

**A DESCRIPTIVE STUDY OF HOW TEACHERS IDENTIFY AND
RESPOND TO CHILDREN'S CHALLENGING BEHAVIOUR IN
EARLY CHILDHOOD EDUCATION SETTINGS**

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Abstract

Children's challenging behaviour appears to be increasing with teachers reporting that they require additional knowledge and skills to address this problem. There also appears to be very little research on the strategies teachers currently use to address this behaviour. The aim of this study was to examine how eight teachers identified and responded to children's challenging behaviour in four different early childhood education (ECE) settings, and directions for future professional development. Data was collected via a mixed method design that included two-hour direct observation of the teacher during a typical day and individual teacher interviews. The findings indicate that all eight teachers identified both externalising and internalising challenging behaviours and referred to the child's social environment as contributing to challenging behaviour. All teachers indicated a range of strategies to address the challenging behaviour and identified these as having learned through experience, professional development and trial and error. Little reference was given to their ECE teacher training or to the early childhood curriculum, Te Whāriki, indicating a gap between theory and practice. For these teachers, future professional learning and development programmes could provide more emphasis on bridging the gap between theory and practice in terms of responding positively to children's challenging behaviour in early childhood education (ECE) settings.

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Chapter One: Introduction

Challenging behaviour is a growing concern as it appears that more children are presenting with challenging behaviour in New Zealand than previously reported (Browne, 2013; Towl, 2007). It is estimated that the prevalence of persistent challenging behaviours among 3 to 17 year olds in New Zealand ranges from 5-10%. This suggests at least 40,000 children and adolescents display this form of behaviour (Fergusson, Boden & Hayne, 2011).

When a child displays challenging behaviour, often depicted as aggressive, or antisocial, or disruptive behaviour (Kaiser & Rasminsky, 2012), this can increase stressful situations at home, at school, and also later in society as the child grows into adulthood. Children who engage in persistent challenging behaviours in Early Childhood Education (ECE) settings are less likely to access the curriculum or to build positive relationships with peers and teachers (Campbell, 1995). Reviews of literature on behaviour problems in preschool children suggest that behaviour problems identified in the preschool years often persist to later in life (Campbell, 1995; Fergusson, Horwood & Ridder, 2005). Furthermore, adolescents who engage in relatively disruptive behaviour problems often have a history of challenging behaviours that began in their preschool years (Moffit, 1993). Hence, it is important to address challenging behaviour in young children as this can avoid the child going down a negative behavioural trajectory that can persist into adulthood.

1.1 Challenging behaviour

1.1.1. Definition of Challenging Behaviour. The term *challenging behaviour* has been used in a variety of ways. It can refer to any behaviour that is identified as challenging. However, what is termed challenging to one person may not be perceived as challenging to another person. To prevent confusion therefore, it is important to first define what challenging behaviour looks like. As a result of the substantial literature and research dedicated to understand challenging behaviour in children, there are a number of definitions

in use. There are, however, three common themes: any behaviour that “(i) interferes with a child’s cognitive, social or emotional development, (ii) is harmful to self or others, and (iii) it increases the child’s risk for developing later social problems or school failure” (Kaiser & Rasminsky, 2012, pp. 7; McCabe & Frede, 2007).

Similarly, Artman-Meeker and Hemmeter (2013, pp. 117) described challenging behaviour as “inappropriate, harmful or disturbing behaviours that might (i) hinder the success of completing an activity for children, (ii) was harmful to self, others or the environment or was disrupting a class or instruction, or (iii) limit interactions with peers or participating in an activity”. According to Blair, Lee, Cho and Dunlap (2011), challenging behaviour can be defined as non-compliance (e.g. refusing a teacher’s directions), aggression (e.g. hitting and pushing another person) and disruption (e.g. throwing tantrums, jumping on the floor, or screaming). Many of these examples illustrate externalising behaviours that often catch parental or teacher’s attention. There may be internalising behaviours that could interfere with the child’s overall social and emotional development and wellbeing. Some children with internalising behaviours may present with withdrawal, low affect or energy, have low self-esteem, experience anxiety, or have a specific phobia that inhibits their emotional and social development (Campbell, 1995). There appears to be less of an emphasis on internalising challenging behaviours within ECE settings than on externalising challenging behaviours (Campbell, 1995).

In contrast to challenging behaviour, Blair and colleagues (2011) stated that appropriate behaviour includes such behaviours as engagement (e.g. following activities/ tasks and staying in a designated area) and positive social interaction (e.g. using words, gestures, expressing physical affection, smiling at others, use of communicative replacement behaviour, and use of words to express needs).

The definition of challenging behaviour in this study follows Smith and Fox (2003), and is defined as “any repeated pattern of behaviour, or *perception* of behaviour [emphasis added], that interferes with or is at risk of interfering with optimal learning or engagement in pro-social interactions with peers and adults” (pp.6). This includes both internalising and externalising behaviours. This definition was selected because the current study focuses on understanding how teachers define or perceive children’s challenging behaviour, and this is specifically included in Smith and Fox’s definition.

1.1.2 Aetiology and Risk Factors. In order to respond appropriately to children with challenging behaviour, it is essential to understand how challenging behaviour develops. Understanding the causes of challenging behaviours can help formulate appropriate interventions specific to the child and family. The causes of challenging behaviour are complex and researchers often refer to risk factors that may predispose a child to engage in challenging behaviour (Rutter, Moffitt & Caspi, 2006). These risk factors can increase the risk of children engaging in challenging behaviour but are not deterministic, because outcomes depend on a wide range of factors intersecting together (Rutter et al., 2006).

Risk factors can include biological risks, environmental risk factors, or a mix of the two, referred to as gene-environment interplay (Rutter et al., 2006). Biological risk factors include the child’s genetic make-up, temperament and biological-make up from conception to birth and what can be inherited. Literature on genetic and environmental influences on behaviour suggests that antisocial behaviour, smoking, and heavy drinking are accounted through inherited effects (Beauchaine, Hinshaw & Gatzke-Kopp, 2008), but researchers have studied children who were adopted to see if they were more like their biological parents or more like their adopted parents (Rutter et al., 2006). Results of that study concluded that antisocial behaviour was 40-50% inherited, which clearly left room for the environment to influence the child’s behaviour. Environmental factors included the family environment, the

nature of a child's family and relationships (such as family discord or parental education), the family's financial abilities, safe housing, access to education, and community support (Rutter et al., 2006).

There is a complexity between the two categories because both biological and environmental factors are constantly overlapping and influencing each other. Much like the nature verses nurture debate of old, it is difficult to completely isolate biological factors from environmental factors (Phillips & Shonkoff, 2000, pp.37). One example of gene-environment interplay is demonstrated in a longitudinal study which found that children of mothers who experienced high stress within their environment during pregnancy were more prone to develop symptoms of anxiety, aggression, and other behavioural and emotional problems, showing that prenatal environmental stressors can influence the infant's biological development (O'Connor, Heron, Golding, Beveridge & Glover, 2002). In relation to intervention, instead of an emphasis on such predisposing factors, it is more helpful to focus more attention on the environmental factors that can be manipulated to guide the child to a more positive trajectory.

1.1.3 Theoretical Underpinnings of Child Development. There are a number of theories that are relevant to understanding challenging behaviour in children. These include theories that focus on child development and learning, and other relevant theories on moral development, and Māori models of wellbeing. Five prominent theories of development are discussed here: (1) Bronfenbrenner's ecological theory, (2) Sameroff's transactional model, (3) Bandura's social learning theory, (4) Patterson's coercion theory, (5) Vygotsky's socio-cultural theory, and (6) Brunner's theory on development. This is followed by five other theories: (1) Kohlberg's stages of moral development, (2) Theory of Mind, (3) Erikson's stages of psychosocial development, and (4) the attachment theory, and the Māori wellness model, (5) Te Whāre Tapa Whā. These theories provide a mechanism for understanding how

the various risk factors discussed earlier can contribute to a child's challenging behaviour and overall learning development.

Theories of Development. Bronfenbrenner's ecological theory (1979) explains elements of the developmental process that contribute to a person's behaviour. This ecological model is defined as the joint functions of process, person, contexts, and time (Bronfenbrenner & Morris, 2006). As its name suggests, the model holds that the development of a person involves their biological aspect interacting with their environment, much like the gene-environment interaction. This model can be used to highlight possible risk factors that may predispose a child to engage in challenging behaviour. As can be seen in Figure 1.1, at the centre of Bronfenbrenner's model is the child, and it takes into account the child's temperament, and gender (Aztaba-Poria, Pike & Deater-Deckard, 2004). Within this are five systems of environmental factors that can have an impact on a child both directly and also indirectly. Starting with that which has the most proximal impact on a child's development is the (i) microsystem (e.g. parents, caregivers), followed by the (ii) mesosystem (e.g. parent teacher relationships), (iii) exosystem (e.g. parent's workplace), (iv) macrosystem (e.g. attitudes and ideologies of culture), and (v) the chronosystem (e.g. time) as the system which has the most distal effect (Bronfenbrenner & Morris, 2006). Within the current study, Early Childhood Education (ECE) teachers are involved in the child's development both directly within the microsystem, and also indirectly, within the mesosystem, through teacher-parent relationships. Overall, this ecological model emphasises the importance of having a broad picture of the child's characteristics and environmental components and it may be used to identify various protective and risk factors that have an impact on the child's development and behaviour.

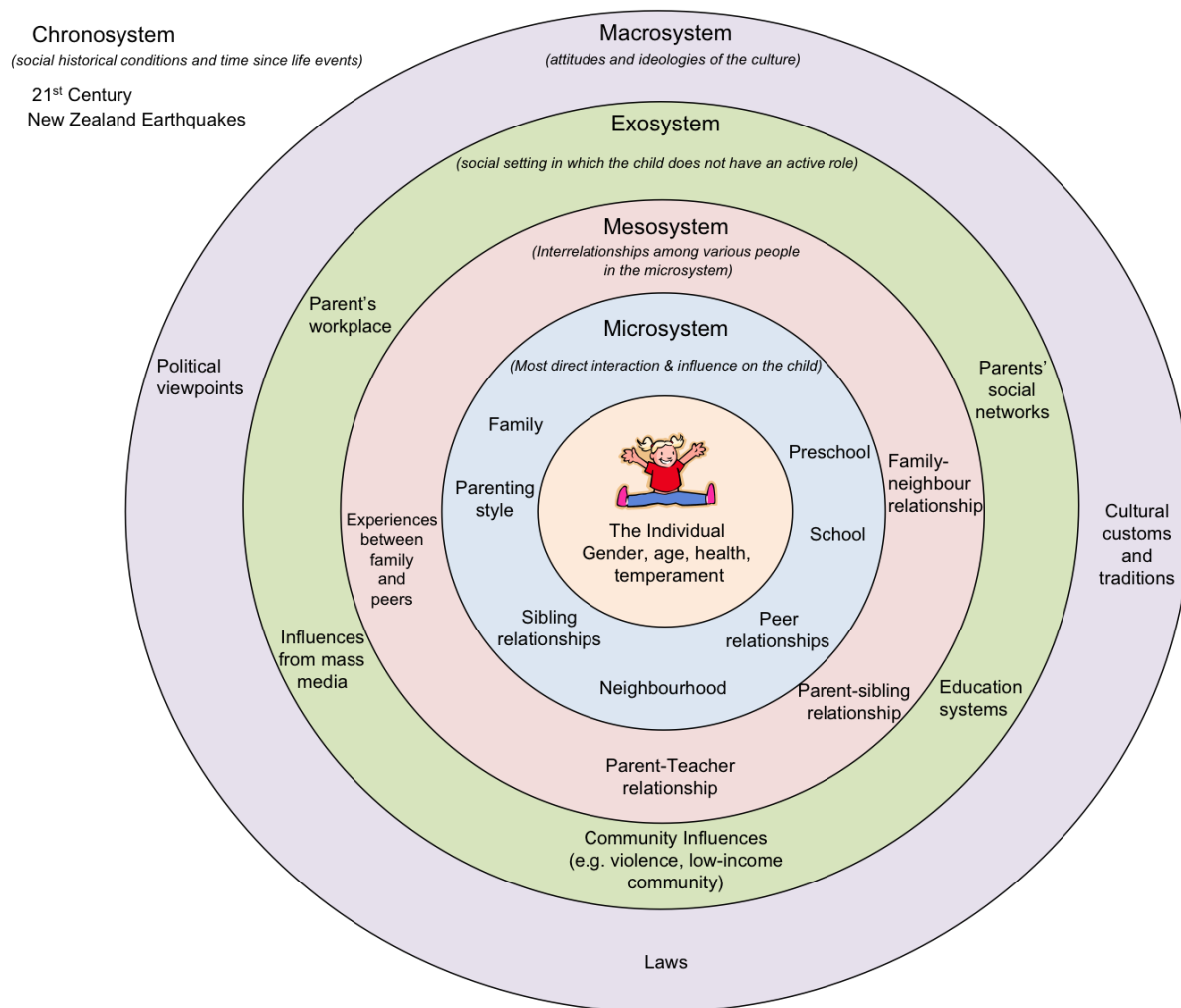


Figure 1. 1. Bronfenbrenner's Ecological Systems Theory of Development (1979)

Closely linked to Bronfenbrenner's systems concept is the second of the six development theories: Sameroff's transactional model developed in 1975. The transactional model places equal emphasis on the bidirectional effects of the child and the environment, with both nature and nurture influencing and changing the other (Sameroff & Mackenzie, 2003). A common metaphor that has been used to illustrate the transaction between nature and nurture is a picture of two hands (representing nurture) cupping together to hold a small plant (representing nature). The transactional model has commonalities with the ecological systems theory in describing environmental factors as proximal and distal influences, whereby proximal influences are factors that influence the child closely, such as parent-child

interactions, and distal influences refer to factors that affect the child less directly, such as the type of community the child is living in (Sameroff & Mackenzie, 2003). In relation to the context of this study, the transactional model can be used to identify three proximal influences: the parent-child relationship, the teacher-child relationship and the parent-teacher relationship, that can contribute to a child's development.

As well as commonalities with Bronfenbrenner's ecological systems theory, Sameroff's transactional model links well to the third of the theories of interest in child development: Bandura's social learning theory. Bandura proposed that human behaviour (both appropriate and inappropriate) is influenced by direct observation, experience and the consequences of actions (Bandura, 1971). According to Bandura, children who continually engage in challenging behaviour, such as physical aggression, learn this behaviour through observations of other children or adults, or they had experienced aggression, and the behaviour had proven effective to meet their needs. An example of this is demonstrated in Bandura's famous Bobo doll experiment, in which children only started to exhibit aggressive behaviours to a blow-up doll after watching a video of adults hitting the doll violently.

Sitting within social learning theory is the fourth theory, Patterson's coercion theory (Patterson, 1982). The term *coercion* refers to the exchanges of aversive behaviours in the form of negative reinforcement (Patterson, Dishion & Bank, 1984). Coercion theory is described as a process of mutual reinforcement where caregivers unintentionally reinforce children's problem behaviour, which in turn elicits negative feelings from the caregiver. This negative reinforcement in the parent-child interaction carries on until one side of the party "wins" (Smith, Dishion, Shaw, Wilson, Winter & Patterson, 2014). One example of this coercive cycle is when a child refuses to comply with the caregiver's request. The child's refusal evokes anger and frustration from the caregiver, which is intensified by the caregiver yelling at the child until the child complies with the caregiver. The child then learns this

pattern of interaction and in turn uses this same coercion cycle on others. An example from a child's perspective is that when a caregiver or teacher does not respond or comply with the child's requests or demands, the child may engage in challenging behaviour such as screaming or throwing a tantrum. This may result in the child's needs being met. If the adult gives in to the child, the child's use of their coercive technique is reinforced and they will continue to use this technique in the future to get their needs met. But if the adult responds by yelling louder at the child to stop the child's screaming, the coercive cycle carries on until either the adult or child wins the argument. Patterson (1976) described the child within the coercive cycle as both the "victim and architect" (pp. 267), in that either the child had been coerced to achieve the caregiver's goal, or in turn, the child uses the coercion technique as a way to achieve his or her own goal.

Bandura's social learning theory can be used to explain how proximal and distal factors from Sameroff's transactional model and systems within Bronfenbrenner's ecological systems theory can influence a child's behaviour. Children learn from what they see (modelling) from proximal (e.g. the coercive interaction between parent and child, and how parents and teachers communicate to each other) and distal influences (e.g. watching television programmes that portray people engaging in aggressive behaviours) and subsequently imitate the behaviour. Bandura also proposed that there is a continuous and reciprocal interaction between the environment and the behaviour, and emphasised that people have the cognitive capacity to self-regulate and determine how an environment can affect their behaviour and direct their future actions (Bandura, 1971). This suggests that there is a reciprocal interaction between the ECE environment and children who engage in challenging behaviour.

The fifth theory discussed here is Vygotsky's social cultural theory (Vygotsky, 1978). Vygotsky emphasised that humans learn through a social process, and that children gain

knowledge through social contexts and interaction (O'Donnell, 2012). The New Zealand National Early Childhood curriculum, Te Whāriki, is based on Vygotsky's sociocultural theory by taking into consideration the different cultural contexts of children, given that New Zealand is a bicultural nation and within it there are many cultures. Vygotsky highlights the importance to being aware of a child's sociocultural context which may include family background and types of peer influence.

The sixth theory relevant to child development is Bruner's theory of development. With influences from both Piaget and Vygotsky, Bruner believed that infants should be regarded as competent and proposed that people find meaning through an active search within the context of a person's culture (Smidt, 2011). According to Bruner, people develop knowledge in three sequences: Enactive, Iconic and Symbolic (Bruner, 1964; Bruner, Olver & Greenfield, 1966). The Enactive (action-based) phase suggests that children begin their learning through an action such as touching, feeling, and manipulating. The Iconic (image-based) phase involves visual illustrations to represent the action-based situation in the Enactive phase, such as drawing pictures of objects on paper. The third phase, Symbolic (language-based), uses words and symbols to represent the meaning from the Iconic phase (Bruner, 2006). Bruner's theory suggests that children learn and develop through actively building on knowledge based on what they already know. In relation to challenging behaviour, Bruner's theory suggests that children learn challenging and appropriate behaviours through the actions, visual representations and language of others within the child's environment.

Other Relevant Theories. The first theory relevant to a child's psychological development discussed here is Kohlberg's stages of moral development. Research suggests that children with emotional and behavioural difficulties may have lower moral reasoning skills (Blair, Monson & Frederickson, 2001), which raises the question as to how children

develop their sense of morality. Kohlberg's theory (1976) proposes that morality begins from the early childhood years and can be influenced by several factors which he conceptualises in three stages. The first stage is preconventional morality in which children experience the world in terms of pain and pleasure and thus avoid behaviours because of fear of punishment; the second stage is conventional morality in which children learn to define right and wrong based on the desires of their parents and conforming to cultural and social norms; and lastly, postconventional morality, in which children begin to consider different ideas of morality and decide that rules should be agreed by people within the society and should be complied by all (Kohlberg, 1976). Kohlberg's first stage (preconventional morality) links with Bandura's social learning theory in that they both suggest that experiences inform children's learning and moral development. The second and third stages of Kohlberg's theory on moral development are in agreement with Vygotsky's social cultural theory in that children's moral development can be influenced by societal standards and cultural values,

The second theory discussed is the Theory of Mind (Premack & Woodruff, 1978). The Theory of Mind refers to the capacity of an individual to infer and reason about the mental states of others. This is the foundational theory behind empathy. Empathy refers to a person's ability to have an emotional response because he perceives that another person is experiencing or about to experience that same emotion (Stotland, 1969; Regan & Totten, 1975). Empathy has been commonly related to prosocial and helping behaviours (Graziano, Habashi, Sheese & Tobin, 2007) as opposed to challenging behaviours. This raises the importance of identifying a child's developmental level of empathy when she or he engages in persistent challenging behaviour that may hurt someone else.

The third theory that relates to a person's psychological development is Erickson's eight stages of psychosocial development. Erikson's theory proposes how people develop socially and emotionally over their life course, with each stage representing a period of

conflict and a new level of social interaction and maturity. Infancy and early childhood span the first three stages: trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt (Rosenthal, Gurney & Moore, 1981). Erikson proposes that if infants are not provided with affection by caregivers or if infants do not have their needs met by the caregiver, they will develop mistrust instead of trust. Likewise, children either develop autonomy or doubt when they enter the next stage of development. If children's needs have not been met or they were unable to develop trusting relationships with caregivers, it could be possible that such children may also exhibit challenging behaviours and go down a negative trajectory.

Somewhat similar to Erikson's first stage is the fourth theory – the attachment theory, where children can have different types of attachment to their caregivers, more specifically secure, ambivalent, avoidant, or disorganised, depending on the child's experiences of interpersonal relationships (Rutter, 1995; Ainsworth, Blehar, Waters & Wall, 1978). A meta-analysis on attachment during childhood found a significant small to medium effect size that linked insecure attachment to internalising behaviour, such as social isolation or withdrawal, depression and anxiety. This supports the general idea that insecure attachments early in the child's life are associated with internalising challenging behaviours as the child gets older (Madigan, Atkinson, Laurin, & Benoit, 2012).

The fifth theory is a Māori health and wellness model – Te Whare Tapa Whā (Durie, 1994). The name directly translates to the four walls of a house. It emphasises the importance of four aspects of growth and development: te taha tinana (physical wellbeing), te taha hinengaro (mental and emotional wellbeing), te taha wairua (spiritual connectedness) and te taha whānau (family wellbeing), with each side complementing the others to make a person whole (Macfarlane, 2004). This model presents an holistic view to a person's wellbeing, and to achieve wellbeing, each of the four components need to be balanced for the house to stand

strong (Cherrington, Hine & Ngapuhi, 2009). The model suggests that a child who engages in challenging behaviour may be lacking in at least one of the four aspects of growth and development.

In summary, these theories suggest that children learn challenging behaviours through modelling, and their behaviour is influenced by their experience, attachment, and culture. Second, there is a mutual interaction between the child's behaviour and the environment, and third, a child should be viewed from an holistic perspective that includes their physical wellbeing, family, mental, and spiritual support. Hence, it is important for ECE teachers to set an environment that includes good role modelling or providing an environment that is guided by consistent rules and boundaries, to guide children in their moral and holistic development.

1.1.4 Prognosis of Challenging Behaviour. Persistent challenging behaviour has the potential to become more problematic as the child matures because they may experience an increasingly negative trajectory, which leads to social problems (e.g. rejection by peers and teachers), school failure, the classification of an emotional and behavioural disorder or emotional disturbance, school truancy and drop-out, early onset of substance abuse and/or early sexual behaviours and teenage pregnancy (Fergusson, Horwood & Ridder, 2005; Loeber & Dishion, 1983). A study by Houts and colleagues found that children in intermediate schools exhibited similar behavioural problems as they had when in preschool (Houts, Caspi, Pianta, Arseneault & Moffitt, 2010), indicating a likelihood that a child may continue to have persisting behavioural problems as they grow older.

Children with challenging behaviours do not engage with typically developing peers, nor do they learn the appropriate social-emotional skills that will support them later in life such as social skills and self-regulation skills (Dunlap et al., 2006). In early and middle childhood, children may present with other difficulties such as attention deficit, hyperactivity,

depression and anxiety (Advisory Group for Conduct Problems, 2009), social withdrawal or isolation, fearfulness, non-compliance, tantrums, and aggression (Campbell, 1995). Research suggests that if a child's challenging behaviour is not addressed at an early age, it could further lead to adult unemployment, criminal behaviour, or the diagnosis of a psychiatric disorder when the person approaches later adolescence and adulthood (Conroy, Dunlap, Clarke & Alter, 2005; Patterson, DeBaryshe & Ramsey, 1990; Advisory Group on Conduct Problems, 2009).

Similarly, findings from a population-wide study in Dunedin Multidisciplinary Health and Development Study indicated that challenging behaviours such as children's physical aggression at preschool age increased the risk for continued aggression and behavioural problems during adolescence (Broidy et al., 2003). Moffitt proposed that the interaction between children's neuropsychological problems (i.e. psychological problems that are linked with brain structure) and criminogenic environments (i.e. situations that are likely to cause criminal behaviour) is cumulative across their development, and can eventually accumulate to a pathological personality over time (Moffitt, 1993). In light of the current and future risks of challenging behaviour, early intervention may be indicated to help steer children and families on a healthy developmental trajectory but also to develop appropriate behaviours (Campbell, Shaw & Gilliom, 2000).

1.2 Early Childhood Education (ECE)

Outside a child's home context, ECE settings are one of the first places that children go to learn and develop new skills. Teachers play a major role in children's social and emotional development because children observe their teachers' words, actions, and body language (Ministry of Education, 1998). Because ECE teachers may also be the first important non-family adults that interact with young children on a regular basis, ECE settings

provide the opportunity to help address behaviour problems that have developed earlier in the child's life.

Children enter childcare from 0 to 6 years old or attend preschool from 3 to 5 years old. In New Zealand, although attending an ECE is not compulsory, over 96% of children under the age of five years attend ECE settings such as day-care, preschool, or kindergarten, averaging 20 hours per week (Education Counts, 2014). At the majority of the ECE providers, the government funds the first 20 hours of ECE for every child between the ages of 3 and 5 years regardless of family income (Ministry of Education, 2016a).

