



Swansea University  
Prifysgol Abertawe

**The Impact of a Play Intervention on the Social-Emotional  
Development of Preschool Children in Riyadh, Saudi Arabia**

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**Swansea University**  
**in fulfilment of the requirements for the Degree of**  
**Doctor of Philosophy**

**College of Human and Health Sciences**

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## **DECLARATIONS AND STATEMENTS**

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### **DECLARATION**

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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Date 29-04-2021

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This journey would not have been possible without the support, guidance and wisdom of God.

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## ABSTRACT

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Practitioners working with children have emphasized that play is vital to children's development. Links between children's social-emotional development and play have been widely documented. However, rigorous research evidence of these links remains limited. This study's objectives were to measure the impact of play on children's social-emotional development in the kingdom of Saudi Arabia; identify teachers' viewpoints around the use of play intervention; and understand the children's experience of play intervention.

Fifty-nine children aged between five and six years, with mean age of 5.5 (*SD* 3.376) and eight teachers participated in the study. The study used a mixed-method strategy including questionnaires, interviews, and focus group discussions. Children's social-emotional development was measured by using the Strengths and Difficulties Questioner (SDQ). A pre-/post-test counterbalanced design was used to measure the impact of the play intervention on children's development. Teachers' perspectives on play were obtained by interviewing eight teachers. Children's views were gathered through focus group discussions.

Repeated measures ANOVA was conducted to determine the differences in the SDQ score over three time points. Results showed that using unstructured loose parts play had positively impacted children's social-emotional development. After participation in the play intervention, scores from the SDQ indicated that children demonstrated significantly less problematic emotional, conduct and peer relationship issues. They also scored significantly higher in their positive prosocial behaviour. These positive effects were sustained after six weeks of stopping the intervention. The play intervention did not however impact children's hyperactivity level. The interviews analysis illustrates four main themes: concept and characteristics of play, play functions, developmental benefits of play, and play and practice. Regarding children's discussion, affordance emerged as a main theme; this includes emotional, social, and functional affordances.

Unstructured loose parts play intervention was demonstrated to have positive impacts on children's social-emotional development. The study's findings support the view that play is a way to increase children's development.

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## LIST OF ABBREVIATIONS

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| ABBREVIATION          | FULL TERM   |
|-----------------------|---|
| LPP                   | Loose Parts Play.   |
| KSA                   | Kingdom of Saudi Arabia.  |
| MOE                   | Ministry of Education.  |
| NAEYC                 | National Association for the Education of Young Children.           |
| CSEFEL                | Centre for the Social Emotional Foundations of Early Learning.      |
| SEL                   | Social and emotional learning.                                      |
| SDQ                   | Strengths and Difficulties Questionnaire.                           |
| ADHD                  | Attention Deficit Hyperactivity Disorder.                           |
| CBP                   | Cognitive Behavioural Play.   |
| APA                   | The American Psychological Association.                             |
| CODIP                 | Children of Divorce Intervention Program.                           |
| AGFUND                | Arabian Gulf Programme of United Nations Development Organisations. |
| BPS                   | British Psychological Society.                                      |
| SPSS                  | Statistical Package for Social Sciences.                            |
| T1, T2 and T3         | Test 1, Test 2 and Test 3   |
| Te1, Te2, Te3, Te4... | Teacher1, Teacher2, Teacher3, Teacher4....                          |

# **1 CHAPTER ONE, INTRODUCTION**

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## **1.1 INTRODUCTION: AIMS AND OBJECTIVES**

Childhood is an important and critical period of life, with profound effects on the development of individuals' personalities. Thus, childhood offers the best period in which to help children learn adaptive behaviours and effective communicational skills (Kollbrunner & Seifert, 2013). Practitioners in the field of childhood education have thus highlighted the importance of the early life experiences on the development of children's social-emotional skills (Mercy & Saul, 2009; Shonkoff et al., 2012). Both positive and negative experiences play an important role in shaping children's social-emotional development (Cooper et al., 2009; Shonkoff et al., 2012).

Studies in the area of social-emotional development have highlighted the importance of this complex and multidimensional developmental domain on the child's academic success at school (Chari et al., 2013; Dollar, et al., 2018; Heller et al., 2012; Lin et al., 2003; Scorza et al., 2016). Researchers have also shown the importance of the social-emotional domain to predict people's wellbeing later in life (Brackett et al., 2019; Goodman et al., 2015; Halle & Darling-Churchill, 2016; Jones et al., 2015).

Regarding preschool-level education, an important aspect of this is children's effective acquisition of social-emotional skills. While some educators believe in the efficacy of teaching these skills on a daily basis and using formal lessons and curriculum to do so (Gresham, 2002; Payton et al., 2008), other researchers have stressed the importance of using more creative and holistic methods to inculcate social-emotional skills, such as play (Milteer et al., 2012; O'Neill, 2013; Yogman et al., 2018).

Indeed, over four decades ago Vygotsky (1978) stressed how play is a leading factor in child development, as it contains all developmental tendencies in a condensed form. Thus, play is purposeful in children's everyday educational experience: it is used in one form or another by most early childhood education practitioners. More recently, Landreth (2002) notes that one reason for this is that play can be used to reveal what the child has experienced, along with the child's feelings, needs, and their sense of self. Another reason

is the role of play in developing children's relationships and their ability in dealing with the daily challenges (Milteer et al., 2012; Rye, 2008). In play, the child develops new skills and gains more complex capabilities (Kuhaneck et al., 2010).

The educative implementation of play in preschools has several forms: one form is the use of play as an intervention tool. Accordingly, play-based interventions are practices designed to improve social-emotional, physical, language and cognitive development in children. Thus, intervention achieved through interactive play using a range of strategies such as modelling, verbal redirection, reinforcement and indirect instruction (Demanchick, 2019). Landreth (2002) states that, through play interventions, practitioners can provide an opportunity for children to develop new and more complex skills in a natural setting.

Regarding this study's principal aim of investigating the use of play intervention in relation to children's social-emotional development in Saudi preschools, this study presents the hypothesis that play intervention will significantly improve children's social-emotional development. The following objectives will help in achieving the main aim of this study:

- 1- To measure the impact of play intervention on children's social-emotional development from parents' perspective.
- 2- To measure the impact of play intervention on children's social-emotional development from teachers' perspective.
- 3- To identify teachers' views about the use of play intervention.
- 4- To understand children's experience of play intervention.

## **1.2 RESEARCH QUESTIONS**

1. What is the impact of play intervention on children's social-emotional development, as viewed from the parents' perspective?
2. What is the impact of play intervention on children's social-emotional development, as viewed from the teachers' perspective?
3. What are the views of the teachers on the use of play intervention?

#### 4. What are the children's experiences of play intervention?

### **1.3 THE MOTIVATION OF THIS STUDY**

As stated above, this study researches the effectiveness of play interventions in the context of preschool education in the Kingdom of Saudi Arabia. However, before discussing this in detail, the researcher's motivation in undertaking this research will be outlined. The researcher in this study is a female Saudi preschool education specialist who was born into a family of Saudi teachers. As an education researcher, she has a particular interest in preschool children's emotional-social development and wellbeing. In the course of her professional practice, and in interactions with colleagues, the researcher noticed that a not inconsiderable number of children presented social and emotional challenges.

Play has emerged as an approach through which preschool children's social-emotional development can be enhanced, and challenges addressed (Noetzel, 2011). Recently, there has been a trend in Saudi Arabia towards using play intervention in preschools for this purpose. This research seeks to provide insights into children's experiences of play in their preschool. Likewise, little research has been undertaken to date on children's and teachers' experiences with play interventions in preschool learning – their voices tend not to be heard. This is particularly important given the recent trend away from structured, teacher-led play towards free play. It is hoped that this study will contribute to an evidence base which can inform moves to improve the quality of preschool education in Saudi Arabia and neighbouring countries such as the Gulf States, the wider Arab region, and inform preschool practitioners' professional development in ways which will support children's social-emotional development. On a personal-professional note, it is hoped that this study will provide a firm basis for the researcher continuing professional development as an education practitioner and researcher based in Saudi Arabia.

## **1.4 STATEMENT OF THE PROBLEM**

A large number of studies have discussed the strategy of using play as an intervention tool to support children's social-emotional development. Many of these studies have highlighted this use with children with disabilities or those with mental health challenges (Denning & Stanton-Chapman, 2014; Han et al., 2010; Hu et al., 2018; Katzmann et al., 2019). However, there are a number of children who do not face such challenges, but who nevertheless require social-emotional skills development.

Brauner and Stephens (2006) have mentioned that up to 15% of children between birth and five years of age face social-emotional difficulties which will negatively impact their development and their future success. Similarly, Raver and Knitzer (2002) notice that teachers have reported that up to 30% of the children in their classrooms face such issues. The Early Childhood Longitudinal Survey (ECLS) carried out in the US involved a sample of over 22,000 children who attended about 1,000 kindergarten programmes during the 1998-99 school year. This survey shows that approximately 10% of the children enrolled in an average kindergarten classroom engage 'often' or 'very often' are involved in arguments or fights, or easily become angry (West et al., 2000). Those children have the right to receive a creative and playful support to help them improve their behaviour and skills and to behave in a more cooperative manner.

Only a handful of studies, undertaken in Western developed countries, have investigated the use of targeted using play intervention with children of typical development (Coplan et al., 2010; Li et al., 2016). Yet, in the Middle Eastern context, studies in this field are deficient insofar as they tend to focus on theoretical issues, such as identifying the theoretical base of children's social-emotional development (Al Kafaf, 2018; Nseindia, 2014; Suleiman, 2011).

In Saudi Arabia, Almangour (2018) stated that nearly 25% of preschool children face some social-emotional challenges which could impact their future academic achievement. Karem (2019) asserted that preschool teachers have reported that dealing with children's social, emotional and behaviour problems is one of the most common challenges that they face during the school day. Alslmi (2013) has shown the most common types of behavioural

problems that some preschool children are suffering from; these include: hyperactivity, stubbornness, jealousy, violence, and feelings of shame. Nevertheless, Alsalmi (2013) has illustrated how preschool teachers are deploying a variety of methods to support these children, such as talking with the child about the problem, and talking with families. In the context of Saudi Arabia, previous studies do not show any evidence of the use of play in order to improve children's social-emotional development and address emerging behavioural challenges. Given this gap in existing knowledge, there is a pressing need for a Saudi-context study investigating the use of play as an intervention tool to improve children's social-emotional development, this study seeks to fill that gap.

## **1.5 THE SIGNIFICANCE OF THE PRESENT STUDY**

Education researchers in many cultural contexts have effectively demonstrated the link between children's early social-emotional experience and future well-being and adjustment (Blatchford et al., 2001; Gibson et al., 2017; Parker & Asher, 1987; Pellegrini & Bohn, 2005). Children who lack social-emotional skills in preschool are more likely to experience transition problems, be unprepared academically, and exhibit long-term problems academically and socially (Barbarin et al., 2006; Bornstein et al., 2010; Rohrbeck et al., 2003). Webster-Stratton and Taylor (2001) noted that up to 50% of the children who lack sufficient social-emotional development will go on to exhibit more significant clinical behavioural disorders as they get older. Thus, behavioural problems of childhood that emerge during a child's early years are associated with deficits in social and emotional development and frustration tolerance (Denham et al., 2013).

It is important to find strategies that effectively enhance children's social-emotional development: play could be one of these strategies. Understanding the effect of play intervention on children's social-emotional development is necessary, as it can inform educational practices and reinforce preschool learning. Such study will provide evidence supporting the utility of play in early childhood programmes.

Furthermore, this study will give teachers an opportunity to express their views on play in general and play intervention in particular, which could help shape the direction of future research in this field. The current study makes efforts to include the perspectives of the

players, as it investigates children's perceptions of play. The study's engagement with data derived from children is in part motivated and informed by the concept of children's rights, specifically the child's right to express their views freely as expressed in Articles 12 and 13 of the UNCRC (UNICEF, 2003).

The current study has the potential to contribute to the improvement of the quality of preschool education in Saudi Arabia and can help preschool teachers and practitioner there to better support children's social-emotional development.

## **1.6 GENERAL SYNOPSIS OF THE KINGDOM OF SAUDI ARABIA**

Saudi Arabia is located in the southwest corner of Asia and is the largest country in the Arabian Peninsula, the birthplace of Islam. It is one of the largest countries in the Middle East region and shares borders with Iraq and Jordan to the north and Kuwait to the northeast. To the east are Qatar, the United Arab Emirates, the Arab Gulf and Bahrain. The Red Sea delineates the Western border, and Yemen the southern border. Saudi Arabia shares its southeastern border with Oman. The total population in 2019, according to the Saudi Arabian general authority of statistics, was 34,218,169 people (Ministry of Education, 2019).

The Kingdom of Saudi Arabia (KSA) became a nation in 1932 when King Abdul-Aziz ibn Abdurrahman Al Saud united the country under the name of Saudi Arabia. Saudi Arabia is known as perhaps the most culturally and religiously conservative society among all Middle Eastern countries. Its cultural and social complexity is based on the diversity of Saudi tribes, families, religious affiliations, and regions in the country (Al Alhareth et al., 2013).

The capital city is Riyadh, where the current research was conducted, and which is located in the Riyadh City administrative region, under the middle educational administrative region. The main language in the KSA is Arabic, and the religion is Islam. The unique religious characteristics of Saudi society influence all aspects of life, especially education. Education has been one of the country's main objectives since its unification. Since 1932, there have been several major transformational changes to education policy that have led



to the building of hundreds of schools all over the country (Al-Ajmi, 2006). In 1953, the Ministry of Education (MoE) was established, and public education is provided free to all male citizens and residents (Al Shaer, 2008). Formal public education for females began in the 1960s in the era of King Faisal (Al Alhareth et al., 2015).

Public education in the KSA includes the following stages: six years of elementary school, from first grade to sixth; three years of middle school; and three years of secondary school. Preschool education in Saudi Arabia has, in more recent history, been emerged as the effective beginning of formal education in the country. It includes three distinct stages: the first for three- to four-year-old children, the second for four- to five-year-old-children, and the last for five- to six-year-old children. More information regarding preschool education system and preschool curriculum is provided in the third section of the literature review.

## **1.7 THE DEFINITION OF KEY TERMS**

### ***Play Intervention***

Play can be defined as a transaction between an individual and their environment that is intrinsically motivated, subject to internal control, is relatively free from unnecessary constraints of objective reality, and well-framed (Skard & Bundy, 2008). Play intervention, in the current study, typically refers to a child-led free play intervention in a naturalistic environment (Wolfberg, 2003). For the purpose of this study, ‘Loose Parts Play’ (LLP) was selected as a play intervention. A definition for ‘loose parts’ has been given by Gull et al. (2019):

Open-ended, interactive, natural and manufactured materials that can be manipulated with limitless possibilities. Interaction with loose parts includes experimentation, exploration, and playful interaction with variables through creativity and imagination. Participants have the freedom to explore variables, combine materials, and react to complex themes and ideas that emerge (p.51).

Houser et al. (2016) argued that loose parts materials ‘are variable, meaning they can be used in more than one way so that children can then experiment and invent through play’ (p. 782). An important consideration with loose parts is that the materials should be ‘open-

ended', to allow for unstructured child-led free play, and enable children to make use of these materials in any way they choose (Houser et al., 2019).

### ***Social-Emotional Development***

Social-emotional development is defined as the child's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others and encompasses both intra- and inter-personal processes (Cohen et al., 2005). This definition will be adopted by the current study; it has been chosen because it focuses on both social and emotional development, and it balances between them.

## **1.8 THEORETICAL FRAMEWORK**

This study investigates the use and effectiveness of play intervention on children's social-emotional development in the KSA. A significant step in the research is providing the construction of a theoretical framework within which the study will operate, in terms of the understanding of the usage and effects of play intervention on children's development.

Several theorists tried to explain the importance of play and its relation to child development, each one has underlined a specific viewpoint of play and its significance and functions. In relation to children's social-emotional development, theorists such as Vygotsky and Freud vouch for the importance of play in enabling children to learn and develop. Freud's theory argued that play is a context in which children express their emotions, and in which they adapt to external society (Freud, 1961). Freud maintained that play allows children to deal with stress and replace negative feelings with positive ones (Hyder, 2004; Saracho & Spodek, 2003). While Freud focused on the emotional aspects of play, Vygotsky emphasizes the centrality of play in children's social development. Vygotsky's theory is widely considered to be one of the key play theories. He states that the aim of play is to facilitate development through to full adjustment to the rules and demands of the wider society. He thus framed play as an act liberating children from their situational constraints, to become fully effective members of their wider society (Vygotsky, 1967).

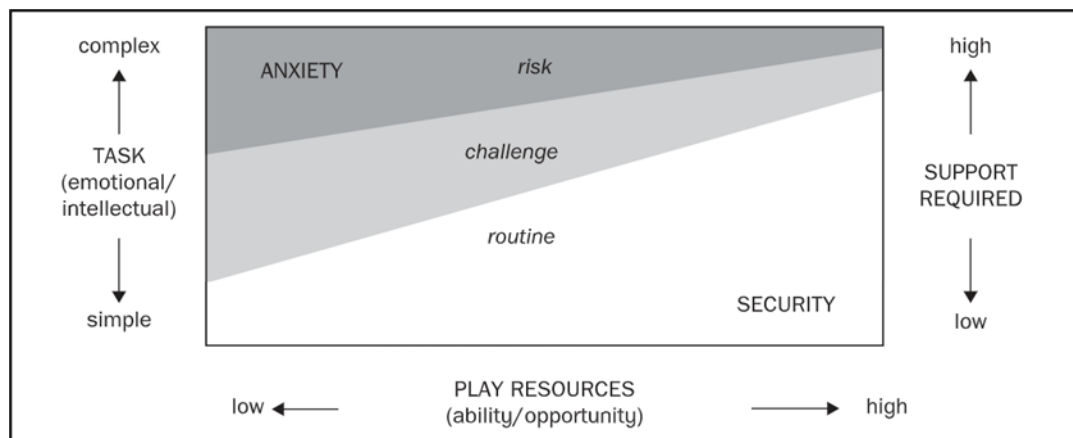
The current study is situated specifically within preschool education. It argues that children's social-emotional skills develop more effectively when they play, or are feeling playful. While Vygotsky's and Freud's insights are valuable, they are limited to the social and emotional aspects of play. Thus, it is necessary to further explore the literature on play in early years education. Hendry and Kloep (2002) developed a holistic theoretical model, resulting in a model of lifespan development. This model provides new insights into the way various factors and processes influence human development. They argue that development occurs as a result of interaction between the challenges faced and the resources available to meet these challenges. Accordingly, for them development means 'dealing with the large and small challenges that we meet in our life from day to day and learning from them' (2002, p.19). Hendry and Kloep consider human development, substituting it with the notion of resources, challenges and risks. They suggest that all children are born with a certain range of resources. Many of these resources are innate, such as certain reflexes. Some are structurally determined, such as nationality or social class. Furthermore, some resources are more personal to the individual such as intelligence, and some are more societal, such as whether education is available and affordable, the employment situation, climate, laws, health system, and cultural traditions.

Hendry and Kloep (2002) claim that potential resources interact with each other so that they can enhance or inhibit each other. For example, physical attractiveness can be a resource in many social contexts and enhance self-esteem. However, it can also inhibit the learning of social skills with the individual relying solely on good looks to be accepted by their peers. Likewise, becoming a talented soccer player can enhance one's health and fitness and gain peer approval, yet it can also lead to sports injuries and fiercely competitive attitudes towards others (Peck et al., 2008).

According to Hendry and Kloep (2002) the number and type of resources determines whether or not a task encountered by an individual turns out to be routine, a challenge, or a risk. Consequently, tasks that either match or slightly exceed the individual's resources can be called a challenge. The less demanding tasks are called routine tasks, and the more demanding tasks are considered to be a risk. A challenge is successfully met when the process of solving it does not drain the individual's resources but rather adds to them. On

the other hand, risk occurs when the task drains the resources. Based on the lifespan model of development, Howard (2010) developed the idea of the challenge-resource model of play. This model proposes a relationship between the level of play resources available to the child and the complexity of the challenge being faced, which in turn determines the affect the child experiences and amount of support they might require (Howard, 2010). The characteristics inherent in play, which separate it from other modes of action, include: the child's perception of autonomy; freedom, control, and independence; and the creation of a playful low-risk environment with lower levels of risk and anxiety. This lower level of anxiety is theorised as leading to an increased sense of wellbeing, emotional security, and subsequently improved task performance (Fearn & Howard, 2012; Howard, 2010) see (Figure 1.1).

