



INFORMATION PAPER

Research to Inform Practice



Teaching Essential Skills to Prevent the Development of Challenging Behaviour in Learners with Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is diagnosed based on difficulties with social communication and social interaction and restricted or repetitive patterns of behaviour that become apparent early in a child's development (American Psychiatric Association, DSM-5 Factsheet). Although these characteristics are common to all individuals with ASD, we know that each person with ASD has a unique combination of strengths and challenges. Some individuals with ASD are extremely creative and artistic, while others excel with patterns, math, or technology. Some speak eloquently about their areas of interest, while some may have no vocal language and require alternative systems of communication to make their needs known to others. One area of challenge that is more prevalent in this population than in their typically developing peers is the development of challenging behaviour (Fodstad, Rojahn, & Matson, 2012; Kanne & Mazurek, 2011; Minshawi et al., 2014; Richards et al., 2012). The nature and intensity of the behaviours exhibited by some children and youth with ASD make it difficult for educational staff to serve these learners at school and for families and caregivers to manage the behaviours at home and in the community.

Challenging behaviour in this paper refers to behaviour that interferes with learning, is socially stigmatizing, or is potentially harmful to the individual or others. Often, challenging behaviours have a significant impact on functioning at home and school as well as in the community. The most common challenging behaviours in individuals with ASD include physical aggression, verbal aggression, property destruction, tantrum behaviour, screaming, and self-injury (McClintock, Hall, & Oliver,

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Information Papers provide topical research summaries and recommendations based on empirical evidence in the field of Autism Spectrum Disorder. It is our aim that the information will guide thoughtful educational planning within the context of informed evidence-based practice and build awareness of potential benefits and risks for any intervention implemented.

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Disclaimer

This document synthesizes current knowledge and offers recommendations for consideration.

It does not constitute provincial education policy or commit Departments of Education & Early Childhood Development to the activities described. This document originates with the Interprovincial Autism in Education Partnership.



2003; McTiernan et al., 2011; Minshawi et al., 2014). Aggressive behaviours and property damage are problematic in all settings, particularly at school, where there is the potential for harm to students and staff as well as destruction of resources and equipment.

Self-injurious behaviour (SIB) refers to aggressive behaviour directed toward the individual himself or herself, with the potential to cause tissue damage and significant physical injury (Baghdadli et al., 2003; Minshawi et al., 2014). The most common forms of SIB in those with ASD include self-biting, self-scratching, skin picking or pinching, self-punching, and head banging; less common types of SIB in persons with ASD include eye pressing or gouging, pulling one's own hair, teeth, or fingernails, dislocation of joints, and pica (ingesting non-food items) (Minshawi et al., 2014). All forms of self-injurious behaviour have the potential to be harmful and can be difficult to treat.

Although challenging behaviours such as aggression and self-injury are not limited to children and adolescents with ASD, research shows that individuals with ASD are at a higher risk than those with other diverse needs for developing these types of behaviour at some time in their lives (Ashburner, Ziviani, & Rodger, 2010; McClintock, Hall, & Oliver, 2003; Minshawi et al., 2014; Richards et al., 2012). Recent studies that directly examined the prevalence of aggression and self-injury among children and adults with ASD have reported that approximately half of these individuals engage in challenging behaviour at some time. A survey of parents of nearly fourteen-hundred children with ASD revealed that 68% of the children had demonstrated aggression toward a caregiver and 49% had engaged in aggression toward non-caregivers (Kanne & Mazurek, 2011). By contrast, challenging behaviours such as aggression, self-injury, and property destruction were seen in only 10% to 15% of individuals with diverse needs in general (Emerson et al., 2001).

Individuals with ASD are at a higher risk than those with other diverse needs for developing problem behaviours, such as aggression and self-injury.

The three main purposes of this information paper are: 1) to provide an overview of the current research into the risk factors that may lead to the development of challenging behaviour in individuals with ASD; 2) to identify a number of critical skills that, if learned, may prevent the development of challenging behaviour; and 3) to present a proactive approach to teaching those critical skills.

Impact of Challenging Behaviour on the Individual with ASD

Challenging behaviour can have a significant impact on the physical and emotional health of individuals with ASD. Behaviours such as self-injury can result in significant health risks and physical harm including cuts, open sores, recurrent infections, broken bones, blindness, and in some cases even death (Minshawi et al., 2014). Physical aggression and tantrum behaviour can result in physical injury to the student with ASD and/or to adults or students present. These behaviours may also result in the destruction of property. Both of these types of challenging behaviour can have an emotional impact on caregivers, school staff, and other students.

