

**The emotional and behavioural functioning of children in early
childhood engaged in a social and emotional learning program with
a specific focus on self-control**

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Abbreviations

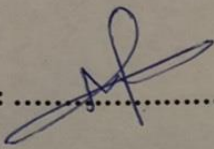
BASC-3 BESS	Behaviour Assessment System for Children, Third Edition, Behavioural and Emotional Screening System
NCLB	No Child Left Behind
SEL	Social and Emotional Learning

Abstract

Some pre-school children are unable to control their behaviour and emotions and self-control is an important part of social and emotional learning. This study examined the impact of a social-emotional learning program on the emotional and behavioural functioning of pre-school children, with a specific focus on self-control. The study used a mixed research design. Qualitative data was collected using observations of the behavioural functioning of the participants, while quantitative data was based on a quasi-experimental, within group, pre/post-test design. The quantitative approach involved an assessment of children's social and emotional levels, using a behavioural and emotional screening tool (BASC-3 BESS) prior to and after the intervention program. A classroom intervention was conducted by the researcher in the Arabic language and comprised three sequences of intentional teaching episodes. The sample consisted of 30 Arabic children aged 4-5 years. The results showed that teaching self-control skills through the social-emotional learning program significantly improved the classroom emotional and behavioural functioning of the participants. Additionally, the study found that the teaching of self-control skills through the SEL program greatly impacted upon participants externalising and adaptive behaviours, although there was no significant difference in internalising behaviours of the study participants. It was recommended that pre-school teachers need to be trained to be more aware of the behavioural problems of pre-school children. As part of this teacher training, it is highly recommended that preschool teachers are trained to implement this intervention as part of their response to some behavioural problems of their preschool children.

Statement of original authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: 

Date: ...27/6/2019.....

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Chapter 1

1.0 Introduction

Early childhood is a key period in child development as it is a time when the formation of positive feelings towards the self and others occurs. Through early childhood learning, young children possess the ability to develop numerous social and emotional competencies such as the ability to control their emotions, gain self-confidence and develop social skills, which enables them to positively relate with others (Haskett, Armstrong, & Tisdale, 2015). For successful functioning, young children require social and emotional competencies. Bornstein, Hahn and Haynes (2010) found that children with low social and emotional competence during their pre-school years were at risk of developing internalisation and externalisation problems in early adolescence. Self-control can act as a protective factor against the development of internalising and externalising problems in children. Pre-school children require explicit teaching and coaching on social and emotional skills in order to manage their emotions and behaviours successfully (Arslan, Durmuşoğlu-Saltali, & Yilmaz, 2011). Additionally, understanding the protective factors that mitigate the development of internalisation and externalisation behaviours is critical, as they affect a child and the family. Duckworth and Kern (2011) defined self-control as the ability to have self-governance in the service of goals and standards that are personally valued. Self-control is the ability to control one's responses or emotions (McKown, Gumbiner, Russo, & Lipton, 2009). Therefore, there is a need for more emphasis on self-control in pre-school children as this provides a strong social and emotional foundation that helps them cope as they continue in their life-course development.

Self-control and anti-social behaviour are interlinked in one's lifespan and low self-control is fundamental in understanding abnormal behaviours (Vazsonyi, Mikuška, & Kelley, 2017). The pre-school years are a vital period for the establishment of self-control. In recent years, researchers have increasingly stressed the importance of classroom teachers teaching the value and practice of self-control within the classroom setting (Denham, Bassett, & Wyatt, 2007).

Teaching self-regulatory skills, such as impulse control, is the key factor for a successful transition into school (Denham et al., 2007). Blair (2002) points out that self-control or the ability to stabilize emotions and behaviours is crucial to understanding distinct variances in children's school readiness abilities. If a child is found to have tremendous difficulties with self-control especially during the early years of academia, they will be placed at a disadvantage in their life-course. The onset of early schooling will additionally place them amongst the lower ranks of academic attainment (Pointz, McClelland, Matthews, & Morrison, 2009) and they are likely to have substantially inferior social functioning skills (Valiente et al., 2004).

According to McClelland et al. (2014), pre-school children with poorly developed self-control and self-regulation skills have a high probability of making comparatively less academic progress, particularly when compared to young children who were trained specifically under a well-planned self-control program. In most cases, less trained students would be affected throughout the span of their school life. According to Martel et al., (2007), these children are more likely to experience depression, anxiety, and aggressive behaviour problems.

Pre-school children with poorly managed self-control are also at greater risk of poor health in the longer run. They are more likely to experience obesity and drug dependency (Sutin, Ferrucci,

Zonderman & Terracciano, 2011). Additionally, they are more likely to commit crimes, while the likelihood of becoming wealthy is low (Sutin, Ferrucci, Zonderman & Terracciano, 2011).

The United States of America's "No Child Left Behind (NCLB)" program delves into the phenomenon of having a study-focused classroom setting in kindergartens and pre-schools that improves child self-control (Kagan & Kauerz, 2007). The research carried out by Rimm-Kaufman, Curby, Grimm, Nathanson, and Brock (2009) has showed that without these self-regulatory skills, pre-schoolers are very likely to experience difficulties in acclimatising to the rigors of a typical kindergarten classroom. Pre-school children experiencing behavioural problems would benefit from being taught self-control skills, which will help them to enhance their adaptive behaviours, described as an individual's ability to display their behaviours independently (Oakland & Harrison, 2008).

As stated above, young pre-school children who lack social and emotional competencies usually demonstrate discipline issues in school and are at risk of academic failure and an increased risk of school dropout, drug abuse and violent behaviour (Arslan, Durmuşoğlu-Saltali, & Yilmaz, 2011). Furthermore, Eisenberg et al. (2005) found that low levels of social and emotional competencies placed children at risk of developing an externalising problem. Social and emotional development is, therefore, essential for students to attain positive outcomes in their lives, which in turn, helps them achieve academically.

Social-emotional learning (SEL) is a current and emerging focus which utilizes strategies to promote children's well-being (Raimundo, Marques-Pinto, & Lima, 2012). Most of the SEL programs teach children skills on how to regulate their emotions as well as interacting with others. Research indicates that preventing social and emotional problems in younger children is

more effective than in older children (Barlow, Parsons, & Stewart-Brown, 2005). Therefore, SEL programs can help to make a long-lasting impact on the well-being of children which also impacts greatly on their academic performance. Social-emotional learning in pre-schools sets the stage for better student behaviour in the future (Malcolm, 2018). Adequate emotional education is crucial to facilitate socialization, improve children's quality of life, and prevent psychological complications (Richman et al., 2005). The need for pre-school children to be taught these skills is essential for ensuring a sufficiently developed sense of self-governance and self-control.

Teaching self-control during a child's pre-school years is vital to the prevention of anti-social activity during adolescence and in adulthood. Axelrod (2010) has showed that altering adolescent and adult behaviour is more challenging than changing these behaviours in children in the first ten years of their life. As such, it is essential to teach children how to effectively express their emotions and learn to engage positively in relationships (Heo, & Squires, 2012).

One method that is being adopted is to explicitly teach pre-school children social, emotional, and behavioural skills (Arslan, Durmuşoğlu-Saltali, & Yilmaz, 2011). Many pre-schools are adopting programs designed to promote emotional and behavioural functioning because the social, emotional, and behavioural competencies of pre-school children are essential as they influence the academic success of children. Indeed, there is a need to implement interventions in the pre-school education system to foster children's social, emotional, and behavioural aptitudes (Ştefan, 2018) and self-control forms a vital aspect of these programs.

While social and emotional learning (SEL) has been integrated into the teaching curriculum in Saudi Arabia, teachers generally focus on numeracy, literacy, and moral development in their teaching more than on social and emotional learning. The lack of SEL integration has led to a

deficit among pre-schoolers in Saudi Arabia. According to Felimban, Nowicki, and Brown (2017), children in Saudi Arabian schools exhibit social, cognitive, and emotional barriers as well as behavioural issues, among others. Durlak, Weissberg and Gulotta (2010) found that pre-schoolers in Saudi Arabia presented developmental issues that were beyond their academic needs. These issues extended from poor academic performance, to reduced social and emotional skills, and negative attitudes and behaviour. Furthermore, Durlak, Weissberg, Dymnicki, Taylor and Schellinger (2011) found that kindergarteners exhibited an 11% increase in overall achievement once more focus was given to SEL programs. SEL integration into the curriculum is vital for an individual's academic achievement as well as for a well-developed sense of self-control. At present, the Saudi early childhood curriculum and goals involve a component of SEL, though this is not clearly indicated in the education system and nor is it formalized into teacher training, where the preschool teacher is cleared taught strategies and interventions to educate the preschool student (Aljabreen & Lash,2016).

The current study is important as research on self-control in children under the age of 10, primarily in the early years of 4 to 5 years, is vital in establishing self-control. This has been documented in several disciplines across social and behavioural sciences such as in psychology (Tangney, Baumeister, & Boone, 2004), teaching (Duckworth & Seligman, 2005), well-being (Miller, Barnes, & Beaver, 2011), and progressive disciplines (Moffitt, Poulton, & Caspi 2013). This study seeks to explore the behavioural and emotional functioning of pre-schoolers by imploring teachers to pay special attention to the social and emotional aspect of the teaching process instead of fixating on only the numeracy, literacy and morality issues in the current curriculum.

This study will consider how the current curriculum in Saudi Arabia could be broadened to incorporate the social and emotional needs of pre-school children. Trawick-Smith (2009) stated that teaching emotional and social skills in the educational field does not rely so much on verbal instruction, but in practice, training, and improvement. The education sector in Saudi Arabia is vitally instrumental in this process of change.

To address the deficiency in kindergarten teaching in Saudi Arabia, this study will explore how an intervention incorporating three lessons teaching self-control will impact a pre-school child's ability to practice it. The study will focus solely on a child's ability to implement self-control strategies in the classroom and examine their individual behavioural and emotional functioning. It is expected that teaching pre-school children emotional and behavioural skills will positively influence their interactions with others as well as improve their social and academic performance (Barlow, Parsons, & Stewart-Brown, 2005).