**Figure 1.1** *The challenge resources model of play (Howard, 2010)*



In play, thought is separated from object, and action starts from children's ideas not from things. Such a viewpoint highlights the importance of children's environment and the importance of providing children with a rich and playful environment which could include both artificial and natural objects. This view is closely comparable with Gibson's findings (1977), as he focuses on the perceptive environment. Gibson suggests that a feature within the environment may have multiple uses, based on children's perceptions of what it could be. For example, a rock could be perceived as something to collect as treasure or something to be climbed over.

The philosophical concept of the environmental affordances thus connects the mind and body of the child with the characteristics of the environment (Little & Sweller, 2015). Part of this malleability is the automatic presence of ‘loose parts’; loose parts states simply that in any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it (Nicholson, 1972). The idea of loose parts and the affordance thereby provides educators with insights into how the rich playful environment can support children in being able to create, diverse, and learn.

The National Association for the Education of Young Children (NAEYC) states that ‘play supports children’s improvement in many ways. When young children play, they are involved in several important tasks, such as developing and practicing newly acquired skills, using language, taking turns, making friends, and regulating emotions and behaviour according to the demands of the situation’ (Copple & Bredekamp, 2008, p. 328).

Thus, the current study argues that children during childhood could face normative and non-normative challenges, which in turn can result in social and emotional challenges. These challenges can be faced when supported by resources, free unstructured loose parts play could be one of children’s resources. This study suggests that the free play is a natural resource for children’s development, and it will play an important role in helping them to face life’s social and emotional challenges. LPP can create a playful low-risk environment with lower levels of risk and anxiety. This lower level of anxiety is theorised as leading to an increased sense of social-emotional development, since during free unstructured play, children try new ideas, practice skills; they can make mistakes without feelings of failure, shame or worry. Building on this, this study proposes a relationship between the level of Loose Parts Play (LPP) available to the child and their social-emotional development.

## **1.9 THESIS OVERVIEW**

This thesis has seven chapters. Chapter One introduces to the research topic and the significance of this study. Chapter Two provides a review of the literature on children’s social-emotional development and introduces children’s play. It also includes the context

of preschool education in the kingdom of Saudi Arabia. Chapter Three describes the research methodology and design. In addition, participant selection and data collection and analysis are described. Chapter Four presents the quantitative findings of the study. Chapter Five presents the study's qualitative results. Chapter Six discusses the findings and their contribution to existing literature. Chapter Seven concludes with a summary of the study while also considering its limitations. It also presents emergent questions from the study and its findings and identifies opportunities for further research.

## **SUMMARY OF CHAPTER ONE**

The purpose of the current study is to investigate the use of play intervention on children's social-emotional development in the early childhood phase of education in Riyadh, Saudi Arabia. There are three main areas of study: (1) the impact of play in children's social-emotional developments; (2) teachers' perspectives on the play intervention; and (3) children's reports of their experiences of the play intervention. In this chapter, the background to the study has been provided, and the research aims and questions have been identified. The significance of this study has also been presented. The study's theoretical framework has been outlined. Finally, an overview of this document has been provided. A review of the literature underpinning the research topic is presented in Chapter Two.

## **2 CHAPTER TWO, LITERATURE REVIEW**

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### **INTRODUCTION TO CHAPTER TWO**

There are various different types of literature review, these include: narrative literature reviews; systematic literature reviews; meta-analysis reviews, and; meta-synthesis (Cronin et al, 2008). For this study a narrative review approach has been undertaken. This type of review is useful for gathering a volume of literature in a specific subject area, summarizing and synthesizing it. A narrative review provides a comprehensive overview of existing knowledge, and highlights the significance of new research. The narrative review also allows the researcher to discover issues that they did not foresee (Bryman, 2012).

Palmatier et al. (2018) state that a quality literature review must have both depth and rigour; that is, the review needs to demonstrate an appropriate strategy for selecting articles and capturing data and should provide insights beyond a mere recitation of previous research. To ensure depth and rigour, the Critical Appraisal Skills Programme (CASP) tool was used. This tool was initially developed in a healthcare context to help review literature on the effectiveness of healthcare interventions. The healthcare context shares certain similarities with education in that both healthcare and education are concerned with human wellbeing in specific professional and institutions, for example hospitals and schools (CASP, 2021). Further, CASP's focus in the evaluation of the literature on the effectiveness of specific interventions is readily adaptable to the focus of this study: the effectiveness of LPP interventions in Saudi preschools. Thus, CASP was used in this study to ensure that the literature reviewed was relevant, reliable, and methodologically sound. The use of CASP therefore facilitates a systematic appraisal of the trustworthiness, relevance and results of the literature, rather than the theoretical underpinnings of the literature reviewed.

The study employed several steps during the literature review. The first included writing down important key terms related to the topic of study, these included: preschool education in Saudi Arabia; child development; children's play; play intervention; social-emotional development; children's wellbeing; children's skills acquisition; childhood mental health; childhood social skills; childhood emotional skills; barriers to play; perspectives on play; playfulness; the benefit of play, and; developmental play.

The second step consisted of searching online databases, including: the Swansea University database; the Saudi Digital Library; Google Scholar; Medline; ProQuest; PubMed, and; ERIC. To ensure currency, the searches were limited to the last 30 years. The third step was to read the retrieved papers and evaluate them. A total of 37 papers were selected, summarised, and analysed for inclusion in this review. This review consists of three main parts: firstly, the background of children's social-emotional developmental domain is explored; secondly, an overview of the relevant literature on children's play is provided; finally, a background of the educational system in Saudi Arabia with a focus on Saudi preschool education and practices is provided, as this is the context of this study.

## **2.1 CHILDREN'S SOCIAL-EMOTIONAL DEVELOPMENT**

This section of the literature review provides a background review of children's social-emotional developmental domain. Details on the concept of social-emotional development, the importance of this developmental domain, and the factors affecting children's social-emotional development are included in this part.

### **2.1.1 The concept of social-emotional development**

Preschool age is considered to be the most effective time for improving children's social-emotional ability (Dobrin & Kállay, 2013; Kariuki et al., 2007). Researchers have revealed schools to be some of the best places to promote social-emotional development (Lawlor, 2016). To ensure best practice in this field, it is essential to have a clear understanding of children's social-emotional development. To provide a better understanding of this developmental domain the definition and constructs of social-emotional development are provided in the following section.

Previous literature regarding the definition of social-emotional development shows some variation. Some definitions focused on one aspect of the development of social-emotional skills, such as Blair (2002), who defined it as the ability to adjust internal processes, such as thoughts and emotions, to the demands of the surrounding environment. Other definitions of social-emotional development were broader and balance both key aspects –



the social and the emotional. One of these is provided by Cohen et al., (2005) who defined social-emotional development as a gradual, integrative process through which children acquire the capacity to understand, experience, express, and manage emotions and to develop meaningful relationships with others. Another broad and balanced definition of social-emotional development was by the Centre for the Social Emotional Foundations of Early Learning (CSEFEL); they defined social-emotional development as the developing capacity of a child, from birth through to five years of age, to form close secure relationships with both adults and peers, not only to experience but to regulate and express emotions in an appropriate context, socially and culturally, whilst exploring their environment and learning (Center on the Social Emotional Foundations for Early Learning, 2008).

Although the terminology of social-emotional development was used to describe this developmental domain, it is not the only terminology used. Terminologies such as non-cognitive skills, soft skills, character skills or grit, were also used and they often involve a similar combination of skills (Feinstein, 2015; Miyamoto et al., 2015). The social-emotional development domain encompasses a range of skills and constructs. The most necessary skills for children to develop emotionally and socially have been described by researchers and practitioners. For example, these can include, but are not limited to, a composite of seven related skills: self-perception or self-awareness; social awareness; motivation; self-control; social skills; resilience and coping, and; responsible decision-making (Feinstein, 2015; Goodman et al., 2015; Kemple, 2017). To provide a full clear understanding of children's social-emotional development, the most frequent skills identified by researchers are discussed in the following section.

Rochat (2003, p. 717) notes that 'self-awareness is considered as one of the most fundamental issues in psychology, from both a developmental and an evolutionary perspective'. Self-awareness is related to a child's own knowledge and perception of themselves, as well as their self-value and confidence in current abilities and a belief in their own efficacy (Goodman et al., 2015). Self-awareness includes a sense of competence and urgency in each individual to achieve different desired outcomes. When children have such self-belief in their ability to perform a variety of tasks successfully, they are more

likely to accomplish what they initially set out to do, thus making it easier to predict outcomes (Wigfield et al., 1998). Terms such as self-esteem, combined with the belief that the actions of each individual can make a difference, are linked to self-awareness or self-perception (Feinstein, 2015).

As important as self-awareness is social awareness. Social awareness highlights the abilities of children to understand what others are feeling, allowing them the ability to take on the perspective of others (Rose-Krasnor & Denham, 2009). Social awareness means to spontaneously take the perspective of another person into account; in other words, to be able to construct a mental image of another person's perception of situations (Asendorpf et al., 1996).

Motivation is seen as another aspect of children's social-emotional development. Motivation is generally defined as a 'goal-directed behaviour instigated and sustained by expectations concerning the anticipated outcomes of actions and self-efficacy for performing those actions' (Pintrich & Schunk, 2002, p. 161). Within this is the belief that effort leads to achievement and whether the amount of effort is distinguished by having goals set by other people or by oneself, consequently affecting the value attached to the goal in question, or even their aspirations and ambitions (Goodman et al., 2015). The skills involved in the motivation of children could play an important role in developing and retaining children's interest in any chosen area as well as their confidence, persistence, attention, and memory (Blair & Razza, 2007; Pintrich & Schunk, 2002).

A further important aspect of children's social-emotional development is self-regulation. Regarding self-regulation or self-control as a dimension of children's social-emotional skills, Feinstein (2015) highlighted how the characteristics of self-control are generally demonstrated by a greater impulse to control, but also noted there were fewer behavioural problems to deal with in those individuals. This skill of self-control refers to the ability of children to manage and express their emotions (Goodman et al., 2015). Self-control is a skill that children need in order to succeed academically, socially, and emotionally (Tarullo et al., 2009). McClelland et al. (2007) stated that several self-regulatory behaviour skills are also involved such as paying attention and following instructions whilst demonstrating that they can inhibit inappropriate actions.

Social skills are a further dimension of social-emotional development; it could be regarded as one of the most important social domains as it involves a child's ability to build relationships and communicate with others. 'Social skills' are a set of behaviour skills that refer to particular ways of behaving in a variety of social settings and should be developed by an individual in order to participate in them successfully (Goodman et al., 2015). Vahedi et al. (2012) state that standing up to group or peer pressure and asking for help are considered as behaviour skills and a necessary inclusion to social skills, which also cover communication, empathy, kindness, sharing and the ability to cooperate.

Social-emotional skills may also be considered to include other dimensions such as those of resilience or the ability to cope in certain situations. The American Psychological Association (APA) defines resilience as the ability to adapt well to adversity, trauma, tragedy, threats, or other significant sources of stress (American Psychological Association, 2012). Without resilience, a child would not cope and could, once more, become withdrawn and isolated. Grit and determination are said to reflect passion and perseverance, and these have been linked to 'resilience' (Goodman et al., 2015). Breslin (2005) focused on children's development of resiliency and his study identified four characteristics that resilient children exhibit: heightened sensory awareness; high positive expectations; a clear understanding of one's strengths relating to accomplishment, and; a heightened, developing sense of humour. These mechanisms encourage children's coping behaviours and involve the development of listening skills, interpersonal communication, and the ability to have fun and share experiences.

Lastly, responsible decision making is a significant skill within children's social-emotional development. The United Nations Convention on the Rights of the Child emphasised the view that all children have the right to participate in decision making. It goes on to state that the views of children and young people should be taken into account in any decision that is likely to affect their wellbeing (United Nations Convention on the Rights of the Child, 1989). Children should be able to make decisions based on relevant facts, understand any consequences or alternative courses of action and, at the same time, show respect to others whilst taking responsibility for their decisions (Collaborative for Academic, Social, and Emotional Learning, 2003). Sinclair (2000) noted the importance of children

participating in decision making as it gives the children the opportunity to give their opinions and ideas on issues and decisions that affect them. Such participation could help children to communicate, prioritise, debate, and negotiate effectively. This, in turn, could have a positive effect on children's self-esteem and provide a sense of self-efficacy.

Seven social-emotional skills were highlighted above, yet it is unclear whether one is more important than another. However, recent research from the UCL Institute of Education (Goodman et al., 2015) has played an important role in helping to make such a decision. The study investigated the long-term effects of childhood social and emotional skills on adult life and whether the evidence suggested that the social and emotional skills measured in childhood had any association with adult outcomes. Previous studies in this topic were reviewed and a new analysis was also carried out. The key findings of their literature review indicated that: (1) Self-control and self-regulation were most consistent for adult outcomes; (2) Self-perceptions and self-awareness, such as self-esteem and the belief that one's own actions can make a difference were also found to be important for many adult outcomes; (3) Social skills, related to peer relationships, sociability and social functioning in childhood, also matter; (4) A lack of evidence was found regarding the long-term importance of motivation and resilience; (5) The evidence also suggested the importance of emotional well-being in childhood. Emotional health in childhood matters for mental well-being as an adult.

By reviewing the literature concerning social-emotional development it appears that there has been some discrepancy in the way in which such skillsets have been described and evaluated. While some studies have linked the social and emotional skills together and studied them as one group (Bloom & Weiland, 2015; Craig et al., 2016; Littlefield et al., 2017; Nix et al., 2013), other studies have separated these skills into two groups: social competence and emotional competence. A criticism of this is that while it is easy to categorise some dimensions or skills, it is not so easy with others. For example, on the one hand, skills such as decision making, social relationship and social awareness could be easily considered as a part of social competence. On the other hand, it is difficult to determine some dimensions and understand whether they are linked to social competence or emotional competence. Skills such as resilience and coping could be linked to both social

and emotional competence; for example, when a child is able to adapt well to adversity, trauma or threat, they will feel better able to cope and feel ‘emotional competence’. Yet, as Breslin (2005) mentioned, a sense of humour and the fun of having a shared experience are factors of resiliency that seems to be more related to social competence. Therefore, the current study will treat this developmental domain as one group including both social and emotional dimension skills and will use the term ‘social-emotional development’.

### **2.1.2 The importance of social-emotional development**

Both positive and negative experiences play an important role in the first years of children’s life, specifically offering a unique opportunity to shape their cognitive, behavioural, and social-emotional development (Cooper et al., 2009). More importantly, social-emotional development studies have highlighted the importance of this developmental domain to the success of children at school (Bierman et al., 2008; Curby et al., 2015; Denham, 2006; Raver & Zigler, 1997) as well as the ability to predict their wellbeing later in life (Masten & Coatsworth, 1998). This section focuses on the social-emotional development by providing information on the importance of this developmental area during early childhood and by highlighting the value of targeting improving social-emotional skills in children’s school success or in academic achievement as well as in their future wellbeing.

The idea of the effectiveness of social-emotional skills in children’s academic development has been adapted by The National Scientific Council on the Developing Child where it emphasised that promoting positive early social-emotional behaviours could be a way to facilitate children’s learning in the classroom (National Scientific Centre for the Developing Child, 2004). Lin et al., (2003) claimed that social-emotional skills are as equally important as early academic skills in the academic achievement of children. Such a belief has led researchers and educators to study the relation between social-emotional skills and academic success, as they attempt to provide strong evidence supporting the importance of this developmental domain.

Specific academic areas have, at various times, been examined to show the relationship between social-emotional development and school success. Previous studies demonstrated the positive effect of children’s social-emotional competence on children’s learning.

Evidence was provided by Hamre and Pianta (2005) when they studied the effect of social-emotional support for children at risk of failing academically. Their aim was to examine ways in which children at risk of failure at school could be moderated by social-emotional support from their teachers. There were 910 participants in the study, all between the ages of five and six who had been identified by their kindergarten teachers as being at risk and displaying multiple behavioural and social problems. It was found that at-risk pupils in the first grade who were given strong instructional and emotional support had comparable achievement scores and teacher/pupil relationships as the pupils who were considered low risk. Meanwhile, at-risk pupils had lower achievement and more conflict with their teachers if they were placed in a less supportive environment (Hamre & Pianta, 2005).

The non-cognitive skills of children, such as those that refer to attitudes, behaviours and strategies, were considered key contributors to early school and academic success; these included self-control, motivation, and perseverance. An association between children's social-emotional skills and their school success was highlighted by Durlak et al., (2011); they presented findings from a meta-analysis of 213 school-based, universal social and emotional learning (SEL) programmes involving 270,034 kindergarten through to high school students. Compared to controls, SEL participants demonstrated significantly improved skills, including academic performance. Durlak et al. (2011) stated that emotions affect how and what people learn and that relationships provide the foundation for continued learning. Willis and Schiller's (2011) view could be very helpful in understanding the influence of social-emotional skills in children's learning as they stated that without self-control, for example, full advantage of learning opportunities cannot be taken by children, and neither will there be any exploration of their environment if they do not have trust.

Additionally, Raver and Knitzer (2002) noted that children lacking in appropriate social-emotional development are less likely to have peer and teacher acceptance, and receive less instruction, and feedback from teachers. As a result, there is evidence that these children are more likely to demonstrate long-term difficulties that include academic difficulties, grade retention, delinquency, and high school dropout. Unfortunately, many students who are not competent in social-emotional skills tend to become disconnected with school as

they progress through it from elementary to high school, and this disconnection will have a negative impact on their academic performance (Blum, 2004). In other words, children who start school lacking in social-emotional skills get less enjoyment from school and, in turn, learn less than their socially more competent peers (Denham, 2006).

However, not all previous studies have found that social-emotional skills positively effect children's learning achievement and school successes. Wolf and McCoy (2019) examined the bidirectional associations between children's executive function, social-emotional skills, literacy, and numeracy skills longitudinally. The children were assessed using direct assessment at three time points over the course of two school years. The study found that early literacy and numeracy predicted subsequent social-emotional skills, but early social-emotional skills did not predict subsequent literacy and numeracy skills. Such results lead to the importance of reconsidering the relations between various developmental skills. Nevertheless, research which provided evidence in favour of the positive effect of the social-emotional development on schools' successes and academic achievement tend to overlap with the research against this correlation.

Studies related to the development of children's social-emotional skills and its effects on children's goes much deeper than this as research has been taken further to study the effects of social-emotional skills on children's recent and future wellbeing. The views highlighted the importance of social-emotional development on human wellbeing that is held by several educators. Carneiro et al. (2007), for example, stated that the noncognitive traits in children may increase the likelihood of healthy personal development and eventual adult wellbeing. Goodman et al. (2015) further argued that social-emotional skills were very important, and these skills matter more than cognitive ability in a child that is aged 10 for general mental wellbeing.

The relationship between early noncognitive abilities and future wellness was studied by Jones et al. (2015) when they assessed the associations between measured outcomes in kindergarten and outcomes 13 to 19 years later. The study found statistically significant associations between measured social-emotional skills in kindergarten and key young adult outcomes across multiple domains that included employment, criminal activity, substance use, and mental health. Educators suggest that social-emotional skills, combined with

knowledge and a person's inherent qualities of mind and character, provide the necessary foundation for an individual to participate in society and have an improved quality of life (Cohen, 2006).

During childhood children can experience difficulties and problems with regard to their social-emotional development which should not and cannot be ignored as these have been associated with a range of mental health problems in adulthood. Hofstra et al. (2002) examined the adult outcomes of psychopathology in a sample of children and adolescents across a 14-year period. In 1983, parent ratings of behavioural and emotional problems were obtained for 1,578 children and adolescents aged four through to 16 years. At follow-up, 14 years later, subjects were reassessed. The study reported that social-emotional difficulties or problems in childhood was associated with having a psychiatric diagnosis in adulthood.

In a study with a sample of 649 participating college students from New England, the cumulative impact of adversity in childhood on later wellbeing was examined. It was found that higher trauma during childhood often led to early onset depressive disorders and later depressive symptoms. Path analysis also revealed that although there can be some direct association between childhood adversity and depression in young adults, most is explained by the effects formed by links with later stress, low self-esteem, and early onset of disorders (Turner & Butler, 2003). Results such as these where a connection between depression in childhood has been associated with an increased risk of depression in adulthood have also been given strong support and confirmation by educators (Chapman et al., 2004; Copeland et al., 2009).