Beyond the risks of physical harm and injury associated with challenging behaviours, individuals with ASD may experience many other negative consequences as a result of their behaviours. Studies of children in general who engage in aggression or anti-social behaviour have shown that these children are less involved in classroom activities and less likely to be accepted by their

Students who engage in problem behaviours tend to have more limited opportunities for a variety of learning experiences at school and in the community.

peers. This may significantly limit their opportunities to learn important new skills and to develop social relationships with their classmates (Chadwick et al., 2000; Fleury, Thompson, & Wong, 2015). They also tend to receive less instruction and positive feedback from their teachers and to perform more poorly on academic tasks than their classmates (NICHD, 2002).

Challenging behaviours also have the potential to affect relationships with peers. The behaviours can sometimes be frightening for classmates and can be stigmatizing to the students who engage in them. As these children get older, they often experience more social isolation (Minshawi et al., 2014) and are at risk for dropping out of

school and participating in undesirable activities in the community (NICHD, 2002). In addition, given the safety risk the behaviours pose, these children and adolescents are more likely to be subject to restrictive practices, such as physical interventions, restraint, or seclusion (Minshawi et al., 2014). Challenging behaviour can jeopardize the health and well-being, reduce the learning opportunities and independence, and compromise the dignity of individuals who engage in such behaviour.

Impact of Challenging Behaviour on Schools and Families

Challenging behaviours in children and youth with ASD have a significant impact, not just on the individuals themselves, but also on their educators, parents, families, and caregivers. Staff members who work with learners who engage in challenging behaviours report that such behaviours are one of the most significant sources of stress in their work. In many cases, these staff experience higher levels of anxiety, feel less supported in their work, and report lower job satisfaction (Hastings & Brown, 2002) than staff who do not work with students with similar behaviours. Research has also shown that dealing with aggressive behaviours on a regular basis is strongly associated with burnout and exhaustion among teachers and support staff, and that challenging behaviours in the classroom negatively influence the learning environment and reduce the learning opportunity for all students in that setting (Kanne & Mazurek, 2011).

Challenging behaviours are not only difficult to deal with at school, but they can also cause significant problems within the home and family. Research shows that “aggressive and disruptive behaviours are the strongest predictors of stress among parents of children with developmental disabilities and autism” (Kanne & Mazurek, 2011). Parents have reported that challenging behaviours often cause more distress and disruption within the family than any of the other core characteristics of ASD (Hartley, Sikora, & McCoy, 2008; Hastings & Brown 2002; Lecavalier, Leone, & Wiltz, 2006; Ritzema & Sladeczek, 2011). Physical aggression, tantrums, and self-injurious behaviour are very concerning to parents trying to keep all family members safe (Minshawi et al., 2014). In addition, social isolation of the family can result when families

are less able to participate in community, church, and recreational activities due to children's behavioural challenges. Given these challenges, it may not be surprising that aggressive behaviour is one of the main factors in the decision to move a child or youth with diverse needs, including autism, to a placement outside the family home (Kanne & Mazurek, 2011) for treatment or long-term care.

Challenging behaviours can have severe consequences for individuals with ASD, their families, and others who support them. Not only is there a risk of physical injury to the learners themselves and to peers and caregivers, but severe problem behaviour may limit opportunities for the individual to learn and participate in activities at home and in the community. In light of the impact of challenging behaviour, it is essential to address these behaviours at the earliest possible stages, and is equally important to identify learners at risk of developing challenging behaviour and intervene before problem behaviour emerges.

Risk Factors for the Development of Challenging Behaviour: What Does the Research Say?

A number of researchers have attempted to identify the risk factors that lead to the development of challenging behaviours. Across studies, a variety of factors, including the severity of intellectual disability (McTiernan et al., 2011; Tremblay, 2000); lower adaptive functioning and daily living skills (Baghdadli et al., 2003; McTiernan et al., 2011; Minshawi et al., 2014); greater social skills deficits (Matson, Fodstad, & Rivet, 2009); and sleep problems (Symons, Davis, & Thompson, 2002) have been shown to increase the risk for the development of aggression, self-injury, and other problem behaviours. The risk factors for the development of challenging behaviour in children, including individuals with ASD, seem to be numerous and varied.

However, since individuals with ASD are at higher risk for challenging behaviours, it may be helpful to consider the role that the core deficits of autism – difficulties with social interaction and communication – play in the development of such behaviours.

Many parents of children with ASD report a connection between their children's social and communication problems and aggression.

Early communication and language delays may increase the risk for aggression and challenging behaviour in children in general (Dionne et al., 2003). Studies specifically involving children with ASD have found that aggression is associated with lower levels of expressive and receptive language (Dominick et al., 2007), along with factors such as lower cognitive functioning and poor adaptive skills (Hartley, Sikora, & McCoy, 2008). A recent study that involved a large group of individuals with ASD between the ages of four and

thirty-nine also revealed that lower levels of speech and overall ability were associated with self-injurious behaviour (Richards et al., 2012). The research findings linking communication difficulties to behaviour problems are also supported by parents. A study involving nearly fourteen-hundred children with ASD asked parents to rate the severity of their children's social and communication problems. The children who were most likely to engage in aggression were those whose parents reported the most significant difficulties with social interaction and communication (Kanne & Mazurek, 2011).