Early childhood teachers play a pivotal role in shaping the development of young children and provide multiple learning experiences through teacher and peer interactions (Church, 2004; Coplan, Bullock, Archbell & Bosacki, 2015). They also provide an opportunity to divert a child away from an antisocial pathway before the pattern of challenging behaviours becomes consolidated and resistant to change (Advisory Group for Conduct Problems, 2009). Teacher awareness of children's emotions, needs, and wellbeing can encourage children to engage more in positive behaviours and less in challenging behaviours (Kaiser & Rasminsky, 2012). There are various studies, however, that indicate that preschool or day care teachers express concerns in regard to managing children's behavioural difficulties, overactivity, inattention, and relationships with other children (Alter, Walker & Landers, 2013; Campbell, 1995; Mitchell & Hastings, 2001; Reinke, Stormont, Herman, Puri and Goel, 2011).

1.2.1 Early Childhood Education Curriculum. Early childhood education in New Zealand is unique because it is guided by a national curriculum that is based on the country's bicultural context and The Treaty of Waitangi. The National Early Childhood Curriculum in New Zealand, He Whāriki Mātauranga mō ngā Mokopuna o Aotearoa is commonly referred to as Te Whāriki (Ministry of Education, 1996). Te Whāriki is designed to meet the needs of

all children (Macartney, Purdue & MacArthur, 2013; Ministry of Education, 1996), and is underpinned by a philosophy of sociocultural theory (Vygotsky, 1978) and a theoretical framework that views learning as an active process (Bruner, 2006) where children are active learners within their social and cultural context (Cullen, 1995; May, 2012).

Te Whāriki. Te Whāriki is a bicultural document that reflects the Treaty of Waitangi's principles of Partnership, Participation, and Protection. These three principles highlight the important value of inclusion of all children within the ECE setting and set the scene for teachers to develop partnerships with children and their families, provide opportunities for children to be active participants in their learning, and to protect children from harm. As a means to serve the people of a bicultural country, Te Whāriki includes both English and Māori languages in the document (Alvestad, Duncan & Berge, 2009), and incorporates a Māori way of working with whānau (family) and children and western theories on child development. In Māori the word Te Whāriki translates as a woven mat. This is used as a metaphor to describe the interconnections of the five strands and four principles (see Table 1.1) that are integral to the learning and development of children in ECE settings. The five strands – wellbeing, belonging, contribution, communication, and exploration are framed within the four principles of empowerment, holistic development, family and community, and relationships (Ministry of Education, 1996). Through Te Whāriki, learning is viewed as an interactive process between children, peers, and teachers and the community. The curriculum values the contribution of other key people in children's lives, such as whānau and peers.

Table 1. 1

Principles and Strands of Te Whāriki (Ministry of Education, 1996, pp. 14-16)

| The Principles | The Strands |
|--|--|
| <i>Empowerment</i> – empowering the child to learn and grow | <i>Wellbeing</i> – The health and wellbeing of the child are protected and nurtured |
| <i>Holistic Development</i> – An holistic way for children to learn and grow | <i>Belonging</i> – children and their families feel a sense of belonging |
| <i>Family and Community</i> – The wider world of family and community is integral part of the ECE curriculum | <i>Contribution</i> – Each child’s contribution is valued, and opportunities for learning are equitable |
| <i>Relationships</i> – children learn through responsive and reciprocal relationships with people, places and things | <i>Communication</i> – The language and symbols of their own and other cultures are promoted and protected |
| | <i>Exploration</i> – The child learns through active exploration of the environment |

However, Te Whāriki has its critics. According to Cullen (2008), Te Whāriki is more ideologically driven than strategy based. Cullen argues that Te Whāriki is an holistic guide for ECE teachers to base their teaching practices but is not necessarily a teaching manual on how to carry out teaching practices. For example, although Te Whāriki emphasises the importance of children’s wellbeing where “children’s health is promoted, emotional wellbeing is nurtured and that they are kept safe from harm” (Ministry of Education, 1996, pp. 54), it does not specify the teaching strategies on how to keep children safe from harm nor address children’s challenging behaviour (Jones, 2012). Blaiklock (2010) compared Te Whāriki to other ECE curricula and highlighted that Te Whāriki focuses on the holistic approaches and learning processes such as autonomy, exploration, and aspiration, rather than practical content of how to facilitate learning in subject content in English, mathematics, science, or practical ways to manage the centre environment. Other researchers have also highlighted that Te Whāriki does not set fixed content or methods for teachers to teach children (Alvestad et al., 2009; Education Review Office, 2013).

The rationale behind the nature of Te Whāriki is to provide flexibility so that each ECE centre can maintain its own way of working and its diversity. Given that New Zealand is formally a bicultural society with many citizens who come from a diversity of cultural backgrounds, it is important for the curriculum to respect the different values, practices, cultural perspectives, and philosophies of each ECE centre (Alvestad et al., 2009; ERO, 2013).

Alvestad, Duncan and Berge (2009) interviewed nine New Zealand registered ECE teachers on their understanding of Te Whāriki, and found that the teachers perceived the main emphasis of the curriculum to be on building social skills, social competence, and respect for families. Teachers also raised concerns over the lack of guidance and direction on how to implement the curriculum, indicating a challenge in bridging the gap between the theoretical aspects of Te Whāriki and the implementation of it. This research in 2009 confirmed earlier research by Alvestad and Duncan (2006).

The Educational Review Office (ERO) conducted a study in 2013 to examine 627 teachers' use of Te Whāriki in their daily teaching practices. Results revealed that Te Whāriki was more evident in a centre's philosophy statement, planning by involving family and community in centre activities, and assessment processes (such as documenting children engaging in social interactions), and less evident in carrying out bicultural practice, and reviewing and self-reflecting teacher practices. These results should be examined further because if teachers do not demonstrate practices to achieve the goals of Te Whāriki, it raises questions as to the effectiveness of the curriculum in this regard, and whether the curriculum is able to inform teachers on practical strategies to respond to children's persistent challenging behaviour. Overall, the 2013 ERO report suggested that the broad nature of Te Whāriki did not provide the sector with clear standards of practice to implement high quality

curriculum and requested for a formal review of Te Whāriki. This review is currently being undertaken (Ministry of Education, 2016b).

One study that could aid the review of Te Whāriki is a New Zealand study which examined ECE teaching practices that supported children's social-emotional competence (McLaughlin, Aspden & McLachlan, 2015). This study interviewed and observed 24 ECE kindergarten teachers in New Zealand to gather information on their practices to support children's learning and social-emotional competences. Findings from the study generated a practice list organised into five broad areas of teaching practices that teachers can refer to. The five areas included: (1) relationships; (2) environment; (3) social-emotional teaching; (4) intentional teaching; and (5) competent and confident learners. More specifically, the study emphasised the importance of teachers' relationships with their teaching teams, with families, with community and culture, with Māori, between children, and with children. In addition to the alignment of goals with Te Whāriki, this practice list provided specific examples of practice (e.g. teachers to ask questions about children's home lives and experiences, and to make connections between centre life and home life) that aligned with the goals of Te Whāriki (e.g. Belongingness).

1.3 Early Intervention Services

Because the Te Whāriki philosophy encourages inclusive practices to meet the needs of all children (Ministry of Education, 1996; Macartney et al., 2013), children who engage in challenging behaviours are no exception and on some occasions, additional early intervention services are required to help meet the needs of some children.

Specialist early intervention services are available for children and their families for child behavioural problems through referrals and screening. Referrals can be made by parents, their local family physicians, ECE educators, and community health nurses. Teams work together in the Ministry of Education and the Ministry of Social Development to

provide early intervention services. Teams usually include occupational therapists, psychologists, and speech and language therapists (Ministry of Education, 2015). There are a number of behavioural-based interventions (e.g. Early Start, Home Interaction Programme, Family Start, and the Incredible Years (IY) programme) available for parents and children that provide additional support in the early years. Because the focus of this research project is on the day-to-day strategies teachers use to respond to challenging behaviour in ECE settings, the next section will be limited to models ECE teachers use in ECE settings.

1.4 Models to Address Children's Challenging Behaviour

The strategies teachers use to address children's challenging behaviours can have a lasting influence on the children (Bitar, 2010). Utilisation of effective and evidence-based strategies to manage challenging behaviour can help improve the children's behaviour, and also reduce emotional stress and burnout rates in teachers (Mitchell & Hastings, 2001; Hastings & Brown, 2002; Ko et al., 2012). The models described in this section are evidence-based practices, developed to help teachers address children's challenging behaviour.

1.4.1 Positive Behaviour Support. Positive Behaviour Support (PBS) is defined as an applied science that uses educational methods to develop an individual's behaviour and redesign a child's living environment to enhance their quality of life and minimise problem behaviour (Carr et. al., 2002). Blair, Fox and Lentini (2010) described PBS as a process that is used to develop assessment-based behaviour support plans as an intervention for children's persistent challenging behaviour. PBS emphasises the prevention of challenging behaviour and highlights the importance of having proactive strategies such as strengthening children's communicative competence, developing self-management skills, and providing children with opportunities to make their own choices to prevent the recurrence of problem behaviour (Carr et al., 2002; Dunlap & Fox, 2015). According to Carr and colleagues, PBS includes skills that increase the likelihood of success and satisfaction in a child's academic and social settings.

Overall PBS is (i) supportive of all educational methods that are used to teach and strengthen positive behaviour and (ii) portrays challenging behaviour as an ineffective way of meeting their needs by helping children attain their goals in a way that is socially acceptable (Carr et al., 2002).

1.4.2 Educational Models to Address Challenging Behaviours. Tiered approaches have been developed to provide parents and teachers with strategies to address children's challenging behaviours. Tiered approaches are systems that follow a methodical way of selecting strategies that are suited to the needs of the child. Some examples of these include (i) Response to Intervention (RtI) model (Coleman, Buysse & Neitzel, 2006), (ii) Positive Behaviour for learning (PB4L) model (Ministry of Education, 2015), (iii) the Pyramid Model for promoting social emotional competence in infants and young children from the Center on the Social and Emotional Foundations of Early Learning (Fox, Dunlap, Hemmeter, Joseph & Strain, 2003), and (iv) the Incredible Years Teachers (IYT) model (Webster-Stratton, 2012). Table 1.1 provides a summary of the four tiered models, and these models are pictured in Appendix A.

All of the tiered models of response have a similar goal, which is to promote the social, emotional, and behavioural development of young children and creating inclusive learning environments to support students to make positive behaviour choices. The main differences between the four models is that (i) the PB4L model is a New Zealand adaptation of the American Positive Behaviour Intervention Support (PBIS) which categorises strategies into three tiers to match the needs of the child's challenging behaviour (Fox, Carta, Strain, Dunlap & Hemmeter, 2010), and (ii) the hierarchy of the IYT model is based on the *frequency* of strategies that is recommended for teachers to use. This is unlike the rest of the tiered models that matched the *intensity* of the intervention to the child's needs.

Generally the first tier of the RtI, PB4L, and Pyramid Model refer to whole-school systems change approaches of universal strategies that should be used for all children. The second tier refers to targeted programmes for students at risk, and the third tier refers to strategies that support students' individual needs. Teachers proceed to use strategies from the next tier only when the data indicates that strategies for the lower tiers are insufficient to meet the needs of the student (National Center on Response to Intervention, 2010).

The Positive Behaviour for Learning (PB4L) model is a behaviour and learning initiative developed by New Zealand's Ministry of Education (Ministry of Education, 2015). This model is based on the Positive Behaviour Intervention Support Model (PBIS) developed in the United States (Sugai & Horner, 2009). Since the commencement of the programme, the Ministry's findings have indicated a decrease in behavioural referrals, suspensions and expulsions, and an increase in student engagement and on-task behaviours as reported by 86% of primary school and 81% of secondary school teachers who were surveyed (Ministry of Education, 2015).

The Pyramid Model, from the Center on the Social and Emotional Foundations of Early Learning differs from the PB4L in terms of the strategies described within each tier: (i) universal promotion for all children included, building nurturing and responsive relationships with children; (ii) secondary preventions such as teaching children social skills; and (iii) tertiary interventions which included assessment-based interventions or individualised behaviour support plans. A distinction of the Pyramid Model in contrast to the rest of the models is that its foundation is having an effective workforce, such as having systems and policies to promote the use of evidence-based practice.

The IY programme is a series of training programmes developed to equip and train parents (Incredible Years Parents; IYP) and teachers (Incredible Years Teachers; IYT) to prevent child behavioural problems. Created by Webster-Stratton and colleagues in the

1980s, the goal of IY is to promote children's social competence, build positive relationships, increase social support, develop problem solving both at home and in school, and to prevent conduct problems and school drop-outs in children (Webster-Stratton, 2004; 2011). The IY programme is an evidence-based programme because several randomised control trial studies have found positive effects of the programme whereby participation in the programme was associated with lesser child challenging behaviours and reduced parental stress, as well as greater parent-child empathy and increased positive parent-child and teacher-child interactions (Marcynyszyn, Maher & Corwin, 2011; Menting, Castro & Matthys, 2013; Trillingsgaard, Trillingsgaard & Webster-Stratton, 2014; Wetherall, 2014). The IY model illustrates a range of strategies in five tiers that teachers and parents can use to prevent the occurrence of challenging behaviour. Table 1.2 provides a summary of the strategies of the four education models discussed here.

Table 1. 2

Summary of the Models used in New Zealand for Learning and Behaviour

| | | School Model | ECE Models | |
|--|--|--|--|--|
| | RtI Model | PB4L Model† | IY Model (Frequency based model) | Pyramid Model (Whole centre model) |
| Tier 1 Primary prevention (For all children = 80-85%) | Universal monitoring and classroom interventions to increase children's learning | Whole school change approach†† Classroom environmental & behavioural strategies; PB4L Restorative practice; Huakina Mai; My FRIENDS youth; Wellbeing School; PB4L website. Designed for all students & staff | Use of empathy, attention and involvement, play, problem solving, talking, listening | Based on the positive behaviour support model. Nurturing and responsive relationships, high quality supportive environment |
| Tier 2 Secondary prevention (For some children = 10-15%) | Teachers increased monitoring, data collection and small group interventions | Targeted programmes for students at risk. Small groups; IY Parents & Teachers; Te Mana Tikitiki; PB4L Restorative practice | Use of praise, encouragement incentives, and motivators | Targeted social/ emotional supports; teaching social skills |
| Tier 3 Tertiary prevention (For a few children = 1-5%) | Intensive monitoring, data collection and one-on-one interventions | Services supporting individual students at high risk. PB4L Restorative practice; Check & Connect; Intensive Wrap-around Services | Clear limits and classroom structure | Intensive intervention: individual support and assessment based intervention |
| Tier 4 | | - | Nonverbal cues, positive verbal redirection, distractions, re engagement strategies | |
| Tier 5 | | - | Consequences, reminder of expected behaviour, warning of consequences | - |

Note: †PB4L model is based on the USA model of Positive Behaviour Interventions Support (PBIS) (Sugai & Horner, 2009);

†† Children only progress to the next tier if data indicates need.

1.4.3 Strategies within the models. As seen in Table 1.1, the use of tiers has been shown to assist teachers to address, using evidence-based strategies, challenging behaviour in children in ECE settings and in schools. In line with the models, strategies to address children's challenging behaviours are categorised into three tiers.

Tier 1. The literature on preventing challenging behaviours in Tier 1 describes class and centre wide strategies, (such as including daily schedules and routines), and also strategies to promote positive behaviours, (such as increasing the positive comments to a ratio of 5:1 negative comments) (Powell, Dunlap & Fox, 2006). The foundation for strategies in all tiers is an effective workforce as described in the Pyramid Model, which includes the ECE system and policies to encourage the use of evidence-based practices.

Tier 2. For children requiring more strategies than those in the Tier 1 models, as indicated by the data on the occurrences of challenging behaviour, teachers then proceed to using Tier 2 strategies. Strategies in this tier include providing additional instructions and behaviour supports that cater to a small group of students who are at risk or who are engaging in challenging behaviour (Fairbanks, Sugai, Guardino & Lathrop, 2007). An example of a Tier 2 strategy from the PB4L model is Te Mana Tikitiki. Te Mana Tikitiki is a school-based programme that consists of ten 1-hour sessions held over the school term. This is a group programme targeted at Māori children between the ages of 8 and 12 who frequently engage in challenging or disruptive behaviours. The programme takes into account the children's interest to guide the learning activities. These activities include using the Māori language, musical instruments, stick movements, song, and art to build on children's resilience, self-confidence, and self-esteem and to promote children's learning.

Tier 3. Tier 3 strategies are implemented when data suggests that Tier 2 strategies are not effective nor sufficient. Interventions in Tier 3 are individualised to the child and are

based on his or her needs to decrease the complexity and frequency of the problem behaviour (Fairbanks et al., 2007).

Tier 3 interventions are more intensive than Tier 1 and Tier 2 (Marston, 2005) and require more one-on-one time spent with the child and their family, and more time monitoring of the child's challenging behaviour. Some examples of Tier 3 interventions are the use of function-based behaviour assessment (discussed in the next section), planning individualised education programmes (IEP), and can also include school psychological services, crisis intervention teams, mentoring, and counselling.

1.4.4 Functional Behavioural Assessment. Functional Behavioural Assessment (FBA) is a tool used in the behaviour and learning assessment process to gather information to identify the function of a child's challenging behaviour. This process is aimed at understanding the relationship of a child's challenging behaviour to the child's contextual factors, to identify triggers, and predict events in which the challenging behaviour will occur (Gresham, Watson & Skinner, 2001; Alberto & Troutman, 2006). FBA is often used with children with persistent challenging behaviour such as aggression or non-compliance for whom consistent Tier 2 behaviour management strategies have been insufficient. FBA looks for patterns of behaviour or events that precede the problem behaviour (antecedents) and patterns of behaviour or events that follow the problem behaviour (consequences) to help inform the planning of interventions to both reduce challenging behaviours and increase appropriate behaviours (Hanley, Iwata & McCord, 2003; Blair, Fox & Lentini, 2010). There are three main classifications of the functions of behaviour:

1. Gain or escape attention from adults or peers
2. Gain a tangible, sensory stimulant or an object
3. Escape from a task or sensory stimulation which may be discomforting to the person (Alberto & Troutman, 2006).

Challenging behaviours can be reinforced by any of these functions (Blair et al., 2010). Hence, it is important first to identify the function in order to plan an intervention to reduce or eliminate the challenging behaviours (Cooper, Heron & Heward, 2007).

1.5 Teacher Training

The benchmark to be registered as an ECE teacher in New Zealand requires a Bachelor of Teaching in Early Childhood Education or a Diploma of Teaching, or a Level 7 qualification equivalent on the New Zealand Qualifications Framework (NZQA) approved by the Education Council of Aotearoa New Zealand for registration (Ministry of Education, 2016c). A provisionally registered teacher refers to a teacher who has recently graduated from teaching college and is in their first two years of teaching post graduation, and will be fully registered after two years of teaching. The term *student teacher* used in this thesis refers to students who are still studying towards their teaching qualification with a tertiary education provider (e.g. Teachers' College) and are not provisionally registered. The majority of the ECE courses provided by tertiary education providers require three years of full time study. According to Teach NZ (Ministry of Education, 2016c), there are a total of 18 tertiary institutions that provide a Bachelor qualification of Early Childhood teaching training within New Zealand.

An examination of the course content of all the ECE providers that offer a Bachelor of Teaching (ECE) and could lead to ECE teacher registration within New Zealand reveals that all institutions include inclusive education, inclusive practices for other learners, planning curriculum for diverse learners, equity and inclusion, understanding Te Whāriki, and understanding children and child development, specifically in relation to western psychological and sociocultural theories and Māori theories. On closer examination of the course content outline available online on each of the providers' websites, there appears to be little emphasis on strategies to manage or address children's challenging behaviour, with no

education provider including *behaviour* or *social-emotional competence* in any course title or course description. Although no behaviour management specific courses were found, one course included an element of behaviour management in their learning outcomes. This was a course on the *Whole Child* which specified supporting children in their development and behaviour in the course learning outcomes.

Because little evidence was found in the ECE provider course outlines that addressed children's challenging behaviour, this raises the question as to where ECE teachers learn the strategies to identify and to address challenging behaviours. It appears these skills are not taught in a systematic way during pre-service training, although it is possible that student teachers learn to address challenging behaviour during their initial teaching placement by observing experienced teachers, or alternatively they may undertake professional development courses when they are on the job. It is unclear where teachers learn the strategies they use to respond children's challenging behaviour at this present time.

1.5.1 Professional Development. Opportunities for professional development courses can vary depending on the ECE organisation that teachers are employed with, with some organisations conducting their own professional development to suit the needs of their centres. With the implementation of the PB4L model in New Zealand, one of the professional development courses that the New Zealand government has funded is the IYT programme. The Ministry of Education supports the IYT programme for ECE and primary school teachers in New Zealand and it is estimated that 2,400 ECE and junior primary school teachers take part in the programme every year; however the proportion of ECE teachers attending IYT is unclear. Teachers undertaking IYT meet together monthly for six months, followed by a one-day follow-up workshop three months later. The programme provides teachers with strategies to encourage positive behaviour and create a safe learning environment for children between the ages of 3 to 8 years old. Topics in the IYT programme include “building positive

relationships with children, using attention, encouragement, and praise to encourage positive behaviour, help children learn social and problem solving skills, using appropriate consequences to proactively prevent undesired behaviours” (Ministry of Education, 2015, pp.20).

Although the IYT programme caters to ECE teachers and junior primary school teachers in New Zealand, there has been only one study to evaluate its effectiveness and that included only junior primary school teachers. Through a pre-training and post-training self-report measure during the first and last week of the IYT group training programme, data from 237 junior primary school teachers showed consistent improvements in their frequency of implementing positive behaviour management strategies (strong effect size: $d=.86$), moderate improvement in their confidence in managing behaviours ($d=.60$), and a small reduction in frequency of using inappropriate teaching strategies ($d=-.24$). Overall, 90% of the participants viewed the IYT programme as a positive experience and rated the programme’s teaching methods as useful or extremely useful and reported that they learned useful strategies to address challenging behaviours in classrooms and ECE settings (Fergusson, Horwood, Stanley, 2013).

1.6 Rationale of the Study

Children’s challenging behaviour has been identified as one of the most stressful factors that teachers report (Stormont, Lewis & Smith, 2005). Appropriate and timely responses to challenging behaviour at an early age can help redirect a child from a negative behaviour trajectory to a prosocial trajectory so that children develop positive relationships and appropriate behaviours with their peers, family, and other people in their life. This is important because teachers can then give more attention to the learning outcomes of every child. As such, it appears crucial to focus on teachers’ management of children’s challenging

behaviour and to ensure that teachers have access to supports and strategies to address children's challenging behaviours promptly and effectively.

In conducting research, the *Scientist-Practitioner* model highlights the importance of how research and practice should inform each other (Drabick & Goldfried, 2000). Jones (2012) highlighted that a research gap exists between research-based strategies that are effective for addressing children's challenging behaviour and the daily strategies teachers actually use to address children's challenging behaviour. The current study aims to narrow this gap by (i) identifying how teachers define challenging behaviour, (ii) identifying the day-to-day strategies that ECE teachers use to address challenging behaviour, and (iii) identifying directions for future professional learning development to support teachers to manage effectively and reduce children's challenging behaviours.

Chapter 2: Literature Review

To guide the current research on the identification of teachers' perspectives and teaching strategies when addressing children's persistent challenging behaviour, this chapter examines previous research that specifically looked at (1) the behaviours that teachers identify as challenging behaviour, (2) strategies teachers use on a daily basis to address children's challenging behaviour, (3) perceptions on teacher training, and (4) the connection between teacher practice and research.

2.1 Search Strategy

The literature reviewed in this chapter was selected through searches conducted using Google Scholar, PsycINFO and ERIC databases. A combination of the following groups of keywords were searched: (1) early childhood settings, early childhood education, preschool, kindergarten; (2) identifying, perceptions, perspectives; (3) strategies, challenges, address, respond, manage; (4) children's challenging behaviour, problem behaviour, behavioural challenges; (5) New Zealand, influences and teacher training. The inclusion criteria for this review were peer-reviewed articles published in English within the last ten years. The articles sourced were also examined for additional articles in their reference lists. Included in this review of literature are six articles on teachers, who were defining or identifying children's challenging behaviour, three articles on strategies teachers use to respond to children's challenging behaviour, three articles on teachers' perception of teacher training in relation to addressing challenging behaviour, and three articles that examined the gap between theory and teacher practice.

2.2 Teachers' Definition of Children's Challenging Behaviour

Before surveying strategies teachers use to respond to children's challenging behaviour, it is important to examine what is it that teachers identify as challenging behaviour. Research suggests that teacher definitions and perceptions of children's

challenging behaviour have the potential to have an impact on the strategies they use to address children's behaviour problems (Friedman-Krauss, Raven, Neuspiel & Kinsel, 2014; McCabe & Altamura, 2011; Westling, 2010). There were few articles that only examined teachers' definitions of children's challenging behaviour specifically in the Early Childhood Education (ECE) setting and for this reason the literature search was expanded to include primary and secondary school teachers. This yielded six articles that examined teachers' perceptions and definitions of children's challenging behaviour as part of their research questions. Table 2.1 below provides a summary of the research articles included in this section of the literature review.