1.1 Theoretical framework

This study begins with a Social Constructivist Theory viewpoint wherein pre-school children's interactions with their teacher(s) and their peers involves an immediate construction and understanding of their knowledge as it is processed in their minds (Kim, 2001). The Social Constructivism Theory states that people can form understandings and perspectives through interacting with other social actors in their environment (Kim, 2001). This essential collaboration and interaction of pre-school children with their teacher and environment helps them to construct an understanding of the need and practice for maintaining self-control. This further supports the

necessity of the teacher to act as a facilitator to bring about this interaction in the classroom for the pre-school child to construct that understanding within themselves.

Social Constructivism Theory suggests that learning is a social process where the teacher is an essential component to the fabrication of a pre-school student's understanding. Without this interaction, the development of that perspective or understanding is underdeveloped in pre-school children. Some approaches to Social Constructivism can include reciprocal teaching, peer collaboration and other forms of methods that involve learning with other people in their environment (Richardson, 2005).

Another theory relevant to this research is social control theory (Hirschi, 1969), which gained a lot of prominence in the 1960s when sociologists were seeking explanations for crime (Nourian, Caines, Malhame, & Huang, 2013). During this time, Hirschi developed social control theory, which was based on the existing concepts of social control. Hirschi's (1969) social control theory argued that family, school, and community ties helped to lessen the tendency for deviant behaviour among children (Garland, & Sparks, 2000). Therefore, based on the theory of social control, it was evident that crime occurred due to the weakening of these ties or when these social ties were not well-developed.

Social control theory stipulates that all individuals are predisposed to doing wrong and poses the question of why children refrain from doing wrong. It suggests that those who maintain familial and social bonds avoid anti-social and deviant behaviour (Akers and Sellars, 2004). It posits that familial and social bonds are based on four factors that prevent one from engaging in deviant activities, namely through attachment, commitment, beliefs, and involvement. Attachment exists both within and outside of the family unit, and it includes relationships that exist with teachers

and friends. Commitment is based on those activities in which one has significantly invested their time and energy, for example, educational goals for young children. Involvement strengthens bonds with others leaving limited time to engage in deviant activities, while belief refers to good social values (Garland, & Sparks, 2000). When elements of these social bonds are strong, there is a reduced likelihood that individuals will commit offenses as they become more connected to conventional society. Of these elements, attachment has been defined as being the most important among them all.

Sprott, Jenkins, and Doob (2005) found that strong school attachment was associated with reduced deviant behaviour in young people. This suggests that attachments to parents and school play a significant role in the lives of children in the establishment of self-control. Through social control theory, the role of the teacher as a self-control agent has been widely assessed (Black, 2014). In conclusion, based on this theory, the roles of parents, teachers, and the community, are paramount in the effort to reduce a child's propensity towards deviant behaviour, and to enhance the establishment and formation of self-control in children.

1.2 Research objective

The main objective of this study was to examine the impact of teaching pre-school children self-control through a social-emotional learning (SEL) program and to examine children's pre- and post-program emotional and behavioural functioning.

1.3 Research questions

The research questions addressed in this study included:

1. Does teaching self-control skills through a social-emotional learning program improve the classroom emotional and behavioural functioning of pre-school children?
2. Does teaching self-control skills through a social-emotional learning program improve the internalisation and externalisation behaviour of pre-school children?
3. What is the impact of teaching self-control skills through a social-emotional learning program on the adaptive skills of pre-school children?

Chapter 2

2.0 Literature Review

2.1 Socio-Emotional Competencies

Social and emotional competencies are building blocks that are important in the overall development of young children (Bywater, 2012). The development of socio-emotional skills is an essential element in prevention programs aimed at reducing the incidence of emotional and behavioural problems in children. Pre-school has become the new first grade as the goals for most schools have become increasingly academic in focus (Rhoades, Warren, Domitrovich, & Greenberg, 2011). Globally the number of children attending pre-school has continued to increase, and this provides new opportunities for the support of early learning and development (Adela, Mihaela, Elena-Adriana, & Monica, 2011).

However, the focus of schooling has been on academic knowledge and skills, while social and emotional development skills have been neglected (Aviles, Anderson, & Davila,

2006). This, among other reasons, undermines a child's ability to manage and control their emotions socially. The greater focus on academics may diminish a child's self-efficacy, reduce their academic motivations, and diminish their attitude towards school (Seçer, & Karabulut, 2016). Also, too much focus on academics undermines the social and emotional development of a child, which is required to sustain a positive orientation towards school and learning (Jennings & Greenberg 2009).

Bierman et al. (2008) found that pre-schools have been shown to have a high impact on the well-being of children by boosting early social and emotional skills, which are also linked to educational attainment, reduced problematic behaviour, and better health and future outcomes. However, the majority of children enter pre-school unprepared for social-emotional, behavioural and academic demands (Jucan, & Simion, 2015). Delays in social-emotional development impede learning and increase the risks for problematic behaviours and discipline issues (Jovanovic, 2014).

Social and emotional learning is the process through which children and adults learn how to manage emotions, make informed and responsible decisions, and maintain positive relationships with others (Adela et al., 2011). To excel in the social world, children are required to learn social and emotional skills such as managing emotions, self-motivation, and developing positive attitudes towards others (Riggio & Reichard, 2008). Therefore, early childhood programs should be aimed at helping children to develop both socially and emotionally in addition to fostering their academic achievements (Adela et al., 2011).

Research conducted by Schultz, Richardson, Barber, and Wilcox (2011) indicates that Social and Emotional Learning (SEL) is based on the development of five sets of affective,

cognitive, and behavioural competencies, which are interrelated. The five sets include; self-management, social awareness, relationship skills, self-awareness, and responsible decision making. More specifically, these competencies, are described as:

1. *Self-management*: This is the ability to regulate one's emotions to be able to handle stress and be self-motivated, so that one may persevere when attempting to overcome stressful obstacles. It is also the ability to set and monitor progress towards the achievement of academic and personal goals as well as being able to express one's emotions appropriately.
2. *Social awareness*: This is the ability to take others' perspectives and empathise with them. Also, it is the ability to recognise and appreciate other people's similarities and differences.
3. *Self-awareness*: This is the ability to understand what one feels and being able to assess one's strengths and weaknesses accurately. It is also the ability to maintain self-confidence that is well grounded.
4. *Responsible decision making*: This is the ability to make decisions based on several factors such as ethical standards, safety concerns, social norms, and respecting other's opinions.
5. *Relationship skills*: This is the ability to establish and maintain rewarding and healthy relationships. It also includes resistance to social pressure that is inappropriate, as well as seeking to prevent and resolve conflicts constructively.

Therefore, social and emotional learning is an essential aspect of healthy child development.

Schools should recognise and support social and emotional skill development by supporting the teaching of SEL among pre-school children. Social and emotional skills in children provide a basic and essential foundation for the social, behavioural and academic success of children (Bywater, 2012). Thus, there is a critical need for schools to support social-emotional development programs in pre-schools. There are a variety of programs and practices that are

available for use by preschool teachers to support the development of social-emotional skills in preschool children (Marryat, Thompson, Minnis, & Wilson, 2014). The programs are based on the number and type of social-emotional skills that they target.

2.2 Self-Control

Self-regulation has also been referred to as self-management or self-control and it is defined as the ability to focus, manage and control behaviour (Hoyle, 2006). The self-control domain is related to social and emotional functioning (Seçer, & Karabulut, 2016). Some researchers view the self-control process as being divided into two parts: firstly, the reactivity of a child to its environment and secondly, to create adaptive responses to their immediate environment and to thus be seen as having the skill or lack thereof, in terms of coping and controlling their response to that particular environment (Rothbart, Sheese, Rueda, & Posner, 2011). There are specific skills that are associated with self-regulation and these include the ability to focus attention, and activate, inhibit or modulate behaviour in social interactions (Ştefan, 2018). Self-control has been associated with protection against the development of internalising and externalising behaviours (White, Jarrett & Ollendick, 2013). Also, self-control is related to adaptive positive behaviours, and these include interpersonal relationships, better task performance, and psychological adjustment (Kidd, Palmeri, & Aslin, 2013). Self-control enables children to limit their intrusive thoughts (which may lead to fear and anxiety), as well as inhibit aggressive impulses, which then reduce the likelihood of externalising behaviours (Hardaway, Wilson, Shaw, & Dishion, 2012).

Therefore, self-control is one of the developmental process that occurs during infancy and through to early childhood and involves the ability to self-regulate one's internal and external behaviours. It entails having behaviours like having the knowledge of how to sleep and setting a simple routine of when to eat at regular set times. This also extends to the ability of the child learning to cope with and then manage their own overwhelming emotions and then learning from there how to refine and focus one's attention if the situation calls for it (Kochanska et al., 2001; Shonkhoff & Phillips, 2001). During infancy, there is a strong emphasis on caregivers to provide the regulation of an infant's temperamental and physiological conditions an example being assisting a toddler aged 3 to redirect their attention to complete a less frustrating task thus achieving success (Eisenberg, Spinrad, & Eggum, 2010). Along this similar line of continuum, once the toddler reaches a preschool going age of 4 to 6 years old the preschool child is still dependent on the parent whilst in the home setting and the preschool teacher whilst in the classroom setting to be assisted and taught on how to regulate and control their reactive responses to the environmental stimuli or home or school (Eisenberg, Spinrad, & Eggum, 2010). In addition, teaching preschool students' self-control is especially useful for preschool students who come from disadvantaged backgrounds (Poehlmann-Tynan, Vigna, Weymouth, Gerstein, Burnson, Zabransky, Lee & Zahn-Waxler, 2016).

Living a normal and healthy life across one's life course involves having a relatively steady state of mind and mental health well-being. (Newman & Newman, 2017). This predominantly happens from early childhood; from 4 to 6 years of age (Briggs-Gowan, Carter, Bosson-Heenan, Guyer, Horwitz, 2006). Research has shown that a vast percentage of mental health-related issues stem from a lack of early childhood education in an individual, specifically

in relation to pre-schoolers having acquired the self-regulation of emotions and consequently control over their internal and external behaviours (Cole, Dennis, Smith-Simon, & Cohen, 2009). Having a thorough understanding of the processes and factors that can contribute to the building of detrimental outcomes from early childhood onwards, will help reduce behavioural problems and mental health issues later in life.