Jones et al. (2015) mentioned that understanding outcomes could be of great value in helping children develop into healthy adults. Therefore, social-emotional development in the wellbeing of children is likely to be of significant influence and could successfully impact on the aims and aspirations of parents in raising their children. According to Cohen (2006), his experience of working with parents via the Centre for Social and Emotional Education showed consistent responses across America when he asked parents what they wanted their children 'to know' and 'be' after graduating from high school; the responses were to 'to be responsible,' 'to be a lifelong learner', 'to get a good job', and 'to have good



friends and a good marriage' (p.203): wishes clearly linked to social-emotional development.

Finally, it could probably be said that it is almost impossible to achieve comprehensive human development without highlighting the significance and importance of early social-emotional experience and skills. With this in mind, the question was posed by Elias et al. (1997) regarding whether or not it was possible to achieve true academic and personal achievement without addressing social-emotional development. His reply was that the accumulated evidence suggested the answer to this was 'no'. Therefore, by highlighting and addressing social-emotional development during childhood, there would be the significant promotion of academic success as well as future wellbeing.

### **2.1.3 Factors affecting children's social-emotional development**

There are some factors that generally have either a positive or negative influence on a child's healthy social-emotional development. It is important to be aware of these factors as they shape children's social-emotional skills. These factors include parents' mental health, parents' behaviour, parents' education levels, family income, the child's relationships with others, and the child's school and classroom environment. These factors are considered in the following section.

Parents play an important role in supporting the healthy development of a child. Parental mental health could be considered as one of the most influential factors affecting children's development. Research shows that family risk factors, particularly maternal mental health conditions, can impact parents' ability to support children's development and may contribute to behavioural problems among young children (Murray et al., 2011; Murray & Cooper, 1997). Depression is one example of a mental health problem and studies have found that children of parents with clinical depression are at significantly higher risk of long-term depression and anxiety when compared with children of nondepressed parents (Nomura et al., 2002). Young children with this family risk factor have been found to be more likely to experience problems with emotional and behavioural skills than those children without such a factor (Hollins, 2007).

The behaviour of parents is another factor which influences the development of children's social-emotional skills. For example, the parent-child relationship, is particularly important when it comes to the development of skills relating to self-regulatory experiences (Feldman, 2007). The quality of the attachment relationship between children and their parents is important for children's social-emotional development. If this relationship is compromised for any reason, such as parental mental health difficulties, opportunities for children to develop and practice self-regulatory skills may be diminished or lost. Mary Ainsworth has shown that sensitive parenting is crucial for the development of secure attachment relationships. Sensitive parents are able to pick up on signals from the child, to interpret them correctly, and to act on them promptly and appropriately (Ainsworth et al., 2015). Studies also highlighted that when parents have suffered unresolved loss or traumatic experiences, they may exhibit frightening parental behaviour. The upbringing of their child may bring back negative memories and associations, and parents may unconsciously dissociate from such feelings (Hesse & Main, 2006).

A further factor to be considered is the education level of the parents, which has been positively linked to social competence and negatively related to emotional and behavioural problems exhibited in young children (DeWit et al., 1998). Evidence suggests that poorly educated parents are more socially isolated, less connected to the school system and generate fewer social learning opportunities for their children outside of the school environment (McLoyd, 1998).

Parents' education levels may also affect the family income, another possible risk factor that could impact the social-emotional health and development of young children. A recent study completed by Hosokawa and Katsura (2018) studied the relationship between family income and parental education levels on children's emotional/behavioural problems and social competence. Participants in the study were 3218 Japanese children aged five to six years. Their mothers completed questionnaires themselves, covering socioeconomic status indicators. The Strengths and Difficulties Questionnaire (SDQ) was used to measure emotional/behavioural problems from both the teachers' and parents' perspectives. Results show that family income and parental education levels were significant independent predictors of emotional/behavioural problems and social competence. The research

suggests that young children from families with lower levels of income are more likely to experience behavioural problems that have a negative impact on their development.

The continuing development of children does not occur independently in any domain of development and should be seen as part of a larger developmental system (Essex et al., 2006; Sameroff, 2000). An ecological model involves looking at how an individual is influenced by their environment, for example, the influence attached to relationships with teachers, friends, peers and society within communities of school, work and organisations as well as societal aspects including laws, policies and social norms.

Relationships with adults and other children play a central role in the development of social and emotional skills (O'Connor et al., 2011). Nurturing such relationships can lead to the formation of brain pathways that are necessary for good health. Nonresponsive or abusive relationships on the other hand can lead to social and emotional dysregulation that has negative consequences for health (Nelson et al., 2014). Several studies have demonstrated that the teacher-child relationship is a crucial factor in positive social-emotional development (Peisner-Feinberg et al., 2001): students who learn from caring and responsive teachers were found to have both a stronger work ethic and a greater enjoyment of learning (Rimm-Kaufman et al., 2015). In addition, positive teacher-student relationships can lead to a higher level of prosocial functioning and a decrease of both externalised and internalised negative behaviours in children (Brock & Curby, 2014; Merritt et al., 2012).

According to Elias and Arnold (2006) a child's environment is highly relevant to children's skills and considered as a resource for shaping children's development. Effective, lasting social-emotional learning is built on caring relationships and challenging classroom and school environments. Previous studies have argued that the quality of preschool could influence the social-emotional development of children (Heller et al., 2012; Mashburn & Pianta, 2010; Votruba-Drzal et al., 2004). Students learning within positive classroom environments were more secure in themselves, achieved higher grades, and communicated more positively with their peers (Rimm-Kaufman et al., 2015). Research by Votruba-Drzal et al. (2004) has indicated that children who spend more hours a week in high-quality

childcare settings are more likely to show a significant decrease in any existing behavioural problems.

Votruba-Drzal et al. (2004) suggests that the quality of childcare may be particularly salient for children's development. International organisations such as the National Association for the Education of Young Children (NAEYC). NAEYC have established several standards to increase the quality of preschools and childcare settings. The way of learning and giving children the opportunities to develop through play was one of the key standards to the quality of the preschool (Hyson, 2003). The importance of the use of creative and holistic methods, such as play, to inculcate children's social-emotional development have stressed by the researchers (Milteer et al., 2012; O'Neill, 2013; Yogman et al., 2018).

The importance of play and the use of it as a resource to improve children's social-emotional development is highlighted in the second part of this literature review. The next section provides an overview of children's play.

## **2.2 CHILDREN'S PLAY**

The preceding section of this literature review has provided a background review of children's social-emotional developmental domain, details in the concept of social-emotional development, the importance of this developmental domain, and the factors affecting children's social-emotional development. The current study suggests that to improve children's social-emotional development during childhood and help them face challenges, they need resources, and play could be one of these resources. The essential need for play in children's development will be acknowledged in this part of the literature review. This part provides an overview of children's play; this includes theories of children's play, play definition, play and playfulness, children's perceptions of play, play environment, play and child development, the therapeutic/intervention use of play, perspectives of children's play, and the challenges involved in using play in education.

### 2.2.1 Theories of children's play

There are several theories and theorists of play, each one offering a slightly different viewpoint of play and its significance and functions. Play and its functions were explained by the classical and modern theories in different ways based on different rationales (Mellou, 1994; Saracho & Spodek, 1998). Although this review cannot include every theory about play, it does offer a brief overview some of the most influential theories about play and the functions of it.

One view of play was cited by Schiller and Spencer, they saw play as a way to expend excess energy. The Surplus Energy Theory describes play as being an aimless activity and expenditure of excess energy (Mellou, 1994). According to this theory, a person who generates excessive energy not already used up through their labours feels the need to engage in play in order to completely exhaust their energy reserve (Gaona, 2001). Schiller's theory supports the common notion that since children are not employed in work-related activities as much as adults are, they naturally have a greater capacity to play. The discharge of energy through play, according to this theory, restores balance to the body (Verenikina et al., 2003). A related perspective to this function of play is stated by the arousal modulation philosophy. This theory suggests that play keeps the body at an optimal state of arousal, relieving boredom or reducing excess arousal (Berlyne, 1960; Ellis, 1973). On the other hand, the *surplus energy* theory claims that play exhausts surplus energy, while *recreational or relaxation* play theory Lazarus (1824–1903) claims that play restores energy lost through work (Dockett & Fleer, 1999; Henniger, 1999). This theory posits that play is necessary to all humans in order for them to generate enough energy to once again return to their labour (Gaona, 2001).

Another perspective of play was provided by Karl Groos (1898–1901): he views play as a means of learning about the external world. He termed this as 'exercise' or 'practice' theory of play. Groos studied play in both animal and humans and argued that play is an instinctive practice that helps individuals hone skills that will be useful to them in later life (Bergen, 2014). According to Groos, the instinct to play is present from birth (Tassoni & Hucker, 2005), and facilitates skills that form the basis of important life skills needed in maturity

(Mellou, 1994; Slentz & Krogh, 2001). Closely related with Groos' theory is Hall's view. In 1906 Hall argued that play is a means for children to rehearse the stages of human evolution. Hall's *recapitulation theory* states that play progresses through successive stages of maturity in which the same set of skills that will become fully manifest in adulthood are repeatedly worked on and refined (Saracho & Spodek, 2003). Such a progression in an individual echoes the wider, evolutionary progression through primitive stages in order to prepare for the endeavours of modern life (Santer & Griffiths, 2007).

The explanations of the functions of play have also been reflected in more modern perspectives of play (Fleer, 2009). For instance, the *psychodynamic perspective* of play argued that play is a context in which children express their emotions, and in which they adapt to external society (Freud, 1961). Freud maintained that play allows children to deal with stress and replace negative feelings with positive ones; such processes allow children to follow a normal course of emotional development (Hyder, 2004; Saracho & Spodek, 2003). The psychoanalytic perspective established the basis for play therapy, the aim of which is reducing anxiety, depression, and helping children to emerge from grief (Bromfield, 2003).

Another view was framed by the Soviet Russian psychologist Lev Vygotsky (1896–1934). Vygotsky viewed play as an act liberating the child from their situational constraints to become fully effective members of wider society (Vygotsky, 1962). The function of play, according to Vygotsky (1967), is to facilitate development through to full adjustment to the rules and demands of wider society. Children begin fantasy play at the age of three and soon progress to thinking of the meanings of their play actions independently of the objects represented, which ultimately leads to a proper understanding of the sociocultural fabric of their wider society. According to the sociocultural theory, play broadly and continuously occupies what Vygotsky terms the 'zone of proximal development'. This is the boundary between the child's actual and potential levels of development and in which the assistance of an older peer or adult enables the transition from one to the other, particularly by adapting real-life social scenarios to the world of play (Hughes, 2009; Scarlett, et al., 2004; Verenikina et al., 2003).

Overall, Vygotsky framed play as a learning experience in which children jointly construct social interactions and engage with wider culture in order to gain confidence and control (Duncan & Lockwood, 2008; Edo et al., 2009; Ginsburg & Amit, 2008; Van Oers, 2010; Vygotsky, 1978). For Vygotsky, play is a natural process for children; it allows them to enter an unexplored zone of knowledge or experience where they usually feel secure enough to test hypotheses without fear (Vygotsky, 1978). A perspective that is very closely related to Vygotsky's view of play is the *meta-communication* theory. Bateson argued that play is 'a form of plasticity' through which individuals can acquire skills, experience and understanding of the environment, as well as solve problems (Bateson, 2011, p. 46). Bateson clarified in his meta-communication theory that play is evident when players frame events, through attitude, pretense, vocalisation and other meta-communicative cues (Bateson, 2011).

Similarly, the Swiss theorist Jean Piaget (1896-1980) suggested that play is a kind of assimilation process. He views play as a means for individuals to crucially adapt, both physically and mentally, to their external environments (Hughes, 2009). Piaget framed that, through play, children absorb new information from the outside world to fit into their existing schema thereby reflecting children's cognitive development. He claims that cognitive development moves through four stages: the sensorimotor stage, the preoperational stage, the concrete operational stage, and the formal operational stage (VanHoorn et al., 2014). Piaget stressed the importance of play, as a creative activity, in facilitating the completion of the developmental stages, and his primary focus was on how the structure, as opposed to the content, of children's play developed their ability to think symbolically (Hughes, 2009; Verenikina et al., 2003; Wood & Attfield, 2010).

Functions of play thus vary from one theory to another. These theories have 'to some extent reflected the spirit of their times and in some way had some explanatory power at the time of their formulation' (Ellis, 1973, p. 23). Indeed, classical theories of play can be characterised as 'armchair theories' that rely on philosophical reflections and reasoning rather than on experimental research (Saracho & Spodek, 1998). On the other hand, some classical perspectives of play such as Practice Theory and Recapitulation Theory attempt to understand the substance of play in greater depth than do Surplus Energy Theory and

Recreational or Relaxation Theory. Yet all classical perspectives focus mainly on the instinctive aspects of play. Modern theories, in comparison, are more child-centred in their view of play (Santer & Griffiths, 2007; Verenikina et al., 2003).

Modern perspectives of play are multifaceted; for instance, while psychoanalytical theories consider how play mediates the conflict between ego and society, the theory of cognitive development focuses on how play allows the individual to master their being in the world. Furthermore, while cognitive theory emphasises individual acts of cognitive development, a sociocultural theory of play stresses the aim of becoming members of a united society. While the functions of play vary between theories, Nolan and Raban (2015) stress that these perspectives do not simply replace each other as they arise, but rather overlap and merge. It is thus important to broadly consider theories when approaching a specific research topic within the scholarly study of play.

### **2.2.2 The definition of play**

Researchers into play have frequently attempted to identify all possible meanings of play; however no clear or unequivocal definition of play exists to date (Burghardt, 2011; Fler, 2009; Frost, 2010; Howard, 2002; Johnson et al., 2013; Lillemyr, 2009). Meanwhile, the play theorist Sutton-Smith (1997a) argues that a single, concrete definition of play can never be established. There are some educators who state that play cannot be delineated; Moyles (1989), for example, states that play is an elusive concept and as such, could hold a different meaning to different people. Contrary to this are those who believe that because play is such an elusive concept, anything can be considered as play (Stallibrass, 1989). Other play theorists have given up hope of ever adequately defining play as quoted by Burghardt (2005, p. 46), ‘Given its elusive nature, it is unlikely that researchers will ever come up with a satisfactory definition of play’.

Difficulties in conceptualising play could be exacerbated by the fact that various academic disciplines approach play differently (Sutton-Smith, 1997b). While the prospect of arriving at one satisfactory definition may be unlikely, examining various definitions could provide a starting point for the exploration of children’s play. It has been argued that there are



several ways to define play, such as educational play, criteria definitions of play, and a categorical definition of play.

### ***Educational play***

One way of defining play comes from the educational viewpoint. Educational play practice is often viewed as an integrating mechanism bringing aspects of children's development together (Bruce, 2011). Research investigating the role of play in children's learning and development has shown play to be an important factor in early childhood pedagogy (Dockett, 2011). It has been stated that learning takes place in social and cultural interactions where 'knowledgeable peers and adults in multifaceted roles may help children to experience, explore and construct new understandings, knowledge and skills in a dialectic rather than a linear process' (Hedges, 2010, p. 28). Children learn in interactions with others and from each other in their cultural participation, with play being one among other possible activities (Hedges, 2010; Vygotsky, 1978). Drawing on Vygotsky's theorisation of the Zone of Proximal Development (ZPD), the child is capable of mastering a given skill 'under adult guidance, or in collaboration with more capable peers' (Vygotsky, 1978, p. 86). For Vygotsky, play offers the perfect learning environment: it provides a context where symbolic representation, thought and language develop; this in turn enhances the learning of cognitive skills, such as literacy.

Play and learning have been discussed as inseparable dimensions of children's experience. For example, Pramling Samuelsson and Johansson (2006) argued that play and learning stimulate each other. DeVries (2001) identified a spectrum of opinions that exist between the notion of play as being integral to learning and as being extraneous to it. The author argues that play can be disguised as academic work; it can be bound up with social, emotional, moral, and intellectual developmental aims. The belief in play as an educational tool is mirrored in early childhood educational policy documents and curricular frameworks. For example, a main principle of the early childhood education in the Kingdom of Saudi Arabia is that children at this phase of education are active learners and they learn most effectively through play (Ministry of Education, 2006).

However, this view of play has been subject to critical debate; for instance, Rogers (2010, p. 155) suggested that the concept of educational play involves the teacher judging

children's play either as 'good play' or 'bad play', which in turn necessitates 'supervised' play to ensure that real learning takes place. Sutton-Smith (1997a) stated that the belief in play as an educational tool has become so dominant that educators tend to forget about the playing child, their views, and ideas. Some educators tend to behave too 'teacherly' in play, thus spoiling the modern view of play and the aspects of children's fun and playfulness (Samuelsson & Carlsson, 2008). The belief in play as an educational tool could affect the nature of children's play in a number of ways. Such a view will limit children's freedom during play (Wood, 2010b); likewise, some view instrumentalized play as a tool and only a tool. Play in this way may become highly supervised (Göncü et al., 2007; Kalliala, 2002) and it will thus become highly regulated by adults with a focus on educational aims (Wood, 2010b).

### ***Criteria definition of play***

Another way of conceptualising play is in criteria definitions. This way of defining play focuses on play dispositions. Scholars attempted to develop a description of these as characteristics that include: play is volitional, play is meaningful, play is low risk, play is spontaneous, unprompted, open to the surrounding environment, play is pretending, play involves activities both mental and physical activities, play is sociable, and play is fun (Dockett & Fler, 1999; Kernan, 2007; Mac Naughton, 2003; Nicolopoulou, 1993; Wood & Attfield, 2005). Using these criteria, an onlooker can determine whether an activity is play or not. However, this way of defining play is not without debate; a central problem with criteria as a means of definition is how many of the characteristics must be present for an activity to be play. To overcome this issue Pellegrini (1991) argued a continuum of activity from pure play to not-play, and suggested that pure play is defined when all criteria are used. Alternatively, less-play is defined when fewer criteria are observed.

### ***Categorical definition of play***

The disassociation from a general definition of play, and instead a move towards narrow categorizations of play could be one approach to the challenge of defining play. Theorists have developed many categorisation schemes of play. For example, Piaget (1954) defined play according to its developmental stages aligned to his developmental stages of intellectual development. Piaget's play categories are practice play, symbolic play, and

games with rules. Yet, this way of defining play is also not without debate; it has been argued that these categories of play were criticized as children in their play do not progress through different stages, and the categories do not account for all types of play (Howard & McInnes, 2013). Smith et al. (1986) argued that Piaget realized play as assimilative while constructive play is accommodative, and therefore does not fit this hierarchy.

The literature generally accepts and works within the confines of several types of play. These are: physical play, play with objects, symbolic play, pretence/socio-dramatic play, games with rules and digital play (Gauntlett, 2011; Whitebread et al., 2012). These types are expounded further below.

**Physical play** is defined as moderate to vigorous physical actions occurring in the context of play (Pellegrini & Smith, 1998). Physical play has been divided into two subcategories. The first is rhythmic stereotypes that occur primarily in the first year, peaking at about six months of age involving rapid and repeated movements of limbs, head, and torso. The second type of physical play is exercise play, which starts around the first year of the child life. This type of physical play includes behaviours such as swinging, hopping, running, and climbing (Pellegrini, 2011).

Physical play could include several play activities such as rough-and-tumble, which consists of tickling, gauging relative strength, discovering physical flexibility, and experiencing the exhilaration of display. Rough-and-tumble typically involves the full body, and incorporates play-fighting, wrestling and chasing. Such activity tends not to incur injury and children tend to indicate that they are enjoying themselves when engaging in this form of physical activity. Rough-and-tumble is characterised by smiles and laughter, exaggerated movements, and reciprocal role-taking (Hughes & Melville, 1996; Lillard, 2015).

**Play with objects** is also known as functional play. It is defined as play with toys that are physically similar to everyday objects but are often of a different size to their real counterparts; for instance, dressing a doll, or stirring a spoon in a teacup (Lewis et al., 2000). Children begin playing with objects in infancy and progress from indiscriminate handling of them to using them to enact symbolic experiences and events (Bloom et al., 2001).

