	
	(+/-)	-	+	+	11:15 12:00
2	Interval	1	2	3	
	(+/-)	-	+	-	12:00 12:45
-	Interval	1	2	3	
	(+/-)	-	+	+	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\frac{8}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

⑨

H - non instructed activity

Date- 5/11/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

-

2

-

3

Interval	1	2	3	TIME
(+/-)	-	-	+	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	-	+	+	12:00 12:45
Interval	1	2	3	
(+/-)	-	+	+	1:30 2:15
Interval	1	2	3	
(+/-)	-	-	+	2:15 3:00

$$\frac{8}{18} \times 100 = 44.4\%$$

$$\text{Block 1} = \frac{8}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{3}{6} \times 100 = 50\%$$

(10)

H

Date- 10/11/12

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

—

2

—

3

Interval	1	2	3	TIME
(+/-)	—	+	—	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	—	10:00 10:45
Interval	1	2	3	
(+/-)	—	—	+	11:15 12:00
Interval	1	2	3	
(+/-)	—	—	—	12:00 12:45
Interval	1	2	3	
(+/-)	+	+	—	1:30 2:15
Interval	1	2	3	
(+/-)	—	—	—	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

(10)

H

Date- 10/11/12

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1

—

2

—

3

Interval	1	2	3	TIME
(+/-)	—	+	—	9:15 10:00
Interval	1	2	3	
(+/-)	+	+	—	10:00 10:45
Interval	1	2	3	
(+/-)	—	—	+	11:15 12:00
Interval	1	2	3	
(+/-)	—	—	—	12:00 12:45
Interval	1	2	3	
(+/-)	+	+	—	1:30 2:15
Interval	1	2	3	
(+/-)	—	—	—	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

(17)

H

Date- 12/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	-	-	+	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	+	10:00 10:45
Interval	1	2	3	
(+/-)	-	+	-	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	+	12:00 12:45
Interval	1	2	3	
(+/-)	+	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	+	-	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

(12)

Student H

Date- 14/11/12

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	—	—	—	9:15 10:00
	Interval	1	2	3	
2	(+/-)	+	+	—	10:00 10:45
	Interval	1	2	3	
	(+/-)	—	+	+	11:15 12:00
3	Interval	1	2	3	
	(+/-)	—	—	+	12:00 12:45
	Interval	1	2	3	
	(+/-)	+	—	—	1:30 2:15
	Interval	1	2	3	
	(+/-)	—	—	—	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

(13)

H - non instructed activities

Date- 18/11/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	—	+	—	9:15 10:00
Interval	1	2	3	
(+/-)	—	+	—	10:00 10:45
Interval	1	2	3	
(+/-)	—	+	+	11:15 12:00
Interval	1	2	3	
(+/-)	—	—	+	12:00 12:45
Interval	1	2	3	
(+/-)	—	+	+	1:30 2:15
Interval	1	2	3	
(+/-)	—	—	+	2:15 3:00

$$\frac{7}{18} \times 100 = 38.8\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{3}{6} \times 100 = 50\%$$

(14)

Student Lt

Date- 26/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

Interval	1	2	3	TIME
(+/-)	-	+	-	9:15 10:00
Interval	1	2	3	
(+/-)	-	+	-	10:00 10:45
Interval	1	2	3	
(+/-)	-	-	+	11:15 12:00
Interval	1	2	3	
(+/-)	-	-	-	12:00 12:45
Interval	1	2	3	
(+/-)	+	-	-	1:30 2:15
Interval	1	2	3	
(+/-)	-	+	-	2:15 3:00

$$\frac{5}{18} \times 100 = 27.7\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{1}{6} \times 100 = 16.6\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

15 H

Date- 27/11/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
	(+/-)	-	-	+	9:15 10:00
1	Interval	1	2	3	
	(+/-)	-	+	-	10:00 10:45
-	Interval	1	2	3	
	(+/-)	+	-	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	-	-	-	12:00 12:45
-	Interval	1	2	3	
	(+/-)	+	+	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	-	-	2:15 3:00

$$\frac{5}{18} \times 100 = 27.7\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{1}{6} \times 100 = 16.6$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