The self-control of one's inner and outer abilities involves the regulation and ownership of personal response systems to enable better emotional control when adapting to one's environment (Shortt, Stoolmiller, Smith-Shine, Mark Eddy, & Sheeber 2010). Self-control, which is the deliberate regulation of feelings, behaviours, thoughts and impulses, has been associated with positive psychological adjustment (Clark, Prior, & Kinsella, 2002). Managing one's emotional feelings through self-control at a young age influences a child's behaviours in adolescence (Clark et al., 2002) and also enhances health and well-being later in life. A child's self-control is influenced by schools, families and other social environments (Kidd et al., 2013).

Some studies have noted that pre-school children can learn self-control through practice (Poehlmann-Tynan et al, 2016; White, & Carlson, 2016). According to Bronson (2000), a key childhood developmental process that occurs during infancy and through to early childhood from the ages of birth to age six, is forming the ability to self-regulate one's internal and external behaviours, and this is known as practising the skill of self-control. It covers areas like having the knowledge of how to sleep and setting a simple routine of when to eat at regular set times. This also extends to the ability of the child learning to cope with and then manage their own overwhelming emotions and then learning from there how to refine and focus one's attention if the situation calls for it (Kochanska, Coy, Murray, 2001; Shonkoff & Phillips, 2001).

Graziano, Reavis, Keane, and Calkins, (2007) found a significant relationship between early childhood social and emotional functioning and childhood outcomes. Studies have shown that children in kindergarten who can resolve conflicts with peers, understand their emotions, and who can be helpful and cooperative with others, are likely to progress to becoming well-adjusted adults, who will positively contribute to society and have a lower rate of deviance (Jones, Greenberg, & Crowley, 2015). Other researchers have found that children who demonstrate good self-control when young, not only have reduced rates of criminal offences, but also a lower dependence on substances and improved physical health in early adulthood (Jovanovic, 2014; Malcolm, 2018). It is therefore worthwhile for parents and teachers to educate children during the period of early childhood on how to assert self-control, particularly in adverse or positive environments, if they are to have a chance at successfully progressing to early adulthood.

Self-control and externalising behaviours remain as distinct constructs even though externalising behaviours have been defined to include social self-control behaviours such as aggression and hostility. Externalising behaviours have been defined to encompass a range of behaviours that are related to disobedience but all negative behaviours towards one another. Some of these negative behaviours include defiant behaviour and opposition. Vazsonyi & Huang (2010), demonstrated that a strong relationship existed between self-control and externalisation behaviours. This was achieved through a longitudinal model of social self-control and externalising behaviours and the study findings indicated that their self-control in early childhood accounted for almost 50% of the externalising variance in early childhood. Further, this predicted the trajectories of externalising behaviours into middle childhood among the children.

Internalising behaviours are behaviour that reflects on a child's psychological and emotional state. While children display externalisation behaviours outward, internalisation behaviours are directed inwards hence an indication of the emotional and psychological state of the child. Eisenberg et al. (2001) noted that children having internalising behaviours can negatively affect their relationships with the people around them. Therefore, it is important to examine internalising behaviours independently from externalising behaviours so as to understand the impact of class interventions on the reduction of these behaviours. Reid et al. (2009) noted the inability to decrease negative emotions or increase positive emotions results in internalization behaviours. It is, however, important to note that in most children internalization behaviours may go unnoticed since these behaviours may be present in even in very quiet children. Therefore, a child not displaying disruptive behaviours does not mean that they do not possess disruptive behaviours. Teachers should, therefore, be very observant for any slight signs of internalisation behaviours as they can lead to academic difficulties and even externalisation behaviours.

Pre-school children experiencing behavioural problems require to be taught self-control skills which helps to enhance their adaptive behaviours. Adaptive behaviours are important in pre-school children as they help them with adaptive skills. Therefore, adaptive behaviours can be described as an individual's ability to display their behaviours independently (Oakland & Harrison, 2008). Adaptive skills set a child's foundation for better life outcomes in adulthood. The role of these skills is to assist the children in assessing core characteristics that are necessary for their daily functioning at school. Therefore, adaptive behaviours reflect the functioning and independence of the children. However, it is important to note that through interventions the adaptive skills of most of the children can be improved. Ditterline et al., (2008) noted that

adaptive behaviours in children are influenced by their environment which can be the school or home setting. DiPerna, Lei, & Reid, (2007), noted that for young children it is important to practice adaptive behaviour through self-control. Therefore, it is important that the children already possess adaptive skills which are vital in helping them complete their everyday tasks.

2.3 Teacher's Role in Teaching Self-Control and the Link to Academic Success

Current studies have shown that teachers play a vital role in a child's knowledge of self-control and other related behaviours. The learning of self-control skills is an on-going process in pre-school child development (Flook, Goldberg, Pinger, & Davidson, 2015). Research studies have indicated that improving self-control skills in pre-school children is likely to positively impact on their later learning at school as well as having a more significant impact on their behaviours and persistence (Poehlmann-Tynan et al., 2016).

Parents and teachers have a significant responsibility for modelling self-control in pre-school children (Klein et al., 2018). They can encourage children to develop these skills through the creation of strong ties with the children, interacting with them, providing relevant guidance, and teaching them through child-centred activities.

Self-control development in preschool children has been considered to be (among other characteristics) achieved through the process of formal schooling starting at the preschool age; the training of children on how to use SEL strategies, first on themselves and then secondly with their interactions with others (Moffitt et al., 2011). Therefore, the idea of cultivating self-control among children by teachers is an old one. It has been achieved by teachers playing a role in controlling children's attention and helping them replace bad habits with good ones. For

teachers, the teaching of self-control skills in the classroom is a significant gift to the child. This is because self-control is an important life skill. A majority of teachers have expressed that children who succeed in kindergarten are aware of when and how to control their impulses (McDermott et al., 2019). These children are in a position to listen to directions, as well as follow through on difficult tasks. All these skills are school readiness skills that are related to self-control (Piquero, Jennings, Farrington, Diamond, & Gonzalez, 2016). Therefore, there is a need to identify specific programs that may be included in the curriculum, which will positively impact on pre-school children's academic outcomes through the formation of self-control skills.

Teachers' classroom behavioural socialisation practices determine a child's academic success rate (Connor, Morrison, & Slominski, 2006). Studies examining behavioural socialisation practices have shown that the amount of time pre-school teachers commit to the utilisation of behavioural socialisation strategies improve a child's self-regulation techniques (Morrison, Bachman, & Connor, 2005). The use of such classroom strategies that engage and educate the pre-schooler on the procedures involved in how to practice self-control are especially relevant for pre-schoolers who come from socioeconomically disadvantaged backgrounds. According to Raver (2004), children from poor asset families tend to show lower scores on observational assessments about self-regulation and self-control. These pre-school children generally obtain higher scores in displaying behavioural problems (Qi & Kaiser, 2003).

Children who have experienced chronic ecological stressors, such as parental divorce and separation, trauma, parental depression or authoritative parenting, will generally experience an activation of stress hormones, which in turn plays a detrimental part in a child's cognitive development as it has a direct link and impact to their developing brains, especially involving the

pre-frontal cortex (Blair & Raver, 2012; Yoshikawa, Aber, & Beardslee, 2012). This, in turn, affects the pre-school child's working memory (Evans & Schamberg, 2009). In addition, a child's overall executive functioning is also significantly impacted. Emotion regulation or the ability to control one's emotions (Blair et al., 2011; Blair & Raver, 2012), and therefore the pre-schooler's self-governing abilities, is also profoundly impacted, as this raises the child's cortisol levels (Blair et al., 2011).

It can be seen therefore, that teacher implementation of appropriate classroom strategies is crucial for enabling a pre-school student's rate of academic success. Academic success relies upon the ability of the teacher to teach and implement self-control techniques and strategies for the child and in turn, for the child to utilise these strategies in their learning environments.

2.4 The BASC-3 Behavioural and Emotional Screening System (BASC-3 BESS)

The Behaviour Assessment System for Children, Third Edition (BASC-3) Behavioural and Emotional Screening System (BESS) is an instrument used with children aged 3-18, to measure their emotional and behavioural functioning and overall mental health status, developed by Kamphaus, and Reynolds (2007). The BASC-3 BESS can be used to assess a child's adaptive and problem behaviour and is useful for use in before and after a social-emotional learning interventions. The scale is multidimensional and is used to evaluate the behaviour and the self-control ability of children (Kamphaus, & Reynolds, 2007). The tool is important in that it helps to assess and monitor children's progress and to help them establish healthy interactions, as well as academic success. The scale allows the screening of large groups of children and enables the planning and delivery of interventions, and the monitoring of progress using a single integrated

system (DiStefano, Greer, & Dowdy, 2017). The scale assesses a wide variety of behaviours representing both problems and strengths, as well as issues being faced at school and home. For example, two items included in the scale are whether the “Student disrupts the play of other children”, and when does the “children feel negative about feelings”.

The instrument includes the Behavioural and Emotional Risk Index, which predicts a wide range of behavioural, emotional and academic issues (DiStefano et al., 2017). In addition, there are some sub-index scores such as the Internalising Risk Index, the Externalising Risk Index and Adaptive Risk Index, which provide an assessment of internalising and externalising behaviour as well as adaptive skills, respectively. The kit comprises a user manual, teacher record sheets, and teacher forms for each of the children (see Appendix). The kit is useful in this study as it offers a foundation for a rigorous examination of a social-emotional learning program, with a specific focus on self-control and its impact on the emotional and behavioural functioning of pre-school children. In this study, the BASC-3 Behavioural and Emotional Screening System will be used to measure the behavioural, emotional, internalization problems, externalization problems and adaptive skills before and after the social-emotional learning interventions of self-control skills. A discussion of the aspects of behavioural and emotional functioning assessed by BASC-3 BESS follows.