***Symbolic Play*** is related to the concept of symbolic systems. Whitebread et al (2012) explained that humans are unique in their capacity to use a multiple symbolic system, including spoken language, reading, writing and numeracy, as well as various visual media, such as painting, drawing, collage, music and so on. They assert that these systems are integral to the fabric of children's play, with children beginning to engage with symbolic systems before the age of one. Children begin by playing with sounds on their own terms and progress to playing with the sounds of the language or languages which they absorb from their external environment (Gauntlett, 2011). Cook (2000) emphasised the centrality of language to play, showing that it is universal; the pre-linguistic stage begins with rhyme performed by parents. Cook argues that, even though very young children at the pre-linguistic stage do not understand language, nevertheless they enjoy the sounds, facial expressions, touch and eye contact made. Gradually children begin to attach semantic meaning to words voiced. By the age of three, children begin to understand language and begin to incorporate it into their play.

***Socio-dramatic play*** is considered as the most common type of play, pretend or dramatic play involves acting out specific roles and interacting with others (Combs, 2009; Krizek, 2011). This category of play is symbolic and normally incorporates pretend or make-believe scenarios (Copple & Bredekamp, 2008). It is also involving the transformation of objects, actions, and self-identity (Petrakos & Howe, 1996). Dramatic play usually emerges at the age of two and progresses to pretence of being someone or something else, such as a mother, a father or a teacher. By the ages of four to five, pretend play becomes more co-operative and social, and can include the use of role-play (Gauntlett, 2011).

***Games with rules*** includes games which have explicitly fixed and predetermined rules (Hewes, 2006). It has been argued that since young children are strongly motivated to make sense of their world, they show an interest in rules of play at a very young age. Children not only play games with pre-set rules, but also enjoy forming their own sets of rules for games (Gauntlett, 2011; Whitebread et al., 2012). Such games include chasing games, hide-and-seek, throwing, catching, and card games (Whitebread et al., 2012). Rules tend to render explicit which actions in the game are allowed and which are not allowed, or

regarded as cheating; they tend to apply to all players; and the usual aim is to establish a winner or a winning team (Jordan et al., 1995; Winther-Lindqvist, 2009).

**Digital play,** Children are living a lot more in the virtual world, with young children spending increasing amounts of time online (Marsh et al., 2005; Rideout et al., 2003). Many of their online interactions and activities can be categorised as being playful in nature. The exploration of digital play as suggested by Stephen and Plowman (2014) goes beyond screen-based technologies such as desktop computers, laptops, and tablets. It also includes playing with products such as Wii, games consoles, television displays and motion-sensing interface. Digital play can range from games with pre-defined rules, to competition against a virtual partner, to employing a simulated technology in an imaginative play setting, to creative activities. All these activities can be regarded as play.

The above part of the review has explored play and acknowledged the common definitions and meaning of children's play. While these definitions seek to identify play, they do so from the perspectives of adults. They do not provide much insight about what children experience, and what their perspectives are on the experiences of play. This way of viewing play could spoil the modern view of play and educators' understanding of the aspects of children's fun and playfulness. The next part of this review shifts the way of studying play to a more modern view, focusing on playfulness and children's perspectives and views of play.

### **2.2.3 Play and playfulness**

Regarding the meaning of play, it is important to distinguish between the two words, *play* and *playfulness*. While play is often used to refer to a content or activity such as a game, festival or event, playfulness is used to refer to the state and attitude of mind, which indicates the approach taken to an activity, such as fun (McInnes et al., 2011; Sutton-Smith, 1997b). It has been stated that playfulness is more of an attitude or a modality, which enables the attitude of play to be taken without engaging in the activity. Rather it is a way of engaging with particular contexts and objects. Playfulness can be seen as a physical, psychological, and emotional attitude toward things, people, and situations (Sicart, 2014).

Brown et al. (2009) stated that playfulness comprises four main characteristics; these are intrinsic motivation, internal control, the suspension of unnecessary constraints of reality, and framing. Thus, Brown and colleagues argue that two aspects of the playfulness required particular attention. First, the element of playfulness is best presented with continua. This means that the players are more internally than externally controlled, are more intrinsically than extrinsically motivated, are freer from the constraints of reality, and are more clearly framed. Second, play and non-play can be represented as two ends of a continuum, wherein presence or absence of these elements of playfulness ‘tip the balance’ of the activity towards either play or non-play. For example, the player’s perception that control is more internal than external contributes toward tipping the balance towards defining the activity as ‘to play’. In this regard, it has been argued that not all play is playful. For example, Bateson et al. (2013) drew a distinction between playful play and non-playful play, stating that ‘playfulness, the defining feature of playful play, is a positive mood state’ (p.13). Educators argue that playfulness is more important than play (Dewey, 1933). It is the internal, affective qualities of play that are important therapeutically and for development, such as enthusiasm, motivation and willingness to engage (Moyle, 1989; Rogers & Sluss, 1999) and that these are different from the act of play.

Thus, playfulness has been found to correlate with a plethora of adaptive emotional, mental, and physiological outcomes. Howard and McInnes (2013), for example, demonstrated that when children perceive an activity as a playful activity, they scored higher in wellbeing assessments and showed more signs of emotional wellbeing than children who undertook non-playful activities. Playfulness has also been found to correlate with problem-solving ability. Thus, Barnett (1985) investigated playfulness and children’s problem-solving skills, concluding that the unstructured elements of children’s play augmented the children’s ability to solve problems and complete tasks. Barnett (1991) further found that playful play helped children to exhibit higher levels of physical activity and imagination.

While the aforementioned educators make a distinction between the two words, ‘play’ and ‘playfulness’, some claim that the two words could be used interchangeably especially as playfulness is often included in play, suggesting that ‘play is only play because it is

playful’ (Ellis, 1973, p. 22). However, this view is not without debate as it is further argued that an assumption cannot be made simply because children are engaged in an activity and if it looks like play then they are feeling playful (Howard & McInnes, 2013). To better understand playfulness, it has been indicated that play practitioners need to go beyond what they view; they instead need to talk to the players about what play is and how they view play. It has been argued that studying children’s perspectives on play not only helps practitioners to gain a better understanding of what play is in relation to a child’s life, but also enables the child to take a more playful attitude and approach to facilitating a sense of well-being (Howard & McInnes, 2013; Thomas et al., 2006). Children’s views of play are discussed in the next section.

#### **2.2.4 Children's perceptions of play**

It has been argued that the meaning of and views on play can differ based on the experience of the participants. The meaning of play from the perspective of educators does not necessarily correspond with how children view play (Howard, 2002). Play often becomes highly regulated by adults, a tendency which underscores the importance of further exploration of play from the players’ point of view, which can then inform the supervision of educational play provision with data as to how play is perceived from the players’ perspectives (Rentzou et al., 2019).

In recent decades, efforts have made to study play from the children’s perspective. Attention was turned toward the children themselves (Christensen & Prout, 2002; Goncu & Gaskins, 2006; Wood & Attfield, 2005). This endeavour is based on the view that children are autonomous, active contributors to their social worlds, that childhood is a social construction, and that children are holders of rights and citizenship (James & James, 2017). Research into children’s perspectives of play in educational settings has been motivated and informed by recent developments in the understanding of children’s rights, including those which explicitly refer to children’s rights to express their views freely – in particular Articles 12 and 13 of the United Nations Convention on the Rights of the Child (UNCRC) (UNICEF, 2003).

Studies on children's perceptions and view of play have demonstrated that a child holds a unique view of play. One of the earlier studies in examining children's views of play was carried out by King (1979) where the study aimed to get a better understanding of preschool children's perceptions of play. King illustrates that children give a specific description of play as, according to the children, play was described as activities that are voluntary, fun, under the child's control, and did not include adults. On the other hand, non-play activities were those that were compulsory, under adult control, and where the adult was engaged. Likewise, Howard et al. (2006) conducted a study which aims to understand what children themselves perceive of as play. The study employed a sample of 92 children between the ages of four and six. The researchers found that children regarded play to be an activity where adults were not present. Children made decisions about play based on teacher presence/absence; findings revealed that children associated teacher absence with play. Similarly, Frost et al. (2005) noticed that excessive teacher participation is seen as intrusive by children and lessens their interest in the activity.

In an additional attempt to understand children's play Ramazan et al. (2012) conducted a study with a sample of 40 children between the ages of five and six. Children were interviewed to obtain their responses to the questions, 'What does play mean to you, how would you describe play?' The researchers found that participants defined play as having fun, having fun with friends, being happy, what I do with my friends, playing with friends, playing with toys, and not having fights. Glenn et al. (2013) conducted a study of 38 children aged between seven and nine. Children were asked to respond to questions such as: What do you play? Where do you play? Who do you play with? and What does the word play mean to you? The study found that children regarded play as being both social and individual. According to Glenn et al. (2013) play, from the children's point of view, could be classified into four categories: (1) movement-focused activities, (2) creative/imaginative activities, (3) entertainment, traditional games, and, (4) social-relational activities. Children also reported that more sedentary activities, such as board games and listening to music, were types of play. Glenn et al. (2013) stated that children did not view play as something which fulfilled a particular purpose or outcome. Such views are in line with those of Kärby (1989) who stated that play involved rules set by children whereas non-play activities were taught activities, involving specific goals and sitting



down. Studies show that children do not play for the educational benefit of play; rather, the basic motive of children's play is the experience of pleasure and playfulness that it affords (Samuelsson & Carlsson, 2008).

To sum up, research convincingly demonstrates that children can distinguish between play and non-play activities and that their perceptions of play are different to those of adults. The children's view seems to be that play appears when they feel that they are in control, where they are doing what they want to do, when they are following their own line of thinking and when they are trying out their own actions and ideas. Studies explain that the characteristics of play that make it so valuable for children's development are that it affords autonomy, freedom, and control (McInnes et al., 2009).

It has been theorized that if the cues children use to differentiate play from non-play activities are understood, then children can feel and behave playfully (Samuelsson & Carlsson, 2008). The understanding of children's perceptions of play will help children to take a more playful attitude and approach to activities, and facilitate children's emotional regulation, confidence and self-esteem. This in turn influences all other areas of children's development (Howard & McInnes, 2013). The current study will attempt to utilise such cues that children use to differentiate play from non-play, namely: autonomy, freedom, and control. Based on this view, this study seeks to adapt loose parts play (LPP). LPP allows each child to use their ideas and imagination and to create spaces for free play using materials ('tools') in their surrounding area. The open-ended materials which are involved in LPP are intended to put children in a position where they are able to exercise autonomy, freedom, and control. Thus, LPP gives children the opportunity to feel playfulness; it offers children the chance to engage in a playful unstructured free play, which is not dominated by adults or by specific aims and learning outcomes. Such play offers children the opportunity to play with friends, to investigate, discover, and engage in trial and error in an open, low-risk, low-stress context. Further, LPP could function as an environmental resource: it could increase children's resource pool and help them to face social-emotional challenges. Further details and explanations of LPP intervention are given in the following section.

### **2.2.5 The Play Environment and Loose Parts Play**

According to the work of Hendry and Kloep (2002) child development occurs as a result of interaction between the challenges they face and the resources they have available in their environment. This challenge-resource model proposes a relationship between the level of resources available to the child and the complexity of the challenge being faced, which in turn improves children's development and helps them to deal with the challenges they face in life. It has been suggested that play acts as a resource for children to meet and overcome both normative and non-normative challenges. The characteristics inherent in play, such as the child's perception of autonomy, control, independence, and freedom, create a low-risk environment for the child's development (Howard, 2010).

The environment can either support or disrupt playfulness. Objects and spaces are the main factors within the environment that affect playfulness (Skard & Bundy, 2008). The quality of the environment influences the enjoyment and benefits that child get from playtime, as well as the different types of play in which they engage (White, 2013). Gibson's (1977) theory of affordances states that the physical environment people live in results in different actions and behaviours. He suggests an interconnection between the environment and the observer (an individual). The philosophical concept of affordances connects the mind and body of the child with characteristics of the environment (Little & Sweller, 2015). The affordances of the environment include what it invites people to do; this concept includes both the environment and the person, meaning that the affordances are unique for each individual and correspond with the individual's body size, strength, and skills (Little & Sweller, 2015).

As stated earlier, children can distinguish between play and non-play activities; further, their perceptions of play are often different to those of adults. Children's play appears when they feel that they are in control, where they are doing what they want to do, when they are following their own line of thinking, and when they are trying out their own ideas (McInnes et al., 2009; Kärrby, 1989; Glenn et al., 2013; Ramazan et al., 2012). The current study seeks to use such cues as children use to differentiate play from non-play – mainly autonomy, freedom, and control. This study adapts loose parts play (LPP) as a playful

approach to improve child social-emotional development. LPP accords with affordance theory and underpins the argument that children's environment affords different types of play and that children perceive the functions of the environment as invitations for certain activities. Nicholson developed the idea of loose parts play in 1972 in his paper *The Theory of Loose Parts*. Loose parts or open-ended materials are natural or synthetic resources that can be used in more than one way, thereby allowing children to experiment through play (Gibson et al., 2017). LPP has been developed as a means of improving the quality of the 'play offer' while maximizing the opportunities for child-led play and opportunities for engagement (Gibson et al., 2017). LPP theory, stated simply, is that in any environment, both the degree of inventiveness and creativity and the possibility of discovery are directly proportional to the number and kind of variables in it. Loose parts provided examples such as materials and shapes, smells and other physical phenomena, such as electricity, magnetism and gravity, media such as gases and fluids, sounds, music, and motion, chemical interactions, cooking and fire; it also can encompass other humans, and animals, plants, words, concepts and ideas. The loose parts environment includes both natural and synthetic tools; it includes common play materials such as blocks, and natural materials such as sand, stones, and water (Sutton, 2011).

The rich environments that were full of natural open-ended materials encouraged children to think and behave in new ways. Hallet (2016) argued the importance of providing opportunities for children to explore, suggesting that a lack of interaction could limit children's knowledge of materials, properties and possibilities for their use. A growing body of research conducted within the past decade has elaborated on this concept by suggesting that loose parts provide players with experiences rich in quality, allowing children to be fully engaged, inspiring their social and/or emotional development (Barton et al., 2015; Farmer et al., 2017; Hyndman et al., 2014).

Since loose parts do not have a predetermined use or outcome, with experience children can adapt them to be used in multiple ways. Loose parts can thus be the most suitable method of educational play, because they better meet the characteristics of playfulness outlined above. Since LPP is intrinsically motivated and controlled by the children themselves, it therefore offers children opportunities for learning through unstructured play

in a way that is not dominated by adults (Ridgers et al., 2012; Staempfli, 2009). Such unstructured play has minimal guidelines and rules set by adults, allowing and encouraging children to create their own play activities. Loose parts gives children the freedom to develop their play experiences based on their ideas and goals, rather than the play being predetermined by the materials or surroundings (Änggård, 2011). This means that the materials do not dictate the type of play in which children engage. Children create play episodes based on their past experiences, curiosity, creativity, and new ideas. Thus, the use of loose parts has the potential to mitigate the unnecessary constraints of reality and framing. Flannigan and Dietze (2017) for example, suggest that while using the loose parts, children do not explicitly exhibit stereotypical gender-defined or age-exclusion behaviours.

The theory of loose parts provides educators with insights into how loose parts in the environment support children in being able to create rich and diverse playful experiences. LPP seeks to allow each child to use their ideas and imagination and to create spaces to play using whatever is in their surrounding area. LPP is an opportunity for children to play with friends, investigate, discover, explore, create, and engage in trial and error in order to learn for themselves, use their initiative, and learn to make their own judgements and choices.

It could be proposed that LPP could offer the autonomy, freedom and control children need. It creates a playful, fear-free, and flexible environment that allows children to try out new ideas, test boundaries and take risks in their own self-regulated space. Although the theory of loose parts was developed over 40 years ago, Houser et al. (2016) suggested that the use of loose parts within everyday practice is vague. How to loose parts in practice to support play in preschool is unclear. Although reference is made to the use of LPP on children's social-emotional development, the true extent of its impact is even less clear. There are gaps in the existing evidence; further research is needed to explore the socio-emotional domain, as well as educators' and children's perspectives (Flannigan & Dietze, 2017; Gibson et al., 2017).

### 2.2.6 Play and the Child's Development

Different perspectives on play functions from different theories have been discussed above. Classic and modern play theories vouch for the importance of play in enabling children to develop. Recently, a large body of research affirms the centrality of play to children's development. Researchers suggest that there are three ways to consider the relationship between play and child development. The first is play as a window that simply reflects the current status of a child's development. The second is play as a context that reinforces development. The third is play as a context that may result in development (Johnson et al., 1999). Scholars such as Johnson et al. (1999) and Frost et al. (2008) have demonstrated how play facilitates development in each of the developmental domains including physical development, language development, cognitive development, and social-emotional development. This section provides a review of the centrality of play to child development.

***Physical development:*** Regarding children's physical development, an extensive body of research focuses on the effectiveness of play in enhancing the child's physical development (Bekker & Eggen, 2010; Burdette & Whitaker, 2005; Herrington & Brussoni, 2015; Holt et al., 2008; Marr et al., 2003; Van der Linde et al., 2015). Literature reveals that when children actively participate in a range of different play activities such as running, jumping, climbing, and chasing after each other, these activities can generate great physical benefits such as increasing physical activity levels, improved fundamental movement skills and healthier weight (Goldfield et al., 2016; Janssen, 2014; Johnstone et al., 2017). Regarding the impact of play on children's physical development Bundy et al. (2011) studied unstructured play among children aged five to seven years in schools. They aimed to engage children's instincts for natural playfulness to promote physical activity. The investigators noted an increase in physical activity and argued that opportunities to experience the benefits of motor skills' challenges could be offered to children through play activities in schools.

***Language development:*** Many researchers of play have focused on how it shapes a child's language development. Play allows for extensive engagement between the child and other people such as parents, teachers, and peers (Smith, 2010; Vygotsky, 1967; Zigler & Bishop-Josef, 2009). This type of interaction can advance children's linguistic capabilities, as language chiefly develops through social interactions (O'Neil-Pirozzi, 2009; Paes & Ellefson, 2018). In this context, play allows children to use language; as they make use of their play sessions to express their ideas and views, which in turn helps to develop their language capabilities (Athanasiou, 2007; Banerjee et al., 2016). Fekonja et al. (2005) conducted a study aimed at evaluating children's use of language during three activities: free play, routine activity, and guided activity. Their research sample included 60 children, aged four to five years. The children's speech was recorded during each of the three activities. Their results show that children spoke significantly more, used more multi-word utterances and interrogative clauses, and also used their language more frequently in the symbolic and regulatory function during free play than during routine and guided activity. In another investigation to understand play and language, Kwon et al. (2013) investigated the influence of the activity setting (structured task versus free play) on parent-toddler engagement and language use. The results of their research indicate that free play rather than the structured task setting was associated with more favourable child and parent interactions and enhanced language use.

***Cognitive development:*** In terms of this developmental domain, contemporary scholarship confirms that there is a strong relationship between play and the strengthening and augmentation of cognitive abilities (Ginsburg, 2007). Runco and Cayirdag (2013) found that engaging in play allows creative thinking to develop based on the fact that it allows children multiple possibilities for making sense of diverse situations or concepts. Strong links between play and the development of educational skills have been found, such as those related to the fields of maths and science. In this regards, Fisher et al. (2011) observed that while playing, children practise skills such as addition, subtraction, measuring and ascertaining volume. Play with objects such as blocks, sand, and balls facilitates logical scientific thinking, such as the cause-and-effect principle (White, 2012). Gmitrová and Gmitrov (2003) studied the effect of two forms of the playing process – teacher-directed play and child-directed play – on children's cognitive performance. Fifty-one children aged

between three and six were participate with a main age of 4.6 years. Results illustrate a significant increase in cognitive manifestations in child-directed play compared with teacher-directed play which is related with better employment of the free-play activities.

***Social-emotional development:*** The relationship between children's play and their social-emotional development is discussed here in greater detail than the categories discussed above, given that the focus of this study relates directly to this category. Research relating to this category is particularly extensive. Children's play has been shown to foster children's social-emotional development such as their self-regulation, self-awareness, emotional expression, understanding others' emotions, management of one's emotions, and the establishing of stable communicative practices (Abdollahian et al., 2013). Weisberg et al. (2013) go as far as to argue that without play the development of social-emotional skills is impossible. Through play children usually try to practise some skills such as self-control by following games' rules and the directives of fellow playmates (Bodrova, 2008).