Five of the six articles (all those except McCready and Soloway, 2010) used either a 4 or 5 point Likert scale questionnaire to gather data on teachers' views on children's challenging behaviour by providing a number of definitions of challenging behaviour for teachers to rate. Westling (2010) measured teacher beliefs of challenging behaviour using a 5-point Likert scale questionnaire and identified the number of children who engaged in challenging behaviour in the teachers' class. Seventy teachers (38 special education and 32 general education) from ECE settings, primary and secondary schools across the United States responded to the study. Findings indicated that the top three most challenging categories of students, as identified by special education teachers, were students who had (i) emotional disturbance/ behavioural disorders, (ii) specific learning disabilities, and (iii) attention deficit hyperactivity disorder (ADHD). The top three categories identified by general education teachers were students with (i) no identified disabilities, (ii) specific learning disabilities, and (iii) ADHD (figures were not reported). The challenging behaviours most frequently faced by all teachers were defiance and noncompliance, disruption, and socially inappropriate behaviour. Westling's study indicated that the majority of teachers (as indicated by %) from both groups agreed that behaviour is learned (81%), and also that

behaviour can be improved (96%). Some differences between special and general education teachers were found, in that special education teachers attributed challenging behaviours to physical/ medical reasons or disabilities (75%) more strongly than general education teachers (50%), while general education teachers more often agreed that challenging behaviour originated in the home or in the community environment (90%) than did special education teachers (77%). These differences may reflect the different teacher training courses and qualifications of special education and general education teachers in the United States.

Research by Alter, Walker, and Landers (2013) examined the perceptions of 800 primary and secondary school teachers with regards to the prevalence and difficulties of students' challenging behaviour. The study provided teachers with eight definitions and categories of challenging behaviour (pp. 66-67) and used a 4-point Likert scale questionnaire (0=Not at all, 1=Minimally, 2=Somewhat, 3=Most). Results from the study indicated that primary school teachers reported physical aggression as significantly more problematic as indicated with a mean (*M*) score of 2.12 out of 3, in comparison with intermediate (*M*=1.88) and secondary school teachers (*M*=1.78). Descriptive analysis from teacher demographics also indicated that teachers with 11-15 years of experience considered isolation and no social interaction as more problematic (*M*=1.75) than teachers with 16 or more years of experience (*M*=1.59). Alter and colleagues highlighted that isolation and no social interaction was identified as the least prevalent (*M*=1.65) and problematic (*M*=1.65) across all other types of challenging behaviour in the survey. The researchers reported that teachers were more likely to overlook students with internalising behaviours such as withdrawal, which may be linked to psychiatric disorders such as depression. These findings support those from a study by Snell, Berlin, Voorhees, Chapman and Hadden (2012), which found that only 5% of preschool teachers identified internalising behaviour as a challenging behaviour in their classroom compared to noncompliance and defiance (identified by 53%), aggression or

bullying (50%), and disruptive and impulsive behaviour (50%). This study by Snell, Berlin, Voorhees, et al. (2012) is discussed more in detail in the next section.

Another team of researchers who conducted a similar study to Westling is Johansen, Little, and Akin-Little (2011). Johansen and colleagues examined the perceptions of 42 New Zealand primary school teachers on student behaviour through a 20-item questionnaire with a 5-point Likert scale. The results from this New Zealand study showed that 95% of participants perceived that school behavioural problems were caused by external factors, such as parenting, and 85.7% of participants perceived that behaviour could be controllable by the students. The researchers also reported that all teachers believed that behaviour served as a function or purpose for students.

Reinke, Stormont, Herman, Puri, and Goel (2011) examined the perceptions of 292 ECE and primary school teachers in the United States with regards to children's mental health in school settings. The measure for teachers' responses included 2 open ended questions, and 42 closed questions on a 5-point Likert scale. Teachers ranked students' behaviour problems as the top student mental health issue. More specifically, 97% of teachers reported concerns on students' disruptive behaviour, 91% on defiant behaviour, and 78% on aggressive and conduct problems. Ninety-six percent of teachers also indicated concern in relation to students' hyperactivity and inattention problems, with 91% of teachers reportedly concerned about students with significant family stressors, and 87% of teachers concerned about student peer problems. This finding raises the importance of teachers identifying children's challenging behaviour in school settings and the need for professional development to support teachers in addressing these challenges. It is not possible, however, to distinguish from the study if other mental health concerns such as ADHD, family stressors, and peer problems could have contributed to a child's behaviour problem.

A 2014 study by Friedman-Krauss, Raven, Neuspiel and Kinsel took a different approach to understanding teacher perceptions of children's challenging behaviour, by measuring emotionally upsetting and stressful challenges that teachers face in ECE settings. This was the only study in this section of the literature review that consisted of ECE teachers as participants. The study compared teachers' levels of job stress with perceptions of child behavioural problems by using an adaptation of the Child Care Worker Job Stress Inventory that used a 5-point Likert scale (Curbow et al., 2000) and the Behaviour Problems Index Scale (Zill, 1990). Items on the adapted measure include examples of challenging behaviour such as "Children are frequently impulsive or act without thinking" (pp. 8). Data from the 69 ECE teachers showed a statistically significant relationship ($b=0.76$, $p < .001$) between the level of job stress and the intensity of child behavioural problems, such as impulsivity and misbehaviour, but no specific definition of challenging behaviour was stated in the measure.

In contrast to these five studies, McCready and Soloway (2010) conducted a qualitative study to identify teacher perception of students' challenging behaviour in a culturally diverse city in Canada. Within a semi-structured interview, 50 primary school teachers were asked to describe types of behaviour that are the most challenging to them. Thematic analysis identified four main categories of student challenging behaviour: (1) physical behaviours (2) verbal behaviours (3) academic disengagement and (4) miscellaneous noncompliance. As described previously, Westling's (2010) questionnaire provided predetermined definitions on challenging behaviour that then gave an insight to teacher perceptions on challenging behaviour, the researcher's definitions may also have provided a schema for teachers to refer to challenging behaviour. This is in contrast to McCready and Soloway's research (2010) which used open-ended questions for teachers to provide their own definitions of challenging behaviour and what challenging behaviour meant to them. Research by Alter et al., (2013) suggested that teacher perception of challenging behaviour

can differ across student ages, which is why it is important for research to take account of the perceptions of ECE teachers on children's challenging behaviour without providing preconceived notions to the participants. The use of open-ended questions, rather than the closed questions and Likert scales used in other studies, can provide teachers with the opportunity to define what they considered challenging behaviour and which could be used to guide future professional development to address challenging behaviours. The use of more than one method of data collection, such as observations or viewing video scenarios of challenging behaviour, can also help to provide more broader data on teachers' perceptions and identification of children's challenging behaviour.

Although these studies provide valuable information about teacher perception on children's challenging behaviour, five of the six studies examined were conducted outside New Zealand and included participants with a range of teacher training programmes, all different from the teacher training programmes in New Zealand. Because of this, research conducted within the New Zealand ECE teacher population is essential to guide teachers and teacher training providers in New Zealand. For this reason the current study seeks to use a mixed-method approach to identify the types of challenging behaviour (including both externalising and internalising behaviours) ECE teachers face on a daily basis.

Table 2. 1

Studies Examining Teachers' Perception of Challenging Behaviour

| Authors | Participants and Settings | Study Design | Measures | Results |
|--|---|--------------|--|---|
| Alter, Walker & Landers (2013) | 800 primary to secondary teachers in the United States | Descriptive | Online survey for teachers to identify how prevalent and problematic (4-point Likert scale) each category of challenging behaviour was. Definition of each category of challenging behaviour was provided. | Teachers rated the following from most to least problematic: 1. Off-task (M=2.83); 2. Verbal Disruption (M=2.83); 3. Verbal Aggression (M=2.54); 4. Noncompliance (M=2.48); 5. Out of Seat (M=2.28); 6. Physical Aggression (M=2.12); 7. Physical Disruption (M=2.24); 8. Self-stimulatory (M=1.93); 9. Isolation/ No social interaction (M=1.65). Teachers rated the following behaviours from most to least prevalent: 1. Off-task (M=3.05); 2. Verbal Disruption (M=2.92); 3. Verbal Aggression (M=2.5); 4. Noncompliance (M=2.46); 5. Out of Seat (M=2.33); 6. Physical Disruption (M=2.22); 7. Physical Aggression (M=1.98); 8. Self-stimulatory (M=1.99); 9. Isolation/ No social interaction (M=1.65). |
| Friedman-Krauss, Raver, Neuspiel & Kinsel (2014) | 69 ECE teachers in the United States | Descriptive | A modified version of the <i>Child Care Worker Job Stress Inventory</i> 5-point Likert scale adapted from the <i>Behaviour Problems Index</i> to measure teachers' perceptions of child behavioural problems in the classroom). | Teachers who reported higher levels of child behaviour problems in their classrooms also reported higher levels of job stress ($b=0.76$), and this relationship was statistically significant. |
| Johansen, Little & Akin-Little (2011) | 42 primary school teachers in New Zealand | Descriptive | Self-developed 20-item questionnaire on teachers' perception of behaviour: 5-point Likert scale, yes/no, and multiple-choice questions with space for participants to make comments on each question. No definition of challenging behaviour provided. | 76.2% of participants perceived that parenting is 'sometimes' the cause of school problems with 19% who perceived that parenting is 'very often' the cause. 40.5% of participants indicated 'rarely' and 45.2% indicating 'sometimes', that problem behaviour was something that a student could not control. 88.1% of teachers rated that mismanagement in the classroom as 'sometimes' or 'very often' the cause of problem behaviour in the classroom and 59% of participants stating that their teaching practices can influence student behaviour. All participants also reported that behaviour 'sometimes' (36%), 'very often' (36%) and 'always' (21%) has a function or serves a purpose. |
| McCready & Soloway (2010) | 50 primary school teachers from a culturally diverse suburb in Toronto. | Descriptive | Semi-structured interview on the types of behaviour and classroom management situations that are the most challenging for teachers to deal with. | Thematic data analysis grouped teachers' definition of challenging behaviour into four categories: 1. Physical behaviours (temper tantrums, kicking, pushing, hitting, running away) 2. verbal behaviours (screaming, yelling, swearing, lying) 3. Academic disengagement (time management, setting priorities) 4. Miscellaneous noncompliance (opposition, social conflicts, stubbornness). Results did not report frequency on the four categories. |
| Reinke, Stormont, Herman, Puri & Goel (2011) | 292 ECE and primary school teachers in the United States | Descriptive | 44-item Mental Health Needs and Practices Schools Survey to identify teachers' mental health concerns and, training on behavioural interventions. The survey used a 5-point Likert scale and 2 open-ended questions. | The top five student mental health concerns were as follows in order from most concerning: 1. Behaviour problems, including disruptive (97%), defiant (91%), aggressive and conduct problems (78%), (2) Hyperactivity and inattention problems (96%), (3) Students with significant family stressors such as divorced parents, parents in prison, parents with mental health concerns (91%), 4. Social skills deficits (87%), and 5. Depression (54%). A large number of teachers also reported peer-related problems such as bullying (75%) and student victims of bullying (69%) as major concerns. |
| Westling (2010) | 70 special education and general education teachers from ECE to secondary school in the U.S | Descriptive | <i>Questionnaire about Teachers and Challenging Behaviour</i> (5-point Likert scale questionnaire) and identified the number of children engaging in different categories of challenging behaviour. Definition provided. | The most prevalent type of challenging behaviour rated by teachers were disruption (24.1%), defiance and noncompliance (21.7%), and socially inappropriate behaviour (18.2%). Majority of the teachers agreed that: behaviour is learned (83%), behaviour can be improved (96.5%), and attributed challenging behaviour to internalised (personality 51.5%/medical 65% /disability 63%) and external conditions (home and community 83.5%). |

2.3 Strategies Teachers use to Address Children's Challenging Behaviour

There appears to be a gap in the literature on strategies ECE teachers are recommended to use and what they are currently using to address children's challenging behaviour on a daily basis (Heo, Cheatham, Hemmeter & Noh, 2014). According to research by Snell, Berlin, Voorhees, et al., (2012), identifying strategies that teachers are already using on a daily basis can help to inform future professional development and teacher training courses. Three studies were sourced because they specifically examined the strategies teachers used in an ECE setting. Table 2.2 below summarises the three studies sourced for this section.

Recent research by Kurki, Järvenoja, Järvelä and Mykkänen (2016) investigated strategies ECE teachers used to co-regulate children's behaviour and emotions in challenging situations. The researchers specifically looked at socio-emotional challenging situations that showed indications of emotional reactions or conflicting goals between teachers and children or peers. Kurki et al., took video recordings followed by individual recall interviews with eight ECE teachers in Finland and then grouped teacher strategies into two categories: activity-related and emotion-related. The research team found that 85% of the overall strategies observed on video were activity-related such as teacher giving instructions to children on their behaviour (amount of units coded: $f=39$), physically directing an activity ($f=33$), verbal suggestions or directions ($f=17$), and providing a solution to the child ($f=5$). The remaining 15% of strategies observed were emotion-related and included teachers labelling emotions ($f=14$), acquiring information about the child's emotion ($f=3$), and physical soothing ($f=3$). Further analysis compared the teachers' identification of strategies used from the video observation to the researchers and found that, overall, teachers identified a lower number of strategies ($f=43$) than the researchers observed ($f=117$). This finding suggested that teachers might not be fully aware of their own actions and strategies and the

impact that teacher behaviour has on the children in their class, or that teachers were using the strategies subconsciously. However, this result could have also been affected by possible memory decay because the recall interview was conducted two to four weeks after the observation.

As a means of informing future interventions, Snell, Berlin, Voorhees, et al., (2012) conducted a survey of teachers' self-reported practices towards children's challenging behaviour. The study involved 78 participants from Head Start programmes in the United States, including ECE teachers, Head Start programme directors, and mental health specialists. Using the Social Competence in Preschool Survey designed by Berlin, Hadden and Voorhees in 2008, Snell's research team grouped the resulting teaching strategies into two categories: preventative and responsive. The top three strategies that teachers used to prevent challenging behaviour was (i) establishing clear rules, expectations, schedules, and routines (38%); (ii) using positive reinforcement (32%); and (iii) engaging children in appropriate activities (28%). When teachers were asked how they responded to challenging behaviour, 46% of teachers referred to using preventative strategies such as positive reinforcement, 33% of teachers reported using redirection, and 22% of teachers using behaviour plan or chart. This study highlighted the different types of strategies teachers used to address children's challenging behaviour and a follow-up study was conducted to further examine teachers' strategies.

Snell, Voorhees, Berlin, Chapman, Hadden and McCarty (2012) conducted a follow-up study with 45 ECE staff members to identify teacher practices in regard to addressing children's challenging behaviour in ECE settings. Snell and her research team used a mixed-method approach that included direct observations and teacher interviews to enable the research team to gain a better understanding on how teachers addressed problem behaviour. The research used the Teaching Pyramid Observation Tool for Preschool Classroom (TPOT)

(Fox, Hemmeter, Snyder, Artman, Griffin et al., 2008) to measure the use of positive behaviour support practices. The TPOT consisted of open-ended interview questions and a 3-point rating scale of teaching strategies ranging from universal tier 1 strategies to individualised tier 3 strategies that was used during the direct observation. The 45 participants reported that the most frequent challenging behaviour they faced was aggression that resulted in harming other people. Only one participant reported internalising behaviour such as quietness, withdrawal from peers as behaviour of concern. There were some inconsistencies between the fidelity of self-reported strategies in the interview and the direct observations as indicated by the TPOT. Observers from the research team found three out of 14 'red flags' or areas of concern which indicated potential areas for teacher training. For example, 60% of teacher talk to children was reprimand and telling children what to do, 30% of the observations indicated that children were reprimanded for a problem behaviour, in which teachers used negative words such as *no*, *stop* and *don't*, and further 30% of observations showed that teachers focused more on adult-child interactions than child-child interaction.

Qualitative differences from Snell, Voorhees, Berlin et al's study (2012) were also noted between teacher beliefs and practices with other specialists outside of the ECE setting. These included punishing children through the use of negative consequences (e.g. time-out) instead of positive strategies (e.g. redirection). Participants within the study also highlighted that there was little family involvement when a child was engaging in challenging behaviour as well as a lack of coordination and communication during the referral process. Participants reported that many parents did not acknowledge their child's challenging behaviour, or felt that addressing challenging behaviour was the teachers' responsibility, or that the family was already experiencing significant stressors. Just as Snell's earlier study had shown, the follow-up study also highlighted the use of both preventative strategies (such as acknowledging

children's emotions and teaching specific social skills), as well as responsive strategies that teachers used (such as redirection, behaviour charts, and modelling calm deep breathing techniques)

Three studies sourced (Kurki, Järvenoja, Järvelä & Mykkänen, 2016; Snell et al., 2012; Snell et al., 2012a) utilised two ways of reviewing teacher strategies when addressing children's challenging behaviour: activity-related and emotion-related strategies, or preventative and responsive strategies. It can, however, be argued that the activity-related strategies that were most observed by Kurki and colleagues (2016) could be aligned with the strategies from the Pyramid Model's Tier 1 universal strategies because the nature of both types of strategies engages the children, which is defined as a preventative strategy.

The methodology adopted in these studies, such as the use of video recording and interviewing teachers, was helpful in identifying teacher strategies and would be beneficial in future research in this area. As seen in both the studies by Kurki et al., (2016) and Snell et al., (2012a), the use of both observations and interviews provided insight into the strategies teachers used to respond to children's challenging behaviour and may also encourage teachers to be more aware of the strategies they use on a daily basis.

It must be acknowledged however that in both of Snell et al.'s studies which were conducted to understand what teachers did and highlight areas for professional development, participants consisted of behavioural and mental health specialists. Therefore they may have different training from that available to New Zealand ECE teachers, and caution must be exercised when generalising the findings to the New Zealand context.

Table 2. 2

Studies Examining Teachers' Strategies to Address Children's Challenging Behaviour

| Author | Participants and Settings | Study Design | Measures | Results |
|--|--|--------------|--|---|
| Kurki, Järvenoja, Järvelä & Mykkänen (2016) | 8 ECE educators (2 teachers and 6 teacher trainees) and 30 children in Finland | Descriptive | Video recording observations followed by teacher recall interviews to discuss the scenarios from the observations. Used a qualitative content analysis approach. | 85% of strategies were Activity-related. From most to least often: instructions for behaviour ($f=39$), physically directed activity ($f=33$), acquired information from children ($f=21$), verbal directing attention ($f=17$), verbal suggestion ($f=17$), provided information ($f=16$), negative response ($f=11$), physically provided a solution ($f=5$), ignoring ($f=2$), encouraged a child's own thinking ($f=2$), demanded a solution ($f=2$). 15% of total strategies were Emotion-related. From most to least often: Emotion-related (labelling emotions, reasons for emotions and reappraising, consoling/accepting) ($f=14$), maintained positive affect or atmosphere ($f=9$), acquired information about child's emotions ($f=3$), and physical soothing ($f=3$). Teachers identified lesser frequency ($f=63$) of strategies than the observers in the recall interview. |
| Snell, Berlin, Voorhees, Stanton-Chapman & Hadden (2012) | 78 Head Start preschool staff in U.S | Descriptive | Social Competence in Preschool Survey (open-ended questions and provided conflict- scenario questions for teachers to report what they would do). | Top 3 challenging behaviours: Noncompliance-compliance (53%), aggression or bullying (50%), disruptive and impulsive (50%). Top 3 Strategies to prevent challenging behaviour: Establish clear rules, expectations, schedules and routines (38%), Positive reinforcement (32%), Engage children in appropriate activities (28%). Top 3 strategies to respond to challenging behaviour: Prevention strategies such as positive reinforcement and being proactive-active (46%), Redirection by prompting appropriate behaviour (33%), Follow behaviour plan and incentive charts (22%).%) |
| Snell, Voorhees, Berlin, Stanton-Chapman, Hadden & McCarty (2012a) | 45 Head Start preschool staff in U.S (included administrators, teachers, teaching assistants, behavioural specialists, mental health specialists and family support staff) | Descriptive | Interviews adapted from Preschool-Wide Evaluation Tool Administrator Interview Guide and the Teaching Pyramid Observation Tool for Preschool Classroom (TPOT). Direct observations were measured using the TPOT. | Most frequently mentioned challenging behaviour: aggression resulting in harm to other people, with only one person who mentioned internalising behaviour (quiet, withdrawn). Prevention strategies: Teachers reported using specific social skills curricula such as AI's Pals to teach social problem-solving, identifying emotions and self-calming and used the Creative curriculum to guide the set up of the environment and establishing rules. Responsive strategies: reactive strategies such as time -out or unhappy chair, and positive strategies including redirection, behaviour charts, using calming techniques such as deep breathing (no figures reported). The top red flag was that teachers' talk to children were primarily giving directions and telling them what to do (60%) and the most top effective strategy was that teachers frequently commented on children's appropriate behaviour (44%).%) |

2.4 Teacher Training

After reviewing the literature on the strategies teachers use to address children's behaviour problems, the next section is directed at where teachers learn these strategies from, and whether teacher training courses are equipping teachers with appropriate strategies to address children's challenging behaviour in ECE settings. Previous research suggests that teachers appeared to be unaware of their teaching strategies (Kurki et al., 2016) and differences were found between their beliefs and practices (Snell, Voorhees, Berlin, et al., 2012). This leads to further questions concerning teacher training and an examination of the link between research theory and practice. Westling (2010) indicated that more than 50% of both special education and general education teachers in their study felt inadequately prepared to manage children's challenging behaviour based solely on their preservice training.

Reinke and colleagues (2011) conducted a study using a 5-point Likert scale to measure 292 teachers' knowledge and skills on how to meet the mental health needs of ECE and primary school aged children in the United States. The results confirmed those of Westling's (2010), and indicated that majority of teachers felt unprepared to manage challenging student behaviours. Of these, 76% of participants indicated they did not have the skills required to meet the mental health needs of the children. Teachers also indicated that they learned more about behavioural interventions through workshops and in-service experiences (68%) than from their undergraduate training (33%). More specifically, the top three areas in which teachers reported the need for additional training in an open-ended question were (1) learning strategies to work successfully with children with externalising behaviour problems, (2) recognising and understanding mental health issues in children, and (3) training in classroom management and behavioural interventions. This is similar to the findings of a previous research, which suggested that teachers indicated "addressing

challenging behaviour” as the highest rated need for training (Hemmeter, Corso & Cheatham, 2006).

A New Zealand qualitative study conducted by Mahmood (2013) investigated the realities of practice for ECE teachers in their first year of teaching in both kindergartens and privately owned ECE settings. Fourteen teachers were interviewed on their experiences as an ECE teacher, areas of concerns, and the university courses that they could relate to during their first few months of working experience. Mahmood summed the experiences of beginning ECE teachers in two words: “reality shock”, because these expressed the difficult experiences transitioning from a student teacher to a provisionally registered teacher (*Note: To be a fully registered ECE teacher in New Zealand, the person must have worked in an ECE setting for at least two years after graduation*). The reality shock they experienced included feelings of inadequacy, physical exhaustion as well as social and emotional adjustment due to high attrition rates of staff in privately owned ECE centres. In addition, the majority of beginning ECE teachers reported having philosophical differences with other teachers in the workplace. More specifically, 11 of 14 teachers reportedly preferred working with small groups of children while other experienced teachers viewed the new teachers as “taking the easy way out” (pp. 164) because they preferred to work with smaller groups of children rather than with larger groups. One new teacher also reported that the differences in teaching ideology among the teaching team caused tension for the new teacher who was still building her own teaching philosophy. The study also highlighted that there was a disconnect between ideal practices taught in teacher training courses and the reality of practice after the teacher entered the workforce.

Training providers in the United States have also indicated concern over teacher preparedness. Hemmeter, Santos, and Ostrosky (2008) developed a 4-point Likert scale survey to examine how ECE teacher training programmes integrated evidence-based

practices to promote both children's social-emotional development and a 3-point Likert scale on the challenges and barriers identified by teaching programmes. At least 62% of 125 faculty members from 2-year and 4-year higher education teacher training programmes indicated a need for additional training materials to support the teaching of social-emotional development and designing and implementing preventative practices and interventions to address challenging behaviour. More specifically, respondents reported that there was a lack of opportunity for students to implement practices in field placements (*median*=2.00, on a scale of 0=not a challenge, 1=somewhat of a challenge, 2= a major challenge) and that there was not enough room in their curriculum to include topics that related to children's social-emotional development and that addressed challenging behaviour (*median*=2.00). One significant difference between the 2-year and 4-year training programmes was that graduates from the 4-year programmes, which included a special education course, were rated more prepared to address challenging behaviours following evidence-based practice from the Pyramid Model than were graduates who did not have a special education component (that is those from 2-year programmes). Results from this study suggest that teacher training providers are not providing teachers with the skills to address children's challenging behaviour and support the children's social-emotional development. This provide a possible explanation as to why the teachers in the study by Mahmood (2013) indicated that it was a reality shock in their first year of working experience, and the teachers from the Reinke et al., (2011) study indicated that they received inadequate training to address children's challenging behaviour.

The general consensus from the three articles discussed in this chapter suggests that teachers are receiving inadequate preservice teacher training with regards to addressing children's challenging behaviour. Table 2.3 provides a summary of the three studies sourced in this section.