2.5 Internalising, externalising and adaptive behaviour

Problematic behaviours are those that impede a child’s ability to function appropriately in their family and society. Problematic behaviours can be classified into two categories: internalising

behaviours, and externalising behaviours. Internalising behaviours include anxiety, social withdrawal, worry, sadness, etc. (Seçer, & Karabulut, 2016). Externalising behaviour includes hostility, violence, aggression, disruptiveness, roughness, etc. Appropriate tools designed to assess problematic behaviours are necessary for the identification of problems that may persist beyond healthy development and that require intervention.

Internalising and externalising behaviours are increasing in young children (Merikangus et al., 2010), which is of concern as these behaviours are associated with academic performance, criminality, and future employment. Therefore, these problems require attention early enough in a child's life to avoid future adverse effects (Merikangus et al., 2010). These behaviours and emotions are described as externalisation and internalisation problems but whenever they become severe enough to impact on the daily functioning of a child, they are disorders. There is a need to use efficient methods to screen the externalisation and internalisation problems in young children, in order to ensure early intervention.

2.5.1 Internalising behaviour

A part of this study will focus on internalising behaviours that include anxiety, depression, and somatisation. These internalisation behaviours are assessed by items in the BASC-3 BESS. Reid et al. (2009) found that internalising disorders result from the inability to decrease negative emotions or to increase positive emotions. Unfortunately, research indicates that most internalising behaviours go unnoticed. Commonly children presenting disruptive behaviours are easily identified for interventions, while the quiet ones are overlooked. Therefore, a quiet child does not mean they are not struggling with internalising problems.

Anxiety is one of the highly prevalent disorders that affect young children. Fox, Halpern, and Forsyth (2008) found that 15-20% of pre-school children experience anxiety disorders. The symptoms include excessive worry, restlessness, and lack of concentration. In their study on mental health disorders, Merikangus et al. (2010) noted that 31.9% of the young children participating in the study had anxiety, and this was rated as the most common disorder. Children with learning disabilities were found to be more likely to experience anxiety than nondisabled children. Anxiety can cause debilitating effects on a child and can also lead to impaired cognitive functioning.

Depression is another prevalent internalisation disorder experienced by pre-school children. Merikangus et al. (2010) indicated that depression could depress a child's mood and activity level over some time. The most common symptoms of depression in children include loss of interest in preferred activities, reduced energy, sadness, changes in sleeping patterns, and lack of concentration. In children, depression symptoms can present as externalising behaviours such as aggression or anger (Aluja & Blanch, 2004). It is, therefore, essential to remember that these behaviours can manifest in various ways in children.

Liu, Chen, and Lewis (2011) found that somatisation – the complaint of physical problems without any cause – is another internalising behaviour. This is usually in response to psychological difficulties. According to McIntosh and Miller (2014), there exists a relationship between somatic complaints in children and poor academic achievement. Bryan, Mathur and Sullivan (1996) noted that a reverse relationship existed where children with learning disabilities were likely to have somatic complaints as a response to poor performance.

Internalisation problems in pre-school children can lead to academic difficulties and eventual externalising problems and this decreases the quality of learning as well as the child's academic success rates by diminishing cognitive processing functions (Maughan, Rowe, Loeber, & Stouthamer-Loeber, 2003). Alternatively, internalisation problems can interfere with the child's attention span and participation rates during learning activities. A child with these symptoms, e.g. being withdrawn, would feel dissuaded from the utilisation of adaptive learning and coping skills or strategies, and this would result in lowered academic self-efficacy and performance in academic results (Roeser, van der Wolf, & Strobel, 2001).

When a child begins to show internalisation issues, there are two processes to consider. First, the pre-school child may hide or "mask" their anxiety or depression by expressing this feeling or by behaving in antisocial ways (Carlson & Cantwell, 1980). Second, because of these antisocial behaviours, the child will develop relationships with peers who are similar in behaviour and then reinforce and strengthen their bases of antisocial engagements and liaison within a pre-school setting (Oland & Shaw, 2005).

2.5.2 Externalising behaviour

A part of this study will focus on externalisation behaviours which include hyperactivity, aggression, and conduct problems. The most central characteristic of these behaviours is the disruptive nature of the child's behaviour (Elia, Ambrosini, & Berrettini, 2008). These children disrupt the activities of others; they are unresponsive to the direction given by adults and experience problematic relationships.

Hyperactivity and conduct problems cause significant problems in young children (Dunn, Austin, Harezlak, & Ambrosius, 2003). These types of disruptive behaviours are more common in boys than girls (Elia, Ambrosini, & Berrettini, 2008). These problems are also relatively stable and can be difficult to prevent and treat. Also, they can be associated with internalising behaviours such as anxiety (Rogers, Pumariega, & Cuffe, (2001).

Aggressive behaviour and conduct problems are referred to as disruptive behaviour disorders (Fossum, Handegård, Martinussen, & Mørch, (2008). These disorders are associated with juvenile delinquency and future success. The disorders also occur in conjunction with attention deficit disorders and internalising behaviours (Elia et al., 2008). There is, therefore, the need for continued identification of these problems to ensure the right interventions are provided.

Several studies have been shown the potential of self-control in managing externalising behaviours. Self-control and externalising behaviours remain as distinct constructs even though externalising behaviours have been defined to include social self-control behaviours such as aggression and hostility. Externalising behaviours have been defined to encompass a range of behaviours that are related to disobedience (Bornstein et al., 2010). Some of these negative behaviours include defiant behaviour and opposition. In this case, self-control is important for a range of outcomes that include self-well-being and academic success (Finkenauer, Engels, & Baumeister, 2005). This study sets out to contribute to research on how self-control can help in overcoming externalising behaviours.

Substandard academic functioning and encountering a decreased rate of academic achievement has been repeatedly linked to patterns of early externalising outward signs and symptoms in a child (Ansary & Luthar, 2009; Stipek & Miles, 2008). The study by Ansary and

Luthar, (2009) showed that high levels of problems related to externalising issues in a child at pre-school levels were connected with lower rates of reading achievement in the early teenage years of 13- to 14-year-olds. Another finding of this study was that low levels of externalising and attention-related issues at a pre-school age were associated with high academic scores in the child's fifth grade of education in primary school. Further to this, data retrieved from the Early Childhood Longitudinal Study (Pre-school Class), showed that pre-schoolers who struggled with reading during elementary Year 1 were highly likely to have the occurrence of externalising problems in elementary Year 3 (Primary 3) (Morgan, Farkas, Tufis, & Sperling, 2008).

According to Miles and Stipek (2006), there were commonalities between reading levels and subsequent aggressive behaviour in primary school year levels of 3 and 5. Following along this continuum, the same set of students in their later years of adolescence were known to show exceptionally high levels of externalising problems during year 10, 11 and 12 (Ansary & Luthar, 2009).

Research has indicated that the early onset of externalising behaviours in pre-schoolers, with behaviours such as displays of aggression, disruptive tendencies and showing poor self-control, will contribute to academic challenges later on in adolescence and cause hardships in academic and social competence (Moilanen, Shaw, & Maxwell, 2010; Racz, King, Wu, Witkiewitz, & McMahon, 2013). Therefore, teachers play a vital role in pre-school education as a poor understanding of social skills in pre-schoolers will likely result in aggression in early adolescence (Emond, Ormel, Veenstra, & Oldehinkel 2007).

2.5.3 Adaptive behaviour

According to Bornstein, Hahn and Suwalsky (2013), human adaptation is a biophysical construct that points explicitly to the human's current modifications within self to be able to manage effectively and efficiently with the pressures of their natural and social environments. These are only attained through an interaction with one's immediate environment. Being best suited to one's environment satisfies a main developmental capacity through which the human becomes more accustomed or better suited for survival in his or her environ. This covers a broad spectrum of daily activities and includes person-to-person relationships and factors in communication skills, socialisation skills, and motor functions.

Adaptive behaviours include behaviours that are associated with adaptive skills. These behaviours include those related to adaptability, such as functional communication, social skills, study skills, leadership, and daily living activities.

A sub-scale of BASC-3 BESS, the Adaptive Skills Risk Index is to assess core characteristics that are important for the daily functioning of a child at home and at school as they relate with their peers and the society at large. High scores in the Adaptive Skills Risk Index indicate increased behavioural skills, while low scores indicate behavioural dysfunction.

Adaptive behaviour requires the practice and habit of having self-control. Current research has proven that pre-school students' ability to adapt and evolve their behavioural patterns to classroom conditions is deemed to be of the utmost importance. Starting from the first foray into a formal classroom setting, like a kindergarten, the student's ability to persevere at work and remain focused on the task at hand has been linked to increased academic success at

school (DiPerna, Lei, & Reid, 2007). This almost eradicates the possibility of falling into the poverty cycle in adulthood. This sets the foundation for the child to thrive and have better life outcomes in later stages of life as they progress into adulthood.

2.6 Social Competence

Social competence is defined as the ability to interact in social settings with other people. In children it is a child's ability to make and sustain social connections, show their flexibility, demonstrate their cooperative skills and adjust their behaviour to meet the expectations of society (Burlakova, & Davidovich, 2017). The social competence subdomain in the BASc-3 BESS assesses a children's pro-social skills and their abilities to recognise social interactions. The children can positively interact with their peers through initiating and maintaining conversations, engaging in problem-solving situations, treating other people well, and understanding other people's needs (Burlakova, & Davidovich, 2017).

2.7 Emotional Competence

This is the ability to understand, read, react to and regulate one's emotions and those of other people (Schultz, et al. 2011). The main constructs within this subdomain are the ability to manage one's feelings and also understand the feelings of other people. Children emotional competences can be evaluated by observing the child's ability to show affection to people they are familiar to, how they understand the feeling of others and their ability to articulate their emotional state (Schultz, et al. 2011). Self-control which is the deliberate regulation of feelings, behaviours, thoughts, as well as impulses, has been associated with positive psychological

adjustments (Clark, Prior, & Kinsella, 2002). Regulating these emotions through self-control protects the children against the development of internalising and externalising behaviours. There is an indication that managing one's emotional feeling through self-control at a young age helps to predict a child's behaviours in adolescence (Clark, Prior, & Kinsella, 2002). These enhance their health and well-being even later in life.