Coplan et al. (2006) further stated that play allows for the development of essential interpersonal skills, such as the ability to be cooperative, and negotiation skills. Play is an important facilitator of social skills because the rules of, or the pre-set characters featured therein, provide children with a template for participating in a socialising process (Golinkoff et al., 2006; Newton & Jenvey, 2011). In this regard, Hughes (2009) stated that engaging in imaginative play could play an important role in developing children's empathy, as in doing so they attempt to think and act as if they were a different person. Through focusing on rules underpinning a particular play-scenario, children gain an understanding of the skills needed to facilitate social interactions in general: for example, by playing the dramatic role of a fireman or a baby or a teacher, children develop the empathetic skills needed to function appropriately in adult life.

Additional to make-believe play, Jarvis and George (2011) focused their research efforts on rough-and-tumble play in particular and argue that it allows children to hone the social skills of collaboration, cooperation and competition, all of which fundamentally underpin the workings of adult societies. In the course of developing social-emotional skills, play ultimately shapes the child's sense of self, as it allows them to form notions of who they

are, in terms of their gender and their cultural and sexual identity (Broadhead & English, 2005; Hislam, 2005).

During childhood children face certain social-emotional challenges, such as stress and trauma. Children need to express their understanding and perception of these challenges and conflicting situations by using their own way: play. Since young children have yet to develop the cognitive and linguistic skills needed to deal with challenging thoughts and feelings, play and fun could facilitate children's symbolic expression without burdening them with the necessity of using a verbal discourse characteristic of the adult world (Maitra et al., 2002). Play presents an opportunity for children to regulate such experiences, and as such acts as a means for coping with stress. It enables children to re-enact difficult experiences after they have happened and can equip them for dealing with similar problems potentially arising in the future (Haight et al., 2006; Johnson et al., 2013). Howard (2010) argued that play is an important means through which children can surmount challenges and manage stress. She posits that play affords children a greater sense of independence, choice and control over their situation than do other contexts of being, and as such functions as a low-risk environment in which the child may develop skills and characteristics that facilitates intellectual and emotional intelligence.

The literature suggests that unstructured free play may independently promote well-being among preschoolers. For instance, Lee et al. (2020) conducted a quasi-experimental study with 42 children aged four to six years, attending two kindergartens in Hong Kong. The intervention included unstructured play with non-directional loose parts (play materials) conducted outdoors for one hour daily. The intervention lasted for five consecutive days. They examined the children's happiness and their presentation of 'aspects of playfulness' before and after the intervention. The study concluded that unstructured play intervention is effective in promoting children's happiness and playfulness, both of which may help maintain good mental health and well-being.

Play has been found to have an important role in helping children deal with life challenges and disasters, Frost (2005) focused his attention on emphasising the benefits of play in helping children who have experienced natural disasters. As a play therapist he advocates the therapeutic powers of play. Frost found that, through play, children express emotions



that relate to situations over which they have no control. This helps them to develop mastery over stressful situations. Fearn and Howard (2012) conducted a study aiming to support children who had experienced trauma or hardship, including children who had experienced bombing in Beirut, abandoned Romanian children, and street children in Rio de Janeiro. The study strongly supported the theory that play constitutes a means through which children can overcome difficulties.

Despite the manifold benefits of play for child development, some scholars have argued that certain aspects of play, such as excessive competition, can be detrimental. Some play activities may encourage children to try to that one child is better than the others. This type of competition is suggested to have negative effects on children. Tassi and Schneider (1997) pointed out that it is more likely that children who compete as a mere means of demonstrating their superiority can become aggressive. A similar view is also shown by Kohn (2013) who believes that the element of competition inherent in play is not basic to human nature and can be quite harmful. He makes a strong case for the idea that competition creates anxiety and undermines the development of excellence, perseverance, empathy, loving and supportive relationships. However, Kohn (2013) also argued the necessity for the child to gain a series of small victories when first developing a skill; he suggests that the ultimate goal is for them to conceptualise the idea of, and develop a genuine interest in, whatever skill they are learning. Hughes (2009) opined that competitive play does not appear to be psychologically detrimental to children because children partaking in such play do not tend to forget how to cooperate. He states that competitive play may thus aid in preparing children for the competitive nature of adulthood.

Regarding further detrimental aspects of children's play, some preschool staff have argued that some types of play can be harmful, noisy, disruptive and lead to a real fight (Smith & Pellegrini, 2008). In fact, research suggests that nearly 1% of rough-and-tumble play bouts turn into real fighting. Yet, this is common for some children who lack social skills and are rejected by playmates. These children often respond to rough-and-tumble play aggressively (Pellegrini & Nathan, 2011; Zinzani et al., 2010).

Play benefits have also been questioned by some researchers such as Yelland (2011) who suggested that play by itself is not sufficient to facilitate development but must be

complemented by new technology and formalised teaching practices as a means of supporting learning in various manners, instead of just being seen as an automatic catalyst for learning. Yelland minimised the importance of play, since he states that it is a triangular cycle (play, technology and pedagogical practices). Yet, play facilitates every facet of childhood development, ranging from physical development to the higher cognition-based skills of social interaction, understanding and managing emotions, and language; as the NAEYC states,

Research shows that play supports children's improvement in many ways. When young children play, they involve in several important tasks, such as developing and practicing newly acquired skills, using language, taking turns, making friends, and regulating emotions and behaviour according to the demands of the situation. Therefore, play needs to be a significant part of the young child's day (qtd. in Copple & Bredekamp, 2008, p. 328 ).

The functions and benefits of play are not limited to the improvement of children's skills; rather they exceed this to be used as intervention for both development and therapeutic purposes. This is discussed in the next section.

### **2.2.7 Play intervention for developmental purposes**

In general, an intervention is the implementation of an action, with the aim of supporting someone who is having problems or difficulties with performing tasks and requires help dealing with them (Albrecht, 2017). Play is used in one form or another by most childhood practitioners. One reason for this is that children often lack the cognitive and verbal abilities to express adequately their feelings and ideas. Play can be used to reveal what the child has experienced, the child's feelings and reactions to their experience, what the child wants, and the child's sense of self (Landreth, 2002). Playful activities help the child develop new skills and gain more complex capabilities (Kuhaneck et al., 2010). Play as an intervention tool is relatively new but is becoming increasingly popular with practitioners and researchers.

Play intervention refers to interventions which are conducted within the context of play (Kelly-Vance & Ryalls, 2008). This type of intervention stems from psychoanalytic work with children at the turn of the twentieth century (Kelly-Vance & Ryalls, 2008). The work of previous childhood educators, including Piagetian theorists, dialectical theorists and

social learning theorists has supported the idea of using play in intervention (Linder, 1993). It has been stressed that this kind of intervention can be conducted across many settings, both at school or at home, either as one-to-one activities between an interventionist and a child, or within small group settings (Russ & Niec, 2011).

Within preschool settings, play interventions can be carried out by external professionals such as special educators, psychologists or counsellors; it also can be led by preschool teachers in both group and individual settings (Chen, 2006). Play interventions are achieved through interactive play, using a range of strategies. These might include modelling, verbal redirection, reinforcement and indirect instruction aimed at sustaining and encouraging a child's play (Demanchick, 2019). Play-based interventions can be adult-mediated as well as peer-mediated. In adult-mediated play interventions, the adult interactively plays with and guides the child, modelling different behaviours. In peer-based play interventions, the child plays interactively with their peers, under adult supervision (Becker, 2015; Dennis & Stockall, 2015; Trawick-Smith, 1998). Practitioners have used information obtained from children's play in order to determine their mental health needs (Kelly-Vance & Ryalls, 2008).

The field of using play intervention is controversial, and the effectiveness of using this kind of play is subject to debate. Several studies in child development have sought to find strong evidence regarding the relationship between play intervention and child development. This includes children's physical development (Bundy et al., 2011), language development (Kasari et al., 2008), cognitive development (Bergen, 2002) and social-emotional development (Hromek & Roffey, 2009).

Focusing on the use of play intervention in children's social-emotional development, play is thought to be a developmentally appropriate way to improve children's social-emotional skills (Chaloner, 2001). Thus, social-emotional skill interventions provide activities for children to engage in child-initiated social play (Coolahan et al., 2000; McClellan & Katz, 2001). In the field of social-emotional play intervention, a number of studies have discussed the effect of this kind of intervention in improving social-emotional development for children with mental health issues, for instance autistic spectrum disorders, learning disabilities and children with Attention Deficit Hyperactivity Disorder (ADHD) (Denning

& Stanton-Chapman, 2014; Gutman et al., 2012; Han et al., 2010; O'Connor & Stagnitti, 2011).

Contrastingly, preschoolers deemed to be developmentally typical do not appear to have received this level of attention. Some studies have highlighted the use of play intervention to improve these children's skills, or to help them to cope with life challenges. One such study is that of Pearson (2008); this sought to determine whether a Cognitive Behavioural Play (CBP) intervention would be effective at enhancing feelings of hopefulness and improving preschool-aged children's adjustment to school; 48 such children participated in this randomised study. It was hypothesised that the CBP Intervention group would demonstrate significantly higher levels of hopefulness and greater adjustment to school than the control groups. Methodologically, a mixed-methods approach was used to assess at the baseline and the outcome of the children's perceived levels of hopefulness and competence, their problem-solving abilities, the extent to which they enjoyed the school experience, their social competence, anxiety-withdrawal, and their play processes. The results of the study demonstrated that, compared to the control group, the CBP Intervention group showed significantly higher levels of hopefulness, higher social competence, and fewer anxiety-withdrawal symptoms.

Hromek and Roffey (2009) also sought to provide empirical support for the use of play with developmentally typical children. They argued that games played a powerful role in developing young people's SEL, identifying the effectiveness of using games to teach SEL; for instance, Circle Time games were used to support children's SEL. The results of this study confirmed the usefulness of such games, concluding that they constituted an effective resource in SEL. In another study, Li et al. (2016) offered a preliminary evaluation of the effectiveness of the use of play intervention in developing social interaction, prosocial behaviours, and socio-communicative skills in young children. Their participants were a group of 16 young children at a preschool in China who presented extreme shyness. These children were randomly allocated into two groups; the Social Skills Facilitated Play group and the control group. The children were assessed at the baseline, post-intervention, and in a follow-up two months later. The assessments included observations of the children's social behaviours. The study concluded that compared to the control group, the children

who participated in the Social Skills Training Facilitated Play programme demonstrated significantly greater post-intervention frequency of peer interactions, and enhanced prosocial behaviours during play, along with an improvement in children's social-communicative competence during a speech task. These improvements were observed to have been maintained at the follow-up two months later.

During childhood the child can experience not only developmental and social challenges but can also experience traumatic events such as parental or sibling bereavement, divorce or separation of the parents, or sudden dislocation because of social upheaval or natural disaster. Such traumatic events often negatively impact on a child's sense of well-being, causing negative emotions such as anxiety, resentment, sadness, and anger to predominate (Clulow, 1990; Pedro-Carroll, 2001). Several studies have sought to examine the role of play intervention in helping children to cope with such events.

The Children of Divorce Intervention Program (CODIP), for example, has been considered as a preventive intervention to help children affected by the stresses and negative emotions associated with parental divorce. Pedro-Carroll and Jones (2005) found that play was an essential component of the CODIP interventions programme, using tools such as puppets to meet the aims of the intervention and to engage the children and enable them to safely express feelings, learn, and practice new skills. Pedro-Carroll and Jones also demonstrated how play-based interventions hold promise for reducing the stress of an adult relationship breakup on children, inculcating resilience and healthy development.

Play intervention has also shown promise in enabling children to adapt positively to the stresses caused by biomedical traumas such as the effects of disease, hospitalisation and surgery. For example, a randomised controlled trial study carried out by He et al. (2015) investigated how play intervention reduced perioperative anxiety, negative emotional manifestations and postoperative pain in a group of 95 children who were undergoing elective surgery as hospital inpatients and who had presented pain, negative emotions, and anxiety. These children were randomised into a control group which received routine care without play intervention (n=47) and an experimental group (n=48) who received an hour of play intervention daily. The study found that the children in the experimental group manifested significantly lower scores for negative emotional prior to anaesthesia, and also

lower scores for postoperative pain. This finding was consistent with the results of Li and Lopez (2008) who also demonstrated the efficacy of play in preparing children for surgery.

Contrastingly, there are also several studies which have not been conclusive in demonstrating the effectiveness of play interventions in facilitating child development in stressful circumstances. These include Foulkes et al. (2017) and Bronz (2004). The latter examined how effective playgroup interventions were in developing social competence, executive functioning, and general good behaviour in a group of 24 four to six-year-old children living in out-of-home care. The children in the intervention group participated in twice weekly sessions, comprising two-hour therapeutic playgroups over seven weeks. Overall, the results showed that there were no significant benefits to playgroup intervention in children's social competence or executive functioning in this context.

Thus, it can be seen that different studies have presented mixed results in assessing the effectiveness of play interventions in child development in various contexts, with some demonstrating the effectiveness of play interventions and others questioning its utility. As a result, Noetzel (2011) recommended that further studies in the use of play interventions in child development contexts are needed, and that future studies should focus on the relationship of play to children's social-emotional development.

### **2.2.8 Parents' and teachers' perspectives on play**

children develop through play has been widely cited as being as beneficial for preschool children's language and their social, emotional and their cognitive skills (Bodrova et al., 2013; Myck-Wayne, 2010; Pyle & Bigelow, 2015). While play is critical, it is affected by social, cultural, and historical factors (Peterson et al., 2015). Therefore, when studying play and the contribution it makes to the development of children, it is important to take into consideration the point of view of parents and teachers. This section provides a review of the parents' and teachers' perspectives on play.

***Parents' perspectives on play:*** Previous literature regarding parents' perceptions of children's play shows some variation in viewpoints. Some literature maintains that certain parents were more likely to embrace play as being important for children's development and learning. This includes Singh and Gupta (2012) as they demonstrated that parents view

play as an essential component of child development. Singh and Gupta conducted a study of 14 Indian families selected from two residential areas, one containing residents with high incomes and one with low incomes. The study illustrates that parents of both low and high incomes affirmed a positive relationship between play and general development, and, more specifically, associated it with getting enough exercise, gaining pleasure and expending excess energy. Similarly, Sengupta (2016) examines the views of three Indian immigrant mothers to determine their views regarding children's play. The study found that the mothers regarding play as a means of facilitating learning via appropriately designed activities, as well as general development.

Lin and Yawkey (2013) also sought to gain an understanding of Taiwanese parents' perceptions of child's play. Their data were collected via parent questionnaires. A total sample of 142 parents, with children aged four to seven years participated in the study. Findings revealed that Taiwanese parents valued the effect that play had on children's development, clearly supporting it for their children. In Queensland, Australia O'Gorman and Ailwood (2012) investigated parents' views on play by analyzing the views of 26 parents. The parents in the study held complex and contradictory notions of its value. Positive views of play were linked to learning, as play enabled children to learn without realizing that they were learning whilst engaging in hands-on activities, thereby preparing for Year One through a strong focus on academic progress.

Nevertheless, some families saw play as merely incidental with regard to childhood development and preferred more traditional learning methods. In O'Gorman and Ailwood's study (2012) most of the parents who participated considered play to be acceptable if it happened after the 'work' of school was completed. Some of these parents preferred less play in the classroom. Parents' understandings of the concept of play were further examined in Malaysia, during a study, in which Badzis (2003) interviewed 30 parents. The findings of the study indicated that most of the parents preferred a more formal learning environment for their children's pre-school activities. The study illustrated that only a few parents considered play to be an appropriate way for children to learn. Parmar et al. (2004) study the ways in which European-American and Asian-American parents value play,

finding that Asian parents generally preferred an early start to academic learning, over the provision of play.

***Teachers' perspectives on play:*** When reviewing the literature relating to teachers' perceptions of play, it appears that, in general, preschool teachers regard play as a valuable fun activity, presenting children with opportunities to learn and develop. For instance, a survey in Ghana, Dako-Gyeke (2008) studied what 221 preschool and kindergarten teachers thought about children's play. Dako-Gyeke revealed that both preschool and kindergarten teachers who were questioned thought that play is a pleasurable and important activity, with many learning and developmental benefits for children.

Fesseha and Pyle (2016) sought to gain insight into how preschool teachers define play and play-based learning. They found that teachers remarked upon the positive perspectives of play. Participants within the study had developed two definitions of play: one focused on social development through play and the other on academic development through play. Such a view was supported by Wood and Bennett (1997), as their study indicated that the teachers strongly valued play in the early development of children. They regarded play as a way to develop children's self-confidence, motivation, self-esteem and positive self-image. Furthermore, play was also viewed as an appropriate developmental method, in which children interact with others on their own level and express their emotional, intellectual and social needs.

In a qualitative case study, Russo (2009) focused on the academic development through play. Russo explored the relationships between play and children's academic learning. The research questions aimed to address whether the relationships formed during play related to academic learning, and if so, how. Russo claimed that teachers tend to value the inclusion of play as part of the preschool curriculum. The participants stated that a rich classroom environment was made up of learning experiences that the children created for themselves within their play episodes. The opportunities for problem solving, reasoning, conversation, language exploration, the use of numeracy skills, prediction, observation, pre-reading and writing skills are endless in play and, given the diminished role of the teachers within the play episodes that occurs in the classroom, these learning experiences were mostly initiated and organized by the children themselves.



Papatheodorou (2010) indicated that teachers not only see play as an important means for children's learning and development, but also consider it as a positive way for them to 'identify and determine a child's current level of learning and development, recognize her or his potential for learning and development, identify the skills that the child needs to reach that potential, and determine the support required from adults and peers' (p.263). Using play to observe children could be effective given that, as multiple researchers argue, children develop every dimension of human experience through the act of play (Bray & Cooper, 2007; O'Grady & Dusing, 2015). This method is effective also because children tend to display their skills by simply 'showing' or 'doing' them, rather than working to produce an abstracted representation of how they habitually behave in order to answer a question (Shepard et al., 1998). Most contemporary researchers agree that observing children in their natural environments is more likely to generate accurate and useful data than if the children being observed are placed in artificial settings (Bronfenbrenner, 1977; Pellegrini et al., 2012).

The above literature explores parents' and teachers' perspectives on play, which is important as a means of improving the quality of play practices in early childhood education. Although research in Western developed countries has previously explored the various opinions towards play, the views of Saudi preschool participants have seldom been documented. It was therefore important that the views of Saudi preschool teachers towards play become part of the current study research questions.

### **2.2.9 Factors affecting the implementation of play in preschool settings**

By reviewing the literature, it is generally acknowledged that play can provide rich contexts for children's development. However, evidence from previous research show that several variables could influence the implementation of play. The dimensions which affect the implementation of play in practice can be belonging to one of the following categories: structural challenges; the expectation of childhood practitioners; parents' attitudes, and; children's safety. Each of which is furtherly described in the following part.

**Structural challenges**, such challenges mainly relate to preschool settings, specifically the preschool curriculum, and the allocation of time and the play environment. Play as a

developmentally appropriate practice in preschool classrooms is currently at risk. Researchers have noted a change in preschool curricula that places more emphasis on academic exercises (Bassok et al., 2016; Fisher et al., 2008). Some educators think that all children have the ability to learn anything, when it is appropriately structured and presented (Fisher et al., 2008). Recently, preschools have been rife with mandated academic curricular standards that are prescriptive rather than emergent in nature (Heydon & Wang, 2006). This shifting of curricular expectations have led to an increasing emphasis on the delivery of structured, academic learning for preschool children (Bassok et al., 2016; Fisher et al., 2008; Frost et al., 2008; Ranz-Smith, 2007). This requirement to teach to prescribed, academic standards has resulted in numerous pressures from administration that teachers maintain are limiting their ability to successfully preserve the element of play in the classroom (Fesseha & Pyle, 2016; Lynch, 2015).

In addition to the high priority placed on the academic aspect of the curriculum, another factor is the distribution of time. A review of the literature shows that teachers face some time constraints when dealing with the complexities of play. In Abu Dhabi, 62 teachers participated in focus group sessions, the aim being to explore teachers' prioritization of the factors that impact upon the quantity and quality of their play practice. Teachers described time pressure as being their main challenge. Teachers highlighted the fact that the amount of time necessary to prepare for the academic curriculum meant that considerably less time was available to devote to preparing for play (Baker, 2014). Pyle et al. (2018) conducted a study which aimed to investigate how literacy learning integrated with play-based pedagogies. A total of 12 preschool teachers were interviewed. The study found that teachers struggled to find a balance between implementing play-based approaches to learning and ensuring that all children met curriculum standards.