In summary, Mahmood's (2013) study suggests that there are inconsistencies between teacher training and actual teaching experience. The transition from being a student teacher to a qualified teacher may not be easy and is an area worthy of further investigation. There may also be other factors such as the ECE centre environment and the teachers' differing philosophies that may contribute to the reality shock beginning teachers feel, however, contributing factors to teachers' feelings of inadequacy were not specifically addressed in the study. Nonetheless, Mahmood's findings bring to question the adequacy of ECE teacher training courses in comparison to what is required for actual teaching practice. In addition, Reinke et al., (2011) and Hemmeter et al., (2008) both found that teachers may not be equipped in their training to address children's challenging behaviours and thus may require professional development to further develop their skills.

Table 2. 3

Studies Examining Teacher Training in Addressing Children's Challenging Behaviour

| Author | Participants and Settings | Study Design | Measures | Results |
|--|--|--------------|--|---|
| Hemmeter, Santos and Ostrosky (2008) | 125 faculty members from institutes of higher education across 9 states in the United States (63 from 2-year ECE programmes and 62 from 4-year programmes) | Descriptive | Survey of Early Education included 17 questions on demographic variables, personnel preparation programme content and program needs related to addressing children's challenging behaviour (3 and 4-point Likert scale). | Topics that respondents perceived their graduates to be most prepared in (rating from 0 to 3) were designing and implementing preventative practices (median for 2-year programme= 2.29; median for 4-year programme = 2.82). This is followed by promoting social-emotional development (median for 2-year programme= 2.08; median for 4-year programme = 2.82), partnering with families around issues related to social-emotional development and challenging behaviour (median for 2-year programme= 2.00; median for 4-year programme = 2.29). The topic that respondents perceived their graduates to be least prepared in was designing and implementing interventions to address challenging behaviours (median for 2-year programme= 1.20; median for 4-year programme = 2.10). |
| Mahmood (2013) | 14 teachers in their first year of working after graduating a 3-year course in New Zealand | Descriptive | Open-ended interview guide that asked participants about their experience as a teacher, areas of concerns, student practicum experiences and school courses in relation to work experiences. | Participants reported that they underestimated the demands of actual teaching based on prior preservice teaching experiences. Specifically, they felt less supported and felt that they were unprepared to work with children under 2 years old. Eleven of 14 teachers preferred working with children in small groups but found other teachers resenting their small groups due to conflicting philosophies. One participant reported that children were distracted and disruptive during mat time and the team of teachers agreed to provide children with the choice whether to attend mat time. However, the head teacher decided that the centre needed an effective behaviour management plan to have all children on the mat. Eight teachers also reported feeling unprepared for teaching in low-income areas that had a lack of resources. |
| Reinke, Stormont, Herman, Puri & Goel (2011) | 292 ECE and primary school teachers in the United States | Descriptive | 44-item Mental Health Needs and Practices Schools Survey to identify teachers' mental health concerns and, training on behavioural interventions. The survey used a 5-point Likert scale and 2 open-ended questions. | 55.5% of teachers indicated that they heard of evidence-based practice, while 44.5% indicated that they had not or were unsure. 4% of teachers strongly agreed that they had the level of knowledge required to meet the mental health needs of children they work with, with 24% indicating they agreed, 31% neutral, 36% disagreed and 5% strongly disagreed. Teachers indicated that they learned about behavioural interventions the most during workshops and inservices (68%), staff development (53%), independent study (36%), undergraduate course work (33%) and graduate work (29%), with 9% of teachers reporting receiving no training experiences in behavioural interventions. 21% of teachers rated their overall training on behavioural intervention as none or minimal, 62% reported moderate and 17% of teachers reported receiving substantial training. |

2.5 Theory and Practice

There appears to be an imbalance between theory and practice in regards to addressing children with challenging behaviours in ECE settings. More specifically, research suggests a gap between research-based knowledge, taught in teacher training, and pedagogical knowledge, which is used by teachers in their daily teaching practice (Vanderlinde & Braak, 2010). This is evident because many teachers reported difficulties in addressing children's challenging behaviour after attending pre teacher training courses (Alter et al., 2013; Reinke et al., 2011). Three studies sourced highlighted this gap and these are presented in Table 2.4.

The first study examined the perceptions of 256 South Korean ECE teachers on the *importance* and *implementation* of strategies to address children's challenging behaviours (Heo et al., 2014) using an adapted pilot version of the TPOT. The adapted measure was reviewed to ensure cultural appropriateness and items were ordered to align with each tier of the Pyramid Model. Findings concluded that teachers recognised the importance of knowing and using social-emotional teaching strategies but reported lower levels of implementing specific strategies. The study did not measure the teachers' perspectives of why there was a significant difference between importance and implementation but the researchers provided a number of possible explanations. This included both the lack of administration support and also insufficient training to implement Pyramid Model strategies. In addition, the nature of Korean ECE programmes may have emphasised more preacademic skills with little focus on addressing children's social-emotional competence. Similar to the study by Hemmeter et al., (2008), Heo et al., (2014) noted that ECE teachers who had training in special education and had children with disabilities in their classrooms reported more importance and implementation of these strategies than did teachers without special education training or children with disabilities in their classroom. These findings suggest a mismatch between the

theoretical perspectives of the teachers and the actual day-to-day practices when responding to children with challenging behaviour in the Korean context.

Similar to the study by Heo et al., findings from Almog and Schechtman (2007) indicated a gap between teacher knowledge and actual classroom practices. A mixed-method study was conducted to examine how teachers responded to behavioural problems in an inclusive primary school in Israel. Almog and Schechtman used a self-report questionnaire on teacher efficacy (6-point Likert scale). They also conducted individual interviews in which teachers were presented with hypothetical incidents of behavioural problems in the classroom and were asked to describe how they would respond to the situation. A third element of the research was a classroom observation to identify teachers' strategies. Results from the self-reported survey and the teacher interviews indicated that teachers preferred using helpful strategies (*percentage of teachers' overall responses*= 69%) such as teaching students skills and alternative behaviours, setting time to have personal conversations with students or changing the method of instruction to suit the student than use restrictive strategies (31%) such as transferring students to another class and withholding privileges. In contrast, the findings from the teacher observations showed that teachers tend to respond with a higher percentage of restrictive responses (57%) than helpful responses (43%). This finding indicated that teachers tended to choose more helpful responses in hypothetical incidents than they used in reality, suggesting a gap between what they know and what they do – the gap between theory and practice.

Another South Korean study by Kim, Stormont, and Espinosa (2009) took a different approach to understanding the gap between theory and practice by examining the relationships among three factors that contributed to ECE teachers' use of positive strategies to address challenging behaviour. The study used six questionnaire measures to identify three different factors on a 5-point Likert scale, namely: (1) programme factors, such as the

centre's environment and level of support the centre received; (2) teacher factors, such as teaching beliefs and strategies teachers use to support behaviour; and (3) child factors, such as the child's social skills, severity of challenging behaviour, and parent-teacher communication. Overall, data from 236 South Korean ECE teachers on the relationship between teachers' strategies for addressing challenging behaviour and the three factors indicated that the following had positive correlations to teachers' positive proactive strategies: (1) sub programme factors such as the level of centre support available ($r=.26$), in-service professional development ($r=.22$), and consultation with specialists ($r=.25$); (2) sub teacher factors, such as teacher beliefs on developmentally appropriate practices ($r=.44$); and (3) sub child factors, such as the severity of children's challenging behaviours ($r=.20$), and the satisfaction of communication with parents ($r=.20$). Conversely, sub factors administrator support ($r=.08$), teachers' highest qualification ($r=.15$), and the number of children with challenging behaviours ($r=-.02$) did not correlate with teacher ratings on using positive behavioural strategies.

The third study, by Kim et al., (2009) showed specific areas that contributed to teacher strategies in addressing challenging behaviour, which may be useful for training programmes or ECE centre managers to understand to encourage teachers to use more positive behaviour strategies when responding to children's challenging behaviour. However, just as Almog and Schechtman (2007), Heo et al., (2014), and Kim et al., (2009) found, the self-reported data collection may not be borne out in actual practice. To overcome this problem, it is important for researchers to use more than self-reporting measures and conduct direct observations to observe the strategies teachers actually use, or do not use.

Table 2. 4

Studies Examining the Gap between Theory and Practice of Addressing Children's Challenging Behaviour

| Author | Participants and Settings | Study Design | Measures | Results |
|--------------------------------------|--------------------------------------|--------------|---|--|
| Heo, Cheatham, Hemmeter & Noh (2014) | 256 ECE teachers in South Korea | Descriptive | Adapted version of the TPOT to measure teachers' perception and implementation of social-emotional strategies. | The means (<i>M</i>) of importance (IMPO) were statistically higher than the means of implementation (IMPLE): responsive interactions (<i>M</i> of IMPO=3.44; <i>M</i> of IMPLE=2.76), Classroom preventative practices (<i>M</i> of IMPO =3.31; <i>M</i> of IMPLE=2.86), social-emotional teaching strategies (<i>M</i> of IMPO=3.42; <i>M</i> of IMPLE=2.90), Individualised interventions (<i>M</i> of IMPO=3.09; <i>M</i> of IMPLE=2.34). |
| Almog and Schechtman (2007) | 33 primary school teachers in Israel | Descriptive | Interviews included nine vignettes of hypothetical incidents developed by Brophy and Rohrkemper (1981), Classroom observation analysed by a coping strategy scale developed by Cunningham and Sugawara (1988) | The observations showed that teachers had an overall higher percentage of restrictive responses (<i>M</i> =56.95) than helpful responses (<i>M</i> =43.0) during incidents of challenging behaviour. This was in contrast to teachers' responses in the hypothetical situations during the interview which had a higher percentage of helpful responses (<i>M</i> =68.64) than restrictive responses (<i>M</i> =31.36). |
| Kim, Stormont and Espinosa (2009) | 236 ECE teachers in South Korea | Descriptive | Early Childhood Work Environmental Survey short form on a 5-point Likert scale (Bloom, 1996) to measure centre climate. Questionnaire developed by researchers to measure centre's level of support. The Korean Version of the Teacher Beliefs Scale and the Teacher Strategy Questionnaire was used to measure teachers' factors. The Social Skill Rating Scale and a satisfaction of parent-teacher communication question was used to measure child factors. | There were positive correlations among programme factors (centre climate $r=.26$; in-service professional development $r=.22$; consultation with specialists $r=.25$), teacher factors (developmentally appropriate beliefs $r=.44$; developmentally appropriate integrated curriculum $r=.50$) and child factors (severity of children's challenging behaviour $r=.20$; communication with parents $r=.20$), and teachers' strategies for addressing challenging behaviour. Hierarchical regression analysis indicated that teacher factors including curriculum beliefs and social beliefs, and programme factors including overall centre climate and consultation with specialists explained 33% of variance of positive proactive strategy. Out of these four, teachers' developmentally appropriate curriculum belief was the most powerful predictor (18%) of positive proactive strategy. |

Note: M of IMPO = mean of importance; M of IMPLE = the mean of implementation

2.6 Summary

In summary, the literature reveals that teachers report concerns in relation to children's challenging behaviour such as disruption, defiance, and aggressive behaviour (Reinke et al., 2011), which can increase the levels of teachers' job stress (Friedman-Krauss et al., 2014). Reinke et al., (2011) highlighted that behavioural problems was a mental health concern that many teachers had, and suggested more support through professional development for teachers with regards to addressing children's challenging behaviour. Several studies have used the TPOT measure to examine teacher strategies in addressing children's challenging behaviour and found that teachers had used a number of preventative strategies, such as establishing clear rules to help prevent children's challenging behaviour (Snell, Voorhees, Berlin, et al., 2012). However, because participants from Snell's study had different education backgrounds, including a training in special education, it is not a clear how these findings relate to ECE teachers in New Zealand. Research also suggests a gap between teachers' self-reported strategies and observed strategies used to address children's challenging behaviour, not only in the frequency but also in the type of strategies they used (Heo et al., 2014). With the advance of positive behavioural support strategies, some teachers understand the concepts behind positive and preventative strategies but may not have the practical skills to implement these strategies on a daily basis. In addition, the literature questions the sufficiency of teacher training courses in equipping teachers with efficient and practical strategies to respond to children's challenging behaviour.

2.7 Rationale

The 2008 Hemmeter et al. study raised two questions that are crucial because teachers are reporting that more children are engaging in serious challenging behaviour: (1) What strategies do teachers use to respond to children's challenging behaviour, and (2) Where do they learn these strategies. Mahmood's study (2013) identified that newly trained teachers

face difficulties transitioning from their student placements to their new employment as first-year teachers, and Reinke et al., (2011) suggested that teachers learn more about behaviour management strategies through their professional development and in-service experiences than their preservice teacher training. These findings should be further examined to guide teacher training courses and to ensure that teachers are taught the strategies to address children's challenging behaviour. It is also important for researchers to identify what teachers define as challenging behaviour before examining the strategies they use to address children's challenging behaviour because the literature suggests a variety of behaviours that may appear to be more problematic to some teachers and less to others.

With little research available on the implementation of the evidence-based strategies to respond to children's challenging behaviour, it is important to understand the strategies teachers already use and where they learn these strategies. This will help to improve the research gap between theory and practice. Every teacher may have a philosophy and teacher practice that is unique to themselves. As such, identifying the strategies that teachers are currently using can help to inform directions for future research, and potentially future professional development. Implications of the study may provide insight to other professionals who may work together with teachers in ECE settings, particularly given that New Zealand is moving towards a multidisciplinary team approach to help children (e.g. psychologists, early interventionists, speech and language therapists).

Research conducted outside New Zealand that identified strategies teachers use to manage challenging behaviour (Snell, Voorhees, Berlin, et al., 2012) has been helpful in supporting teachers with additional professional development. As such, it may be useful to conduct a study of a similar nature with a New Zealand population. Furthermore, because of New Zealand's unique bi-cultural curriculum Te Whāriki, it is important to explore the strategies teachers use to address young children's challenging behaviour in the New Zealand

context. Because Te Whāriki is currently under review, it may also be helpful to understand how the curriculum informs (or does not inform) teacher strategies to help bridge the gap between theoretical knowledge and teachers' day-to-day practice.

2.8 The Current Study

The aim of this study is to investigate what teachers identify as challenging behaviour in children and also how they manage challenging behaviours in their own ECE setting, in the New Zealand context. Registered ECE teachers were interviewed and directly observed in relation to the strategies they used to respond to children's challenging behaviour within the ECE setting. These strategies were then analysed to gain an understanding of how the teachers addressed the children's challenging behaviour. Specifically, the following research questions were investigated:

1. What do ECE teachers identify as *challenging behaviour*?
- 2(a). What strategies do ECE teachers currently use to respond to challenging behaviours in New Zealand ECE settings?
 - (b) How do they select their strategies?
 - (c) How do they learn these strategies?
3. How does Te Whāriki inform teachers' strategies?
4. What are the teacher-identified directions for future professional development?

Chapter 3: Methods

This chapter outlines the methods used to investigate how teachers *identify* and how they then respond to children's challenging behaviour in Early Childhood Education (ECE) settings. First the research design is described, followed by an outline of the ethical considerations, then recruitment of participants and settings, materials used, the procedures of data collection in the order data were collected, reliability, and last data analysis.

3.1 Research Design

A mixed-method design was adopted to triangulate findings and gather reliable information to identify strategies teachers use to respond to children's challenging behaviour in ECE settings. The aim of combining both descriptive and quantitative methods was to explore the complexity of research in education, particularly strategies that teachers use to address children's challenging behaviours in ECE settings, which neither a qualitative method nor a quantitative method could address adequately on its own. The current study follows a mixed-methods approach, as it allows measurement of both the objective aspects as well as to understand the teachers' subjective perspective on identifying and addressing children's challenging behaviours (Ponce & Maldonado, 2014). Descriptive methods included an individual face-to-face semi-structured interview with participants and event recording during a direct observation, while quantitative methods included an assessment of the environment and teacher strategies based on positive behaviour support. As had been demonstrated in previous research in the field of ECE (Jones, 2012), semi-structured interviews allowed flexibility for ECE teachers to share their perspectives and experiences on addressing challenging behaviour, and the observations and measures allowed for more objective data analysis. The semi-structured interview was conducted prior to the observation and measures so that the information gathered from the interview guided the researcher's observations and measures thereafter.

3.2 Ethical Considerations

Prior to recruiting participants, the current study received approval from the Educational Research Human Ethics Committee of the University of Canterbury (Appendix B). This project involved interviewing and observing teachers within ECE settings, so information sheets and consent forms were developed for the manager of the ECE setting and for ECE teachers. Because the study did not require teachers to single out children or to measure children's behaviour, parent and child consent were not required. Teachers were given a prompt to introduce the researcher to the children to get verbal child assent during observation and a copy of an information sheet for parents was put on the ECE centre's notice board. All information sheets and consent forms included contact details of the ethics committee, the researcher, and her supervisors should any concerns arise. Appendices C to G have copies of the information sheets and consent forms, and Appendix H has the prompt to receive child assent. The only identified risk for participating in the study was that teachers may feel pressured during the teacher observations. This risk was managed through assurances by the researcher that an observation was not a performance evaluation but rather that the teacher's strategies and the researcher's feedback would be used to inform future professional development courses in an anonymised manner.

3.3 Participants

3.3.1 Recruitment. Following the receipt of the Educational Research Human Ethics Committee approval (reference number 2016/23/ERHEC), teacher participants were recruited from an ECE organisation known to the research team. The recruitment criterion for the study was that participants must be fully registered ECE teachers. Upon the manager's approval for members of the organisation to participate, the manager provided the researcher with a list of four centres to contact. The researcher then contacted the head teacher at each centre and

requested the participation of two teachers from each centre. Information sheets and consent forms were emailed to the head teacher of each centre prior to a meeting between the researcher and the teachers, who would potentially be part of the study.

3.3.2 Settings. The study was conducted at four ECE centres during regular centre hours in the final term of the school year. All four centres belonged to a not-for-profit organisation and were located in a low socio-economic area of the city, still experiencing the aftermath of a natural disaster in 2011. The impact of the natural disaster included considerable amounts of liquefaction, as well as damage to housing and community resources. Ongoing road works and infrastructure (drinking water and sewerage pipe) repairs occurred during the course of this study. Because of this, people living in the area may have been facing additional stressors, such as anxiety from the natural disaster, financial, social and housing disruptions over a prolonged period of time. Exploration of these factors, however, is beyond the scope of this study. A summary of the number of children, staff, and demographics of each centre is presented in Table 3.1.

Table 3. 1

A Summary of Each Participating Centre

| | Maximum number of children | Number of staff | Demographic Information |
|----------|-----------------------------------|--|---|
| Centre A | 30 | 6 full-time registered teachers | Caters to children ages 2 to 5 years within a low social economic area and operates on weekdays from 8am to 5pm. |
| Centre B | 30 | 4 full-time registered teachers | Caters to children between ages 3 and 5 years within a low social economic area and operates from 9am to 2.30pm. |
| Centre C | 30 | 3 full-time registered teachers and 3 part-time teachers | Caters to children between ages 3 and 5 years within a low social economic area and operates from 9am to 2.30pm. |
| Centre D | 36-38 | 4 full-time registered teachers for children over 2 years old, 2 full-time teachers for children under 2 years, 1 part-time unregistered teacher | Caters to children 0 to 5 years within a low social economic area, affiliated with a Pasifika community with majority of the children of Pasifika descent. The centre operates from 9 to 3pm. |

3.3.3 Participant Characteristics. Two teachers from each of four ECE settings (eight in total) were recruited from a large city in New Zealand. All participants met the inclusion criteria of being New Zealand registered ECE educators and each held at least a Diploma in Early Childhood Teaching or a Diploma in Kindergarten Teaching, or Bachelor of Teaching and Learning (BTchLn (Early Childhood)), or an equivalent ECE qualification. The participating teachers taught children between the ages of two and five years old. Participants were 7 females and 1 male from various ethnic groups (New Zealand European/Pakeha, Indian, and Pasifika), with teaching experience that ranged from 7 to 43 years ($M=18.37$, $SD=13.84$). When asked about professional development courses, four of the eight teachers had previously attended an Incredible Years Teachers (IYT) professional development course. Teachers reported attending many other professional development courses over their career but were unable to recall the names of many. More on the types of professional development that were useful to teachers learning their strategies to address children's challenging behaviour is discussed in the next chapter. A summary of the teachers' self-reported qualifications, years of experience, time employed at their current centre and professional development courses is outlined in Table 3.2.

Table 3. 2

A Summary of Participant Demographics

| | Teachers | Years of Experience | Time at current ECE setting | Qualifications | Professional Development Attended |
|----------|-----------|---------------------|-----------------------------|--|---|
| Centre A | Jane | 30 years | 1 year | BTchLn | Child protection, celebrating 2 year olds, understanding Pasifika |
| | Mary | 7 years | 7 years | BTchLn | Child Protection, readings on attachment and brain development |
| Centre B | Rachel | 29 years | 1.5 years | Dip. Kindergarten Tch | Incredible Years, behavioural management, social justice |
| | Bob | 14 years | 14 years | BTchLn | Incredible Years, body positions and keeping calm |
| Centre C | Elizabeth | 9 years | 2.5 years | BTchLn | Incredible Years, Te Whāriki, Māori language and cultural competence, child protection, |
| | Sarah | 10 years | 5 years | Dip in ECE | Child behaviour |
| Centre D | Anna | 43 years | 5 months | BTchLn, PGDip in Specialist Teaching (Special Needs, and Deaf and Hard of Hearing) | Incredible Years, current placement |
| | Alison | 9 years | 5 months | B Ed, Cert in Primary Teaching, Grad Dip (ECE) | Writers of Te Whāriki, practical resource making, how to support children with special needs, parenting course: how to talk so kids will listen and how to listen so kids will talk |

Note: Pseudonyms were used to protect the identify of participants

PGDip = Postgraduate Diploma, Cert = Certificate, BEd= Bachelor of Education, BTchLn= Bachelor of Teaching and Learning

3.4 Measures

Three measures were used for data collection. The first was a questionnaire which guided the semi-structured interview with teachers, the second was a behavioural event recording form used during direct observation of the teachers, and the third was an adaptation of the Teaching Pyramid Observation Tool for Preschool

Classrooms ((TPOT), Fox, Hemmeter, Snyder, Artman, Griffin et al., 2008)) that examined the environment and teacher strategies.

3.4.1 Teacher Interviews. The purpose of the teacher interview was to collect demographic data (Table 3.2) and determine how teachers understand and respond to challenging behaviour. Teacher interview questions were adapted from Snell et al., (2012) and TPOT (Fox et al., 2008). Appendix I is a copy of the semi-structured interview questionnaire, but in essence the questions of the current interview focused on four topics: (1) what *challenging behaviour* means to them, (2) what strategies teachers use to respond to children's challenging behaviour, (3) how Te Whāriki informs the strategies they use, and (4) what direction professional development should take.

3.4.2 Direct Observation Measurement. Direct observations have been used successfully in various research projects to study teacher and student behaviour in ECE settings, in particular when working with challenging behaviours (Caldarella, Williams, Hansen & Wills, 2015; Carter & Van Norman, 2012; Lewis, Scott, Wehbly & Wills, 2014; McLaren & Nelson, 2009; Snell, Voorhees, Berlin, et al., 2012). Data gathered from direct observations provides contextual information of the child's challenging behaviour and the teacher strategies that are used to manage the challenging behaviour (Lewis et al., 2014). In addition, direct observations provide insight into actual teacher practice, which may not always be congruent with teacher practice reported in the interview (Snell et al., 2012).

The observation recording form used in this study was modelled on the concept of the Antecedent-Behaviour-Consequence (ABC) format (Grodin, 1989). Table 3.3 provides an example of an ABC recording. This event-based observation measure was selected to capture contextual information of the challenging behaviour,

and the way in which the teacher addressed the challenging behaviour. For this study, however, the antecedents were not recorded in order to comply with the ethical requirement not to identify a particular child. The children's challenging behaviours were thus coded to protect the confidentiality of the children. Codes consisted of:

- **PA**= Physical Aggression (hitting, kicking) with peers (**PAP**)/ teachers (**PAT**),
- **CLM**= Climbing on things not permitted,
- **DES**=Destroying property/ another child's work, **NC**=Noncompliance (e.g. "I'm not going to do it", ignoring or refusing teacher's request)
- **RUN**= Running that posed safety risk for child or others
- **TT**=Tantrums (e.g. kicking, screaming, pushing object/person, stomping feet, head banging)
- **VA**=Verbal Aggression (e.g. yelling threats, screaming at another person, name calling, bad words)
- **OR**= Ordering an adult to do something ("Leave me alone")
- **CP**=Persistent crying that is disruptive
- **IM**= Inappropriate use of materials (e.g. jumping off chairs, and throwing objects)
- **IB**=Inappropriate touching, stripping, behaviours that are hurtful, disruptive or dangerous to self/others.

Appendix J provides a complete copy of the direct observation measure.