Chapter 3

3.0 Methodology

Qualitative and quantitative methods were used to examine the impact of self-control skills taught through a social-emotional learning program on the emotional and behavioural functioning of pre-school children. This study sought to understand causal processes on emotional and behavioural functioning by involving pre-school children in a series of 3-lesson interventions whereby the theory and practice of self-control was conducted. In the intervention pre-school students were afforded the opportunity to have a proper understanding of their interactions with their teachers and peers. Using the theory of Social Constructivism, the pre-school students were taught self-control skills, with the teacher as the facilitator and key social agent in this process.

3.1 Research Design

This study was a mixed-method research design with qualitative data collected using observations of the behavioural functioning of the participants while quantitative data was collected through a quasi-experimental research design. The two methods provided triangulation of the data. Study participants were purposely selected based on several factors as discussed below.

3.2 Ethics

All the participants were asked to join the research voluntarily. There were a few steps the researcher performed prior to collecting the data. There was no requirement for ethics within the Saudi school system. Once this research project was approved by Flinders University Social and

Behavioural Research Ethics Committee (SBREC), the researcher contacted the education department in Aljouf city via a telephone call to request permission to conduct this research. The initial contact included: (a) introducing the researcher and the project; and (b) informing them of the objectives and the procedures of the research. After that, the researcher sent detailed information (letter of introduction, information sheet, and consent form) to the education department via emails. They approved the study and responded by contacting suitable pre-schools asking for volunteers.

Following approval and support from administrators in Aljouf city, I chose the pre-school teacher randomly from the list of volunteers provided by the pre-school and contacted her. The process of the study was described in detail; information sheets and a consent form were also attached to the emails. The pre-school approached parents and sought permission for their children to participate. After all the approvals were sought and obtained by the educational administrator and the pre-school, they were sent to SBREC for archival purposes. Furthermore, the researcher informed the participants that all the data would be stored safely, and that individual information will remain confidential.

3.3 Study participants

The participants in this study were pre-school children from a pre-school educational institution in the city of Aljouf, Saudi Arabia. A sample consisting of 30 children aged 4 to 5 years (average age = 4.9 years, S.D. = .305) was used in this study. The pre-school participants showed normal growth and development. There were 17 males and 13 females who participated in this study. This study excluded children with any form of disability. Only children who had settled into a

kindergarten routine, and who had at least six months of pre-school education, were considered as participants for the study. This was to ensure that socio-emotional adjustments to kindergarten, which could confound the study, had been reconciled prior to the intervention.

One pre-school teacher at a kindergarten in the city of Aljouf, Saudi Arabia volunteered and agreed to participate in the study. The pre-school where she worked approached the families of children who met the inclusion criteria and provided them with an information sheet and consent form and asked them if they would volunteer to participate in the study. Voluntary participation was stressed once again prior to forms being signed by the parent/caregiver. The participating teacher, who was the primary educator for all children in the study, was involved in pre- and post-testing of the behavioural functioning of the children.

Assessment of the behavioural functioning of the children pre- and post-intervention was achieved through observations and BASC-3 BESS scales. The BASC-3 BESS scales measured the participants' levels of emotional and behavioural functioning and were completed by the participating teacher for all participants, pre- and post-intervention. Since each form required 20 minutes to complete, the participating teacher volunteered 10 hours pre-intervention, and a further 10 hours post-intervention for this study.

3.5 Data Collection

Data collection comprised three main phases. The first phase was the pre-intervention phase whereby the observations and the BASC-3 Behavioural and Emotional Screening System (BASC-3 BESS) tool were used to measure the level of emotional and behavioural functioning of the study participants. In phase two, a classroom intervention was conducted by the researcher

in the Arabic language and comprised three sequences of intentional teaching episodes over a span of three days. In the intervention, the pre-school children were taught self-control skills. Finally, phase 3, the post-intervention stage, was conducted by the researcher and teacher. The researcher undertook observations while the teacher assessed the participants' post-intervention level of emotional and behavioural functioning associated with self-control.

In the pre- and post-intervention phase, observations of the participants' behaviours were done by the researcher for an average of 2 hours. These observations focused on aspects of a pre-school student's inability to practice self-control, such as crying, verbal abuse, verbalising feeling unwell, stamping feet and snatching.

As part of the intervention process, it involved a 3 day 3 lesson program focusing on self-control in the preschool student. After the intervention, a one month wait time was given before the post-intervention results were observed and collected (Reynolds & Kamphaus, 2015). The BASC-3 BESS scales were used by the teacher to measure the students' emotional and behavioural functioning level, achieved by assessing their behaviour, emotions, internalisations and externalisations, as well as adaptive skills related to aspects of self-control.

3.5.1 Instrument –BASC-3 BESS

The teacher utilised BASC-3 BESS hand-scoring sheets and completed them over a one-week period prior to and following the intervention. The BASC-3 BESS is an instrument used to assess 3 risk indexes: externalising (6 items), internalising, and adaptive risk indices. There is a total of 20 questions on the hand scoring worksheet where the teacher is required to answer questions about each student using a 4-point scale ranging from “never”, “sometimes”, “often” to “almost

always”. Externalisation, Internalisation and adaptive risk were measured by summing the answers to 6 questions. While all items in the indices are provided in the Appendix, examples of items in the externalisation index include: “disrupts the play of other children” and “has poor self-control”; in the internalisation index “is negative about things” and “is easily frustrated”; and in the adaptive risk index “communicates clearly” and “volunteers to help with things”.

3.5.2 Providing instructions to the teacher

The teacher completing the forms for each study participant. It was important to help the teacher understand the purpose of the forms and answer any concerns she had about completing the forms. The researcher ensured that the teacher was familiar with the teacher form which would enable her to complete it within a few minutes. The need to respond to all items on the form was emphasised, even when the teacher was not sure of what answer to select for an item. A response was required for each of the items. It was explained to the teacher that a “Never” response meant that the teacher may not have personally observed the specific behaviour described in that item.

3.6 Observations

This research was conducted in a government kindergarten in Saudi Arabia. The building is centrally located within the Central Business District. It is a single-story complex that houses five classes of children from the ages of 4 to 5. The surroundings of the school include a school playground and an indoor eating area for students and teachers. Each classroom has two teachers; one main classroom teacher who is assisted by another teacher. Both teachers have individual classroom teaching experience of about eight years. Each class has 30 students.

Within the classroom setting, there are various zones. There is a reading corner, a home corner

where there is kitchen equipment and objects found within a house, a painting corner, and a discovery corner where interaction between students and objects take place. Lastly, there is a zone for the students to use building blocks to stack and have interactive fun. There is a mixed ratio of male and female students within the classroom, as it is not set to a given fixed rate. The principal has seven years of experience in a leadership role.

The lessons that were conducted while this observation was underway was a unit about hands. The teachers used a song to describe the use of the students' hands. The students were also introduced to various parts of their hands, fingers and knuckles. The follow-up activities involved the students doing hand-painting and learning the names of various fingers and the whole arm. Some areas of literacy and numeracy were also introduced to the students by the teachers.

3.6.1 Researcher's Observations

The researcher observed 30 students in the classroom who were seated in a circle in the room. The researcher sat outside of this circle and made observations using an observation protocol, which allowed observed behaviours to be recorded on paper. Occasionally, the researcher moved around outside the circle, at times interacting with the students and at times just observing their behaviour. Observations were undertaken in this way over a period of three days each as pre-lesson observation, followed by three days of lesson intervention observations and lastly, three days of post-lesson observations. Each observation lasted 2 hours a day. The observations were made of the whole class. The observations sought to observe five main behaviours namely, crying, verbal abuse, a child verbalising feeling unwell, snatching, and the stamping of feet. The

behaviours were listed in the observation protocol for each child and a tick placed in the appropriate column if observed (see Appendix).

3.7 Intervention in Teaching Preschool Students SEL

In the series of 3 interventions that were conducted, this was done after completing the pre-test and the pre-observations. The researcher taught the preschool students 3 different lessons related to SEL focusing only on self-control. These 3 lessons were conducted in the same week, across a 3-day period. Each lesson lasted for around 2 hours. The objective was to teach preschool students self-control. After the 3 lessons, the results showed a marked improvement to this set of students in terms of having better social emotional outcomes.

Lesson 1

Aim: To develop a sense of self-control in preschool students

Objective:

- to define self-control as a set of behaviours formed by externalising, internalising feelings and having adequate adaptive skills to cope.
- describe the relationship between feelings and self-control
- to examine the consequences of behaviour
- to become aware of alternatives to problem behaviours

Lesson 2:

Aim: To apply calming strategies when in an angry situation

Objective:

- Show self-control in any angry or difficult situation.
- To make students able to participate in role play activities and compose their own ideas related to self-control.
- To make students able to calm down by using self-control.

Lesson 3:

Aim: Controlling bad habits by practicing self-control

Objective:

- To identify different bad habits
- To enhance their good abilities among students
- To make students able to control their bad habits by using self-control

According to CASEL (2005), it was mentioned that students would learn the skills listed as follows. The main skills improved as part of the teaching of social emotional learning process focusing on self-control, the students will have a heightened sense of self-awareness, the preschool students would be able to have better self-management strategies, the level of social awareness within each student would increase, their ability to have better relationship skills is another area that will be positively impacted, and last but not least, they will be equipped to have a more responsible decision-making practice. (For more detailed information on the 3 part lesson intervention, see Appendix).

3.8 Data analysis

Data obtained from both the pre- and post- intervention instruments and observations were entered into SPSS Version 25 and was used for descriptive analyses. Descriptive statistics were obtained for observed variables and paired t-tests were used to assess gender differences.

Externalisation, internalising, and adaptive behaviours were measured by summing the answers to 6 questions for each. There was no missing data.

Chapter 4

4.0 Results

4.1 Pre-Program Observations

As shown in Table 1, from the pre-program observations conducted, the highest observed misbehaviour was the snatching of another student's items. Demonstrating a lack of self-control, 60% of students displayed this behaviour. The next most common misbehaviour recorded was stamping of feet, which 46.7% of students showed, while 36.7% of students cried during the observation period and thus showed a lack of self-control during this classroom interaction time. Just over one quarter (26.7%) of students used verbal abuse in interactions with their classmates. Finally, the least recorded misbehaviour (23.3%) which showed a lack of self-control was the verbalising of feeling unwell when asked to do a task.