The features of the play environment can even determine the way in which children will play and the amount of time they spend playing. In general, larger spaces, rich materials and play equipment were perceived to benefit children's playfulness and activity levels (De Craemer et al., 2013; Lyn et al., 2014; Ozdemir & Yilmaz, 2008; Tovar et al., 2015). Smaller play areas, on the other hand, often experience a conflict of use that severely limits children's activity and the type of play available to them (Escalante et al., 2012; Ozdemir

& Yilmaz, 2008). Research has found that the levels of complexity and variety in the play space affect children's play in that simple, less detailed and more open-ended play materials tend to promote more imaginative and dramatic play (Fjørtoft, 2001).

***Expectations of the early childhood practitioners:*** Wood and Attfield (2005) stated that one of the most important factors that influence the implementation of play is the beliefs of practitioners and their ability to effectively use their personal knowledge and understanding. In this regard, Kagan (1990) indicated that there are several barriers that could hinder the implementation of play in preschools. Some of them are related to attitudinal barriers; these barriers are linked to the perception of the significance of play. Kagan indicated that when teachers or administrators distrust the learning outcomes from play, when compared to more formal learning activities, they tend to construct a dichotomy between play and work, thus influencing the implementation of play in practice. Even though a large number of practitioners believe in the value of play and its role in improving children's development, there still exists a bipolar construct that leads to a widely accepted mistrust of play (Anning, 1997; Cheng & Stimpson, 2004). Some of the early childhood practitioners still consider play as being purposeless and believe that play is purely for leisure, whilst work is the only serious business of life (Anning, 1997; DeVries, 2001).

***Parents attitudes:*** Despite the research base for developmental programmes and play within education, parents' attitude is an element affecting the implementation of playful practices. Educators still face opposition from families and society in general when it comes to play in the classrooms. Adults who have not been educated about child development theories may have difficulty appreciating how play in the classroom is able to encourage children's growth. This particular attitude is reinforced in a number of studies. Elkind (2005) highlighted that some parents have a hard time understanding the benefits of play. As a result, some parents may avoid or question the practices of programmes that involve play as a major part of their curriculum. Studies illustrate that when parents have a better understanding of play and its potential, their children achieve higher levels of play (Fisher et al., 2008).

***Children's safety:*** This is another element affecting the implementation of play in practice (Lester & Russell, 2008). Currently, there is mounting support for the notion that parents

should ensure that their children attend the ‘best’ schools, participate in a multitude of organized activities, and are given as much protection as possible (Carver et al., 2008; Hoffman, 2010; Shirani et al., 2012). Many societies are becoming increasingly risk-averse; with the consequent culture of fear, some parents tend to see risk as something negative (Gill, 2007; Lester & Russell, 2008). Parental safety concerns have resulted in greater restrictions being placed on children’s playful activities and the growth of adult-controlled, and structured play spaces (Lester & Russell, 2008). Teachers usually only make use of a little unstructured play time and adopt a risk aversion attitude when it comes to arranging play activities (Little & Eager, 2010). Wu and Rao (2011) asserted that teachers only provide certain types of play activities within the classroom and avoid providing those playful activities which they consider to be risky.

The afore-mentioned literature indicates that there are numerous factors that influence the implementation of play within preschool. It is important to explore these influences in order to improve the quality of early childhood education. Although research has identified several challenges which might affect the implementation of play in practice, when it comes to the difficulties of implementing play, the opinion of Saudi preschool teachers is not often heard. Therefore, to probe the aspects that influence Saudi preschool teachers’ play practice becomes a part of the current study.

The importance of playfulness and the implementation of play in preschool context was highlighted in the previous part of this literature review. Theorists and researchers assume that children from all cultures play. For example, Roopnarine (2012) stated that ‘in all human societies observed to date, children engage in some type of play or play like activities’ (p.228). While some educators would say that all children play in basically the same way (Fasoli, 1999), a number of scholars have suggested that children's play differs across cultures and status (Roopnarine et al., 1994). Therefore, as this study focuses on the use of play in Saudi Arabia, it is important to highlight this context. The next section provides an overview of preschool education in the Kingdom of Saudi Arabia.

## **2.3 PRESCHOOL EDUCATION IN THE KINGDOM OF SAUDI ARABIA**

In this section, a brief overview of the education system in the KSA is given, followed by a more detailed description of the Saudi pre-school system and the standards that apply to the pre-school education. Earlier research related to the use of play in Saudi pre-schools is also presented. As the terminology in the relevant literature varies, the following terms will be used interchangeably: early childhood education, pre-school education, kindergarten education, and early year's education.

### **2.3.1 Introduction to the education system in the Kingdom of Saudi Arabia**

In the KSA, there is a homogeneity of Islamic culture between Saudi nationals, so that within the Saudi cultural context Islam affects all areas of public life for Saudi citizens (Gahwaji, 2006). This includes all aspects of Saudi education such as education planning, curricula, methods of education, educational administration, education tools and related activities. The principles underpinning education in the KSA are predicated upon the view that educational processes and practices should be rooted in religious values, meeting the needs of society and achieving national objectives. Aware of citizens' rights to education, the Kingdom has adopted the international practice of 'Education for All': the provision of free, basic compulsory sector education as determined by the International Declaration of Education for all, ensuring female education and the education of those from deprived backgrounds in the phases of early childhood education, basic education and adult education (Al Shaer, 2008). Accordingly, the importance of education to the Saudi government is reflected in its prominence in the annual budget: in 2020 education was allocated more funds than any other developmental area (Ministry of Finance, 2020). Thus, the general education system in the KSA is provided free for all citizens, as are books and school healthcare (Alamri, 2011; Alsharif, 2021; Onsman, 2010); also, a stipend equivalent to around £150 is provided to all tertiary sector students at public universities.

The principle aim of the Saudi education system is to facilitate a correct and complete understanding of Islam, enabling students to disseminate Islamic doctrine and providing them with Islamic values and instruction, leading to the acquisition of various skills, and

developing constructive behaviour to enrich society economically, socially, and culturally, so that citizens become pro-active in the construction of civic society (Ministry of Education, 2006).

This broad objective permeates all six phases of education. Thus, pre-school education, an optional level, prepares the youngest learners for primary education over a two- to three-year period: at age four, children are enrolled in nursery school and at age five they are enrolled pre-elementary school. The second educational level is primary school, which is a compulsory level in Saudi Arabia, and is the basis for all further educational development. The elementary phase lasts six years and begins when children reach age six. Intermediate phase education lasts for three years when children are aged 12 to 14. The fourth phase, secondary education, lasts three years, generally when students are aged 15 to 18. The final two phases of education, undergraduate and postgraduate are optional following the secondary phase when students are 18 or older. Higher education is provided free for all Saudi citizens who are suitably qualified to enter it.

Returning to pre-school education in the KSA, it is an optional phase and is not part of the formal, compulsory structure: the compulsory phase (elementary school) does not require pre-school attendance (Ministry of Education, 2007). Nonetheless, the Saudi Ministry of Education does supervise pre-school provision, as it does all following phases of compulsory education (Abduljawad, 2008; Rugh, 2002). The following section gives further details of the pre-school phase.

### **2.3.2 Early childhood education in the Kingdom of Saudi Arabia**

Formal early childhood education began in Saudi Arabia relatively recently. As the second half of the twentieth century progressed, women started attending schools and universities, and some began working outside of the home. As a result, a necessity for pre-school provision arose, which increasingly has been met over the past 40 years (Badawood, 2006). The first public pre-school in the KSA opened in 1966 in the capital, Riyadh (Abduljawad et al., 2008). This was followed by two more in 1967 in Dammam and Ahsa (Alhamed et al., 2007). The first private nursery opened its doors in 1969, followed by many others;

however, access to these private institutions tended to be limited to a few wealthy families (Alhamed et al., 2007).

While attendance at pre-school is not compulsory, year by year the numbers of pre-schools increased steadily. The past 20 years have seen a huge development of this sector (Badawood, 2006). In 2011, for example, the total number of public kindergartens was just 832, which grew rapidly to 2,323 by 2014 (Meemar, 2014). This increase indicates the growing priority of pre-school education for Saudi families, and the sector's increasingly important role in the wider Saudi education system. Nevertheless, enrolment in pre-school education in the KSA is still only around 10-12%, which is low in comparison with developed countries (Qasabi, 2012), presenting a challenge to the Saudi sector. Accordingly, the Saudi government has increased its funding to the public pre-school sector and has introduced subsidies and loans to private sector pre-schools (Ministry of Education, 2015).

In the KSA, a 'nursery' is an optional childcare centre for children aged from birth to three years, with a focus on care rather than education. For children aged between three and six 'pre-schools' are also optional. At these levels boys and girls attend together, although the staff and teachers are almost exclusively female. The pre-school sector is divided into three levels: KG1 for children aged from three to four; KG2 for children aged from four to five years; and KG3 for five- to six-year-olds (Aljabreen & Lash, 2016).

Involving women in education and in the workforce has led to a continuous improvement in the Saudi pre-school sector, yet the aims of the sector are boarder than simply replicating the conditions children experience in the home. The goals of Saudi pre-schools involve developing the child's personality in an integrated manner. Thus, its objectives are as follows (Ministry of Education, 2006):

- Protecting children and attending to their moral, psychological and physical development in a nurturing environment.
- Laying down the basis for children's future religious learning based on the belief in the oneness of God (*Tawheed*, the Islamic doctrine of Divine unity).

- Inculcating positive behaviour in children by providing a positive role model for them at pre-school, enabling them to acquire the virtues and behaviours expected by Islam.
- Introducing the children to the atmosphere of school, preparing them for compulsory phase education, and socialisation with other preschoolers.
- Providing children with age-relevant and accessible information which is relevant to their social environment.
- Enabling children's physical development, including cultivating good sanitary habits and sensory exploration.
- Encouraging imaginative thinking in children, enabling them to blossom energetically under adult guidance.
- Meeting all the children's needs including their happiness and wellbeing, but without over-burdening them.
- Protecting children from danger, detecting early signs of bad behaviour and addressing childhood problems in an appropriate manner.

### **2.3.3 Preschool curriculum in the Kingdom of Saudi Arabia**

As in other parts of the Arab World and the wider developing world, pre-school education in the KSA is still developing and expanding, necessitating scholarly endeavour to study the sector and practices within it. Considerable effort has already gone into developing this sector, including the challenge of developing a Saudi early childhood curriculum, which has become a pressing issue. To this end, various pre-school models have been imported from overseas, leading to the development of modern early-years curricula such as High Scope and the Creative Curriculum, to address policy-makers' demands for developing globally recognised curricula based on current best practice (Al-Mogbel, 2014; Hanadi et al., 2015). However, it is important that such curricula are socially, culturally and linguistically appropriate (Rao et al., 2010). Particular attention has been paid to developing curricula that combine traditional Islamic teachings and modern, world-standard pedagogic theories and best practices (Samadi & Marwa, 2006).



In the early 1980s, a group of educators from the Arabian Gulf Programme of United Nations Development Organisations (AGFUND) developed the first kindergarten curriculum in Saudi Arabia entitled *The Developed Kindergarten Curriculum*, employing child-centred and self-learning approaches and organised thematically, with themes including family, friends, books and health and safety (Ministry of Education, 2006).

This curriculum has been implemented in several kindergartens and has been further developed in the light of experience gained in delivering it. Some studies highlighted certain weaknesses of the first version of the curriculum; for example, Maemar (1998) found that the teacher's guidebook presumed knowledge of self-learning and did not explain it sufficiently clearly for teachers. In 2006, a second version of the curriculum was published under the title *The Self-Learning Curriculum for Kindergartens*, which incorporated information about play, human interaction, flexibility, freedom, the respect and appreciation of a child's identity and culture, developing knowledge and skills, and inculcating productive relationships with families. The curriculum is written with teachers of all levels of experience in mind, including those still in the pre-service stage (Samadi & Marwa, 2006).

The Curriculum for Kindergartens is divided into six educational units based on social topics such as family and friends as well as natural world phenomena such as water and sand. Typically, a daily pre-school session is divided into five parts, beginning with a 20-30-minute morning circle led by the teacher, followed by a corner activities session of 45-60 minutes duration, a 30-minutes mealtime, 45-60 minutes of outdoor play and an end-of-the-day circle lasting about 30 minutes (Ministry of Education, 2006).

The MOE provides a guidebook for kindergarten teachers, suggesting themes, activities, worksheets, songs and lessons. Teachers are expected to plan sessions in advance and evaluate the lessons afterwards. The Self-Learning Curriculum facilitates self-learning by dividing the classroom into several 'corner activities'. This kind of organisation is designed to inculcate some play choices, giving the children the chance to choose what to learn, and to choose learning materials and tools (Alshoaibi, 2018). Teachers are expected to prepare the play corners thematically, providing activities that promote children's development in literacy, numeracy, and physical, mental and socio-emotional abilities (Ministry of

Education, 2006). The teachers' guidebook provides comprehensive information on how children self-learn, how they are continuously developing new skills, how the child proceeds from one learning stage to the next according to their development, and how children learn through receiving knowledge and information from their environment (Samadi & Marwa, 2006).

Contemporary Saudi preschool education philosophy is informed by modern thinkers such as Erikson, Freud, Frobel, and Montessori (Abduljawad et al., 2008). Thus, the Saudi preschool curriculum resembles the Western concept of child-centred and individual learning, defined as learning that depends on the child's own activities, interacting with various educational materials and toys available in the learning environment, which help the children to play and discover their own abilities according to their growth model (Ministry of Education, 2006). In the Saudi context, it is important that this approach should not conflict with Islam and Arab culture. Islam emphasises learning, discovering and play, stressing the centrality of children's play as one of the rights of the child. Play is positively mentioned in Holy Quran and the *Sunna* (the habitual practices of Islam following the example of the Prophet Muhammad), where it is viewed as an important activity which helps children to develop and learn (Alghamdi & Yahya, 2015). The importance of children's play has likewise been supported by Arabic philosophers as supporting future wellbeing, that to achieve normal growth children must play, an idea that can also be found in Plato (Hamroush, 1996). The highly influential medieval Muslim philosopher al-Ghazali further stressed the importance of play and its centrality to childhood, emphasising that play is a fundamental childhood need (al-Ghazali, 2004). However, this view also typologized play, limiting it so within specific times, and defining its various types. Arabic philosophers argued that learning should be a more formal activity, distinct from play, and that children would achieve more when they were taught more formally. This led to a situation where free play came to be undervalued by parents, teachers, educators and policy makers in the Arab world (Moyles, 2014; Almutawa, 2017).

This attempted separation between play and learning development therefore constitutes a significant cultural and political challenge to the use of free play in schools. At preschool, Saudi parents, like others in the Arab world, often connect learning with demonstrable

outcomes such as a child learning numbers, letters, shapes, and words. Parents can therefore become concerned if their children have play time frequently, giving rise to complaints (Almutawa, 2017). This situation led to the predominance of a didactic ‘traditional’ approach to learning in the preschool curriculum, somewhat akin to the ‘Gradgrindian’ approach that was once predominant in the nineteenth century West. However, during the twentieth century significant differences emerged between the educational strategies adopted in the developing Arab countries and Western countries such as the United Kingdom and the United States, where for several decades now free, unstructured play has been increasingly viewed as a valuable educational and developmental practice (Banerjee et al., 2016; Bundy et al. 2011; Coplan et al. 2006; Fisher et al., 2011).

#### **2.3.4 The quality of early learning in the Kingdom of Saudi Arabia (reality and hope)**

Despite the findings in the literature regarding the importance of pre-school learning and its beneficial impacts on subsequent phases of education, and development, previous literature in KSA has identified several problems that need to be addressed, such as relatively low levels of enrolment, and infrastructural issues (Al-Hawwaas, 1998; Al-Sunbul et al., 2004; Gahwaji, 2006).

Regarding enrolment, the Early Childhood Education National Conference held in Riyadh in 2012 noted a lack of awareness both in Saudi society as well as among decision makers regarding the importance of pre-school education. The KSA has not decided to make pre-school education compulsory or include it with the other general education stages. According to recently published government statistics, the population under age 15 reached 7.7 million people in 2011, 3.5 million of whom were between one and five years old. Of those, 1.32 million were of pre-school age, but only 103,145 are attending pre-school (Kingdom of Saudi Arabia, Central Department of Statistics Information, n.d.). Statistics published in 2019 show that while there are only 170 public pre-schools in Riyadh city, compared to 547 primary school in the same area (Ministry of Education, 2019). Al-Sunbul et al, (2004) mentioned several factors underpinning the relatively low level of pre-school

enrolment, chiefly the lack of awareness of the importance of this phase of education, both at the level of individual households and in society as a whole.

As for the infrastructural challenges, children typically spend some hours per day at kindergarten, so the quality of pre-school buildings is an important factor in young children's development (Lamb & Ahnert, 2007). Preschool buildings and facilities need to be fit for children to stay in and enable the effective teaching of the curriculum. Quality settings for preschool education should have spacious interior classroom spaces, a suitable outdoor play area, appropriate materials, and size appropriate furniture. Standards for preschool buildings should be referenced to appropriate health and safety regulations with children's safety paramount. Attention to detail is important here, such as using the appropriate types of doors, and ensuring that the windows in each room should meet safety regulations and specifications. However, many of these standards appear to exist only on paper and are not necessarily implemented. This extends to the construction of preschool buildings. In both the private and public sectors, most of the preschool buildings are either rented or are part of an existing building belonging to a primary school, rather than being purpose built (Gahwaji, 2006).

However, the government of Saudi Arabia is aware of these problems and challenges. Accordingly, they have designed a collaborative strategy with the King Abdullah Public Education Development Project, this initiative is known as TATWEER (development) and has the following aims (Al-Jarbooa', 2012):

1. Increasing the number of preschools by 120%.
2. Increasing the number of children benefiting from pre-school education by 97%.
3. Proposing kindergartens to become part of the compulsory sector.

In 2015, the Saudi government adopted an ambitious national strategy for reforming early childhood education, involving co-operation between the Saudi MOE and TATWEER with the National Association for the Education of Young Children. This project was the first such large-scale project in the Middle East region. After 14 months of operation, the project has issued a statement specifying pre-school provision for children aged from three to six years. The principal aim of this statement is to support pre-schools, teachers, caregivers,

and parents, informing them about the importance of pre-school education, the learning strategy used there, and the characteristics of children's developmental stages. This statement provided a foundation of information which could be used by educators and caregivers to understand the early years learning. This statement is based on the following principles (Ministry of Education, 2006):

- **Principles related to children:** the statement indicates children's ability to learn and develop; it also highlights the differences in children's learning styles and developmental progression.
- **Principles related to learning styles:** the statement indicates that children at this phase of education are active learners, and they learn most effectively through activities; it also emphasised children's inquisitiveness to learn and discover their environment.
- **Principles related to family and culture:** the statement highlighted the role of family, stressing that children's learning is affected by culture and traditions, and that active family participation in children's learning and development has a positive impact.
- **Principles related to children's rights:** the statement acknowledges children's rights, including their right to a high quality of education and well-trained teachers, and their right to have positive relationships and feel love and contentment with their families and caregivers.
- **Principles related to Islamic values:** the statement focuses on Islamic principles such as belief in God, honesty, sincerity, sympathy, love and respect for others.

Thus, the statement demonstrates a notable shift towards a modern style of early childhood learning in Saudi Arabia whilst respecting Saudi culture, traditions and beliefs. The statement has adapted NAEYC's position on early learning standards in a culturally appropriate package that is aligned with NAEYC's global vision and is recognised as Saudi Arabia's policy with regards to educational philosophy (Ministry of Education, 2006). These standards support children's comprehensive development and optimal learning in the unique cultural context of KSA, the standards encompass the following:

- Methods and approaches to children's learning.
- Children's social-emotional development.
- Language and early literacy development.
- Cognition and general knowledge.
- Patriotism and social studies.
- Islamic education.
- Health and physical development.

The description above suggests how early childhood education in the Kingdom of Saudi Arabia is still developing, and that the Saudi government is aware of the importance of this sector. The TATWEER programme has placed much emphasis on preparing professional, capable, competent, and well-trained educators, including in-service teachers, practitioners, and administrators (Hussain, 2013). Further, the new statement has emphasised the importance of pre-school learning, and outlines the learning styles, methods and the developmental domains appropriate to it. The new statement has sought to address pre-school education comprehensively. However, while the statement has highlighted the importance of play during childhood, it does not give any further information such as the kind of play, the play activities, or the amount of play that children at this stage need.