Functions of Challenging Behaviour

A number of studies have shown that individuals with ASD present higher levels of behavioural difficulties than their typically-developing peers (Ashburner, Ziviani, & Rodger, 2010; Fodstad, Rojahn, & Matson, 2012; Kanne & Mazurek, 2011; Minshawi et al., 2014; Richards et al., 2012). However, we also know that “extraordinary behaviour can develop and maintain under rather ordinary conditions” (Hanley, 2012). An individual with ASD may bang his head on a table or wall because that behaviour very quickly and reliably results in attention from adults who may be nearby. When a task or instruction is presented, a student may hit, kick, or pinch because she has learned that engaging in those behaviours results in the task being taken away. In these examples, it may not be the case that the learners are specifically thinking, “If I do this behaviour, I will get what I want,” but over time they have experienced these consequences frequently enough that the challenging behaviours have become a quick and efficient way to get their needs met. This is particularly true when learners with ASD do not have other functional ways to express what they need or want, or if other ways they have used to communicate in the past have not resulted in the same consequence as quickly or as reliably as the challenging behaviour.

Challenging behaviours function to get something that the individual wants (attention; access to a preferred item, activity, or situation; a pleasant sensation) or to escape or avoid something that the individual does not want (aversive tasks, activities, items, situations; non-preferred people; unpleasant sensations).

The desire to understand what causes challenging behaviours to develop and to be maintained has led to hundreds of research studies into the functions of behaviour over more than thirty years. Beginning with the earliest research studies in this area conducted by Dr. Brian Iwata and his colleagues (1982/1994), results have consistently shown that challenging behaviours function to get something that the individual wants (attention; access to a preferred item, activity, or situation; a pleasant sensation, etc.) or to escape or avoid something that the individual does not want (aversive tasks, activities, items, situations; non-preferred people; unpleasant sensations; etc.). In some cases, it is also possible that a combination of these consequences may be maintaining the behaviour (Hagopian et al., 2013; Hanley, Jin, Vanselow, & Hanratty, 2014).

Identifying Essential Skills

Teaching learners to communicate the messages that match the function of their behaviour problems may significantly reduce challenging behaviour.

Research into the conditions that maintain problem behaviour has led to the development of a number of scientifically-supported interventions and approaches aimed at improving these behaviours. For example, the work of Carr and Durand (1985) into Functional Communication Training (FCT) has been ongoing and replicated by many other researchers over the past thirty years. These researchers have consistently demonstrated that, by teaching learners with a range of developmental disorders to communicate the messages that matched the

function of their behaviour problems, even severe problem behaviours, such as aggression, tantrums, and self-injury, could be significantly reduced (Bowman et al., 1997; Carr & Durand, 1985; Durand & Merges, 2001; Durand & Moskowitz, 2015; Rispoli et al., 2014; Tiger, Hanley, & Bruzek, 2008).

Beginning at about that same time, Dr. Phillip Strain and his colleagues at the University of Pittsburgh began their work to try to identify a scope and sequence of social skills that would support children with diverse needs to successfully navigate social environments (Strain, 1983). They identified positive social initiations, including play organizers, sharing, displaying affection, and providing assistance to peers as being particularly important. They also determined that the frequency of reciprocal social interactions, including initiating positive interactions with peers and responding consistently to the overtures of peers, are critical for success. Socially successful children initiate an average of three positive social interactions with peers each minute (Tremblay et al., 1981), making social initiations and reciprocal interactions critical considerations for learners with ASD who may not be intrinsically motivated to engage in these activities.

Positive social initiations including joint attention, play organizers, sharing, displaying affection, and assisting peers are essential skills for learners with ASD. The frequency of reciprocal social interactions is also a critical consideration.

In more recent years, many other researchers have also focused on the importance of targeting social skills in order to increase desirable behaviours and reduce challenging behaviours in individuals with ASD (Frankel et al., 2010; Kasari et al., 2005; Koegel et al., 2001; Laugeson et al., 2012; McGrath et al., 2003; Strain & Schwartz, 2001). Foundational social communication skills such as learning to jointly engage in social interactions with others, initiating joint attention, requesting, and engaging in functional and symbolic play have been identified as particularly important in helping children with ASD develop relationships with others (Kasari et al., 2005; Kasari et al., 2015; Stickles Goods et al., 2013). Research has also shown that explicitly teaching appropriate conversational skills, skills to enter and leave group situations, good sportsmanship, how to handle teasing, and the specific skills involved in developing networks of friends are important in helping students with ASD learn how to make and keep friends (Frankel et al., 2010; Mandelberg et al., 2014).