①6

Student H - maintenance trial

Date- 4/12/25

1 Interval= 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

	Interval	1	2	3	TIME
1	(+/-)	-	-	+	9:15 10:00
	Interval	1	2	3	
	(+/-)	-	+	-	10:00 10:45
	Interval	1	2	3	
	(+/-)	+	-	-	11:15 12:00
2	Interval	1	2	3	
	(+/-)	+	-	-	12:00 12:45
	Interval	1	2	3	
	(+/-)	+	-	-	1:30 2:15
3	Interval	1	2	3	
	(+/-)	-	+	-	2:15 3:00

$$\frac{6}{19} \times 100 = 33.3\%$$

$$\text{Block 1} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 2} = \frac{2}{6} \times 100 = 33.3\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

Maintenance trial

Date- 11/12/25

1 Interval = 15 min

+ = Target Behavior Occurred

- = Target Behavior Did not Occur

1	Interval	1	2	3	TIME
	(+/-)	-	-	-	9:15 10:00
2	Interval	1	2	3	
	(+/-)	-	+	-	10:00 10:45
3	Interval	1	2	3	
	(+/-)	+	+	-	11:15 12:00
4	Interval	1	2	3	
	(+/-)	-	+	-	12:00 12:45
5	Interval	1	2	3	
	(+/-)	+	-	-	1:30 2:15
6	Interval	1	2	3	
	(+/-)	-	+	-	2:15 3:00

$$\frac{4}{18} \times 100 = 22.2\%$$

$$\text{Block 1} = \frac{1}{6} \times 100 = 16.6\%$$

$$\text{Block 2} = \frac{3}{6} \times 100 = 50\%$$

$$\text{Block 3} = \frac{2}{6} \times 100 = 33.3\%$$

Notes: teacher said she's been attending school everyday and doing both class activities (worksheets) + independent workbook - uses activity schedule + timer.

The purpose of this questionnaire is to obtain information that will aid in selection of classroom interventions. These interventions will be used by teachers of children with behavior problems. Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. Teachers are likely to use this intervention because it requires few technical skills.	1	2	3	4	5	6
2. Teachers are likely to use this intervention because it requires little training to implement effectively.	1	2	3	4	5	6
3. Most teachers would find the intervention suitable for the behavior problem described.	1	2	3	4	5	6
4. Most teachers would find this intervention appropriate for behavior problems in addition to the one described.	1	2	3	4	5	6
5. The child's behavior problem is severe enough to warrant use of this intervention.	1	2	3	4	5	6
6. This intervention would be appropriate for use before making a referral.	1	2	3	4	5	6
7. This intervention would not be difficult to implement in a classroom with 30 other students.	1	2	3	4	5	6
8. This intervention is practical in the amount of time required for parent contact.	1	2	3	4	5	6
9. This intervention is practical in the amount of time required for contact with school staff.	1	2	3	4	5	6
10. This intervention is practical in the amount of time required for recordkeeping.	1	2	3	4	5	6
11. This intervention is practical in the amount of out-of-school time required for implementation.	1	2	3	4	5	6
12. This intervention would not be disruptive to other students.	1	2	3	4	5	6
13. It would not be difficult to use this intervention and still meet the needs of other students.	1	2	3	4	5	6
14. This intervention should prove effective in changing the child's problem behavior.	1	2	3	4	5	6
15. This would be an acceptable intervention for the child's problem behavior.	1	2	3	4	5	6
16. This intervention would not result in negative side effects for the child.	1	2	3	4	5	6
17. This intervention would not result in risk to the child.	1	2	3	4	5	6
18. This intervention would not be considered a "last resort."	1	2	3	4	5	6
19. Overall, this intervention would be beneficial for the child.	1	2	3	4	5	6
20. I would be willing to use this intervention in the classroom setting.	1	2	3	4	5	6

FIGURE 3.5 Intervention Rating Profile.

From Witt, J. C., & Martens, B. K. (1983). Assessing the acceptability of behavioral interventions used in classrooms. *Psychology in the Schools*, 20, 510-517. Reprinted with permission.