4.2 Post-Assessment Observations

In the post-assessment, there was a clear, significant decrease in observed student misbehaviour during classroom interactions (see Table 1). For the behaviour of crying, there was an observed drop of students exhibited this behaviour pre-program from 36.6% to 16.7% post-program. In terms of students using verbal abuse towards one and other, there was a decrease from 26.7% pre-program to 10% post-program. For students stamping their feet, there was a drop from 46.6% to 26.6% of such incidents post-program. For the act of snatching another's belongings, there was a visible decrease from 60% to 26.6% of such episodes. Lastly, there was a noticeable decrease in the number of children who complained about feeling unwell just before

commencing an activity; the percentage dropped from 23% pre-program to 10% of children post-program.

Table 1. Pre- and post-observations of participants

	Pre-Program				Post-Program			
	Male (n=17)		Female(n=13)		Male (n=17)		Female (n=13)	
Crying	7	41.18%	4	30.77%	5	29.41%	0	0%
Verbal abuse	6	35.29%	2	15.38%	3	17.65%	0	0%
Child verbalising feeling unwell	5	29.41%	2	15.38%	3	17.65%	0	0%
Snatching	13	76.47%	5	38.46%	4	23.53%	4	30.77%
Stamping feet	8	47.06%	6	46.15%	6	35.29%	2	15.38%

4.3 Teacher Assessment (BASC-3 BESS) SCALES

As seen in Figure 1, the comparison made of teacher ratings between boys and girls, shows that boys had lesser self-control than girls. In the pre-program observation, 47.1% of boys had no lack of self-control behaviour recorded, which indicates that almost half of the boys “never” had problems with self-control. However, a higher proportion (53.8%) of girls recorded no observed

lack of self-control, which indicates that more than half of the girls had no issues with self-control. Comparing girls and boys rated as “always” showing a lack of self-control it was found that more boys (17.6%) than girls (0%) were rated in this category pre-program. Overall, boys always obtained lower scores than the girls in lacking self-control. Pre- and post-intervention, boys had less self-control than the girls, who showed more self-control overall. Statistical analysis showed the difference between girls and boys was significantly different ($t(29) = 5.0, p < .0001$).

In the post-intervention results, for both boys and girls there was a surge in the rating of “never” with 76.5 % of boys who then improved to “never” having any self-control problems, compared with 92.3% of girls, who “never” had any self-control problems. In both genders, there was a significant improvement as post-intervention both girls and boys were recorded by the teacher as having no issues with self-control.

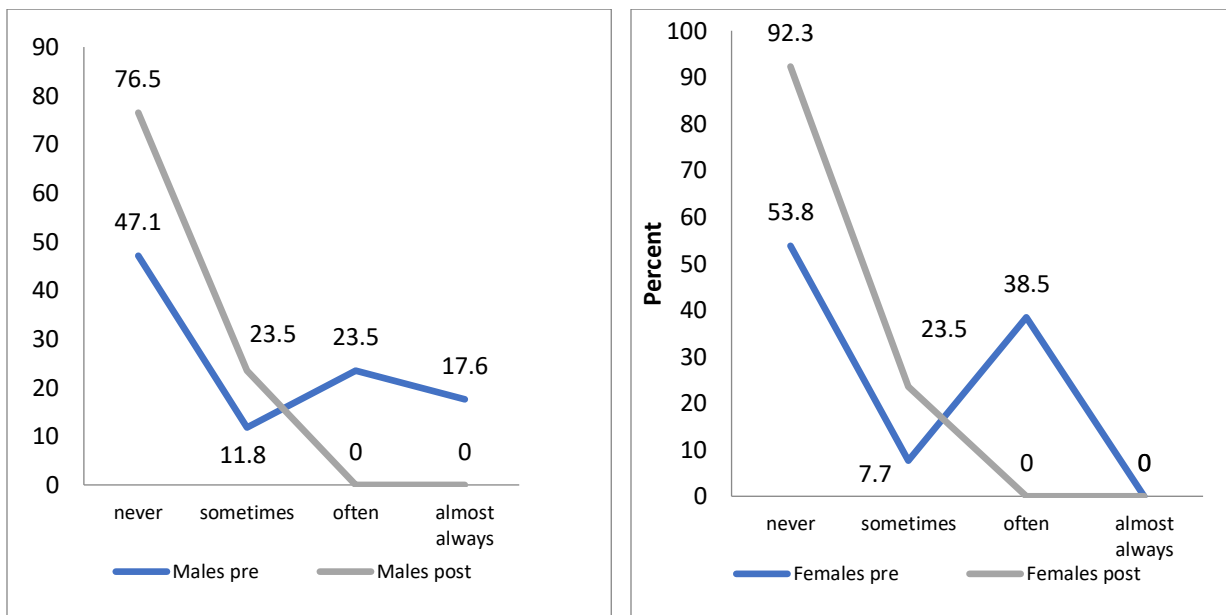


Figure 1. Self-control of boys and girls pre- and post-program

4.4 Externalizing Behaviour

Pre-intervention a lower percentage of boys (41.2%) compared with the girls (53.8%), were reported by the teacher as showing normal externalizing behaviour (i.e. a score of 0-7). This indicates that more than half of the boys were having externalising behavioural issues compared to less than half of the girls.

The findings on the pre-test for the externalising behaviours indicated that the majority of children had a score of 6, within the normal range. The majority of boys showed more externalisation behaviours compared with the girls. However, the highest score in the pre-test was a score of 18 by one male child, and the highest score for the females was 12. These scores show that there was a higher chance of risk for both genders, as several children were illustrating externalising behaviours, having a score that was above 7.

Pre-intervention, 46.2% of the girls had teacher rated externalising scores that were considered elevated (i.e. score of 8-12), while no girls were rated by the teacher as having extremely elevated scores (i.e. score more than 12).

By comparison, pre-intervention, 29.5% of boys were rated as having elevated externalisation scores, while a further 29.5% had extremely elevated externalisation scores.

There were 5 boys post-lesson intervention who were exposed to some risk in reference to externalising behaviours, though not as adverse as the pre-lesson intervention scores. Additionally, for the girls, there was remarkable improvement noted post-lesson intervention as 11 out of 13 girls did not show externalising behaviours, and only 2 were in the lower scores of externalising behaviours.

As shown in Figure 2, externalising behaviour improved post-intervention. In this case, t-test found a statistically significant difference between pre- and post- levels of externalising behaviour ($t(29) = 5.02, p < .0001$).

Students rated in the normal externalising range changed from 41.2% pre-intervention to 82.4% post-intervention for boys, and 53.8% pre-intervention to 92.3% post-intervention for girls.

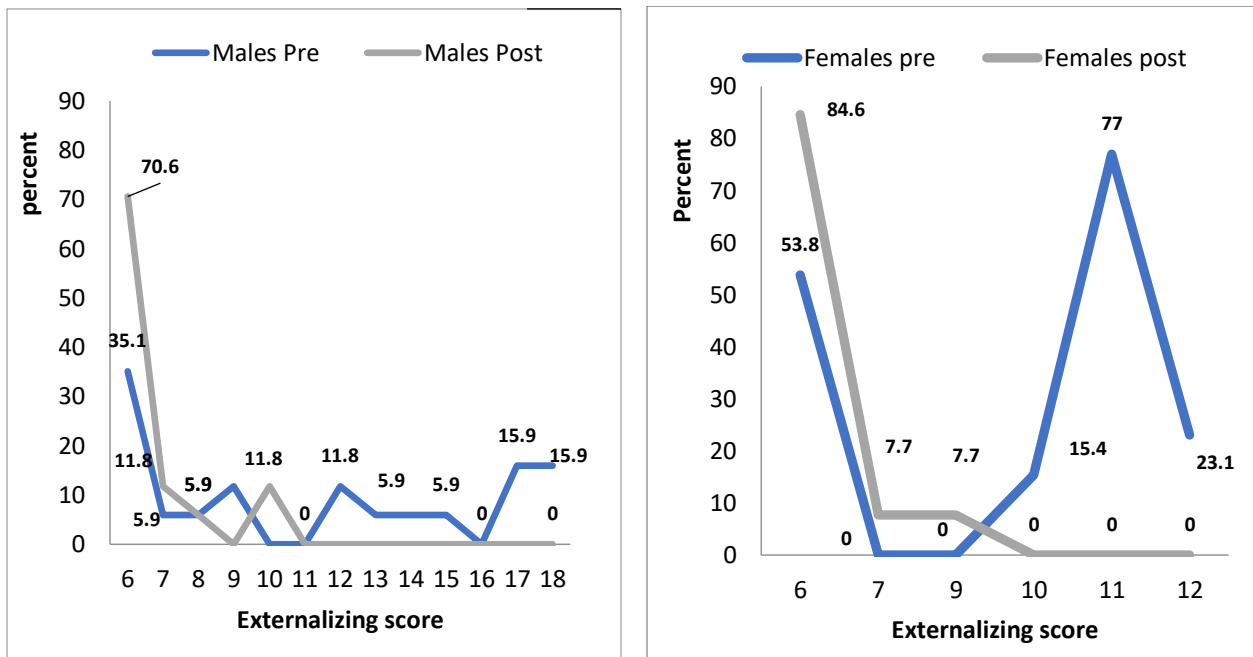


Figure 2. Externalising Behaviours of boys and girls pre- and post-program

4.5 Internalizing Behaviour

As shown in Figure 3, pre-intervention internalising behaviours were not identified. With scores in the 0-7 range, all the boys and girls had internalization scores that were in the normal range. All participants remained in the normal range post-program as there were no significant difference between the pre-and post-interventions ($t(29) = 1.795, p > 0.05$).