Table 3. 3

An Example of an ABC Record

| Antecedent <i>An event that precedes a problem behaviour</i> | Behaviour <i>Child's problem behaviour</i> | Consequence <i>An event that immediately follows the response</i> |
|--|--|--|
| Teacher asked child to pack up the blocks. | Child screamed "No" and runs away from the teacher. | The teacher approached child again after he had calmed down, redirected him to pack up the blocks and offered to help him. |

3.4.3 Teaching Pyramid Observation Tool for Preschool Classrooms

(TPOT) measure. The TPOT measure (Fox, Hemmeter, Snyder, Artman, Griffin et al., 2008) is an assessment instrument that is designed to measure the implementation of practices associated with the Pyramid Model (Fox, Dunlap, Hemmeter, Joseph & Strain, 2003), a positive behavioural intervention and support framework that promotes the social emotional development in young children and also prevents and addresses challenging behaviour (Fox & Hemmeter, 2014). The current research team selected the TPOT instrument as an additional tool for data collection because of the possibility of an absence of challenging behaviour during the direct observations. Furthermore, the TPOT measure looks at preventative strategies in place that may explain the absence of challenging behaviour. For the purpose of this study, the researcher adapted the TPOT to measure two specific areas: environmental factors and teacher strategies.

Environmental Strategies. An evaluation of the environment was used to identify preventative factors in place. The adapted version of the TPOT consisted of 18 items which assessed environmental strategies, such as the physical layout and structure of the ECE centre, whether there are sufficient materials for children to interact with, the implementation of schedules and routines, the structure of

transitions, and the pictorial display of rules and emotions. Appendix K provides details on the assessment of environmental strategies.

Teacher Strategies. The measure of teaching strategies helped to identify positive strategies that may have prevented a challenging behaviour from escalating. The adapted measure contained 45 items from the TPOT and measured three general areas of teaching strategies: building positive relationships, creating supportive environments, and social emotional teaching strategies. For both the environmental strategies and the teaching strategies measures, the observer scored each item on a scale of 0 to 3 (0 = Not observed, 1 = Seldom, 2 = Occasionally, 3 = Consistently). Appendix L provides a copy of the assessment on teacher strategies.

3.5 Procedures

The study included three phases: Phase 1: Interviews, Phase 2: Observations, and Phase 3: Feedback. All three phases were conducted at a time and place that was preferred by the participating teachers. A summary of the procedures is presented in Figure 3.1.

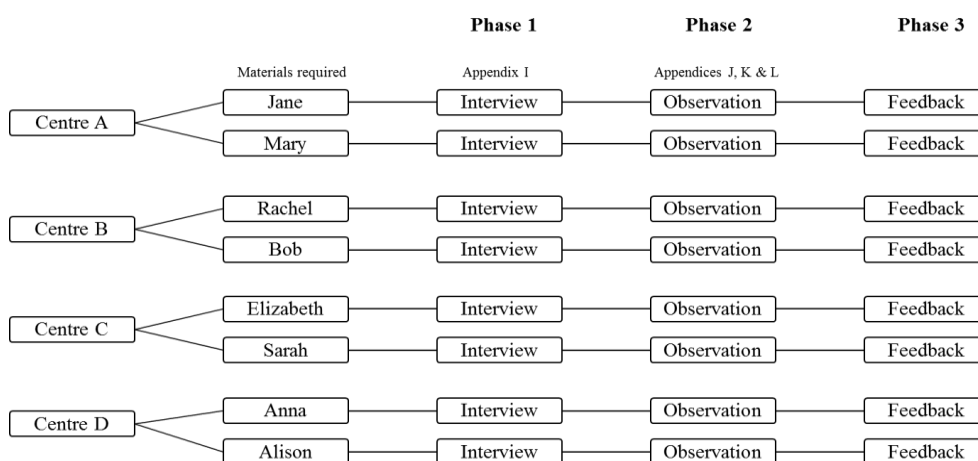


Figure 3. 1. Procedures for Each Participant

3.5.1 Phase 1: Interview. At the beginning of the teacher interview, the researcher went through the information sheet and consent form with the participant which included a brief self-introduction, explanation of the purpose and rationale of the study, and then a request to sign the consent form. Each interview was carried out in the ECE centre's office and lasted for approximately 40 minutes when the teacher was in noncontact time. The interviewer wrote down the teacher's answers on the interview sheet (Appendix I) and at the end of the interview, each teacher was asked to read the written responses, highlight and correct any discrepancies and sign if he or she agreed that the written responses were an accurate account of his or her responses. The interviewer and the participant then arranged a time to carry out a teacher observation during the teacher's contact time. The researcher also provided the participant with an information sheet for parents, to place on the centre's notice board. Appendix G has a copy of the parents' information sheet.

3.5.2 Phase 2: Observation. Teacher observations were conducted either on the same day as the interview or on a different scheduled day depending on teacher availability and to coincide with a time that the teacher highlighted as most challenging, such as morning mat times. As had been the procedure in previous studies, such as Smith (2010), each participant was observed on how they responded to children's challenging behaviour for a total of two hours.

The researcher called the ECE centre prior to the observation to ensure that the teacher, who was participating in the study, was present before arriving. Upon arrival, the researcher greeted the teacher and provided the teacher with a script to introduce the researcher to the children (see Appendix H for child assent). Because the majority of the observations were conducted in the morning, teachers read the script for child assent during morning mat time. During the observation, the researcher shadowed the

teachers from at least a metre away to observe and record the language that the teachers use when interacting with the children and their responses to children's challenging behaviour when it occurred. For example, if a teacher was sitting together with a group of children at the lunch table, the researcher would sit at the nearest chair available but not at the same table where the teacher was. When the teacher was walking around outside, the researcher observed the teacher from the nearest chair or bench available and relocated at least one metre away from the teacher once the teacher had engaged in an activity or had engaged with a child. If there was no chair or bench nearby, the researcher would sit on the ground a metre away from the teacher in an attempt to avoid a perceived hierarchical position. When a challenging behaviour occurred, the observer recorded the code that best represented the child's challenging behaviour and teachers' responses accordingly on the ABC chart (without antecedent). Appendix J provides a complete list of the behaviour codes. When there was no occurrence of children's challenging behaviour, the observer completed the assessment of environmental and teaching strategies with recorded descriptive examples.

3.5.3 Phase 3: Feedback. After completing data analysis, the researcher met with each participant to discuss the findings of the study. As a small token of appreciation for participating in the study, a \$20 Westfield voucher was provided to each participant as a *koha* (gift).

3.6 Data Analysis

All data gathered from the interviews, observations, and measurements were entered into Microsoft Excel with pseudonyms to maintain participant confidentiality and anonymity. First, a descriptive analysis was conducted on the participants' demographics and the teachers' responses from the interview to address the first

question: (Q1) What do ECE teachers identify as *challenging behaviour*? Second, a thematic analysis was conducted to group common themes of teaching strategies mentioned in interview and from the observations, and then the scores were tallied from the adapted TPOT measure to address the second research question: (Q2) What strategies do teachers use to address children's challenging behaviour? Results of the teaching strategies are further categorised into three tiers (i.e. Tier 1: Universal strategies; Tier 2: Secondary strategies, and Tier 3: Intensive individualised interventions). These are similar to the Pyramid Model for supporting social emotional competence in infants and young children, on which the TPOT was based. Next, a further descriptive analysis, including a frequency count, was carried out to address research question (Q2b) Where do teachers learn these strategies, (Q2c) how do they select the strategies, Third, thematic analysis was conducted on the data gathered from the interview, observation, and TPOT to triangulate the responses to research question: (Q3) How does Te Whāriki inform teachers' strategies to manage children's challenging behaviour. The fourth and last, a descriptive analysis was carried out to address research question (Q4) What professional development courses would teachers like to receive in the future.

Chapter 4: Results

This chapter reports research results to the following research questions (1) What do teachers identify as *challenging behaviour*, (2a) What are the strategies teachers use to address challenging behaviour, (2b) where teachers learn the strategies, (2c) how they select the strategies, (3) How does New Zealand's national curriculum Te Whāriki inform teachers' strategies, and (4) what direction professional development should take.

4.1 Teachers' Identification of Challenging Behaviour

As an introduction to the topic of addressing children's challenging behaviour, teachers were asked to describe what challenging behaviour means to them. All eight teachers stated that children's challenging behaviour was a secondary behaviour to a primary problem that makes them more likely to be involved in conflict. Across centres, teachers gave the following explanations to why children engage in challenging behaviours:

- Feelings of hunger
- Lack of sleep
- Developmental disability, or delayed speech, or delayed language development
- Undiagnosed primary problems (e.g. hearing loss or poor vision)
- English as a second language
- Lack of communication skills
- Inability to self-regulate or lack of the skills to self-regulate
- Lack of empathy

All eight teachers identified the following factors as potentially contributing to children's challenging behaviour:

- Living with high family stress, arising from the impact of natural disasters or low family income
- Parenting styles such as the use of corporate punishment
- Family culture or beliefs
- Difficulties in the home environment (physical abuse, divorce, drugs, or alcohol)

4.1.1 Individual Responses. Three teachers, Alison, Jane, and Sarah from Centres A, C, and D, identified challenging behaviour as one that necessitates adult intervention, examples of which range from increased one-on-one interaction with the child to the physical removal of the child. Three other teachers Mary, Bob, and Anna from Centres A, B, and D, identified that challenging behaviour is a form of dysregulation and is symptomatic of the children's inability to regulate themselves. Two teachers, Bob and Anna, described challenging behaviour as a lack of empathy for others. Jane described challenging behaviour as "something that is out of the ordinary for the child to behave" and highlighted the importance of knowing what normal is for the child in terms of development and family context. Alison described challenging behaviour as behaviours that are "intended to hurt other children or the environment". An example she gave was of a child that took away a toy that he knew other children were playing with and ran away with it.

Following further analysis, the teachers' descriptions of challenging behaviour were categorised into two groups: externalising and internalising behaviours. All teachers used one or more of the following externalising behaviours as examples of challenging behaviour:

- Swearing
- Defiance
- Disrespecting the environment and toys (e.g. taking a plastic toy and banging in on a hard surface)
- Physical aggression (e.g. hitting, throwing things, biting, kicking, yelling, hit and run or taking someone's toy and running away with it)
- Causing a problem (e.g. pulling someone off the bike because they want a turn on the bike)
- Inappropriate sexual behaviour
- Disrupting group play and mat time
- Hurting themselves, peers or teachers

In addition to describing externalising behaviours, seven teachers reported challenging behaviour presented as an internalised behaviour such as withdrawn behaviour, passive challenging behaviour, such as the example Rachel gave of the child who said “I’ll cut her pigtail off so the teacher will notice me”, hiding or wandering by themselves, an inability to stay in one place, hypervigilance, and noncompliance with teachers’ instructions portrayed through silent refusal.

4.2a Strategies Teachers use to respond to children’s challenging behaviour

Data on the strategies teachers use to respond to challenging behaviours were collected through three pathways: (i) teacher interviews, (ii) observations of teacher-child interactions and (iii) the adapted TPOT measure.

4.2a.i. Strategies Identified from the Interview. Teachers’ responses to the question “What strategies do you use to address children challenging behaviour?” were grouped into six categories after analysing the data for themes. The six categories are: planning and the

environment, positive guidance, relationship with children, emotional coaching, teaching behaviours, and physical intervention.

Planning and the Environment was a common strategy across all eight participants identified through teacher interviews. Teachers' examples of this category included setting boundaries (e.g. children have to come together during mat time), preparing ahead of time (e.g. five more shots of the hoops and then it's lunch time), having a timetable in an activity area to help children take turns when there is a new activity or toy (e.g. an iPad), using rules (e.g. calm hands, safe hands and feet, listening, respecting toys, kind words), having a team that is consistent in their approaches, and teamwork among the teachers and also among the children's parents. All eight teachers referred to the importance of making the child feel safe in the ECE environment through having predictable transitions and consistency. Specifically, they identified consistent routines, such as morning mat times, consistent instructions on how to behave, such as *walking feet*, and also consistency in teacher responses in addressing harmful behaviour. In addition, teachers from Centre B referred to the environment as "the children's third teacher" as influenced by the Reggio Emilia philosophy (Katz, 1993). It was both observed and reported in the teacher interviews that Centre B included nature as a way to inform children's learning by using an array of natural resources in both indoor and outdoor learning areas (e.g. bark, stones, and wood materials). Both teachers at Centre B described the children as competent learners who are encouraged to explore their surroundings.

Positive Guidance. There are a variety of strategies from all eight teachers that were grouped under this category. Strategies included the use of humour to dispel challenging behaviour, peer modelling, redirection, using reminders and phrasing instructions positively, using body language to communicate (e.g. kneeling down to the child's eye level and speaking in a calm and regulated voice), use of when/then sentences (e.g. "When you tidy up

here, then you can go outside to play”), and identifying triggers to prevent behaviour from escalating.

Both Sarah and Alison from Centre C and D respectively reported the importance of knowing the triggers and reasons of the child’s challenging behaviour before stepping in to intervene in the situation. Another strategy in this category is peer modelling. Both teachers from Centre B talked about the term *Rangatiratanga* (which is translated to chieftainship and leadership). One of Centre B’s strategies was giving the older children additional responsibilities. These children made a special necklace as a reminder to channel their positive behaviours to become good role models for the younger children in the centre when they put the necklace on. Teachers Anna, Mary, Elizabeth, and Bob also emphasised the importance of praising children to encourage good behaviour. Anna, in particular, had stickers with encouraging phrases in the children’s native language such as “I’m so clever and I did it myself” or “I’ve been a kind and helpful friend” and occasionally distributed them to children who were engaging in appropriate behaviour.

One specific strategy that all eight teachers had in common was how they used their tone of voice, staying calm and communicating to the child at the child’s eye level. All eight teachers stated that one of the strategies they use was positively encouraging children through their words and how they say them (e.g. Anna: “I know you can use calm hands; what do you need on your head?”) All eight teachers also used the strategy of using a calm and slow-paced voice, calm breathing and approaching a situation slowly, and then asking the children “What’s going on here?” in a curious tone.

Relationships with children. Five teachers reported that their relationship with the children was one of the preventative strategies they use, and noted they used it to minimise the occurrence of challenging behaviour, as well as an informative strategy that helps them to choose their response when a challenging behaviour occurs. Jane and Anna both talked about

building trust, appreciating the children, and that knowing the children help to inform them what to do next, whether to give the child a hug or if the child needs to be redirected.

Elizabeth stated that “teachers are advocates for children and the children can feel it”, and Anna commented that it is important for children to know that their teachers will love them (children) no matter what, and teachers should be able to play and have fun with the children so when the teacher provides guidance to the child during inappropriate behaviour, the child would not feel it to be a personal attack.

Emotional Coaching. Four teachers identified emotional coaching strategies during the interview. This category included teachers acknowledging the children’s feelings especially for children who are nonverbal (e.g. “I can see that you are angry and you need to calm down”), providing a safe space (e.g. punching bag) to vent when a child is angry, making the children aware of their feelings and discussing feelings (e.g. “How does that make you feel?”), and other self-regulating strategies such as three rocket breaths, rubbing the children’s backs to calm them down, and rubbing a smooth and calming stone.

Teaching Prosocial Behaviours. In addition to guiding children to be aware of and to regulate their emotions, six teachers identified the teaching strategy of modelling language (e.g. “My turn, your turn”) so that children knew the words to say and could also predict what would happen next. Bob from Centre B reported that when there was a recurring inappropriate behaviour in the centre, such as pushing, the teachers would come together and role play the inappropriate behaviour for the children during group time, followed by a discussion with the children as to why, or why not, the behaviour is appropriate, and discuss alternative strategies that the children could use. Other strategies included Bob’s making of contracts (e.g. “Jack it’s toilet time in 10 minutes. It’s a contract” and both teacher and child shake hands on it), and Elizabeth’s drawing of a plan, or providing activity cards, for children with special needs to help them focus and to provide prediction. Two teachers, Anna and

Alison, from Centre D, also commented on teaching children to wait quietly for each other, instead of constantly being engaged with activities, by providing opportunities to wait for their peers during mealtimes and reinforcing quiet waiting behaviour through stickers, allowing the most well-behaved children to lead the *karakia* (prayer) before mealtimes, and praising children. These strategies were also observed during the teacher observation.

Physical Intervention. Six teachers referred to physical strategies in addressing challenging behaviour. “If you hit you sit” was a common phrase that teachers used across centres. Teachers reported physically removing children only when children did not appear to be safe, or in situations which required an immediate action. For example, if a child were climbing up a fence and was not responsive to the teacher’s instructions, the teacher would physically carry the child down. Alison reported that she did not like to use the phrase “If you hit, you sit” and recognised as a time-out strategy as it excluded the child. Instead of removing the aggressive child from the situation she described her approach was to have the child who was aggressive alongside her while she tended to the child who got hurt. If a child needed to be separated from other children, Alison reported that she would sit with the child and talk about the play that was going on around them instead of leaving the child alone.

In summary, all eight teachers reported using planning and the environment, and positive guidance as strategies, with seven teachers using physical intervention when necessary. Five teachers indicated that they used emotional coaching strategies as well as their relationship with children as a strategy in itself and four teachers reported teaching children prosocial behaviours as a strategy to address children’s challenging behaviour.

Figure 4.1 shows the frequency of different categories of strategies identified in the interviews across all participants.

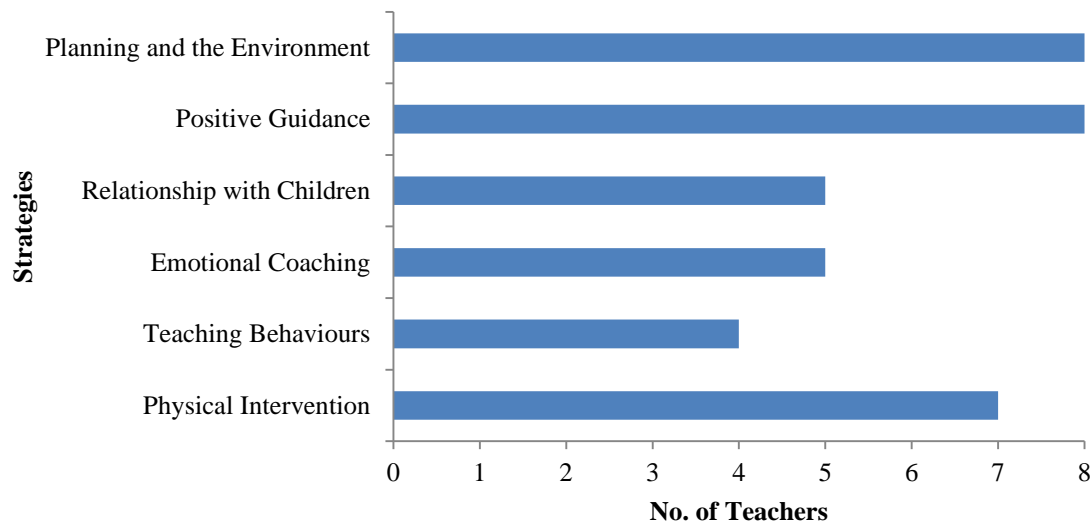


Figure 4. 1. Categories of Teachers' Strategies Gathered from the Interviews across Participants

4.2a.ii. Teacher Strategies from the Direct Observation. This section presents findings from eight two-hour observations of strategies teachers used when a child engaged in challenging behaviour using the ABC chart (Appendix J). The number of times children's challenging behaviour occurred during each observation ranged from 1 to 15 ($M=7$, $SD=4.9$). Elizabeth, Sarah, Alison, and Jane rated the day the observations were undertaken as a typical day, with the other three teachers, noting the day as atypically good day because of a lesser number of children. Mary, from Centre A rated the time of observation as more challenging because of wet weather conditions. All teachers approached challenging behaviours calmly using a number of positive guiding strategies as already discussed and can be seen in Figure 4.1.

There was a range of challenging behaviour incidents across teachers and the following segment provides the strategies from one incident of challenging behaviour observed from each teacher.

Centre A. One strategy observed in this centre was calm communication and redirection. One example was when a child was snatching a toy from another child. In

response, Jane got down to the child's eye level and asked "Why don't you let Johnny have a turn?" at which point the child complied. Similarly, Mary responded in a calm voice, kneeling down to the child's eye level when another snatching incident occurred, "I think Max had the book first. Maybe you can have the train first". Mary praised the child when he complied "Thank you Johnny that was really lovely". Mary also provided alternatives, positive guidance, and modelling when a child was using materials inappropriately. Another example was when a child was swinging a ribbon at other children. Mary said "Johnny, people don't like it when you do that. You can do it over here!" to which the child complied.

Centre B. One strategy observed was building on a child's emotional awareness. This was seen when a child was using a toy to scratch the researcher, Rachel asked the child to ask the researcher if she liked it and the child stopped scratching after the researcher expressed her dislike, which was followed by Rachel complimenting him. Another example was when Bob modelled and then explained a situation to two children of different ages. When a little girl was screaming and crying during an activity with older boys, Bob explained to the older child that the younger child had just started school and is still learning, and that they needed to help her. He modelled phrases that the older child could say (e.g. "You just need one marble, we need to share.") to which the older child followed. When the young child continued crying, Bob redirected her to an activity that she liked to do and praised her on completing the activity.

Centre C. At Centre C, a behavioural strategy was observed when a boy, Joel, became physically aggressive and strangled another child, Nathan. Elizabeth responded to the situation by teaching Joel to be emotionally aware of how Nathan was feeling (e.g. "Look he's not very happy"), and tried to help him to understand the reasons behind the aggressive behaviour (e.g. "What happened?", "Why did you squeeze him?", "Did you want something?"). Elizabeth then taught him an alternative behaviour (e.g. "You can say 'when

you are finished, can I play?’”). To help Joel to calm down, Elizabeth sat on the couch with Joel while they made a plan together. This required Joel to draw out three activities for him to do at subsequent times (e.g. 11.15, 11.30, and 11.45).

A strategy observed at Centre C was using a guided activity. Sarah redirected children from getting more physical by asking them to help set up a wrestling ring from jump ropes. She set boundaries and rules of the game to allow children to be active in an appropriate and safe way. One of the rules of the game was to push the opponent out of the wrestling circle and Sarah praised children when they were not playing too rough and then reminded the boys about the rules when they started to hit or kick.

Centre D. A strategy observed in this centre was an example of firm communication skills. When a child was noncompliant and hid outside when it was time to come indoors for mat time, Anna placed her hand on the boy’s shoulder and got down to his eye level and expressed her concern in a serious tone (e.g. “You nearly got left outside and we didn’t know and something could have happened to you”) before letting the child rejoin the group.

Also observed were acknowledging a child’s emotions when a child was throwing a tantrum (e.g. “You can see your sister is upset”), and if/then instructions (e.g. “When Hannah is finished, please bring it back to Lily”). Alison also comforted and redirected Lily to come and play with Alison while they waited for a toy to be returned to her. Alison also emphasised the rewards of waiting when Lily finally had her toy returned (“see Lily, you can have the baby, you just had to wait”).

Overall, the observations complemented the teachers’ strategies as all teachers communicated with a calm voice and body language, using simple words, acknowledging feelings, and using positive guidance to help children in their interactions. In addition, there were more positive and preventative strategies than punitive strategies observed (e.g. teacher

shouting, removal of toys as punishment), which will be discussed below using the adapted TPOT measure.

4.2a.iii. Strategies from the TPOT measure. A quantitative analysis was conducted for both environmental and teaching strategies: the results are presented in Figure 4.2 and Figure 4.3. The scale used for both measures was a 4-point Likert scale (0=Not observed, 1=Seldom, 2=Occasionally, 3=Consistently).

Environmental strategies. The strategies in this section included those used by the centre as a team such as the setting of rules and routines. From most to least consistency, results indicated that first, all centres had a good physical environment design which included defined boundaries, arranged traffic patterns to prevent wide and open spaces, a variety of materials provided in all learning centres, and sufficient room for multiple children. The second highest score was on transitions, examples of which included giving warnings to children prior to transitions and structuring transitions so that children did not have to spend excessive time with nothing to do. The third most consistently observed were pictorial rules and emotions in which photographs and pictures were used to support classroom rules, pictures that labels various emotional states, and pictures that provide an action statement (e.g. I am feeling frustrated so I better take three deep breaths). The fourth is the use of schedules, which was the least observed across centres. Figure 4.2 provides a summary of the TPOT- Environmental strategies scores across centres.

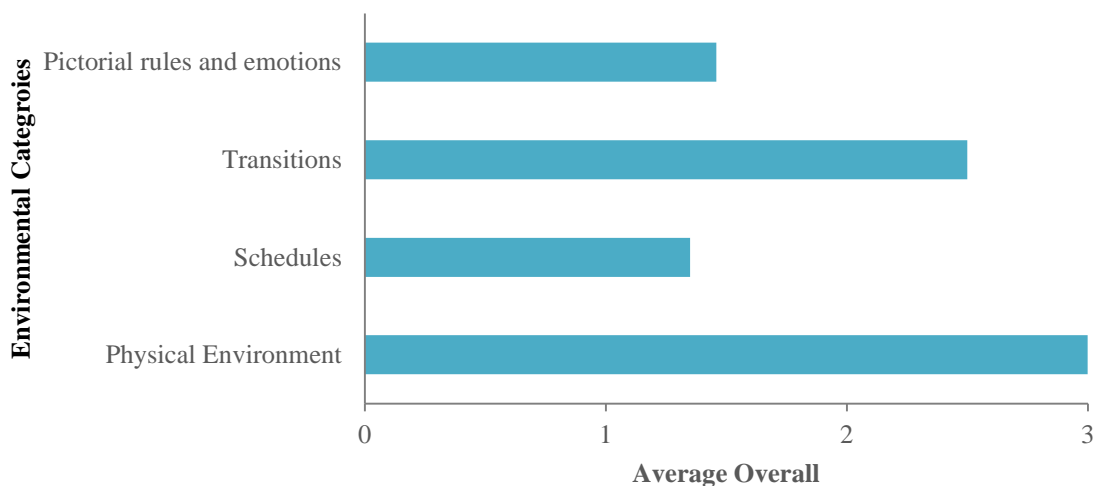


Figure 4. 2. Average TPOT scores of Environmental Strategies across Centres

Variation in the utilisation of environmental strategies was observed across the ECE centres, and therefore centre-specific examples of the environmental strategies used are detailed below to allow the reader to gain a better picture of each ECE environment that is unique to each centre.