*Teaching children specific skills to tolerate a delay in getting what they want and to communicate appropriately when they **do not** want something can effectively reduce challenging behaviour.*

Researchers and practitioners have identified a number of additional skills that play a role in reducing challenging behaviours and increasing desirable behaviours. For example, research indicates that some learners with ASD and diverse needs lack the skills to appropriately say, “No,” or indicate that they do not want something (Mace et al., 2011; Martin et al., 2005; Sigafos et al., 2004). Without appropriate rejecting skills, these learners may engage in behaviours such as pushing items or people away, running from the learning area, yelling, and so on. Learning to tolerate delays in receiving a desired item or activity is also a critical skill in the reduction of problem

behaviour for some learners. Research has shown that teaching children specific skills and strategies to tolerate a delay to reinforcement can be effective in reducing challenging behaviours (Fisher et al., 2000; Greer et al., 2016; Hanley, Jin, et al., 2014; Newquist, Dozier, & Neidert, 2012; Vollmer et al., 1999).

Preventing Challenging Behaviour: Putting the Pieces Together

Years of scientific study have proven that the functional assessment process can help explain why an individual is engaging in a problem behaviour and can help identify a more socially acceptable way for the individual to get his or her needs met (Mayer, Sulzer-Azaroff, & Wallace, 2012). However, since the purpose of a functional assessment of behaviour is to figure out why a specific challenging behaviour is happening, these assessments typically happen only after the behaviour has become a problem. *What if we were to take what we know from the body of research into functional assessment of behaviour and use that information proactively to try to prevent problem behaviour even before it starts?*

Some recent and valuable research into preventing the development of problem behaviour has been done by Dr. Gregory Hanley, professor of psychology and Director of the Behaviour Analysis Ph. D. program at Western New England University. Dr. Hanley and his team first engaged in an extensive review of the research into functional assessment and treatment of challenging behaviour. Since we know that challenging behaviours develop and persist because they allow individuals to access desired consequences or escape undesired consequences, Dr. Hanley's work focuses on identifying and proactively teaching the skills that will enable individuals to obtain those consequences in appropriate ways before challenging behaviours even begin to emerge.

Early identification of children at-risk of developing challenging behaviour is essential to increase the opportunity for school success and decrease the likelihood of the trajectory toward more severe behaviour problems.

A second area examined by Dr. Hanley and his colleagues was the research into school readiness skills. Surveys of elementary school teachers have revealed that the most important skills children should have in order to be successful include being able to express their needs and thoughts, not being disruptive, being able to follow directions, and engaging in appropriate peer interactions (Kemp & Carter, 2005; Lin, Lawrence, & Gorrell, 2003; Raver & Knitz, 2002). Research has shown that some of the most significant challenges for children in general in early learning settings are the result of problems with social skills and behaviour (Lane et al., 2007). In addition, a study by the United States National Centre for Education Research (2006) indicated that children with ASD had significantly more difficulty than their typical peers with skills such as working or playing independently, following instructions, cooperating, taking turns, and accepting decisions from adults.

Along with his colleagues, Dr. Hanley has identified four specific categories of skills, which they have called "Preschool Life Skills" (Hanley et al., 2007) because of their importance to success in early learning environments and beyond (**See Appendix A – Preschool Life Skills**). *In spite*

of the name, these skills, which include instruction following, functional communication, tolerance for delay, and friendship skills, are not limited to preschool children; they are equally important for learners of all ages. Each skill category includes between two and four associated skills. For example, instruction following is further broken down into responding appropriately to name, following single-step instructions, and following multiple-step instructions. Friendship skills include saying, “Thank you,” complimenting others, sharing, and comforting people who are upset or in distress (Hanley et al., 2007).

The value of these skills is not limited to young children, as even secondary school teachers stress the importance of cooperation and self-control skills (Gresham et al., 2000 in Lane et al. 2007). For children with ASD, some of the biggest obstacles to success involve challenging behaviours, difficulty follow instructions, and sustaining attention long enough to participate in activities (Hartley, Sikora, & McCoy, 2008). Unfortunately for many learners with ASD of all ages, the core features that define autism – difficulties with social communication and social interaction, and restricted or repetitive patterns of behaviour or interests - make it more difficult for them to learn the skills that are most critical to their success.

By combining these two key areas of research – functional assessment of behaviour and school readiness - Dr. Hanley and his team have developed a curriculum of skills comprised of a combination of: a) the skills that are most often taught “after the fact” as replacements for problem behaviours after functional assessments have been conducted; and b) the skills that teachers consider to be most important for student success (Hanley et al., 2007). By focusing on these two categories of skills, Dr. Hanley and his colleagues have created a program designed to proactively teach learners critical skills to prevent problem behaviour before it develops (Hanley et al., 2007).