Importantly, the provision of such standards and documents is not enough in itself to ensure the provision of quality pre-school of childhood education: this cannot move forward without appropriate data. Thus, researchers can play a positive role by addressing the document critically, identifying gaps in it, and suggesting further best practices in the light of data. Researchers thus have a role to play in enriching early childhood education, and transforming the hopes and ambitions contained in documents to a classroom reality across the Kingdom. Thus, the current study plays an important role in shifting the attention from planning to practices, the better to enrich Saudi early education.

### **2.3.5 Previous research related to the use of play in the Kingdom of Saudi Arabia**

The use of play in education has been well-documented in the literature in many socio-cultural contexts across the world, including Africa, Asia, Australia, the United Kingdom and the United States. However, there is a relative paucity of such literature in the Arab world context, in particular in Saudi Arabia. In large part this stems from the fact that the importance of play in education in the Kingdom of Saudi Arabia has only been recognised relatively recently. This section of the thesis focuses on eight relevant research studies to date in the Saudi context and discusses the findings of these studies, a summary of these studies is provided in (table 2.1).

Aleem (1993) carried out a study of educative play in Saudi public-sector preschools. The main aim for that study was to evaluate the practice of using play in Saudi preschools in respect of play standards, children's needs and educational aims. To further enrich the study's aims, Aleem used a description method: by analysing the existing literature he came with a list of standards for the use of educative play in preschools, examining the relevant standards in comparison with actual practices in this field. The study's results indicate that the use of educative play in Saudi public preschools is insignificant compared to children's needs. He further discovered that while both teachers and preschool supervisors are aware of the relevant play standards as well as benefits of educative play, they did not tend to use them in their day-to-day practice. The study has recommended the provision of higher standards in the construction of preschool buildings. This includes providing an indoor and outdoor play space as well as providing adequate supporting materials such as toys.

A further study in this area has been carried out by Masoud (2011). She focused on the Saudis' summer centres and children's favourite play activities there. The study sought to investigate children's play activities in summer centres and whether or not the activities in the summer centres address the preferences and needs of Saudi children. The study was conducted in four summer centres and included a sample of 59 children comprising 49 girls and 10 boys. To enrich the quality of the data, several data collection methods were employed, such as play diaries, observation, and semi-structured interviews. The findings

showed that Saudi children's most popular play type is locomotive play, and their least favourite types are role play and fantasy play. The study has also highlighted the gender differences: it showed evidence that boys tended to prefer certain gender-typed forms of social play. Also, the boys never reported playing role play or fantasy play, in contrast to the girls who tended to participate in all types of play. Regarding the differences between private and public summer centres, the study found that private summer centres tended to offer good play opportunities and free play time; however, the children in these centres tended not to get sufficient opportunities to partake in play, as the private centres tended to emphasise explicitly academic programmes. Contrastingly, the government public summer centres tended not to provide proper play opportunities for the children, because they tended to focus on arts and crafts and follow strict guidelines that prevent these centres from replacing any activity with free play time. The semi-structured interviews showed that children in summer centres either combine academic work with play, or else focus exclusively on academic work rather than play. Children in the summer centres expressed their need for more activities and more free play time (Masoud, 2011).

These findings are similar to the earlier findings of Aleem (1993), who showed that the use of play in Saudi pre-schools is insignificant relative to children's needs. Like Masoud (2011) Badawood (2006) has also studied the various types of children's play, however, Badawood's study focused on play in children who were classified as 'shy'. The study aimed to find the differences between shy and non-shy children in terms of their indoor and outdoor free play. The study involved a sample of 52 children from four public pre-schools in Riyadh, the capital of Saudi Arabia. All participants were aged between five and six years old. Children's level of shyness was measured by reference to their teachers' reports, and the level of the play was measured by using Rubin's Play Observation Scale. The results showed some significant differences between shy and non-shy children's types of free play: shy children tended to play alone and did not share play activities; these children also tended to observe what the non-shy children did and how they play; shy children tended to spend their playtime without playing. Contrastingly, non-shy children tended to play in groups with frequent interaction with other children.



Recent trends in the KSA have tended to focus on enforcing pre-school learning by focusing on the value of play in the development of young children. Daghistani (2011) examined the effectiveness of educational games in the development of some of the preschool children's thinking skills, including: understanding forms and numbers; classification; comparison and interpretation, and; application. The study employed an experimental method. This researcher set up the study tools by using questionnaires to determine the children's thinking skills, and also developed a set of suitable educational games to develop the children's thinking skills. The experimental results showed significant differences between the mean score for the experimental group (35 children) and the control group (38 children) in the level of their performance on the thinking skills test.

Another study in relation with the use of play was done by Al Hariri and Faisal (2013) who explored the effects of teaching art activities using play on thinking and behavioural skills in preschool students with ADHD. Results demonstrated significant effects of the art programme and the use of play on the thinking and behavioural skills of the children who took part in the activities.

While Daghistani (2011) and Al Hariri and Faisal (2013) focused on the effectiveness of educational games in the development of children's thinking skills, al-Shaiji (2015) studied the effect of video games on children's language skills. Al-Shaiji aimed to investigate the impact of video games and their role in promoting Saudi children's English language vocabulary retention. The study sought to show whether or not there is a significant difference between the Saudi children's subjects' mean score on the English vocabulary test due to using video games activities in kindergarten. The researcher used a random sample of 60 female children from a kindergarten in Riyadh; 30 children represented the experimental group, and 30 children represented the control group. In the experimental group, the researcher used a selected group of English language teaching video games from the official site of the British Council; these were used to teach vocabulary. However, in the control group, the English vocabulary items were taught using traditional methods. At the end of the teaching period, the performances of the two groups of participants were compared. The children sat for a pre-test and post-test of vocabulary, each prepared to suit

the participants' ages. The results indicated that the mean score of the children in the experimental group was significantly higher than those in the control group, indicating the positive effect of using video games in teaching English vocabulary to Saudi children.

Another Saudi study investigated the role of play as a therapeutic tool. Al-Haqbani (2012) studied the awareness of play and play therapy among parents and educators in Riyadh city. The study discussed the vital role of play for children and examined the scientific nature and benefits of play. The study aimed to measure Saudi educators' awareness of play prospects and their ability to identify the lack of facilities for intelligent play. Four interviews with Saudi educators in Riyadh were used to gather data. Those interviewed included a play therapist, a lecturer in a pre-school education department, a nursery owner and two nursery managers. The second method of data gathering involved an online distribution of 186 surveys among a random sample of parents and educators. Generally, the study showed that a theoretical awareness of the role of play has, to a certain degree, been satisfactorily adopted. Yet at the same time some participants demonstrate a gap between what they understand in theory and what they implement in their professional practice. Finally, in the case of play therapy, the study suggests that the extent of educators' awareness of it and its implementation is still quite limited in Saudi Arabia.

Further specific studies have focused on the use of play intervention. In this area Dashash (2004) studied the effects of the mother or caregiver training model using play intervention to enhance the language and social development for hearing-impaired children in Saudi Arabia. This researcher investigated the level of interaction between the children and their mothers or caregivers and the parameters of that interaction, as well as the children's performance prior to implementing a parent training model and at different times throughout the investigation. A total of 20 mother/caregiver-children dyads were involved in the study. The child participants were between three and four years of age with a mild to moderate aided-hearing loss level. Ten mother-children dyads served as the experimental group, while ten dyads served as controls. The researchers had three intervention sessions per week with the participants. Each intervention session lasted 90 minutes with one 15-minute break; these sessions continued for eight weeks. The results revealed the following findings: in the child participants' group comparison, the researcher

noted a significant difference in vocabulary growth when time and age were considered; a significant difference in word combinations when age was considered as a factor; and a significant difference in eye contact skills when group, time and age were considered as factors. When the researcher analysed the programme effectiveness, most of the mothers' responses indicated that they had benefited from the programme and that the programme was effective compared to the control group.

The above overview demonstrates that there has been a recent trend in the childhood education system in the KSA, which aims to reinforce pre-school learning by focusing on the role and value of play to enhance young children's skills and development. However, much of the KSA efforts in this area are limited to planning, such as the 2015 Saudi National Strategy for Reforming Early Childhood Education. This was the result of the co-operation between the Saudi Ministry of Education and the Saudi education service TATWEER ('Development'), along with the National Association, NAEYC. Even theoretically based studies such as those of Aleem (1993) and Al-Haqbani (2012) have tended to focus on understanding the awareness of teachers in regard to play. Contrastingly, relatively few studies have examined the effect of using play on children's developmental domains. Most have focused on children's thinking skills (Al Hariri & Faisal, 2013; Daghistani, 2011) or children's language skills (AlShaiji, 2015).

Importantly, it can be observed that the only study which focused on children's social or emotional skills was that of Dashashb (2004); which shows the effectiveness of play on children who have hearing problems. However, there are also children who do not suffer from such sensory disabilities, but instead are at risk of developing social-emotional behaviour issues. Studies in developed countries show that typical development children may suffer from one or more emotional, social and behavioral challenges. Brauner and Stephens (2006) documented that up to 14.2% of children between birth and five years of age in Louisiana in the United States are facing social-emotional problems that have the potential to impact negatively on their development and their future life chances. The Early Childhood Longitudinal Survey (ECLS) carried out in the US involved a sample of over 22,000 children who attended about 1,000 kindergarten programmes during the 1998-99 school year. This survey shows that approximately 10% of the children enrolled in an

average kindergarten classroom engage 'often' or 'very often' in arguments or fights, or easily become angry (West et al., 2000).

In the KSA, Alslmi (2013) showed that kindergarten children in Saudi Arabia are suffering from several behavioural problems such as hyperactivity, stubbornness, jealousy, and shame. Nevertheless, the same study showed that kindergarten teachers use several methods to support those children, such as talking with the child about the problem as well as talking with the families. Yet, data from previous studies did not show any evidence of using play in order to improve children's social-emotional development and solve their behavioural problems. It might be said that there are no previous studies which have tried to examine the effect of play in children's social-emotional development in Saudi Arabia. Based on this review, there seems to be an urgent and pressing need to investigate the use of play as an intervention tool to improve children's social-emotional skills in Saudi Arabian pre-schools: this will be the focus of the current study.

**Table 2-1 Summary of studies on play in the KSA**

| Author          | Aim   | Sample                        | Method   | Main findings  |
|-----------------|---|-------------------------------|--|--|
| Aleem (1993).   | To evaluate the practice of using play in Saudi preschools.   | 10 Teachers and 3 supervisors | Description method: by analysing the existing literature he came with a list of standards for the use of educative play in preschools, examining the relevant standards in comparison with actual practices in this field. | -The use of educative play in Saudi public preschools is insignificant compared to children's needs.<br>-Teachers and preschool supervisors are aware of the play standards and benefits, yet they did not tend to use play in their daily practice.   |
| Masoud (2011)   | To investigate children's play activities in summer centres and whether the activities in the summer centres address the preferences and needs of Saudi children. | 59 Children.                  | Observation, and semi-structured interviews  | - Saudi children's most popular play type is locomotive play, and their least favourite types are role play and fantasy play.<br>- Boys never reported playing role play, in contrast to girls.<br>- Private summer centres tended to offer good play opportunities. Contrastingly, public summer centres tended not to provide proper play opportunities.<br>- Children in the summer centres expressed their need for more free play time. |
| Badawood (2006) | To find the differences between shy and non-shy children in terms of their indoor and outdoor free play.  | 52 Children                   | Observation.   | Some significant differences were found between shy and non-shy child's types of free play.  |

|                           |   |                              |                       |   |
|---------------------------|---|------------------------------|-----------------------|---|
| Daghistani (2011)         | To examine the effectiveness of educational games in the development of some of the preschool children's thinking skills.                                 | 73 Children                  | Experimental method.  | There were significant differences between the mean score for the experimental group and the control group in the level of their performance on the thinking skills test.   |
| Al Hariri & Faisal (2013) | To explore the effects of teaching art activities by using play on thinking and behavioural skills in preschool students with ADHD.                       | 17 Children                  | Experimental method.  | There were significant effects of the art programme and the use of play on the thinking and behavioural skills of the children who took part in the activities.   |
| Al-Shaiji (2015)          | To investigate the impact of video games and their role in promoting children's English language vocabulary.  | 60 Children                  | Experimental method.  | The score of the children in the experimental group was significantly higher than those in the control group, indicating the positive effect of using video games in teaching English vocabulary to Saudi children. |
| Al-Haqbani (2012)         | To study the awareness of play and play therapy among parents and educators   | 186 Of parents and educators | Interview and survey. | A theoretical awareness of the role of play has been satisfactorily adopted. Yet, some participants demonstrate a gap between what they understand in theory and what they implement in their practice.             |
| Dashash (2004)            | To study the effects of the caregiver training model using play intervention to enhance the language and social development for hearing-impaired children | 20 Caregivers                | Experimental method.  | -A significant difference in vocabulary growth, word combinations, eye contact skills.<br>-Most of the caregivers' indicated that they had benefited from the programme.  |

## **CHAPTER TWO SUMMARY, RESEARCH GAP AND QUESTIONS**

This chapter has attempted to provide the reader with a comprehensive background for the current research area including three main parts. Firstly, the background of children's social-emotional developmental was described. Secondly, an overview of children's play was offered. Thirdly, an overview of the early year educational system in the KSA was presented.

The first section of the literature review provided a background review of children's social-emotional developmental domain. Details of the concept of social-emotional development, the importance of this developmental domain, and the factors affecting children's social-emotional development were included in that section.

The second part of the literature review highlighted the essential nature of play and its use as a resource to improve children's development and help them to face challenges. That part provided an overview of children's play, this included: play theories; definitions of play; distinguishing play from playfulness; the importance of children's views of play; the play environment and LPP; play and child development; the use of play as an intervention tool; different perspectives of children's play; and the challenges in implementing play in pre-school settings.

Several researchers and educators have proposed that children's play differs across cultures and status (Roopnarine et al., 1994). As the current study focuses on the use of play in the KSA, it was important to draw attention to this area. This was highlighted in the third section of the literature review; this part provides a brief overview of the education system in the KSA including a description of the Saudi preschool system and the standards that apply to the preschool education. Earlier research related to the use of play in Saudi preschools is also presented above.

The above literature review indicates that there has been a recent trend in the childhood education system of in Saudi Arabia which seeks to reinforce preschool learning by focusing on the role and value of play in enhancing the skills and development of young children. However:

- studies suggest that the implementation of play in Saudi's preschools are very limited and relatively inappropriate to the children's needs;
- within the context of Saudi education, only a few studies have examined the effect of play on children's development. Primarily, the focus has been on children's thinking skills or language skills;
- the primary effort in this area is limited to planning and focusing on theoretical issues.

In addition to the previous points, reviewing the literature illustrates the following:

- although research in Western developed countries has explored the perspective of play amongst the practitioners and players, the opinions of Saudi preschool teachers regarding play has seldom been heard. Therefore, it is important that the Saudi preschool teachers' perspective of play is included in the current study's research questions;
- although research in Western developed countries has examined several challenges which affect the implementation of play in practice, the opinion of Saudi preschool teachers is still rarely heard. It is therefore important to probe the aspects that influence Saudi preschool teachers' play practice;
- previous studies recommend that further studies in the use of play interventions in child development contexts are needed, and that future studies should focus on the relationship of play to children's social-emotional development (Noetzel, 2011);

although the theory of loose parts was developed over 40 years ago, Houser et al. (2016) suggest that its use within everyday practice is vague. The main weakness with studies conducted around loose parts play is that they are mainly associated with the outdoor environment. The use of loose parts used to support play in preschool remains to be clarified.

Acknowledging the previous gaps in research outlined above, the current study intends to address the following questions:

1. What is the impact of play intervention on children's social-emotional development, as viewed from the parents' perspective?



2. What is the impact of play intervention on children's social-emotional development, as viewed from the teachers' perspective?
3. What are the views of the teachers on the use of play intervention?
4. What are the children's experiences of play intervention?

Research is therefore needed to catch up with the updated context of children's play and early childhood education. Exploring the influences of the implementation of play is crucial to improving the quality of early childhood education in the KSA. The following chapter considers the methodology employed for this study.

### **3 CHAPTER THREE METHODOLOGY**

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#### **INTRODUCTION TO CHAPTER THREE**

While the research aims and objectives determine ‘what is intended to be done’ the research methodology is concerned with the way in which the research is conducted: this is the focus of the current chapter. The methodology plays an important role in the quality, execution, and interpretation of the research. Each study design has its own inherent strengths and weaknesses. When choosing the study method to follow, the researcher bore in mind that any chosen method had to follow ethical principles generally, and specifically follow the principles of the British Psychological Society BPS principles, namely: respect, competence, responsibility and integrity (Ethics Committee of the British Psychological Society, 2009). Referring to the BPS principles helped the researcher in making decisions on ethical practices including respecting people’s rights, safety and privacy, avoiding unfair methods, respecting individuals and cultures, as well as ensuring that participants clearly understood that they had the right to withdraw at any time.

The purpose of the current study is to investigate the use of play interventions on children’s social-emotional development in the early childhood phase of education in Riyadh, Saudi Arabia. The investigation’s hypothesis is that play intervention can significantly improve a child’s social-emotional development and will cover three core research areas: see Figure 3.1.

- The impact of play on children’s social-emotional development.
- The perspectives of teachers on the play intervention.
- Children's reports of their experiences of the play intervention.

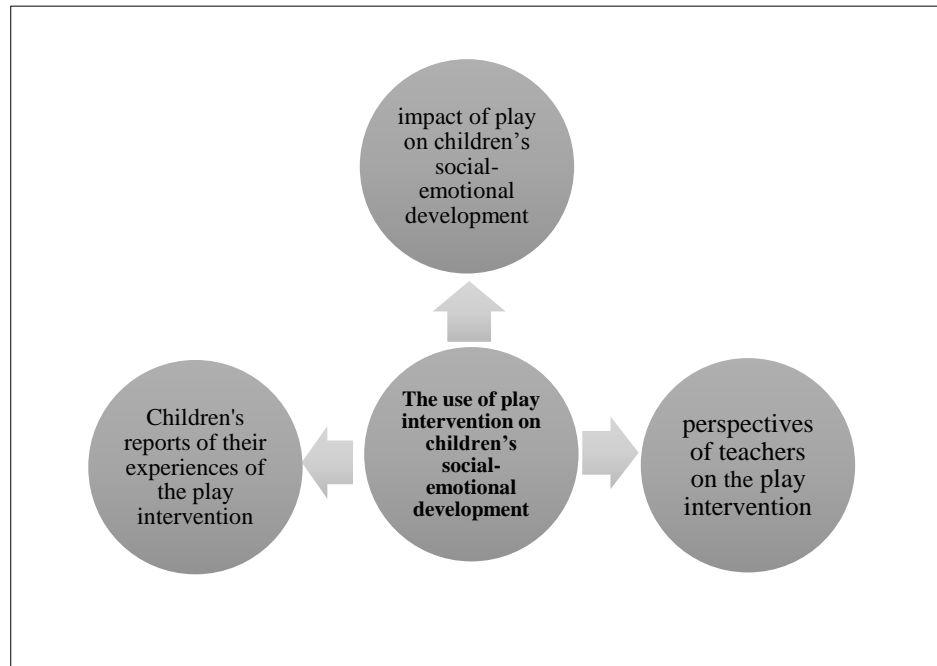
#### **3.1 RESEARCH QUESTIONS**

This research focuses on the impact of play intervention on the social-emotional development of preschool children of both genders, between the ages of five and six in

Saudi Arabia. The outcomes of the investigation will provide the answers to four main questions.

1. What is the impact of play intervention on children's social-emotional development, as viewed from the parents' perspective?
2. What is the impact of play intervention on children's social-emotional development, as viewed from the teachers' perspective?
3. What are the views of the teachers' on the use of play intervention?
4. What are the children's experiences of play intervention?

**Figure 3.1** Current research core areas



### **3.2 STUDY PHILOSOPHY AND PARADIGM**

Thomas Kuhn (1962) first used the word paradigm to mean a philosophical way of thinking about how science is done (Blaschke et al., 2014). Guba and Lincoln (1994) define a paradigm as a basic set of beliefs, that guides research action or an investigation. The paradigm of the researcher therefore has a significant influence on the way a study is

framed and conducted. The paradigm influences the choice of what is to be studied, how it should be studied, and how the results of the study should be interpreted (Cohen et al., 2017). This was later termed ‘research culture’ (Johnson et al., 2007).