Centre A. Centre A did not have a schedule for the children. Children ate their meals at their own time and were encouraged to explore and engage in free play. There was one photograph to remind children to use tissues to clean their noses, and this was situated at the child's eye level next to the tissue dispenser, and there was also a set of pictures of children in various emotional states (e.g. "I feel scared") on a board titled "How do you feel?" This centre also had a vision board entitled "*Whānau Aspirations*" in the middle of the centre with pictures and names of every child paired with the aspirations that their parents or caregivers had for their children.

Centre B. Centre B had a consistent routine such as morning mat time followed by morning tea, when children had the option whether to eat or to play. There were no pictures to support the schedule, rules, and states of emotional awareness. As a mechanism to control noise volume within the centre, an electronic noise-sensitive traffic light was positioned in

the indoor area of the centre. This flashed a green light when the noise was at the desired low level, an amber light when noise levels were increasing, and a red light when the centre was too noisy, and it was a signal to the children to reduce their volume. Transitions between activities were smooth and the children complied quickly when the teachers used a percussive instrument to signal that it was mat time. This centre provided a couch area for parents to connect with teachers, other parents, and the community nurse. A high level of parental involvement in the environment was observed with teachers talking to parents in the couch area in the mornings. Parents were also encouraged to join their children at the morning mat time and parents also volunteered when the centre took the children out to the nearby park.

Centre C. Centre C had a specific time scheduled for morning mat time and mealtimes and the children were observed to transition between the two scheduled smoothly. There were four rules written on a poster in the main learning area: using calm hands, listening, respecting toys and kind words, and two photographs that reminded children to wash their hands at the sink and to wipe their noses. During the morning mat time, the children and teachers said a karakia (prayer) together that reminded children to “Be respectful to each other in our time here”. The centre also had a board labelled “Education and Sustainability”, which contained a number of photographs of children involved in a project with construction workers in the area.

Centre D. Mat time and mealtime routines were also observed to facilitate smooth transitions for children at Centre D. This centre was the only ECE centre where children had to wash their hands and had their mealtimes together. This was a longer transition and was in contrast to a TPOT item that looked at “structuring transitions so children do not have to spend excessive time with nothing to do”. Children at this centre had to wait for everyone to wash their hands and sit at the table before saying a karakia and starting on their meals. During this transition of approximately five minutes, teachers Anna and Alison reminded the

children and modelled the appropriate waiting behaviour (i.e. keeping quiet and sitting upright in their chairs) while the children waited for their peers. The centre had many displays of children engaging in activities, posters on transportation and vocabulary words printed in both English and a Pasifika language, which was the majority of the children's first language. There were no visual aids to support the centre's rules, however similar to Centre C, the teachers and children repeated the rules together before the end of the morning mat time (i.e. kind words, safe hands and feet).

Teaching Strategies. The strategies in this section included those used by each teacher. From most to least consistency, results from the TPOT scores indicated that teachers gave many appropriate directions and instructions, developed meaningful relationships with the children, used short and consistent rules that are phrased positively, encouraged children's autonomy, used peers to help scaffold children's learning and interaction, encouraged problem solving skills in children, reinforced children's interaction through the structuring or facilitating activities, provided positive feedback and encouragement, guided children's emotional regulation and encouraged emotional awareness in children. Figure 4.3 provides a summary of the average scores across participants.

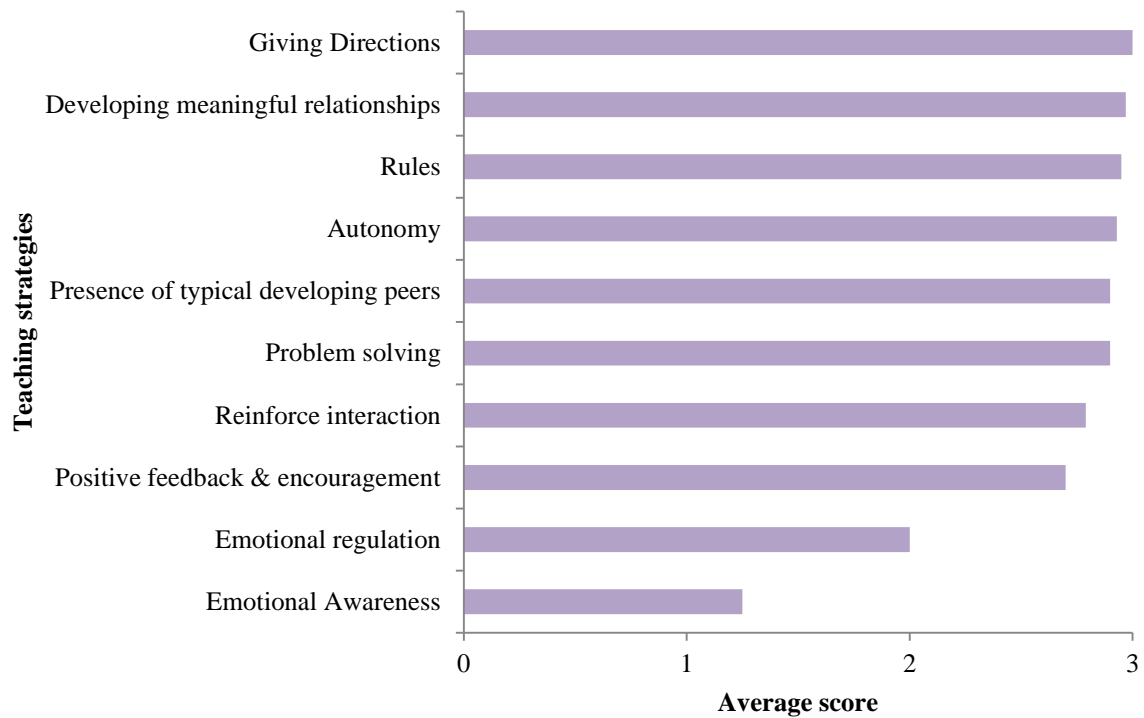


Figure 4. 3. Average TPOT Scores of Teacher Strategies for All Participants

Following are the descriptions of teaching strategies that were observed, and were scored using the TPOT. These are presented by category of strategy rather than presenting results based on centres (as in the TPOT environmental strategy) because it is more important to the study to have a clearer understanding of the strategies teachers use rather centre-based comparisons.

Giving directions. Teachers got down to the child's eye level to gain their attention before giving them directions. It was observed across all teachers that they phrased their directions to children positively, such as "I'd like you to go in for morning tea so you have some more energy", and teachers gave time for children to respond to directions by waiting for five seconds before repeating the instruction, and then followed through with positive acknowledgements when children complied such as "Good listening, Caleb" or "Great waiting everybody".

Develop meaningful relationships. Part of developing meaningful relationships was to communicate with children at the child's eye level, verbally interacting with individual children during routines (e.g. asking each child at the table what was their favourite sandwich?), and speaking calmly to all the children. Teachers also showed empathy and acceptance of children's feelings by acknowledging their feelings, using the teachers' tone of voice to show that they understand what the child is feeling (e.g. "Jack, I think Dave is feeling hurt") and showing their excitement to see the child.

Rules. During the observation, teachers provided opportunities for children to practice classroom rules, such as wearing hats while they are outside and washing their hands. Teachers also identified consequences for not following the rules (e.g. "You need to slow down or I'll have to take away your car licence") and enforced them consistently and fairly for all children.

Autonomy. Examples of encouraging autonomy in children included providing children with opportunities to make choices (e.g. "Would you like to go up or down?", "What numbers should we draw?", "Which bike do you want – Luke's or Carrie?"), creating opportunities for decision making, problem solving, and working together (e.g. "Have a look there, is there any left?"), and teaching children strategies for self-regulation and/or self-monitoring behaviours.

Presence of typical developing peers. Teachers often used peers as models of desirable social behaviour. They praised children in front of other children, and encouraged children to help others such as "You know it, show him how to do it!" and "Steve can help you. He's pretty good at this".

Problem solving. Teachers took time to support children through heated moments using the problem solving process which included: (a) what is my problem? (b) what are some solutions? (c) what would happen next? and (d) try out the solution. Examples of

teachers prompting children included the following questions: “What do we need to do?”, “How can you tell him to share?”, “Think about another way you could do it.” And, “What can we do to make things safer?”

Reinforce interaction. Teachers showed an understanding of developmental levels of interactions and play skills by setting up an environment for older children to help the younger children and by spending more individual time with younger children to help them settle into the ECE centre. Teachers also made opportunities for children to interact together. One example of this is a teacher asking a group of children a number of questions, relating to a matching-card activity which started out as an individual child’s activity. Teachers also showed that they consider peer placement during activities by watching out for children who have been more aggressive to ensure that they do not hurt other children. Another example of considering peer placement was when a teacher asked a child who he would like to play with then suggested to him that he ask what the other child would like to do, reinforcing interaction by considering the thoughts of other children.

Positive feedback and encouragement. Teachers used many types of positive and descriptive feedback when children were engaging in appropriate behaviour frequently. All teachers scored a three in all of the items within this section with the exception of Item 23: “Involves other adults in acknowledging children”.

Emotional regulation. This category included teachers helping children recognise cues of emotional escalation, but because there were relatively low occurrence of challenging behaviour, or events of emotional escalation observed, teacher strategies in this category were less frequently observed. There were a few occasions that teachers modelled the prevention of emotional escalation. One of these occurred when a teacher recognised that a child was fearful of a worm and it was clear that the teacher respected the child’s space by not allowing other children to put the worm near the child.

Emotional awareness. Items that measured emotional awareness included “Assisting children in recognising and understanding how a classmate might be feeling by pointing out facial expressions, voice tone, body language, or words”, “Teaching that all emotions are okay but not all expressions are okay”, “Labels own emotional states and provides an action statement” and “Uses opportunities to comment on occasions when children state they are feeling upset but are remaining calm”. One teacher intervened before a situation escalated by asking the children “What’s happening here?” and acknowledging that another child looked hurt, but like emotional regulation, many of these strategies were not observed because there were very few moments that had negative emotions.

4.2a.iv. Summary of All Strategies. Table 4.1 presents a summary of the various strategies that combines those identified from the interviews, direct observations when challenging behaviour occurred, and the adapted TPOT measure of environmental factors and teacher strategies. These strategies were organised into tiers similar to the Pyramid Model, which are presented in Figure 4.4.

Table 4. 1

A Summary of Strategies Teachers used to Address Children's Challenging Behaviours

| Interview | Direct Observation | TPOT measure |
|--|--|---|
| <i>Planning and the environment</i> – set boundaries, prepared ahead of time, used a timetable to help children take turns, positive rules, collegial support, consistent routines and rules | Responded in a calm voice and getting down to child's eye level Praised the child when the child eventually complied to teacher | Environmental Strategies: Pictures to support the preschool rules and rules were phrased positively Learning areas contained a variety of materials for children to engage in |
| <i>Positive guidance</i> – use of humour, peer model, redirection, reminders, communication style, being calm, eye contact, stickers, rewarding good behaviour, encouraged children verbally "I know you can use calm hands" | Provided alternatives when a child was using materials inappropriately and model the appropriate behaviour. Asked the child "How does the other person feel about his/her behaviour?" | Planned transitions and use of schedules Teacher strategies: Developed meaningful and respecting relationships with children through their words, actions and physical affection |
| <i>Relationships with children</i> – build trust with the children and know the child in his or her context informs teachers' responses to their challenging behaviour | Provided children the words and phrases to say Redirected the child followed by praise | Consistency in rules to every child in the centre |
| <i>Emotional Coaching</i> – acknowledged children's feelings and teaching self-regulated strategies (e.g. three rocket breaths, use of a calming stone, rub children's backs to calm them down) | Asked the child why he hurt another child Gave the child the autonomy to select three activities and draw out a timetable of activities for that child to do | Provided opportunities for children to problem solving by asking "What can we do to..." instead of providing them with the solutions Used short and direct instructions that were phrased positively |
| <i>Teaching prosocial behaviour</i> – teacher role modelled language (e.g. my turn, your turn), teacher and child signed a contract to complete a task, provided opportunity for children to wait quietly | Facilitated a wrestling match with clear boundaries Acknowledged a child's emotions. | Used peers to model to other children Provided positive feedback and encouragement |
| <i>Physical intervention</i> – time-out "If you hit you sit", time-in (sitting with the child instead of the child sitting alone in time-out), physically remove children from danger | Instead of repeating the rules to children (e.g. hats on head), teachers asked them "What do you need on your head" or say "I think you know what you need to put on your head" | Taught emotional regulation skills and emotional awareness through acknowledging the child's emotions and told them what they can do instead (e.g. "You can come to teacher instead") |

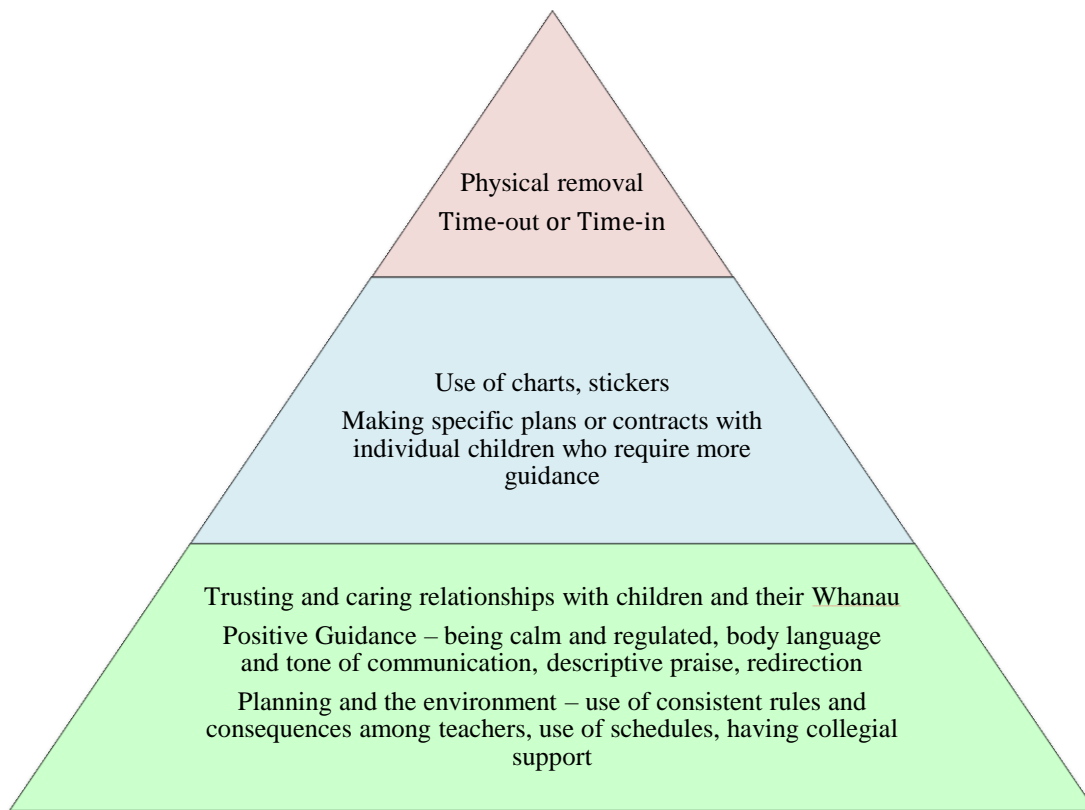


Figure 4. 4. Reported and Observed Strategies that Teachers used in the Current Study, following the Pyramid Model.

4.2b Learning of strategies

Teachers were asked where they learned the strategies they used to address children's challenging behaviour during the interview. All eight teachers referred to the following:

- Various professional development courses such as Incredible Years
- Keeping updated in the latest research (e.g. Brain Wave Trust)
- Reflecting on past experiences with children with the teaching team
- Consistent personal reflection
- Learning and observing other teachers
- Collegial support
- Observing the children for patterns in their behaviours
- Sharing experiences and strategies with *whānau* (family) and parents
- Trial and error

Teachers from all four centres had attended a number of professional development courses available to them organised by their managers. Teachers from Centre B in particular reported that they informed the centre's manager on the topics of professional development that would be relevant to the individual ECE centre however they did not specify the content of the professional development. Seven teachers reported learning behavioural management from the centre's head teacher or from observing other teachers throughout their teaching experience. One teacher also reported that she learned her strategies through her primary school teacher training and she also noted that her graduate diploma in ECE did not cover behavioural management. Two teachers reported learning strategies from reading research on brain development, with one of those two teachers learning strategies through personal readings on attachment and the fight or flight response. Two teachers reported that they learned behaviour strategies from the ECE centre's policy document and motto of *Manaakitanga* (caring about each other and the environment), and four teachers indicated that they learned strategies through trial and error. All eight teachers identified that they learned behaviour strategies through their teaching experience, and consistent reflection on the child's behaviour and ways that teachers can more efficiently address situations of children's challenging behaviour.

4.2c Selection of strategies

When teachers were asked how they selected their strategies, all eight teachers indicated that *knowing the child* was the most important factor. The eight teachers reflected this by reporting that having a good and trusting relationship with the children, and an understanding of child development, the individual children's context, and the triggers for the challenging behaviour informed their response to the child's challenging behaviour.

4.3 Te Whāriki and Teacher's Strategies

Although none of the teachers spontaneously identified the Te Whāriki curriculum document when they were asked where and how they learned the strategies to address challenging behaviour, many of their strategies were aligned with Te Whāriki. Following a prompt to discuss how Te Whāriki influenced their strategies, all eight teachers spoke positively of the curriculum. All teachers identified similarities in their own philosophy in teacher practice with Te Whāriki, more specifically that the curriculum looks at the child's overall wellbeing instead of just focusing on the child's academic learning.

Jane commented that Te Whāriki influenced her attitude and her approach to children's learning, "placing more emphasis on the learning process rather than the end result". Mary referred to Te Whāriki as a guiding tool because every child is different and every child responds differently, but she also highlighted that relationship is the key which underpins the whole document and that it is important for teachers to take on Bronfenbrenner's ecological systems approach and find out what is happening in the children's world. Rachel commented that Te Whāriki underpinned her approach to working with children, because the curriculum encourages children to grow as competent and confident learners. She referred to the *Whare Tapa Wha* (four corners of a house) Model, which looks at the child's overall wellbeing, to the *Tātaiako* document (cultural competencies), which is a resource that includes cultural competencies for teachers of Māori learners, and to the Māori concept of *Tuakana/teina* (relationship between an older person and a younger person), which is a model for buddy systems where older children help and guide the younger children. Bob highlighted the contribution from all teachers and children in the ECE centre and the importance of having clear communication between teachers and parents and also within the teaching team. Elizabeth talked about being inclusive through language development and the importance of wellbeing and belonging to children so that the

child feels that “This is my place” and emphasising that “This place is where the child belongs”. When asked about Te Whāriki, Sarah highlighted that respecting children informs the strategies she uses such as building on their confidence, sense of belonging, and providing children different ways to explore during conflict. Another way that Te Whāriki informed her strategies was working in partnership with parents. Anna highlighted that the curriculum ensured people feel as if they belong to the place, teachers are contributing to them, and that children are at the heart of the ECE centre. Alison shared that Te Whāriki is in the background, as she refers more to her own experience than the curriculum for behavioural management strategies.

4.4 Professional development

When asked if the teachers would like to receive additional professional learning in relation to responding to children's challenging behaviours, six teachers were open to engage in future professional development courses. Topics that they were interested in included:

- How to empower other teachers to help manage challenging behaviour
- Helping children to transition from ECE to primary school
- Positive guidance
- Physiological aspects and brain development
- Using puppets in the arts and story-telling with children who engage in challenging behaviour
- A revisit of Incredible Years
- Involving parents in child and family development courses
- Working with children who have trauma, have experienced abuse, or with children who have parents that are neglectful
- Interventions with, or from, Child, Youth, and Family Services
- Different strategies to work with children with challenging behaviours and anger issues

Although two of the eight teachers did not identify further professional development, it was likely because they were on secondment at this stage to help set up a new ECE centre with a Pasifika cultural background and a relatively high number of children with challenging behaviours. Anna, however, stated that her teaching team might benefit from learning about the referral process to the Ministry of Education, how to meet with parents in a positive way, and also from knowing the resources available to help teachers, children, and families. She

also reported that the Incredible Years Teachers programme seemed Americanised and as such might not be useful for Centre D.

4.5 Summary

In summary, teachers identified challenging behaviour as a secondary behaviour to a primary problem, such as health issues, hearing loss, or difficulties in the child's environment. Overall, teachers described more externalising and aggressive behaviours than internalising and withdrawn behaviours. Through the interviews, observations, and measurements, there were many preventative and proactive strategies that were identified, such as positive guidance, stating instructions positively, and role modelling proactive behaviours. None of the ECE centres had a display of the daily schedule for the children to refer to, or had a variety of visual aids to encourage emotional awareness, or support the centre's rules. However, all teachers relied on repeating the rules consistently and phrasing instructions positively to children. A majority of teachers referred to their hands-on experiences, professional development courses, research, and reflection to inform the strategies that they use to respond to children's challenging behaviours, with six of out eight teachers indicating their interest in future professional development courses on various types of strategies to address children's challenging behaviour such as through art, parental involvement, positive guidance and interaction with the Ministry of Education. Although teachers did not initiate reference to Te Whāriki in informing their learning or selection of strategies, when prompted, all teachers spoke positively about the values of the curriculum and gave examples of how their ECE centre incorporates the national curriculum. All but one teacher reported that Te Whāriki informed their strategies to respond to children's challenging behaviours in the ECE setting.

Chapter 5: Discussion

Early Childhood Education (ECE) provides many opportunities for children to learn to develop social skills and to prepare young children for more formal schooling. Children who engage in challenging behaviour often miss out on academic learning and lack social-emotional competence (Dunlap et al., 2006; Fergusson et al., 2005). Furthermore, research suggests that children's problem behaviour is one of the most stressful and concerning issues for teachers (Reinke et al., 2011). The present study set out to understand the daily experiences of ECE teachers in relation to identifying and addressing children's challenging behaviour.

5.1. Research Questions

The first research question explored what teachers identified as challenging behaviour. Teachers in this study were able to identify challenging behaviour accurately in ways comparable to the definitions described in Chapter One. One exception was a definition from one teacher Jane, who defined challenging behaviour as a behaviour that was that was out of the ordinary for the child, presenting a different perception from the definition provided in Chapter One. This suggests that teachers' perception of challenging behaviour takes the child's individual context and development into consideration, and hence challenging behaviour may present differently for every child. This perception aligns with Bronfenbrenner's ecological theory (1979) in which the child is in the centre of the ecological system. Child factors such as personality and temperament can influence children's behaviour, and as a result, the causes and presentation of challenging behaviour may differ from child to child. Teachers drew on Bronfenbrenner's ecological theory to attribute children's challenging behaviour to both the child's surroundings and home environment (microsystem) and the child's individual development, although this was implicit and teachers did not identify this theory by name. Teachers also indicated that delay

in development might be associated with a learning disability or a disorder; however, more in-depth analysis of learning disabilities and disorders in relation to challenging behaviour and any specialist early intervention is beyond the scope of the current study. The findings reported above are congruent with research by Westling (2010) and Reinke et al., (2011) whose respondents indicated that children's behaviour could be influenced by external factors such as family stressors, through the environment they live in, and are sometimes due to internal factors such as a disability.

In defining challenging behaviour, teachers described more externalising than internalising behaviour, a finding in agreement with those reported by Alter et al., (2013) and Westling (2010). These findings are not unsurprising given the more overt nature of externalising behaviours that appear more obvious than internalising behaviours, and also which draw more attention and affect other people apart from the child's own self. In addition, literature suggests that externalising and internalising behaviours show different patterns of change across time. Specifically, externalising behaviour may peak around the age of two years and steadily decrease, while internalising behaviours such as withdrawal and anxiety may gradually increase over time (Gilliom & Shaw, 2004). As such, it is possible that ECE teachers defined challenging behaviour as more externalising, than they might have done otherwise, due to a lower recognition of internalising behaviours within the ECE age range.

The second research question examined the strategies that teachers used to address children's challenging behaviour, and results revealed these were compatible with positive behaviour support ((PBS) Blair et al., 2010) that is, strategies that focuses on the prevention of challenging behaviour, as opposed to aversive behaviour responses that reinforce the coercive cycle. Specifically, teachers reported using antecedent strategies such as setting up the ECE environment to engage children and by setting consistent rules and boundaries.