The complete **Preschool Life Skills Curriculum** and implementation guide for teachers is available at: https://practicalfunctionalassessment.files.wordpress.com/2015/06/pls-for-teachers_07_08-post.pdf

Many of the researchers and practitioners cited above have identified a number of skills that are important to help learners with diverse needs, including ASD, to engage in more desirable behaviours and fewer challenging behaviours. Skills such as initiating and engaging in positive social interactions, tolerating delays, and communicating appropriately for desired and undesired items are areas of focus identified and studied by multiple researchers. These are also skills that have been identified by Dr. Hanley and his team, and have been included in the PLS curriculum. The element that makes Dr. Hanley’s work somewhat unique is that he and his colleagues have been able to demonstrate through carefully controlled studies that *challenging behaviour may actually be prevented from developing* (Luczynski & Hanley 2013).

Prevention Strategies and Interventions

Problem behaviours can be extremely disruptive in educational settings, resulting in lost instructional time and compromising the learning environment. In order to avoid or at least minimize the negative consequences that accompany instances of problem behaviour, many

educators tend to carefully arrange the environment in ways that reduce the likelihood of these behaviours (Hanley et al., 2007; Hanley, Fahmie, & Heal, 2014; Luczynski & Hanley, 2013). For example, teachers may provide students working on an activity in groups with several sets of materials (markers, paints, scissors, etc.) so everyone in the group has access without the need for negotiation, compromise, or patience. Adults may quickly jump in to help children who start to get frustrated when they do not understand how to solve a problem, when they cannot open a container, or when a preferred item is out of reach or unavailable. Instead of relying on these types of preventive strategies, *it may be more effective to balance the benefits of preventive strategies with “thoughtful, gradual, and repeated introduction of conditions that may evoke problem behaviour in order to teach more socially desirable responses to challenging classroom situations”* (Hanley et al., 2007).

Beaulieu, Hanley, and Roberson (2012) and Luczynski and Hanley (2013) demonstrated that skills such as responding appropriately to one’s name, following instructions from adults, and tolerating delays did not develop simply as a result of children spending time in preschool or elementary classrooms, experiencing center-based activities, or just growing and developing. Instead, children must be presented with situations that might typically result in challenging behaviours, and in those moments, they need to be taught the appropriate skills that would serve the same function as the problem behaviour. Dr. Hanley calls these learning opportunities “**evocative situations**” because they are situations that would typically “evoke” or cause challenging behaviours in learners who do not possess the skills to deal with them in appropriate ways. The research shows that children who are not presented with these valuable learning opportunities are more likely to develop problem behaviour than their peers who do experience these evocative situations (Luczynski & Hanley, 2013). The key is to begin this targeted teaching **before** the learner develops severe problem behaviour.

Research shows that many, if not most, children will not develop the skills that mitigate problem behaviour without being explicitly taught the skills and given many opportunities to practice.

At the beginning stages of skill teaching, a behavioural skills training approach is used to help children learn and practice the essential skills (**See Appendix A – Preschool Life Skills**). Behavioural skills training has been proven to help individuals of all ages, including young children and learners with diverse needs, develop new skills and maintain those skills over time (Himle et al., 2004 and Miltenberger & Thiesse-Duffy, 1988 in Hanley et al., 2007; Hanley, Fahmie, & Heal, 2014).

A behavioural skills training, or BST, approach involves:

- describing the desired behaviour and providing a rationale (as appropriate to the learner’s level of development and understanding)
- modeling the desired behaviour for the learner
- allowing (and prompting if necessary) the learner to practice the behaviour in a role-play situation
- providing praise and corrective feedback if required
- observing the learner demonstrate the desired behaviour in a real-life situation

Some learners may be able to master skills using this approach with only a few opportunities to practice in the typical learning context. However, learners with diverse needs, including those with ASD, may require more practice opportunities or may need to work on the new skills in a less distracting setting such as a small group or one-to-one context at first. Adjustments to the steps of teaching and practicing the target skills may also be necessary for some learners with ASD (Francisco & Hanley, 2012). For example, the level of language used by the teacher during teaching and practice may need to be adjusted, or visual supports may be necessary for learners who have difficulty understanding verbal instructions. Alternative or augmentative communication systems may be incorporated when working with learners with minimal or no vocal language. For learners who may require some prompting, it is important to consider, and discuss with the learner's support team, the type of prompting that would be most appropriate for each target skill. As learners master skills, it is also very important to make sure to create enough opportunities to practice the skill and enough reinforcement each day to ensure that skills are maintained over time in the natural environment (Luczynski, Hanley, & Rodriguez, 2014).