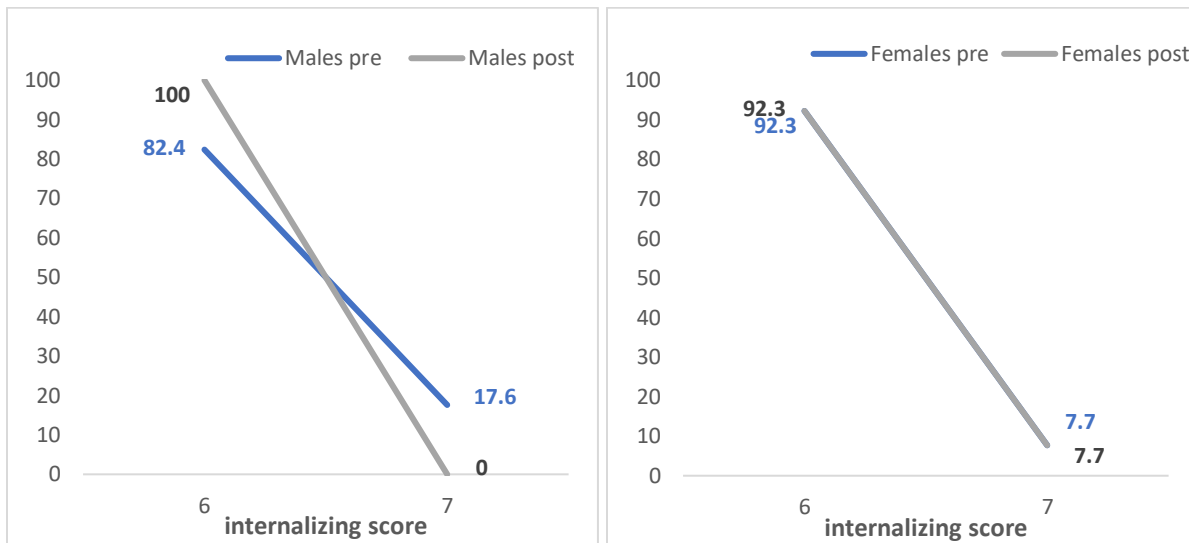


Figure 3. Internalising Behaviours of girls and boys pre- and post-program

4.6 Adaptive Skills

High scores ranging from 7-18 are considered normal in the Adaptive Skills Risk Test. As shown in Figure 4, with all scores greater than 14, all girls and boys showed adaptive skills that were in the normal range pre- and post-intervention.

Although still in the normal range, the study findings indicate that there were significant differences between the pre- and post-tests of adaptive skills in both boys and girls participating

in the study. T-test found a statistically significant difference between pre- and post- levels of adaptive behaviour ($t(29) = -2.993, p < .001$). There were less adaptive behaviours recorded during the pre-lesson intervention for both genders.

In the post-lesson intervention, both genders showed a significant improvement in observed adaptive skills. Pre-lesson intervention, there were 9 out of 17 boys who had good adaptive behaviour, indicated by a score of 24. Similarly, for the girls during the pre-lesson intervention, the same effect as the boys was observed, with 9 out of 13 girls having good skills. Post lesson intervention, 14 boys out of 17 showing adaptive behaviours and only two male students scored 23 points – not far from a full score of 24; a good score for adaptive behaviour in this intervention. For the post-lesson intervention, females also fared well with 11 out of 13 students showing good adaptive skills with a maximum score of 24 points. That is a good improvement for post-lesson intervention.

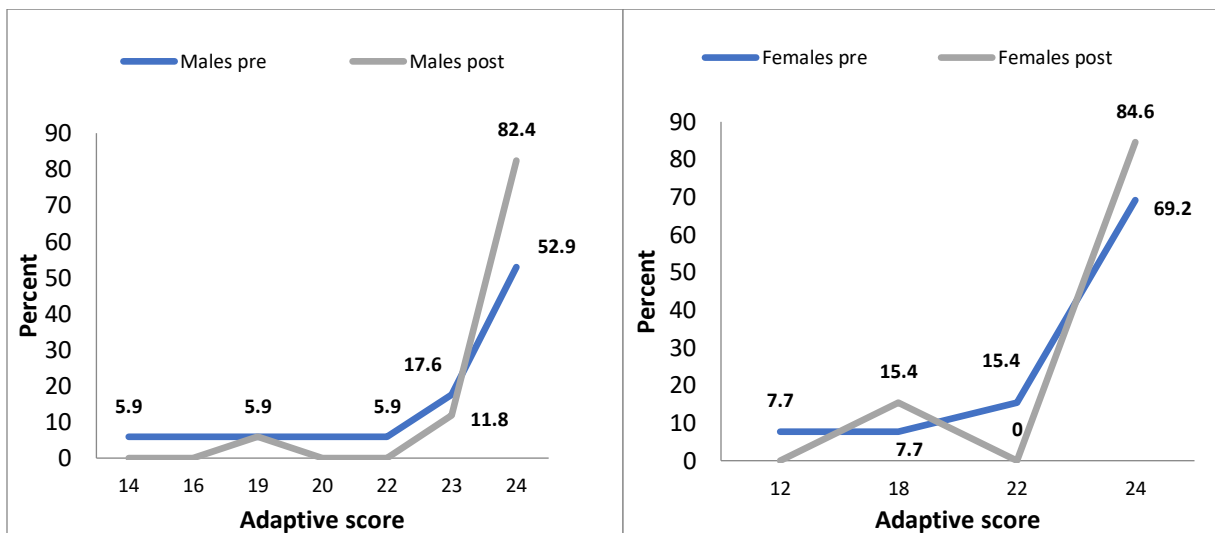


Figure 4. Adaptive Skills of boys and girls pre- and post-program

Chapter 5

5.0 Discussion

The aim of this study was to investigate three main research questions. First, does the teaching of self-control skills through a social-emotional learning program improve the classroom emotional and behavioural functioning of pre-school children? Based on the study's findings, the teaching of self-control skills through the social-emotional learning program showed a significant improvement in the classroom emotional and behavioural functioning of pre-school children, specifically around the pre-school students' ability to practice overall self-control within the classroom. This shows that there exists a direct link between self-control and proper socio-emotional development in pre-school children. Based on the literature, this relationship shows that teaching self-control to preschoolers and students in kindergarten or the crucial ages of 4 to 6 is likely in ensuring academic success, as well as significantly reducing further problems in adolescence (De Ridder, & Lensvelt-Mulders, 2018). Based on the work by Poehlmann-Tynan et al (2016), it would suggest that teaching preschool students self-control would be especially useful for preschool students who come from disadvantaged backgrounds.

The study's findings, as illustrated in Table 1, indicated that boys were seen to have recorded lower self-control scores than girls. Based on previous studies, boys were said to benefit substantially from interventions more than girls, as boys' levels of self-control were significantly predicted by greater involvement of school, teachers and neighbourhood interactions (Wikström & Sampson, 2003).

The difference in scores between girls and boys was linked to their gender. Self-control may be gendered in the sense that it also considers the level of empathy that a girl or boy has for other people or conversely, a disregard for the suffering of others (De Ridder et al., 2018). The main differences in self-control between girls and boys have been examined in previous studies (Morsunbul, 2015; Wolfe, 2015). Historically, boys have thrived and shown more self-control when their family backgrounds or schools have taught them self-control (Duckworth & Carlson, 2013). With this understanding, boys have shown the ability to glean more information by developing their individual levels of self-control and are more reliant upon the teachers in school.

Self-control and deviance are known to develop concurrently and are also closely linked (Vazsonyi, Mikuška, & Kelley, 2017). These two factors are interlinked as when the rate of deviance goes up, the rate of self-control goes down, demonstrating a bi-directional effect (Vazsonyi et al., 2017). Gottfredson and Hirschi (1990) indicated that criminal or abnormal acts have a similar set of characteristics in the people who commit them. People who are highly inclined to commit crimes are known to have low rates of self-control and are, therefore, impulsive (Evans, Cullen, Burton, Dunaway, & Benson, 1997). This same demographic of people experience problems in delaying gratification, and they tend to prefer short-term gains over long-term gains. People with low levels of self-control are insensitive to other people's discomforts. Unfortunately, practicing self-control in these people is difficult as they are always confronted with the tempting prospect of immediate gains (Gottfredson & Hirschi, 1990).

Second, does the teaching of self-control skills through a social-emotional learning program improve the internalisation and externalisation behaviour of pre-school children? The

study findings illustrate that teaching self-control skills through the SEL program significantly impacted on the children's externalisation behaviour (Table 1 and Figure 1). Changes in externalizing behaviour and self-control were evident from the post-test scores. These were collected after the children were exposed to a classroom intervention, which was conducted by the researcher, where the pre-school children were taught self-control skills through three sequences of intentional teaching episodes. Greene et al. (1996) noted that self-control and externalisation behaviours have a direct link. Their findings were strongly supported by Vazsonyi and Huang (2010), who demonstrated that a strong relationship existed between self-control and externalisation behaviours. This was achieved through a longitudinal model of social self-control and externalising behaviours and the study findings indicated that their self-control in early childhood accounted for 44.8% of the externalising variance in early childhood. Further, this predicted the trajectories of externalising behaviours into middle childhood among the children.

Problematic behaviours usually develop in early childhood from the ages of 4 to 6 years old; these may present as not being of concern for a child's teenage years (Broidy et al., 2003). However, according to research conducted by Kaiser, Cai, and Hancock (2002), boys are more profoundly affected than girls by externalising behaviours and are more inclined to display problematic behaviours than their female counterparts during adolescence.

The post-test scores illustrated a major improvement in the number of children who showed externalising behaviours, although post-intervention, a handful of boys were exposed to some risk in reference to externalising behaviours, though not as adverse as their pre-lesson intervention risk. Additionally, for the girls, there was remarkable improvement post-lesson

intervention as only two girls were in the lower scores of externalising behaviours. Further research is needed to determine if these changes could be improved as well as to determine if they are sustained.

According to Campbell (2006), antisocial behaviours are more easily developed in children who show externalising behavioural problems between the ages of 4 to 6. This set of children would present later in their lives as being at risk of developing juvenile delinquency issues and other deviant behavioural problems. This shows the importance of understanding problematic behaviour in children and its inter-relatedness with social-emotional learning (SEL) for minimising the occurrence and development of future problematic adolescent behaviour.

Internalising behaviours are behaviours that reflect a child's psychological and emotional state. While children display externalisation behaviours outwardly, internalisation behaviours are directed inwards, indicating the emotional and psychological state of the child. According to Eisenberg et al. (2001), children having internalising behaviours can negatively affect their relationships with the people around them. Therefore, it is important to examine internalising behaviours independently in order to understand the impact of class interventions upon the reduction of these behaviours.