Teachers also acknowledged the importance of building relationships with children and their family, concurring with previous research by McLaughlin, Aspden and McLachlan (2015). These two strategies are congruent with the Pyramid Model Tier 1 strategies, that is, having high quality supportive environments, and developing nurturing and responsive relationships. These two strategies are also within the child's microsystem (i.e. ECE environment and parent-child relationship) and the mesosystem (i.e. family-teacher relationship) and are thus within the two spheres most proximal to the child. The teachers' relationship with the child can also be a protective and proximal influence for children as teachers can encourage children to engage in appropriate behaviours, preventing challenging behaviours from escalating. McCready and Soloway (2010) and McLaughlin et al. (2015) report similar findings whereby teacher participants identified using relational strategies to build on children's social-emotional competencies, which strategies also align with the relational approach of Te Whāriki. Teachers from the current study also reported using reactive strategies such as physical removal (e.g. "If you hit, you sit") as a last resort, suggesting it is a Tier 3 strategy that is an intensive and individual intervention.

From an examination of the strategies observed, it was not clear whether teachers' choice of strategies were motivated by the desire to manage the children's challenging behaviour to make the ECE centre calm and regulated, or to scaffold children's holistic development including their wellbeing. An examination of teachers' motivation is beyond the scope of the current study, however, it was evident that teachers prioritised the wellbeing of children. Teachers demonstrated this through the number of Tier 1 strategies observed. Teachers also indicated that they were advocates for the children at their ECE centre by ensuring that the children felt safe and had their basic needs met (e.g. providing food), while they were at the ECE centre. Teachers also used a number of explicit teaching strategies to teach children social skills and shift the responsibility of problem solving back to the child,

and this may suggest that teachers are motivated by scaffolding the children's own learning and development. However, as these are implicit findings, future research could examine what specifically motivates teachers in their choice of strategies to provide a greater understanding of their management of children's challenging behaviour.

The environmental TPOT measure (Fox, Hemmeter, Snyder, Artman, Griffin et al., 2008) examined environmental strategies teachers used to prevent challenging behaviour from Tier 1 to Tier 3. Results revealed that there was little use of visual aids that informed children about schedules or support their social-emotional development. However despite the lack of a visual schedule, children from three centres were able to transition appropriately from one activity to another. It is possible that the children were familiar with the expectations of transitions, as teachers from three centres highlighted the importance of consistency in having mat time in the morning, and lunchtime at noon (a Tier 1 strategy). Centre A was an exception because it did not have a schedule as children were allowed to eat and carry out activities in their own time. Nonetheless, children were still able to transition smoothly from one activity to another. The TPOT also revealed little use of pictorial displays of rules and emotions, including displaying visual representations of classroom rules, various emotional states and emotional states followed by action behaviours (e.g. "I am feeling frustrated so I need to take three deep breaths to calm down"). These pictorial supports ideally would be placed at the child's eye level and in areas where children could easily refer to or be reminded of their emotions and how to regulate their emotions (Hemmeter et al., 2008). Pictorial supports are a Tier 1 strategy because they contribute to a supportive environment that helps children to succeed. Resources on pictorial supports are readily available to centres and can be found in the Center on the Social and Emotional Foundations of Early Learning (CSEFEL), and the Incredible Years programme (CSEFEL, 2003; Webster-Stratton, 2004).

It should be acknowledged that there are other factors that could have influenced the types of strategies observed. The first was the number and combination of children during the day of observation. Notably, four of the eight teachers reported that on their day of observation, they had an atypically low number of challenging behaviours which they attributed to having fewer children enrolled towards the end of the year, reporting that children who had been identified as demonstrating challenging behaviours had recently transitioned to primary school. On the other hand, two observations had an elevated occurrence of children's challenging behaviour possibly because one or two children were unsettled when they arrived at preschool, which resulted in a higher occurrence of challenging behaviour compared to the other four observations. Weather conditions may also have been influential on the day of observation. One observation was conducted on a rainy day, in which the teacher reported experiencing an elevated number of challenging behaviours. Wet weather meant that children were not allowed to enter the outdoor play area, which reduced the space that allowed children to move, creating more opportunities for conflict within a confined area, and potentially accounting for the increased occurrence of challenging behaviour observed that day.

The study also investigated how teachers selected the strategies they used to address children's challenging behaviour. Results indicated that teachers adapted their strategies based on the child's individual context, interest and personality. Many used the common phrase *knowing the child*, as influencing their choice of strategy. It could also be argued that *knowing the child* is a strategy within itself. According to Sameroff's Transactional model (Sameroff & Mackenzie, 2003), the teacher-child relationship is a proximal influence to the child's development, and may be used to guide children towards a more prosocial trajectory. Teachers reported that identifying the triggers of a child's challenging behaviour helped them to prevent the behaviour from occurring by removing the trigger or by supervising the child

more closely and teaching them appropriate self-regulating and social skills to approach the situation. All eight teachers acknowledged that every child is different, and thus a strategy for one child may not work for another. One participant, Anna, used an analogy of an oak tree to describe this, stating:

“Be solid like an oak tree, but your branches have to follow the wind or else it will snap off. The point of strategies is to teach children boundaries and the boundaries can move outwards and inwards.”

This referenced the importance for teachers to stay grounded in their teaching beliefs and values, but also emphasised the importance of flexibility within teachers’ strategies to adapt with the children. The results discussed here indicate that teachers were identifying patterns, triggers, and behaviour responses although they did not use terms such as antecedents, function of behaviour, and consequences, which are more commonly used in psychological literature.

Having identified the strategies teacher used, teachers also reported where they learned these strategies. Results indicate that the ECE teachers learned their strategies from professional development courses, constant reflection on their experiences, and through seeking feedback from another teachers in the teaching team. Four teachers highlighted the importance of being open to trial and error, as teachers and children both take time to know each other. Only one teacher referred to prior teacher training in primary education and stated that her teacher training in ECE did not include behaviour management. This finding is also congruent with Reinke et al., (2011) who reported that teachers learned more about behavioural strategies through professional development than through their undergraduate or postgraduate training. Given the absence of behaviour management training identified in teacher training courses currently, it is unsurprising that teachers did not refer to their pre-service teacher training to inform their current strategies. Mahmood (2013) reported a reality

shock for new teachers in their practice, which suggests a difficult experience transitioning from a student teacher to a provisionally or newly registered teacher. Although it is unclear what contributed to the shock, it is possible a lack of training in behaviour management or strategies could be the reason. If this is the case, it may be beneficial for behavioural management and professional development courses to be repositioned from post to pre-teacher training to mitigate some of this shock new teachers report.

The third research question explored how Te Whāriki informed teachers' strategies in addressing children's challenging behaviour. Findings suggest that teachers have an understanding of the goals and values of the national curriculum and it is evident that teachers understood the socio-cultural impact that the environment has on the child. Teachers identified that there were children in their centres who had experienced family violence or whose families were unable to provide children with lunches, which influenced the way they responded to the child (e.g. by being more patient and providing sandwiches for the child). As stated earlier, the theme common among participants was *knowing the child*, which highlighted pro-active strategies in preventing challenging behaviours from occurring. *Knowing the child* as a strategy is one that is aligned with Te Whāriki, as the curriculum states that children should feel a sense of belonging and teachers should develop trusting relationships with children and their whānau (Ministry of Education, 1996). Although teachers sought to achieve the goals of Te Whāriki, results suggest that they did not refer specifically to the curriculum to guide their strategies when responding to children's challenging behaviour. When teachers were asked how Te Whāriki informed their strategies, their responses related more to philosophical values rather than the practical level of addressing children's challenging behaviour, findings which are similar to those reported by McLaughlin et al (2015). In addition, when asked where they learned and how they selected their strategies, none of the teachers referred to Te Whāriki as a contributing factor. It is

unclear as to why teachers did not draw on Te Whāriki to inform their strategies. Two possible reasons for this omission warrant discussion. Firstly, it could be that teachers view children's behaviour as separate from the curriculum and therefore their responses are not directly informed by it. Alternatively, and as Cullen (2008) argued, it may be that Te Whāriki does not provide teachers with the practical strategies to help children with challenging behaviours.

The finding that teachers did not reference Te Whāriki as a source to guide their behaviour management strategies is interesting and topical. Cullen (2008) ascribes a philosophical basis to the current curriculum rather than one that provides practical strategies for teachers to address children's challenging behaviour in ECE settings. Results of the current study have implications for potential changes to Te Whāriki and suggest its applicability could be enhanced in relation to addressing children's challenging behaviour by providing exemplars of practical strategies and protocols that teachers can refer to, as presented in McLaughlin et al.'s study (2015).

The final research question asked teachers to identify directions for future professional development. Results from this study made explicit the need for relevant professional development that provided specific strategies for managing challenging behaviour. This is a similar finding to those reported by Jones (2012), in which ECE teachers' indicated a need for professional development to support children with challenging behaviour, including having a greater knowledge of external supports that are available to help children with challenging behaviour. One teacher from the current study suggested that established professional development courses such as Incredible Years Teachers (IYT) (Webster-Stratton, 2012) should have refreshers and provide follow-up sessions for teachers to guide teacher practice. Another teacher indicated that IYT should be adapted to suit the New Zealand population for the programme to be more applicable. Apart from learning more

strategies to address children's challenging behaviour, other suggestions for professional development included neuropsychology such as brain development and strategies to help children who have been exposed to family violence or trauma. These topics were compatible with the teachers' interpretation of factors influencing children's challenging behaviour.

5.2 Potential Gap between Theory and Practice

Study findings indicate a potential gap between theory and practice, and add to the evidence presented by the Ministry of Education (Alliston, 2007), which also concluded a significant gap exists between the recommendations indicated by research (theory) and the daily experiences of ECE teachers (practice).

In addressing the first research question on teachers' definition of challenging behaviour, all eight teachers referred to the social context as an explanatory factor for a child's challenging behaviour, including low-income communities and family lifestyle. Such interpretations are congruent to Bronfenbrenner's exosystem and microsystem respectively, although these were not explicitly articulated. Nor did teachers explicitly articulate other theoretical underpinnings such as Bandura's social learning theory or the Kohlberg's stages of moral development in their discussion of children's challenging behaviour. For example, two teachers reported that children engage in challenging behaviour due to the lack of empathy, but did not refer to the theory behind the understanding and development of empathy. Teachers also reported identifying triggers to the children's challenging behaviour and thought about reasons that could explain the child's behaviour, such as inconsistent home routines, or family violence, however they did not articulate psychological terms such as the function of a child's behaviour, antecedents, and concepts of functional behaviour assessment. Teachers ascribed to some aspects of psychological and developmental theories in defining and interpreting challenging behaviour, but this is not explicitly articulated in their practice.

Evidence of a research to practice gap was also apparent in teachers' understanding of the role and use of modelling in their practice. Teachers reported that they often modelled desirable behaviour to children as a strategy, and prioritised setting a physical and social environment to ensure that children felt physically and psychologically safe in the ECE centre, however they did not consciously draw on Bandura's social learning theory (1971), in which people learn from observation, imitation, and modelling, to explain the reasoning behind their use of this strategy.

Closer examination of this potential research to practice gap suggests that teachers may not be consciously aware of the psychological principles behind their strategies. When teachers rely more on trial and error than theory to generate the strategies they use to help a child, this approach could result in a hit-or-miss in terms of its effectiveness because it is potentially less informed by research. As Anna pointed out, there should be flexibility in the strategies used depending on the children as children differ from each other. Nonetheless, the strategies that teachers select should still be informed by psychological understanding and informed by evidence-based literature. As teachers become aware of the reasoning behind the strategy they use to address children's challenging behaviour, it is more likely that they would consciously identify the change in the child's challenging behaviour, or question the theory and strategy if no changes to the child's behaviour were apparent. Having a greater understanding of theory underpinning teaching strategies, and connecting theory to practice may provide teachers with the ability to deliberately apply the theory in more broad and creative ways to suit the child in practice, which in turn may lead to better outcomes than a trial and error approach. This point is illustrated in Figure 5.1. The diagram on the left indicates that the needs of the child, teachers' own knowledge and experience, and the theoretical aspects of their curriculum deliberately inform teachers' strategies, where these three intersect. This is in agreement with Snyder's (2006) research that suggests three

interrelated sources of evidence to inform teacher practice. The diagram on the right shows a hit-and-miss concept, in which strategies are not necessarily informed by the three categories and thus responses may be more accidental.

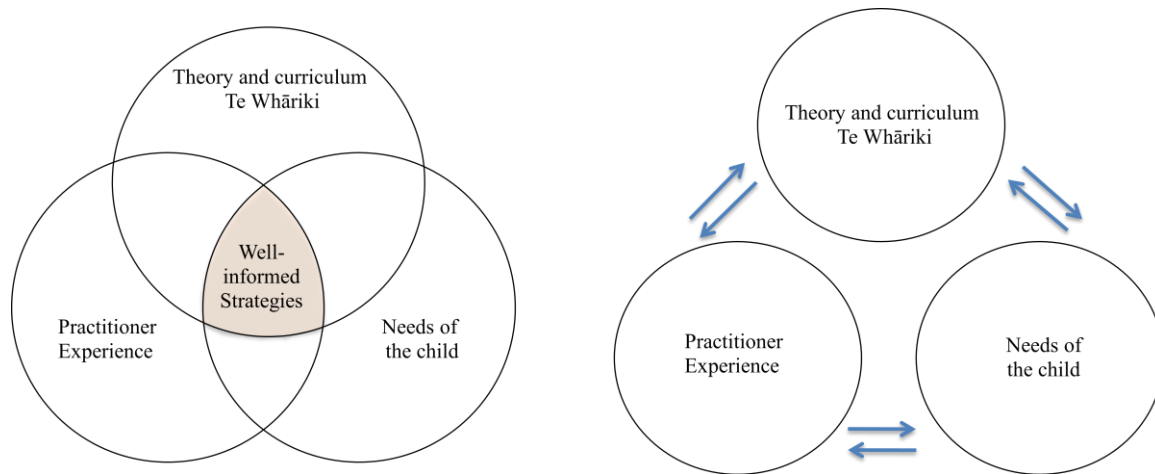


Figure 5.1. Selection of Strategies

Although teachers identified concepts which can be described as psychological (e.g. function of behaviour), nonetheless teachers did not describe their strategies within psychological terms and did not make explicit reference to the theories learned in their teacher training. It is possible that these theories have been embedded in their teaching experience, given that they have spent a considerable amount of time in the ECE centre. Thus, it may be that they articulate their ideas in terms that better relate to themselves as opposed to using terms that are commonly used in research. If this is the case, the gap between theory and practice could simply be attributed to the different terminology used within research and teacher practice. One example of the different terms with similar meaning can be found in the term *descriptive praise*. This term is widely used within the IYT programme but is commonly referred to as *positive reinforcement* in the field of behavioural psychology. Another example where terminology differences may contribute to the research-practice gap is relating Tier 1 strategies, such as having a high quality supportive environment for children (Pyramid Model), to Bandura's social learning theory, whereby

adults are responsible in setting up the environment for children's success, that is, stimulus control and changing antecedents.

Teachers' suggestions for future professional development included research topics such as brain development and strategies to help children who have experienced trauma. These can be described as psychological issues, and as such, it may be useful for teachers to have more opportunities to engage with evidence-based psychology-related professional development topics, using examples and terminology to support their use and reflection in their daily interaction with children.

5.3 Implications and Future Directions

This study has provided insights as to how teachers perceive and respond to children's challenging behaviour. However, there were some considerations that warrant further discussion.

Firstly, observations were conducted in the last term of the school year and this could have impacted on the types and frequency of strategies observed (October to December). Due to the overall low number of observed challenging behaviour and low student numbers, the researcher was unable to observe more responsive strategies that the teachers had described earlier in the interview. This reduced the opportunity to triangulate the data in relation to some strategies the teachers used.

Secondly, the structure of the interview questions may have limited the possibility of providing more quantifiable descriptive data analysis. Teachers were asked to describe strategies they used to respond to children's challenging behaviour. This resulted in a long list of varied strategies but provided unclear reasons for the teachers' use of each strategy. Future studies could examine teachers' preferred strategies by asking them to identify and rank their top five strategies they used to respond to children's challenging behaviour, and further explore their rationale behind each strategy. Other studies investigated teachers'

definition of challenging behaviour by using Likert-scales to measure their beliefs and definitions of challenging behaviour and this could have constrained the teachers' own definition. However, the current study sought teachers' spontaneous definitions through open-ended questioning. This resulted in teachers identifying a broad range of challenging behaviour, but did not specifically explore teachers' personal beliefs on challenging behaviour. Personal beliefs may impact teachers' definition and can contribute to the reasoning behind the selection of strategies to address children's challenging behaviour. The inclusion of follow-up questions such as 'what's your perspective on how challenging behaviour occurs?' and 'what does challenging behaviour look like in real life?' would have been of benefit to this study.

Thirdly, as this was a small-scale study, a single observer undertook the direct observations and scored the TPOT in one observation. Having one observation per participant provided the current study with only a brief snapshot of the teachers' practice. Future studies should consider conducting more than one observation per participant over a period of time. This would have resulted in having additional data points and more opportunities for teachers to demonstrate variation in their use of strategies in response to a wider range of challenging behaviour. Future studies could also include mechanisms to ensure that the observations were recorded objectively and attain inter-rater reliability on the direct observation and TPOT recordings. It should also be acknowledged that participants who are being observed during the direct observations could have displayed more favourable behaviours due to participation bias; that is participants act in ways they believe correspond to what the researcher was looking for. As a result, it is possible that participants in this study did not act in their natural way during observation (Coplan, Bullock, Archbell & Bosacki, 2015). Nonetheless, teachers are also constantly under pressure to manage children's challenging behaviour as they occur with or without a third person present. Thus, it can be difficult for teachers to show a non-

authentic representation of their work in situations where children's behaviours can be unexpected.

Fourthly, this study involved a small sample size. Although there were differences in teacher experience (ranging from seven to forty-three years) and the ECE centres were located in low socio-economic communities, data were not examined with respect to these factors. Thus it was not possible to determine if strategies differed according to socio-economic levels or teachers' experience. In addition, all participants were part of the same organisation, which have similar centre policies and operational requirements which may impact or inform their strategies. As such, a larger study that includes participants from different types of ECE settings (e.g. day care, preschool, kindergarten, Kohanga Reo, privately-owned centres, home-based child care) across the broader New Zealand context would be beneficial, as would an examination of socio-economic status and experiential factors on teachers' strategies in responding to children's challenging behaviour. Nonetheless, this study provided a useful insight to the teachers' everyday experience working with children with challenging behaviour living in a lower socio-economic area.

With little literature available on the strategies that teachers already use, this study is a first step towards recognising teachers' current knowledge and practice to inform future researchers, teacher training and professional development providers, so that they can enhance this further build to assist children build their social-emotional competencies. For example, education providers could provide their students (who are studying to be teachers) with more courses on addressing challenging behaviour, building children's social-emotional competencies, and positive behaviour support. This would provide teachers with a number of strategies to respond effectively to children's challenging behaviour. Based on the current findings, teacher training providers should also encourage their students to be exposed to a diverse range of children, constantly reflect on their practice, read evidence-based practice

and seek support and guidance from experienced teachers. In addition, both pre-service and in-service teachers could consistently and consciously link theory and child development knowledge to their practice, so that the two are informing each other. In doing so, teachers may be more prepared to face children's behavioural challenges in the ECE setting, and avoid the 'reality shock' as described in Mahmood's study (2013).

As there was an overall positive response of teachers who welcomed the opportunity to share and reflect on their experiences in this study, it is possible that teachers may benefit from having reflective opportunities as a form of professional development. Professional development does not necessarily have to teach teachers new information but can support teachers to reflect on why they do what they currently do, and why a strategy worked or did not work for a particular child. Professional development may also facilitate the conscious drawing on theoretical knowledge that can inform the strategies that teachers use to respond to children's challenging behaviour. When teachers are able to connect theory with practice and articulate the reasons for the strategy they use, parents can learn these strategies from the teachers and carry it out at home. As the parent-child and teacher-child relationships are both proximal influences to a child's development (Sameroff & Mackenzie, 2003), such an alignment may provide children with more consistency in relation to their behavioural expectations in both the home and ECE environment.

There is potential for the knowledge and skills of ECE teachers to be underestimated because they do not articulate or consciously identify their strategies in a way that researchers do. Nonetheless these results indicate that many teachers have been utilising preventative Tier 1 strategies in their everyday practice in ECE centres and they also signal directions for future research and professional development.

5.4. Conclusion

Firstly, the findings from this study suggest that ECE teachers identified challenging behaviour as more externalising (e.g. non-compliance, aggression), and how teachers perceive challenging behaviour may be dependent on the child. In addition, teachers acknowledged that children engage in challenging behaviour due to inconsistency in the environment, and not having the appropriate social and emotional skills to express their needs in an age appropriate way.

Secondly, findings from this study revealed that teachers used a variety of strategies to respond to children's challenging behaviour. Although it was not specifically articulated, strategies, many of their strategies fitted with Tier 1, preventative strategies. The predominant strategy that participating teachers identified was that of building an open and trusting relationship with children and their families. This aligned with the goals of Te Whāriki. These relationships, which were motivated by teachers' interest in children and their families were viewed as the key to identifying the causes of the children's challenging behaviour, and the key to help teachers select the strategies that would suit the child. Through the teachers' relationships with children and their families, teachers could gain a better understanding of the child's context, family background, and identification of the function of the child's behaviour, and thus guiding their selection of strategies.

Thirdly, apart from associating their philosophical beliefs, goals and values with Te Whāriki, the early childhood curriculum, teachers did not refer to the curriculum as a source to guide the strategies they used to address children's challenging behaviour. Teachers also articulated that they learned these behaviour management strategies from their experiences and trial and error. This finding suggests a lack of deliberate theoretical application of the strategies. Lastly, results from this study provide future directions for research and teacher professional development.

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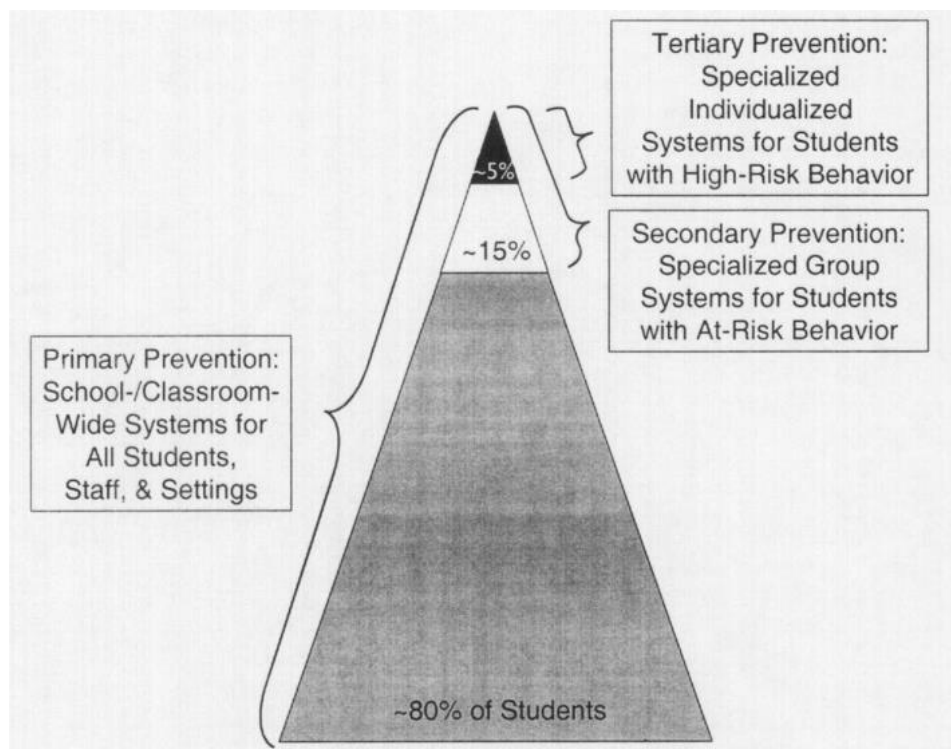
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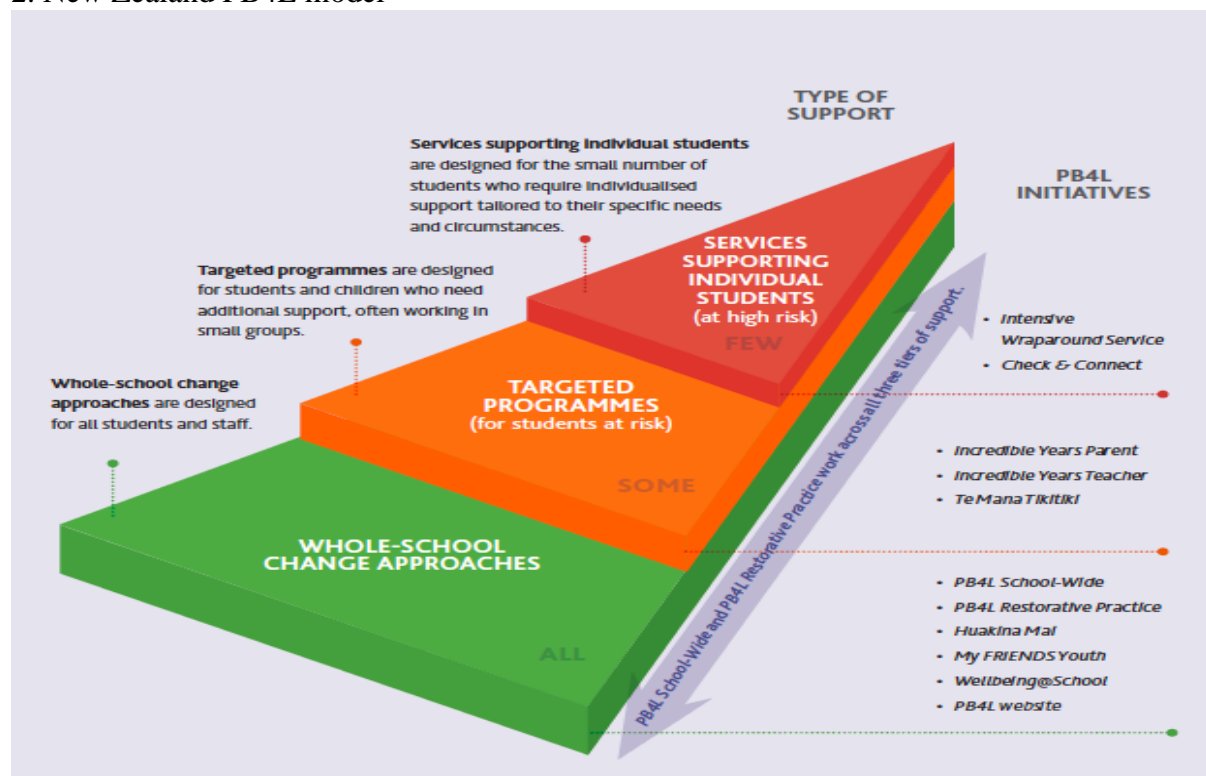
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Appendix A: Pyramid Models