Summary and Discussion

Often by the time behaviours become challenging enough that they require intervention, the optimal time to teach essential skills has passed. As we begin to understand more about the development of problem behaviour, it becomes clear that we need to ***place even more emphasis on preventing the development of behaviour problems through direct, explicit, and repeated teaching of the most critical skills proactively rather than reactively.*** Early identification of learners who are likely to develop challenging behaviour and the strategic and intentional teaching of essential skills is critical to improving behavioural, social, and academic outcomes over the long-term (Division of Early Childhood of the Council for Exceptional Children, 2007).

Teachers should keep in mind the importance of balancing the implementation of preventive strategies with the strategic creation of opportunities to teach essential skills.

Given what we know about the functions of challenging behaviour and the skills that can help to reduce or even stop these behaviours, it seems only logical to ensure that children learn these critical skills before problem behaviour develops, rather than after problems emerge. Incorporating some proactive strategies designed to prevent challenging behaviour from occurring may be valuable in the short-term; however, relying solely on preventive strategies may “inadvertently preclude opportunities to practice waiting, requesting, and other pro-social skills that will be necessary for long-term success” (Pullen et al., 2014). Teachers should keep in mind the importance of balancing the implementation of proactive strategies with the strategic creation of opportunities to teach essential skills.

A review of current research has identified a number of skills that may be essential for learners with ASD and diverse needs who are at-risk of developing challenging behaviours. If a student can consistently demonstrate these skills, challenging behaviour may be significantly reduced or even prevented before it starts:

Functional communication skills:

- **requesting assistance appropriately** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013; Kasari et al., 2005, Kasari et al., 2015)
- **requesting attention appropriately** (Hanley et al., 2007; Luczynski & Hanley, 2013; Kasari et al., 2005, Kasari et al., 2015)
- **requesting a desired item, activity, or situation appropriately** (Bowman et al., 1997; Carr & Durand, 1985; Durand & Merges, 2001; Durand & Moskowitz, 2015; Kasari et al., 2015; Rispoli et al., 2014; Tiger, Hanley, & Bruzek, 2008)
- **framed requesting to adults and peers** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013)
- **protesting or rejecting an undesired item, activity, or situation appropriately** (Mace et al., 2011; Martin et al., 2005; Sigafos et al., 2004)

Compliance skills:

- **responding appropriately to name** (Hanley et al., 2007, 2014; Beaulieu et al., 2012; Kraus et al., 2012)
- **following single-step and multi-step instructions** (Hanley et al., 2007, 2014; Beaulieu et al., 2012; Kraus et al., 2012)
- **tolerating delays imposed by adults and peers** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013)

Pro-social skills:

- **initiating joint attention** (Kasari et al., 2005, Kasari et al., 2015)
- **engaging in functional and symbolic play** (Kasari et al., 2005, Kasari et al., 2015)
- **jointly engaging in positive social initiations with others, including play organizers, sharing, displaying affection, providing assistance to peers** (Kasari et al., 2005, Kasari et al., 2015; Strain, 1983)
- **responding consistently to the overtures of peers** (Strain, 1983)
- **saying, “Thank you”** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013)
- **acknowledging and complimenting others** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013)
- **offering or sharing materials** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013)
- **comforting others in distress** (Hanley et al., 2007, 2014; Luczynski & Hanley, 2013)
- **demonstrating appropriate conversational skills** (Frankel et al., 2010)
- **appropriately entering and leaving group situations** (Frankel et al., 2010)
- **displaying good sportsmanship** (Frankel et al., 2010)
- **handling teasing** (Frankel et al., 2010)
- **understanding the specific skills involved in developing networks of friends** (Frankel et al., 2010)

Implications for Practice

Recent research into the prevention of challenging behaviour has taught us that the keys to success are:

Identifying Priorities:

- Consider the most common functions of behaviour and communication along with the skills that have been identified as essential for student success.
- Identify as early as possible which of these essential skills the learner is missing or does not demonstrate consistently.
- Begin by teaching the skill that is determined to be the most important starting point for the individual learner (remember that you cannot teach all of the missing skills at once, so choose one priority for each specific learner as the starting point).

Explicit teaching:

- Create several opportunities each day for the student to learn and practice the new skill. This involves setting up “evocative situations” that would typically cause the student to engage in challenging behaviours and teaching and reinforcing the new skill in the moment.
- Target these skills early, before the student develops severe problem behaviour. If the student already engages in severe problem behaviour, additional supports (behaviour specialist, ASD consultant/support teacher, psychologist, etc.) should be consulted, and the team should determine the appropriate intervention.

Frequency of teaching:

- Set up enough evocative situations daily/weekly that the student practices the skill until mastery and fluency. It is not enough to practice the skill until the student “gets it right” once or twice; practice should continue until the student consistently uses the new skill.

Generalization:

- Explicit teaching of skills until they are demonstrated consistently in a variety of situations with different people and in different settings is essential to the success of learners with ASD.