Based on this study's findings, all participants had a score that was in the normal range of internalization risk and this did not change post-intervention. This indicated that the teacher did not observe any internalisation behaviours among the children. The researcher noted some irregularities with the data presented by the teachers. In the pre-intervention, for questions Q2 (worries), Q4 (is negative about things), Q9 (is easily frustrated), Q14 (is easily stressed), and Q17 (appears tense), the teacher indicated that 26 out of the 30 pre-school children did not show

problems with internalising behaviours. This was inconsistent with observations undertaken by the researcher, where students showed these behaviours, especially during the pre-lesson intervention. For example, Q2 asked if the children showed signs of getting worried, and the teacher indicated that none of the children showed these signs. Pre-intervention, the researcher noticed about seven students who showed signs of being worried. Further, for Q9 (is easily frustrated) and Q14 (is easily stressed), the teacher indicated that out of the 30 children, only two were easily frustrated and only one child was stressed. Disparity between the researcher and teacher could be attributed to the teacher having an exceedingly positive attitude towards her students, and not seeing this behaviour as a problem worthy of an intervention.

It is important to note that in most children, internalisation behaviours may go unnoticed since these behaviours may be present even in reticent children. Therefore, a child not displaying disruptive behaviours does not mean that they do not possess these behaviours. This could be one of the reasons why this study scored all children without having any problems in this behaviour, yet some children could be experiencing these behaviours. Therefore, teachers should be very observant for any slight signs of internalisation behaviours, as they can lead to academic difficulties and even externalisation behaviours.

Lastly, the study sought to determine the impact of teaching self-control skills through the social-emotional learning program on the adaptive skills of pre-school children. While still in the normal range, the study findings indicated that there were significant differences between the pre- and post-tests of adaptive skills in both boys and girls participating in the study. There were less adaptive behaviours recorded during the pre-lesson intervention for both genders. For post-

lesson intervention, both genders showed a significant improvement in adaptive behaviours observed.

The range of adaptive skills were closely distributed among the boys and girls with not many differences noted. Previous studies have indicated that adaptive behaviours in children are influenced by their environment, which in this case is the school (Ditterline, Banner, Oakland, & Becton, 2008). It is important that the children already possess adaptive skills which are vital in helping them complete their everyday tasks. However, it is important to note that the intervention improved on the adaptive skills of most of the children. According to DiPerna et al., (2007), students need to have adaptive behaviours in the classroom setting in order to excel in their academic abilities. The ability for students to adapt is crucial in enabling students to remain task-oriented and achieve their academic goals. Self-control processes can be taught and structured in class through classroom socialisation processes (Rimm-Kaufman et al., 2009). DiPerna et al., (2007) note that for young children, it is important to practice adaptive behaviour through self-control. Adaptive skills set a child's foundation for better life outcomes in adulthood.

Based on the research findings, there were major discrepancies between the observations of the children's behaviours as observed by the teacher and the researcher. This discrepancy could be because the teacher thought that the behaviours were normal, or because the researcher was solely focused on specific behaviours. Walker et al. (2012) indicate that there are instances when the teacher is likely to interpret challenging behaviour as normal, especially when they are only interested in the academic performance of the children.

Previous studies suggest that it is important for teachers to have genuine interests in discovering children's behaviours (Webster-Stratton, Reid, & Hammond, 2004). This enables the

teachers to help students overcome these behaviours, as well as building strong positive relationships with the students. Through these relationships, teachers can effectively help the students overcome the challenging behaviours. However, previous studies indicate that only teachers with a special interest in the children can identify challenging behaviours. Birch and Ladd (1998) explained that there is a need for teachers to discuss challenging behaviours with colleagues and to instigate better ways of identifying challenging behaviours. Additionally, the school management should work collaboratively with the teachers by offering training that helps them to identify and correct challenging behaviours early in children, because if they are not managed, it will affect their students' adult lives. Also, through this training, teachers could be made more aware of challenging behaviour and its impact on the child's adult life if not corrected early enough.

One of the important reasons for understanding children's challenging behaviour is for the reason of goal management, especially in classrooms. Sanders (1999) notes that when teachers and parents adopt a positive and active approach towards behaviour guidance, they are likely to cause a great reduction in challenging behaviours, as well as encouraging the children to develop self-esteem and self-control, as well as succeeding academically. Therefore, parents and teachers should be encouraged to practice a positive and inclusive approaches in order to identify challenging behaviours early enough (Webster-Stratton, Reid, & Hammond, 2004). The positive and inclusive approach should include different learning capacities, as well as styles that are responsible for inviting parents to contribute to the interests and ideas for supporting the children.

Psychological behaviours that are encountered in children are often classified as internalising and externalising behaviours (Ansary, & Luthar, 2009). These behaviours, though they tend to be conceptually different, in most cases are usually not independent from one another as they significantly impact upon a child's developmental process. Children exhibiting such behaviours have been shown to have impaired problem-solving skills in school and an irrational cognitive style, and these factors impact upon their overall perceptions. Additionally, most of these children portray a lack of self-control over their lives. Thus, cognition of self-control is paramount in social emotional learning in early childhood learning. This is because ensuring that children develop self-control skills through social-emotional learning programs, allows children to achieve more from their schooling, including adjustments in their internalising and externalising behaviours. As Ansary and Luthar (2009) have noted, internalising and externalising behaviour adjustment can occur in early childhood by engaging children in self-regulation skills.

5.1 Study Limitations

This study presents encouraging support for teaching self-control skills through a SEL program that has impacted on the externalisation and adaptive behaviours of pre-school children.

However, the study was not without limitations. The study was limited by the sample size used, which was a single class of 30 participants; hence, it was not possible to extend the study findings to a larger population and generalisability is not possible. This study only assessed the impact of self-control skills on the internalisation, externalisation, and adaptive behaviours in pre-school children without looking at other social variables that could also have an impact.

5.2 Future Research

This study focused on how self-control skills taught to pre-school children impacts upon their internalisation, externalisation, and adaptive behaviours. However, with the inconsistencies noted in the teacher's scores, there is a need for future studies to consider how to eliminate such inconsistencies. This is because, next to caregivers, teachers are the most appropriate people to conduct observations as they have been with the children for extended periods and should understand them well. Additionally, although the study findings indicate that self-control skills impacted on the externalisation behaviours of the pre-school children, the effect on internalisation behaviours should be investigated further due to the likelihood of inconsistencies with the scoring by the teachers that none of the students displayed internalisation behaviours. Substantial improvement of these behaviours may require other interventions in addition to self-control skills and this is something future studies should consider.

5.3 Conclusion

This study endeavoured to explore the emotional and behavioural functioning of students engaged in social emotional learning in early childhood learning. The specific study focus was on self-control and its impact on individual behavioural and emotional functioning. Self-control is one skill that most of the pre-school children have not yet mastered. However, this skill has been associated with readiness for school, and children require this skill in various ways, such as in following directions, paying attention to instructions, and in the control of their impulses.

A lack of self-control in pre-school children can be challenging as this can result in disruptive behaviours. Adela et al. (2011) suggest that pre-school children are still learning how

to control their behaviours, and therefore, they require support to develop self-control skills. This is because while some pre-school children may be in a position to control their behaviours, the majority develop these skills once they get to pre-school or even later on in their schooling. With this in mind, most pre-schools are now shifting their attention from only academic skills to incorporating social and emotional learning, such as self-control. This is because, as Kemp et al., (2009) note, self-control has been used as a marker for future success. Unfortunately, this has not been the case in Saudi Arabia, as most schools have prioritised academic success and therefore spend most of the time pursuing academic achievements (Al-Agha, Al-Ghamdi, & Halabi, 2016). The majority of Saudi parents and teachers have continued to concentrate on encouraging children towards developing intellectual skills while ignoring social and emotional skills, which are equally important in a child's development.

Additionally, even though the curriculum in Saudi Arabia has the social and emotional learning aspect included, teachers have continued to focus on morality and religion solely. This indicates that there is a need to develop interventions that are focused on helping children reduce or prevent their behavioural problems at the pre-school level while the children are still young. It is therefore paramount that the curriculum in Saudi Arabia be broadened to make it a socially and emotionally based curriculum as the current one is more fixated on issues of religion and morality. To achieve this, there is a need for the education sector in Saudi Arabia to facilitate this process of change by advocating for the inclusion of SEL programs. This will help to make a long-lasting impact on the well-being of children, which also has a significant impact on their academic performance.

Social-emotional learning programs have been used to target disruptive behaviours identified in young children, and education institutions have successfully utilised these programs. What is required is an ideal environment in which these programs can be introduced within schools, as the majority of the children can be reached in the school environment (Calear & Christensen, 2010). School-based SEL programs can be easily and universally offered in selective and indicated forms. This can be done for children who portray externalisation and internalisation behaviours and who's adaptive behaviours have not fully developed to enable adaptive skills in their daily lives. It is therefore important to engage all children in a class in such programs by embedding them into the existing curriculum.

These study findings support these programs as there was a marked improvement in the classroom emotional and behavioural functioning of pre-school children, specifically around the pre-school students' ability to practice overall self-control within the classroom. This study, therefore, indicated that a direct link exists between the teaching of self-control to pre-school children and proper socio-emotional development.

In conclusion, early childhood is a critical stage when various emotional competence skills can be introduced. This is because during this period, lifelong cognitive skills are still being developed. By introducing skills such as self-control early in life, these skills will act as protective factors later in the children's lives and even in adulthood. This finding is supported by Buckley, Storino and Saarni (2003), who have highlighted the early school years as the most critical stages for the development of cognition and emotional behaviours in young children. This because these behaviours are essential for a child's positive and social wellbeing. Therefore, based on the current study findings, it can be concluded that teaching self-control to pre-

schoolers through the social emotional learning programs is vital to ensuring that possible problems which may arise due to internalisation and externalisation behaviours and may hinder academic success are significantly reduced. Also, these programs ensure that adaptive skills that help children in their daily activities can be improved upon. This is especially successful when self-control is taught to 4- to 6-year-olds who are pre-schoolers or in kindergarten.

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