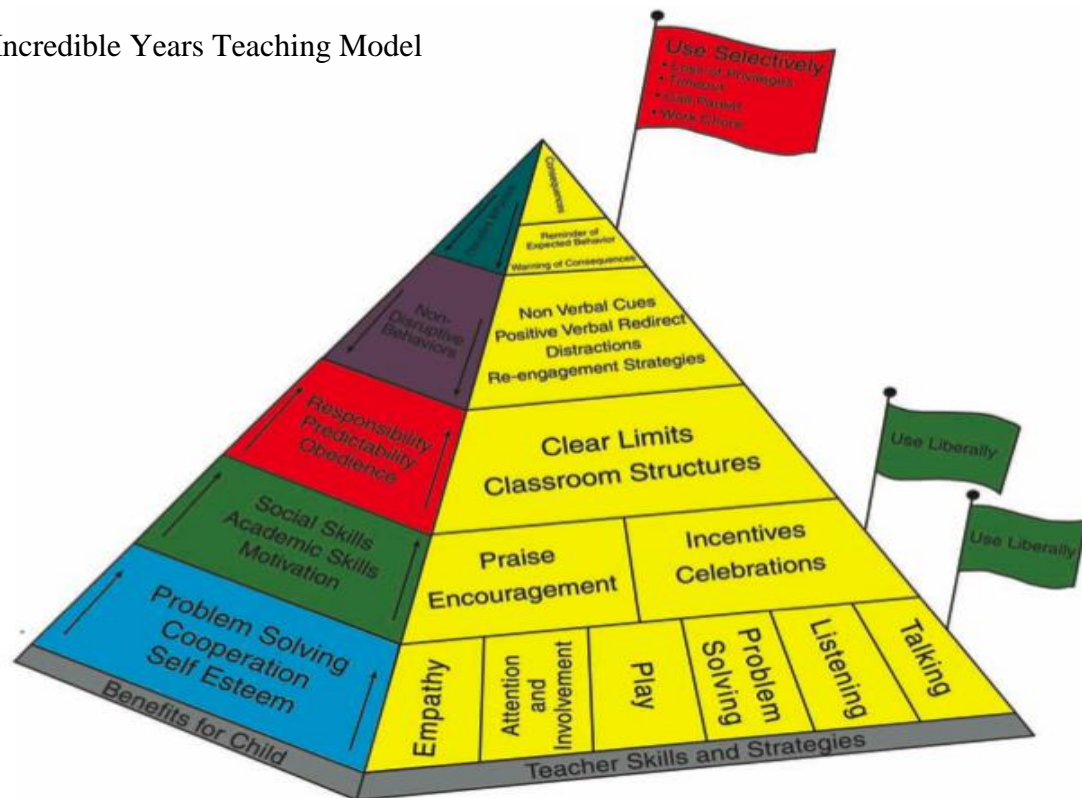
1. Response-to-Intervention (RTI) Model



2. New Zealand PB4L model



3. Incredible Years Teaching Model



4. CSEFEL Pyramid Model



Appendix B: Human Ethics Application



HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
 Telephone: +64 03 364 2987, Extn 45588
 Email: human-ethics@canterbury.ac.nz

Ref: 2016/23/ERHEC

30 June 2016

Glorianne Elizabeth Koh
 School of Health Sciences
 UNIVERSITY OF CANTERBURY

Dear Glorianne,

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal “A Descriptive Study on how Teachers Identify and Respond to Children's Challenging Behaviours in Early Childhood Settings” has been granted ethical approval.

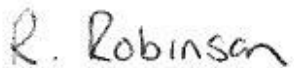
Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 21st June 2016.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

Yours sincerely

PP 

Patrick Shepherd
Chair
Educational Research Human Ethics Committee

Please note that ethical approval relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval by the Educational Research Human Ethics Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research. F E S

Appendix C: Manager's Information Sheet

11th July 2016

To the Management of XXXXX Kindergarten,

Strategies Teachers Use to Respond to Challenging Behaviour in Children Information Sheet for Kindergarten Management

My name is Glorianne Koh and I am undertaking my Master of Science thesis study to look at how teachers identify and address challenging behaviours in kindergartens in New Zealand". My study is supervised by Dr Anne van Bysterveldt and Dr Gaye Tyler-Merrick. Both Anne and Gaye have extensive experience working in early childhood settings.

The aim of my study is to investigate what teachers consider to be challenging behaviour in children and how they respond to this behaviour. The results of this study may help inform professional learning needs for ECE teachers and may also be useful for other professionals who work in early childhood settings (e.g. psychologists, early interventionists, speech and language pathologists). I am seeking your permission to approach some kindergarten teachers in your organisation to participate.

I anticipate my study will take approximately 2 weeks in each kindergarten. I will first meet with each teaching team in a non-contact time to outline my research aims and answer any questions the teachers may have.

My study involves the following:

- **Individual informal interview** (40min)
 - Topics covered during the interview are demographic information, what teachers identify as challenging behaviour, what strategies they use to address challenging behaviours, and where they learned these strategies. This will happen during non-contact time.
- **Teacher observations** (5 hours in total: 2 ½ hours for each teacher)
 - This identifies strategies the teacher uses to respond to children's challenging behaviour. This will be over a period of two weeks.
 - An evaluation of the environment will also be conducted to identify additional environmental strategies that help prevent challenging behaviour.
- **Follow-up meeting** (20 min)
 - The purpose of this is to discuss the findings of the study and talk about possible professional development opportunities, which may help teachers with their work.

The timing of the interview, observations and follow-up meeting will be at the convenience of the teaching team. The risks of participating in this study may be that teachers may feel pressured during the observations. Teachers can be reassured that it is not a teacher performance evaluation, but their strategies and feedback will inform future professional development courses and supports.

I wish to recruit from five kindergartens and interview two teachers from each kindergarten. Participation is voluntary and teachers have the right to withdraw from the project at any time without penalty. If they choose to withdraw, I will use my best endeavours to remove any of the information relating to them from the project, including any final publication, provided that this remains practically achievable.

A thesis is a public document and will be available through the UC Library. The results of the project may be published in articles and presented in conferences, but you may be assured of complete confidentiality of data gathered. To ensure confidentiality, pseudonyms of all participating teachers, children, and kindergartens will be used. In addition, all data gathered will be securely stored in a password-protected computer and a locked cupboard in the University. The data will only be accessible to the researcher and her supervisors, and destroyed after five years. Please indicate to the researcher on the consent form if you would like a copy of the summary of results of the project.

I have attached an information sheet outlining my project both for the teachers and for parents. If I can approach the kindergartens under your management, please complete the consent form and return to me as soon as possible. I can be contacted on 021-083-72866 or by email glorianne.koh@pg.canterbury.ac.nz. Please do not hesitate to contact me, or my supervisors if you have any questions about the project.

This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

I look forward to your reply.

Best Regards,

Glorianne Koh
Child and Family Psychology Student
University of Canterbury School of Health Sciences

Our contact details are as follows:

Glorianne Koh
Tel: 021-083-72866
Email: gloriannekoh@pg.canterbury.ac.nz

Dr Anne van Bysterveldt
Tel: 03-369-3533
Email: anne.vanbysterveldt@canterbury.ac.nz

Dr Gaye Tyler-Merrick
Tel: 03-369-3508
Email: gaye.tyler-merrick@canterbury.ac.nz

Appendix D: Manager's Consent Form

School of Health Sciences
 Telephone: +64 21-083-72866
 Email: glorianne.koh@pg.canterbury.ac.nz



Strategies Teachers Use to Respond to Challenging Behaviour in Children Permission to contact Kindergartens

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of the participants if I give permission for the kindergartens to take part in the research.
- ☐ I understand that participation is voluntary and that the teachers may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information they have provided should this remain practically achievable.
- ☐ I understand that any information or opinions the participants provide will be kept confidential to the researcher and her supervisors, and that any published or reported results will not identify any teachers, children and kindergarten. I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after five years.
- ☐ I understand the risks associated with taking part and how they will be managed.
- ☐ I understand that I am able to receive a report on the findings of the study by contacting the researcher at the conclusion of the project.
- ☐ I understand that I can contact the researcher [*Glorianne*: glorianne.koh@pg.canterbury.ac.nz] or supervisors [*Dr Anne van Bysterveldt*: anne.vanbysterveldt@canterbury.ac.nz, *Dr Gaye Tyler-Merrick*: gaye.tyler-merrick@canterbury.ac.nz] for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- ☐ I would like a summary of the results of the project.
- ☐ By signing below, I agree to allow the kindergartens/ centres and teachers under my management to participate in this research project.

Name: _____

Signed: _____

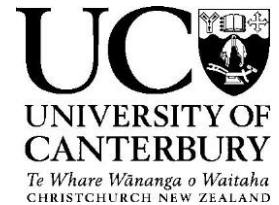
Date: _____

Email address (for report of findings, if applicable): _____

Please return consent form to the researcher

Appendix E: Teacher's Information Sheet

School of Health Sciences
Telephone: +64 21-083-72866
Email: glorianne.koh@pg.canterbury.ac.nz



Strategies Teachers Use to Respond to Challenging Behaviour in Children Information Sheet for Teachers

Researchers' Introduction

My name is Glorianne Koh and I am conducting a study to understand more about how teachers identify challenging behaviours children engage in at kindergarten and how teachers respond to this behaviour. I am training to be a Child and Family Psychologist at the University of Canterbury and I am passionate about children and how they engage during their early years. The project will be supervised by Dr Anne van Bysterveldt and Dr Gaye Tyler-Merrick. Both Anne and Gaye have extensive experience working in early childhood settings.

Project Aims and Invitation

The aim of this study is to investigate what teachers consider as challenging behaviour and how they manage children's challenging behaviour in their kindergarten. The results of this study may help inform professional learning needs for ECE teachers as well as provide understanding for other professionals who may also work in early childhood settings (e.g. psychologists, early interventionists, speech and language pathologists). A criterion for participation is that the teachers participating are registered early childhood teachers, and work with children between the ages of 3 to 5 years.

Participant Involvement

I anticipate my study will take approximately 2 weeks involvement with two teachers in your kindergarten. My study involves the following:

- **Individual informal interview** (40 min)
 - Topics covered during the interview are demographic information, what teachers identify as challenging behaviour, what strategies they use to address challenging behaviours, and where they learned these strategies. This will happen during non-contact time.
- **Teacher observations** (5 hours- 2 ½ hours for each teacher)
 - This identifies strategies the teacher uses to respond to children's challenging behaviour. This will be over a period of two weeks.
 - An evaluation of the environment will also be conducted to identify additional environmental strategies that help prevent challenging behaviour.
- **Follow-up meeting** (20 min)
 - The purpose of this is to discuss the findings of the study and to ask about possible professional development opportunities which may help with their work.

The timing of the interview, observations and follow-up meeting will be at the convenience of the teaching team. The risks of participating in this study may be that teachers may feel pressured during the observations. Teachers can be reassured that it is not a teacher performance evaluation, but their strategies and feedback will inform future professional development courses and supports.

Participation is voluntary and you have the right to withdraw from the project at any time without penalty. If you choose to withdraw, I will use my best endeavours to remove any of the information relating to you from the project, including any final publication, provided that this remains practically achievable.

A thesis is a public document and will be available through the UC Library. The results of the project may be published in articles and presented in conferences, but you may be assured of complete confidentiality of data gathered. To ensure your confidentiality, pseudonyms of teachers, children and kindergartens will be used. In addition, all data gathered will be securely stored in a password-protected computer and a locked cupboard in the University. The data will only be accessible to the researcher and her supervisors and will be destroyed after five years. Please indicate on the consent form if you would like a copy of the summary of results of this project.

If you agree to participate in the study, you are asked to complete the consent form and return it to the researcher. Please do not hesitate to contact me, or my supervisors if you have any questions about the project.

This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Best Regards,

Glorianne Koh

Our contact details are as follows:

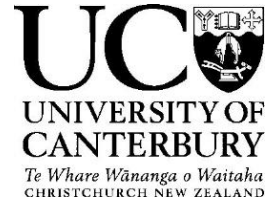
Glorianne Koh
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Email: gaye.tyler-merrick@canterbury.ac.nz

Appendix F: Teacher's Consent Form

School of Health Sciences
 Telephone: +64 21-083-72866
 Email: glorianne.koh@pg.canterbury.ac.nz



Strategies Teachers Use to Respond to Challenging Behaviour in Children Consent Form for Teachers

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researcher and her supervisors, and that any published or reported results will not identify me or my kindergarten. I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after five years.
- ☐ I understand the risks associated with taking part and how they will be managed.
- ☐ I understand that I am able to receive a report on the findings of the study by contacting the researcher at the conclusion of the project.
- ☐ I understand that I can contact the researcher [*Glorianne*: glorianne.koh@pg.canterbury.ac.nz] or supervisors [*Dr Anne van Bysterveldt*: anne.vanbysterveldt@canterbury.ac.nz, *Dr Gaye Tyler-Merrick*: gaye.tyler-merrick@canterbury.ac.nz] for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- ☐ I would like a summary of the results of the project.
- ☐ By signing below, I agree to participate in this research project.

Name: _____

Signed: _____

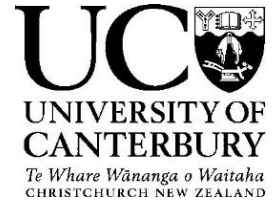
Date: _____

Email address (*for report of findings, if applicable*): _____

Please return consent form to the researcher

Appendix G: Information Sheet for Parents

School of Health Sciences
Telephone: +64 21-083-72866
Email: glorianne.koh@pg.canterbury.ac.nz



Information Sheet for Parents/Caregivers

Hi! My name is Glorianne Koh and I am training to be a Child and Family Psychologist at the University of Canterbury. I am currently conducting a research project to understand more about how kindergarten teachers identify and respond to children's challenging behaviours. The results of this study may help inform professional learning development needs for kindergarten teachers as well as provide recommendations for other professionals who also work in early childhood settings, such as psychologists, early interventionists, and speech and language pathologists. Dr Anne van Bysterveldt and Dr Gaye Tyler-Merrick will supervise this research project and both Anne and Gaye have extensive experience working in early childhood settings.

In this study, I will interview two teachers from the kindergarten during non-contact time and then will observe how teachers respond to children's challenging behaviours. Please be assured that no teacher time will be taken away from your child and their activities throughout the study.

Teacher participation is voluntary and teachers have the right to withdraw from the project at any time without penalty. If a teacher chooses to withdraw, I will use my best endeavours to remove any of the information relating to the teacher and kindergarten from the project, including any final publication, provided that this remains practically achievable.

This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Please do not hesitate to contact me, or one of my supervisors if you have any questions about the project. Our contact details are as follows:

Glorianne Koh
Tel: 021-083-72866
Email: gloriannekoh@pg.canterbury.ac.nz

Dr Anne van Bysterveldt
Tel: 03-369-3533
Email: anne.vanbysterveldt@canterbury.ac.nz

Dr Gaye Tyler-Merrick
Tel: 03-369-3508
Email: gaye.tyler-merrick@canterbury.ac.nz

Best Regards,
Glorianne Koh

Appendix H: Child Assent

Statement to be read by the teacher to children when researcher arrives for direct observation

Teacher gathers children together

Hi everybody. This is Glorianne, and she is here to watch the teachers work with all the children. She will write down what the teachers do and use it for her project. So you can just carry on doing what you usually do. Are you happy for Glorianne to do this today? Any questions? Thank you!

Redirect to usual routine

Appendix I: Teacher Interview Questionnaire

Demographic data

Ethnicity:

Total no. of children:

No. of children you would say engage in challenging behaviour:

Years of teaching experience:

Duration at current kindergarten:

No. of teachers at the kindergarten:

Teaching Qualification:

Professional Development courses (if any):

Semi-structured interview for teachers

1. Describe what 'challenging behaviour' is to you.

2 (a). Describe the strategies you use to respond when children engage in challenging behaviours.

(b) How did you select these strategies?

(c) Where did you learn these strategies?

(d) Describe how Te Whāriki informs the strategies you use.

4. Would you like to receive additional professional learning in how to respond to children's challenging behaviours?

5. What kinds of professional learning would you like?

Appendix J: Direct Observation Record Form

Behaviour Codes:

PA= Physical Aggression (hitting, kicking) with peers (**PAP**)/ teachers (**PAT**), Climbing on things not permitted (**CLM**), **DES**=Destroying property/ another child's work

NC=Non-compliance (e.g. "Im not going to do it", ignoring or refusing teacher's request) **RUN**= Running that poses safety risk for child or others

TT=Tantrums (e.g. kicking, screaming, pushing object/person, stomping feet, head banging)

VA=Verbal Aggression (e.g. yelling threats, screaming at another person, name calling, bad words)

OR= Ordering an adult to do something ("leave me alone") **CP**=Persistent crying that is disruptive

IM= Inappropriate use of materials (e.g. jumping off chairs, throwing objects, slamming materials)

IB=Inappropriate touching, stripping, behaviours that are hurtful, disruptive or dangerous to self/others

| Date | Time | Behaviour code | Consequence (How did the teacher respond) | Notes |
|------|------|----------------|--|-------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Appendix K: TPOT Physical Environmental Strategies

| SKILLS AND INDICATORS | Consistently | Occasionally | Seldom | Not Observed | OBSERVATIONS/ EVIDENCE |
|---|--------------|--------------|--------|--------------|------------------------|
| Physical Environment | | | | | |
| 1. Arranges traffic patterns in classroom so there are no wide open spaces | | | | | |
| 2. Clearly defines boundaries in learning centres | | | | | |
| 3. Arranges learning centres to allow room for multiple children | | | | | |
| 4. Provides a variety of materials in all learning centres | | | | | |
| Schedules, Routines | | | | | |
| 5. Designs schedule to minimize the amount of time children spend making transitions between activities | | | | | |
| 6. Schedules are consistently implemented | | | | | |
| 7. Children are aware of the daily schedule | | | | | |
| 8. Teacher posted classroom schedule of daily activities | | | | | |
| 9. Schedule is posted at children's eye level and includes visual representation of daily activities | | | | | |
| Transitions | | | | | |
| 10. Structures transitions so children do not have to spend excessive time with nothing to do | | | | | |
| 11. Children are aware of the expectations associated with the transitions | | | | | |
| 12. Warnings are given to children prior to transition | | | | | |

Adapted from the Inventory of Practices for Promoting Social Emotional Competence (CSEFEL)

| PHYSICAL ENVIRONMENT STRATEGIES | | | | | |
|--|--------------|--------------|--------|--------------|------------------------|
| SKILLS AND INDICATORS | Consistently | Occasionally | Seldom | Not Observed | OBSERVATIONS/ EVIDENCE |
| Pictorial rules and emotions | | | | | |
| 13. Uses photographs, pictures and posters that support classroom rules | | | | | |
| 14. Uses photographs, pictures, and posters that portray people in various emotional states | | | | | |
| 15. Poster/ photos label emotional states and provides an action statement (e.g. I am feeling frustrated so I better take some deep breaths and calm down) | | | | | |
| 16. Rules on poster are stated positively and specifically (Avoids words “no” and “don’t” as much as possible | | | | | |
| 17. Rules are of a manageable number (3-6) | | | | | |
| 18. Display photographs of children working out situations | | | | | |

Appendix L: TPOT Teacher's Strategies

| SKILLS AND INDICATORS | Consistently | Occasionally | Seldom | Not Observed | OBSERVATIONS/ EVIDENCE |
|---|--------------|--------------|--------|--------------|------------------------|
| Teacher day-to-day Strategies | | | | | |
| 1. Communicates with children at eye level | | | | | |
| 2. Verbally interacts with individual children during routines and activities | | | | | |
| 3. Participates in children's play when appropriate | | | | | |
| 4. Shows respect, consideration and warmth to all children | | | | | |
| 5. Speaks calmly to children | | | | | |
| 6. Shows empathy and acceptance of feelings | | | | | |
| 7. Uses validation, acknowledgment, mirroring back, labelling feelings, voice tones or gestures to show an understanding of children's feelings | | | | | |
| Giving Directions | | | | | |
| 8. Gains child's attention before giving directions | | | | | |
| 9. Gives clear directions | | | | | |
| 10. Minimize number of directions | | | | | |
| 11. Gives directions that are positive | | | | | |
| 12. Gives children time to respond to directions | | | | | |
| 13. Gives children choices and options when appropriate | | | | | |
| 14. Follows through with positive acknowledgements of children's behaviour | | | | | |

Adapted from the Inventory of Practices for Promoting Social Emotional Competence (CSEFEL)

| SKILLS AND INDICATORS | Consistently | Occasionally | Seldom | Not Observed | OBSERVATIONS/ EVIDENCE |
|---|--------------|--------------|--------|--------------|------------------------|
| Rules | | | | | |
| 15. Provides opportunities for children to practice classroom rules | | | | | |
| 16. Individualises the warning prior to transitions so that all children understand them | | | | | |
| 17. Identifies consequences for both following and not following rules | | | | | |
| 18. Enforces rules and consequences consistently and fairly | | | | | |
| Positive attention and Feedback | | | | | |
| 19. Gives children time and attention when engaging in appropriate behaviour | | | | | |
| 20. Uses positive feedback and encouragement contingent on appropriate behaviour | | | | | |
| 21. Uses positive feedback and encouragement contingent on child's efforts | | | | | |
| 22. Provides descriptive feedback and encouragement | | | | | |
| 23. Involves other adults in acknowledging children | | | | | |
| 24. Models positive feedback and encouragement frequently | | | | | |
| 25. Conveys acceptance of individual difference (culture, gender, sensory needs, language, abilities) through planning, material selection, and discussion of topics) | | | | | |

Adapted from the Inventory of Practices for Promoting Social Emotional Competence (CSEFEL)

| SKILLS AND INDICATORS | Consistently | Occasionally | Seldom | Not Observed | OBSERVATIONS/ EVIDENCE |
|--|--------------|--------------|--------|--------------|------------------------|
| Teacher strategies | | | | | |
| 26. Provides children with opportunities to make choices | | | | | |
| 27. Creates opportunities for decision making, problem solving, and working together | | | | | |
| 28. Teachers children strategies for self-regulating and/or self-monitoring behaviours | | | | | |
| 29. Utilises peers as models of desirable social behaviour | | | | | |
| 30. Shows an understanding of developmental levels of interactions and play skills | | | | | |
| 31. Considers peer placement during classroom activities (e.g. who is going to play with who) | | | | | |
| 32. Develops interaction opportunities within classroom routines or activities | | | | | |
| 33. Teacher structures activities so that there is a clear beginning middle, and end. | | | | | |
| 34. Models phrases children can use to initiate and encourage interactions | | | | | |
| 35. Gives general reminders to “play with your friends” | | | | | |
| 36. Facilitates interactions by supporting and suggesting play ideas | | | | | |
| 37. Structure activities to encourage children to work cooperatively (e.g. sharing or turn taking) | | | | | |

Adapted from the Inventory of Practices for Promoting Social Emotional Competence (CSEFEL)

| SKILLS AND INDICATORS | Consistently | Occasionally | Seldom | Not Observed | OBSERVATIONS/ EVIDENCE |
|---|--------------|--------------|--------|--------------|------------------------|
| 38. Assists children in recognising and understanding how a classmate might be feeling by pointing out facial expressions, voice tone, body language, or words. | | | | | |
| 39. Teaches that all emotions are okay, but not all expressions are okay. | | | | | |
| 40. Labels own emotional states and provides an action statement (e.g. I am feeling frustrated so I better take some deep breaths and calm down) | | | | | |
| 41. Uses opportunities to comment on occasions when children state they are feeling upset or angry but are remaining calm. | | | | | |
| 42. Systemically teaches the problem solving steps: a. What is my problem? b. What are some solutions c. What would happen next? d. Try out the solution. | | | | | |
| 43. Takes time to support children through the problem solving process during heated moments | | | | | |
| 44. Helps children recognize cues of emotional escalation | | | | | |
| 45. Helps children identify appropriate choices | | | | | |