Maintenance:

- Even when the student has mastered the new skill, it is important to make sure that he or she has many opportunities to practice and maintain the skill on a regular basis.

A growing body of research tells us that the learners who are most at-risk for developing problem behaviours, including those with ASD, are individuals who have not learned all of the essential skills identified by researchers and educators. We may never be able to prevent the development of all challenging behaviour for all learners. However, proactively, gradually, and strategically exposing learners to situations that would typically evoke problem behaviour and teaching them the skills to help them respond appropriately may be one of the most effective strategies we can use to help them experience success at school, at home, and in the community.

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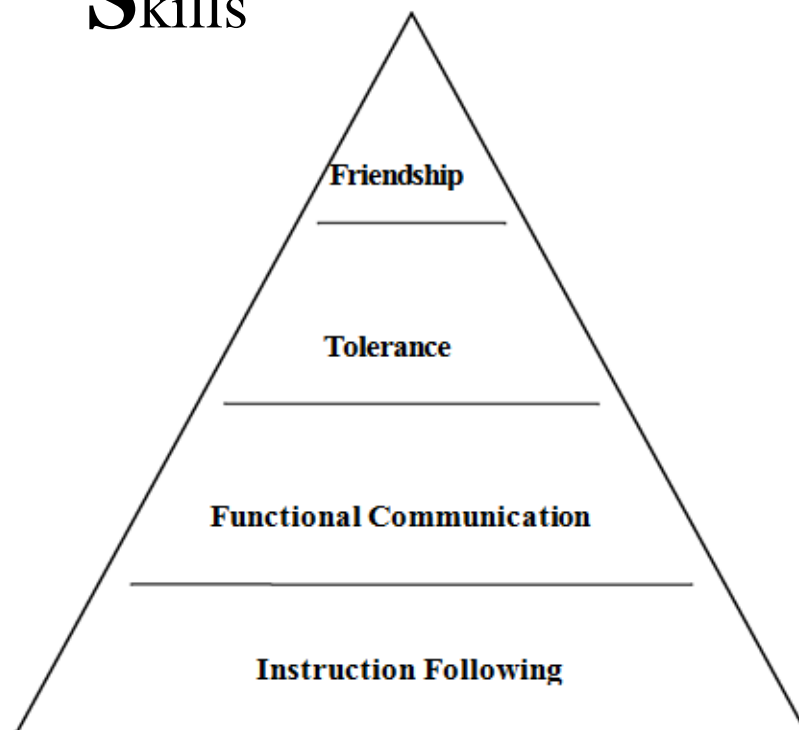
Appendix A: Preschool Life Skills (PLS)

Developed by:

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The Preschool Life Skills (PLS) program is an approach to teaching critical social skills to young children. These particular social skills were selected because they are similar to the functional skills taught following the development of problem behavior and because these are the same skills early elementary teachers have identified as being critical to early school success. The program begins as a class-wide approach to teaching thirteen skills in sequence. The program may then be individualized for learners of different abilities. The initial evaluation of the program showed that teachers were capable of implementing the program with high integrity, and that problem behavior was reduced by 70% while over a 400% increase was observed in the occurrence of the critical social skills.

P r e s c h o o l L i f e S k i l l s



Preschool Life Skills Questionnaire

Child: _____

Interviewer: _____

Respondent: _____

Relationship to child: _____

Date: _____

***** Instruction-Following Skills / Instruction-Following Skills / Instruction-Following Skills *****			
Situation	A	B	
1. Adult calls child by first name	<input type="radio"/> Stops competing behavior, orients towards speaker, and says, "Yes"	<input type="radio"/> Engages in problem behavior:	
2. Adult provides a single-step instruction	<input type="radio"/> Completes single-step instruction following single prompt	<input type="radio"/> Engages in problem behavior:	
3. Adult provides a multi-step instruction	<input type="radio"/> Completes multi-step instruction following single prompt	<input type="radio"/> Engages in problem behavior:	
***** Functional Language Skills / Functional Language Skills / Functional Language Skills *****			
4. Difficult task or situation	<input type="radio"/> Completes task or requests assistance using appropriate tone & voice volume	<input type="radio"/> Engages in problem behavior:	
5. Adult or peer attention is diverted to a task or another child	<input type="radio"/> Gains others attention by saying "Excuse me" using appropriate tone & voice volume	<input type="radio"/> Engages in problem behavior:	
6. An area is blocked by another adult or peer	<input type="radio"/> Uses "excuse me" to gain access to the area	<input type="radio"/> Engages in problem behavior:	
7. A preferred material is unavailable (i.e., another child is playing with it or it is in sight but out of reach)	<input type="radio"/> Uses "their words" to gain access to desired materials (e.g., "May I play with that")	<input type="radio"/> Engages in problem behavior:	
***** Tolerance Skills / Tolerance Skills / Tolerance Skills / Tolerance Skills / Tolerance Skills *****			
8. Adult tells child s/he will to wait for a requested material or event	<input type="radio"/> Waits patiently for adult-mediated event (e.g., their attention, materials)	<input type="radio"/> Engages in problem behavior:	
9. Another child tells child s/he will to wait for a requested material or event	<input type="radio"/> Waits patiently for child-mediated event (e.g., their attention, materials)	<input type="radio"/> Engages in problem behavior:	
***** Empathy Skills / Empathy Skills / Empathy Skills / Empathy Skills / Empathy Skills *****			
10. Upon receiving something from another person	<input type="radio"/> Says, "thank you"	<input type="radio"/> Engages in problem behavior:	
11. Another child enters the classroom or a play group	<input type="radio"/> Greets and/or compliments the child	<input type="radio"/> Engages in problem behavior:	
12. Another child is without toys or activity materials	<input type="radio"/> Offers toys or other materials to peers	<input type="radio"/> Engages in problem behavior:	
13. Another person shows signs of pain or distress	<input type="radio"/> Helps or comforts the person	<input type="radio"/> Engages in problem behavior:	

Common Preschooler Problem Behaviors:

- I. Ignoring adults or other children, noncompliance, not saying thank you upon receipt of something
- II. Saying, "No" to an adult instruction, yelling or screaming while indoors, swearing, rudeness, name-calling
- III. Throwing items, tearing books, swiping items off tables, kicking items, knocking over structures, grabbing materials from others, running away, standing on furniture, sitting on tables, opening classroom doors
- IV. Kicking, hitting, pinching, shoving, spitting, forceful grabbing, scratching, biting, throwing things towards people, spitting

Preschool Life Skills		
<i>Instruction-Following Skills</i>		
Skill	Definition	Evocative Situation
PLS 1: Responding appropriately to name	Within 2 seconds, the child will stop the competing behavior, orient toward the speaker, and say, “Yes.”	An adult calls the learner by his or her first name.
PLS 2: Following single-step instructions	Within 3 seconds of the initial prompt, the child will initiate completion of the instruction and will complete the instruction in a timely manner.	An adult provides a single-step instruction to the learner.
PLS 3: Following multi-step instructions	Within 3 seconds of the initial prompt, the child will initiate completion of the instructions and will complete the instructions in a timely manner.	An adult provides a multi-step instruction to the learner.
<i>Functional Language Skills</i>		
Skill	Definition	Evocative Situation
PLS 4: Requesting assistance	The child will complete the task or will request assistance by saying, “Help me, please” (with appropriate tone and voice volume) within 45 seconds of instruction delivery.	The learner is presented with a difficult task.
PLS 5: Requesting attention	The child will recruit attention by saying, “Excuse me” (with appropriate tone and volume) without engaging in excessive physical contact (i.e., no more than 3 light taps).	Adult attention is diverted from the learner.
PLS 6: Framed requesting to adults	Within 10 seconds of reaching an adult, the child will say, “Excuse me” to gain adult’s attention, wait for a response, and then request access to the desired area or material in the form of, “May I _____.”	An area is blocked by an adult or a preferred item is unavailable to the learner.
PLS 7: Framed requesting to peers	Within 10 seconds of reaching another child, the target child will say, “Excuse me” to gain child’s attention, wait for a response, and then request access to the desired area or material in the form of, “May I _____.”	An area is blocked by a peer or a preferred item is unavailable to the learner.
<i>Tolerance Skills</i>		
Skill	Definition	Evocative Situation
PLS 8: Tolerating delays imposed by adults	The child will say, “Okay,” (and waiting words) and wait patiently for 30-90 seconds for the adult-mediated event.	An adult tells the learner to wait for something and delays providing the requested item or event for approximately 30 seconds.
PLS 9: Tolerating delays imposed by peers	The target child will say, “Okay,” (and waiting words) and wait patiently for 30-90 seconds for the child-mediated event.	A peer tells the learner to wait for something and delays providing the requested item or event for approximately 30 seconds.
<i>Friendship Skills</i>		
Skill	Definition	Evocative Situation
PLS 10: Saying, “Thank you.”	Within 5 seconds of receiving an item from someone, the child will orient to the giver and say, “Thank you.”	The learner receives an item from another person.
PLS 11: Acknowledging and complimenting others	Within 10 seconds of a newcomer’s arrival, the target child will greet (“Hello”) and/or compliment (“I like _____”) the newcomer.	A peer enters the room or group.
PLS 12: Offering or sharing materials	Within 10 seconds of a newcomer’s arrival, the target child will offer some of the toys or materials within reach.	A peer is without toys or activity materials.
PLS 13: Comforting others in distress	Within 10 seconds of an event, the target child will approach the victim and ask, “Are you okay?”	Another person shows signs of pain or distress.

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