According to Lincoln and Guba (2010) each research paradigm has a different way of viewing and framing knowledge, comprising of four elements – epistemology, ontology, methodology and axiology. Within research, epistemology refers to the ways of knowing, issues subjectivity-objectivity, and assumptions about how we understand the world; ontology refers to the nature of reality; methodology is the shared understanding of the best means of gaining knowledge about the world; and axiology refers to the beliefs surrounding the role of values, ethics and morals in research (Bryman, 2016; Cohen et al., 2017; Cooksey & McDonald, 2011; Kaushik & Walsh, 2019).

There are many different types of paradigm, including positivism, interpretativism or constructivism, and pragmatism (Creswell & Plano Clark, 2011). Each has a different perspective on the axiology, ontology, epistemology, and methodology of research. For example, positivists believe in the validity of the scientific method and that there exists a reality independent of our thinking. Studies using the positivist/post-positivist paradigms tend to use the quantitative approach, which includes experimentation, correlation, causal-comparative survey designs and a collection of measurable data (Mackenzie & Knipe, 2006; Trochim, 2006).

On the other hand, the interpretivist or constructivist paradigm suggests that reality is socially constructed. Therefore, it relies upon the participant’s views and experiences of the background of the case study (Creswell & Creswell, 2017). Interpretivism believes that reality is socially constructed and that there are as many intangible realities as there are ways of creating them (Creswell & Creswell, 2017; Mertens, 2009). This paradigm is usually associated with qualitative methods for instance, interviews, observation, and focus groups (Crotty, 1998).

The third paradigm is pragmatism. This paradigm integrates the positivist and interpretivist paradigms, and thus utilises the attributes of both positivist and interpretivist methodologies (Johnson & Onwuegbuzie, 2004; Teddlie & Tashakkori, 2009). Pragmatism

breaks down the hierarchies between positivist and constructivist ways of understanding, so as to examine what is meaningful for each (Biesta, 2010). Accordingly, pragmatic research can use either quantitative or qualitative methods, or a mixture of both (Teddle & Tashakkori, 2009).

In pragmatic studies, decisions regarding the use of quantitative method, or qualitative method, or both (mixed methods) depends on both the matter under study and the ongoing phase of the inductive-deductive research cycle (Teddle & Tashakkori, 2009). In this regard, an inductive approach starts with a specific observation and these observations lead to a general conclusion that may be true. On the other hand, deductive reasoning that starts with a hypothesis or general rule that is then tested with data (Dudovskiy, 2016). When addressing the connections between theory and data, pragmatism makes use of ‘abduction’, which is to say that it moves back and forth between induction and deduction (Morgan, 2007). Pragmatic philosophy believes that the combination of deductive and inductive methods of research creates scientific knowledge (Reynolds, 2015).

Consequently, for the current study the researcher chose to employ the pragmatic paradigm, as scholars illustrate that it takes advantage of the attributes of both positivism and interpretivism (Teddle & Tashakkori, 2009). This paradigm supports the use of the mixed-method approach, which allows both numbers to be measured (quantitative), and individual’s experiences to be explored (qualitative) (Johnson & Onwuegbuzie, 2004). Such a paradigm gives researchers the opportunity to use all available approaches to gain insight into the issue at hand. The current study used the pragmatist paradigm to investigate the relationship between play intervention and children’s social-emotional development (quantitative) and to explore how teachers and children view play (qualitative).

### **3.3 STUDY DESIGN**

Bryman (2016) described research design as a logical framework for data collection and analysis, developed to create evidence applicable to a group of factors relating to the research questions. Thus, a methodological strategy was devised within this study, using

the application of several different research methods. This section aims to identify the most appropriate methods for addressing the current study objectives and to illustrate how the choice of methods is based on the conceptual understanding of the advantages and disadvantages of the methods approach. This section is divided into three main parts: (1) an examination of the mixed-method approach, (2) the quantitative approach and (3) the qualitative approach as used in the current study.

### **3.3.1 The mixed-method approach**

In order to achieve the current study's purpose in answering its research questions, different approaches were used:

- The quantitative approach, using a questionnaire.
- The qualitative approach, using teachers' interviews, and children's focus group discussions.

This mixed-method approach involves the collection, analysis, and integration of both quantitative and qualitative research and methodology within a single research study, with the aim of answering the research questions (Creswell, 2014; Creswell & Creswell, 2017; Creswell et al., 2011; Denscombe, 2008). Cohen et al (2017) described the mixed-method approach by stating that it identifies the fact that the world is not completely quantitative or qualitative.

Over the past decade there have been considerable arguments presented against mixed-methods research. These arguments were based on the idea that the quantitative and qualitative research are separate paradigms (Bryman, 2016). However, the mixed-method approach is also becoming more prevalent within research and is now recognised as a third research philosophy (Johnson et al., 2007).

The mixed-method research approach is designed to address the more complex problems now faced by social research (Caracelli, 2006; Creswell et al., 2011). Because of the complex subject of the current study – namely play intervention and social-emotional development – the researcher considered quantitative and qualitative approaches to be

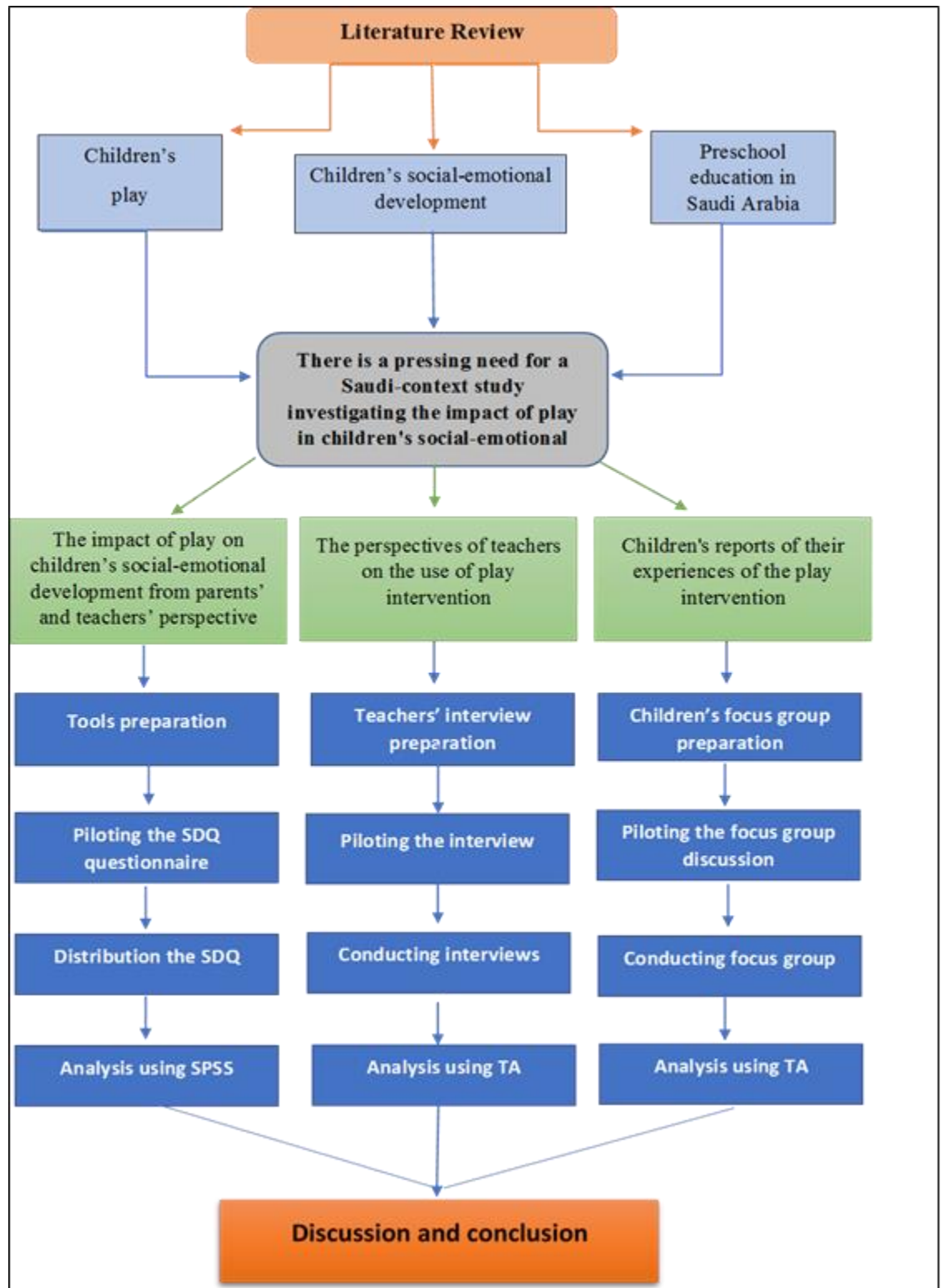
complementary of each other. The strength of the mixed-methods approach minimises errors and will therefore assist in the overall interpretation of the complex phenomenon under investigation (Byrne & Humble, 2007). The use of the mixed approach could offer more insight and the resultant, fuller picture will be more rounded, nuanced and ultimately valid than that produced by just a single method (Creswell et al., 2011). It has been noticed that the use of the mixed-method approach means that findings are likely to be more reliable than using individual approaches (Denzin & Lincoln, 2011)

The choice of the mixed-method research methodology for the current study was determined after reviewing several previous studies. For instance, Plath (2018) conducted a mixed-method approach to study the effectiveness of an early intervention on children's behaviour. A mixed-methods design was also implemented by Jayman (2017) to examine intervention effectiveness and mechanisms underlying behaviour change.

Within the mixed-method approach, the current study used the triangulation method, this method is broadly defined by Denzin (1978) as 'the combination of methodologies in the study of the same phenomenon' (p.291). Denzin (1978) distinguished four types of triangulation: data, investigators, theories, and methodologies. The current study applied the first and the fourth types of triangulation. Data triangulation employs different data sources from various times and various perspectives. When using the fourth method of triangulation, the mixed-method approach uses a combination of standardised measures, focus group and semi-structured interviews (see Table 3.2).

The research questions in the current study seek to describe the relationship between the use of play intervention and children's social-emotional development in Saudi Arabia, and to then identify the point of view of both teachers and children regarding the use of play. The current study explores the various aspects of children's play intervention including the impact of play intervention on children's social-emotional development, teachers' attitudes towards play, and children's experiences of play – see Table 3.1.

**Figure 3.2 Study's design**





**Table 3-1 Research Questions and Data Collection Strategies**

|                        |  |   |   |
|------------------------|--|---|---|
| Main Research Question | <i>Does the use of play intervention impact upon children's social-emotional development?</i>  |   |   |
| Sub-Questions          | <p>1. What is the impact of play intervention on children's social-emotional development, as viewed from the parents' perspective?</p> <p>2. What is the impact of play intervention on children's social-emotional development, as viewed from the teachers' perspective?</p> | <p>3. What are the views of the teachers on the use of play intervention?</p> | <p>4. What are the children's experiences of play intervention?</p> |
| Study Sample           | Studies conducted among preschool children aged between five and six in two preschools located in Riyadh, Saudi Arabia.  | Teachers of the children participated in questions 1 and 2.                   | The same children participated in questions 1 and 2.                |
| Data Collection        | Questionnaire  | Semi-structured interview.  | Focus group discussion.   |
| Data Analysis          | Statistical analysis (SPSS)  | Thematic analysis.  | Thematic analysis.  |

**Table 3-2** *Types of triangulation*

| Types of triangulation<br>Denzin (1978) | How this is met in the current study   |
|---|--|
| Data triangulation                      | <ul style="list-style-type: none"><li>- Heterogeneous data sources “qualitative and quantitative”.</li><li>- Using the same method “SDQ questionnaire” from different sources and perspectives “parents and teachers”.</li><li>- Using the same method “SDQ questionnaire” at different times “test1, test2 and test3”</li></ul> |
| Methodologies triangulation             | <ul style="list-style-type: none"><li>- Standardised measure “SDQ questionnaire”</li><li>- Semi-structured interview with teachers.</li><li>- Focus group discussion with children.</li></ul>  |

### 3.3.2 The quantitative approach of the current study

The aim of this quantitative element is:

- To measure the impact of play intervention on children’s social-emotional development from the parents’ perspectives.
- To measure the impact of play intervention on children’s social-emotional development from the teachers’ perspectives.

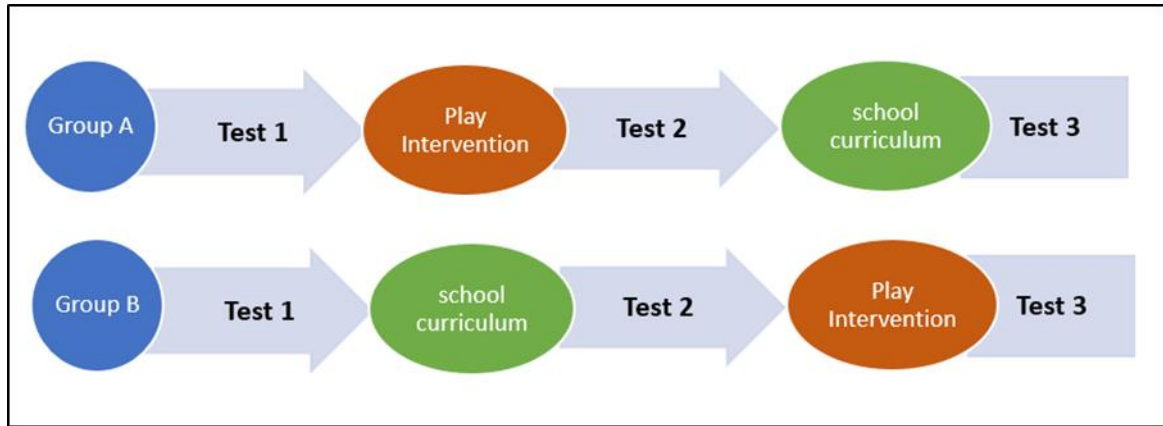
Within the design of the quantitative inquiry the current study uses a counterbalanced pre-post-test design. Counterbalancing refers to the systematic variation of the order of conditions that exist within a study, which has the effect of enhancing the study’s interval validity (Allen, 2017).

The current study adapted the counterbalanced pre-post-test design as scholars illustrate that using this design enables a better understanding of the context, which is important when evaluating the reasons behind the observed results. This design allows a researcher to control the effects of nuisance variables in those designs where the same participants are repeatedly subjected to conditions. Such design will make use of naturally occurring classroom populations and ensure that all children take part equally in the play intervention sessions. The choice of this design for the current study was determined after reviewing several studies (see, for example, Frisch et al., 2020; Hill et al., 2010; Limond et al., 1997; Shamir et al., 2006).

The use of the counterbalance design in the current study will show how each child participates under two conditions: play intervention, and standard classes (school curriculum) over a period of 12 weeks. Group (A) refers to the first intervention group where the children had the play intervention first followed by the school curriculum. Group B refers to the second intervention group where the children had the school curriculum first followed by the play intervention. Differences within the groups were measured at three specific times: Test 1 (T1), Test 2 (T2), and Test 3 (T3) (see Figure 3.3).

The current study evaluates children's social-emotional development from both teachers' and parents' perspectives. Each child was rated by one teacher and one parent, usually the mother. The choice of teachers was due to their pre-existing relationship with the child. Teachers' rating scales have long been an accepted form of data gathering (Stuart et al., 1991). Although teachers play an undoubtedly important role in observing children's behaviours and skills during school time, parents also do the same at home – they usually spend more time with their children than any single teacher and can provide critical information from their unique perspectives. Children's families have the right to be involved in and receive relevant information about, their child's development. As noted by Rutland and Hall (2013) such involvement is a much-needed component for successful early childhood education.

**Figure 3.3** The counterbalanced pre-post-test design for the current study



### 3.3.3 The qualitative approach of the current research

Because questionnaires will inevitably generate quantitative data, an exploration of individual thoughts and experiences will also be necessary to maintain balance. So, to ensure a more detailed understanding of the use of play intervention, the current study integrates a qualitative approach into the research design. The qualitative approach in this study is used to outline teachers' experiences of the play intervention, and to ensure that children's voices are heard, giving their views of using play. The current study's qualitative method includes semi-structured interviews with teachers and focus group discussion with children.

*Semi-structured interviews* with teachers were used to identify the teachers' points of view regarding the use of the play intervention. Interviews allow researchers to verify, clarify, or alter what they thought happened, so as to achieve a fuller understanding of an incident, and take into account the 'lived' experience of participants (Gillham, 2000). The interview has long been used as an approach for gathering participants' opinions and views. A semi-structured interview questions was used by many scholars to identify teachers' perspectives on play (Jin & Moran, 2020; Pyle & Bigelow, 2015; Tsai, 2015; Tuğrul et al., 2014). Based on previous studies in this field, the current study uses semi-structured interviews to cover teachers' beliefs regarding the use of play intervention.

***Focus group discussion:*** Children are the most significant stakeholders in preschool provision; accordingly, their voices have been heard, recorded, and form a part of this study. Brooker (2001) argued that it is not only appropriate but indeed essential to listen to the voices of the children regarding issues that directly concern them. The focus group discussion is thus one of the qualitative methods of the current study. The main aim of the use of focus group discussions was to understand what each child felt about the play session. The discussions that take place within a focus group are particularly useful in supplying information about what people think and feel or about their actions. It has been argued that focus group discussion allows the participants to influence each other as they contribute to the discussion (Freitas et al., 1998). This approach has previously been successfully used with children by a number of studies (Moyse, 2020; Pyle & Bigelow, 2015; Roose & John, 2003; Sandberg et al., 2017).

Reflexivity: the researcher is an ‘insider’ (Dwyer and Buckle, 2009) researcher coming from a very similar demographic, generational, socio-cultural, and linguistic background to that of the teacher- and parent-participants in this study. Further, she comes from a family of teachers, and has worked with children in Saudi schools. Accordingly, she is well-placed to understand teachers’ experiences, thoughts, and feelings, and the difficulties they may face. Further, her background means that she probably has a good insight into the institutional or cultural barriers teacher-participants mention when discussing the use of play in the Saudi classroom. However, while the ‘insider’ status provides her with a solid contextual grounding in this research, this cultural embeddedness needs to be tempered with an awareness of the need to maintain the researcher’s scholarly objectivity. For example, the researcher’s background and professional experiences might cause her to interpret the data with a conscious or unconscious bias, or she might read into the data what she personally would like to see in it, at the expense of what is actually there. This is a near constant danger in qualitative research, which can only be overcome by regular reflection on the researcher’s role as at every phase of this research.

### 3.4 STUDY SAMPLE

Study sampling is the process of selecting a sample unit from a larger group or population of interest, with the purpose of addressing the study's research question (Tashakkori & Teddlie, 2010). A purposive sample was used to choose preschool centres for the current study. These techniques involve selecting certain units or cases “*based on a specific purpose rather than randomly*” (Tashakkori & Teddlie, 2003, p. 713). Scholars and researchers refer to the unique perspective afforded by this sampling scheme, which is able to provide a considerable depth of information (Cohen et al., 2017; Tashakkori & Teddlie, 2010).

The study sample consisted of two preschool centres. The criteria for choosing participating preschools were as follows – they had to be located in Riyadh, use the national curriculum, and come from comparable socio-economic sectors. Furthermore, there had to be ease of access, and a comparable number of enrolments.

***Child participants.*** Five- to six-year-old children of both genders from the two preschools participated in the play intervention; there were no inclusion or exclusion criteria for the children. A total of sixty-one (N=63) children originally took part, although two children did not complete the play sessions (due to changing their school) and two parents did not give permission for their children to take part in the research (but that they were allowed to play). This resulted in an eventual sample of fifty-nine children (N=59) with the first school accounting for 31 pupil-participants and the second accounting for 28. The sample comprised of 29 male and 30 female children, a roughly equal gender balance. The pupil-participants were aged between five and six years (60 and 27 months), with a mean age of 66.98 months. Participants from each school were separated into two classes with the first class (group A) accounting for 31 pupils, and the second-class (group B) accounting for 28; class A from each school had been chosen to be the first intervention group, and the second, class B, was treated as the second intervention group.

The sample size was determined after samples of previous studies were reviewed by the researcher. The sample size presented in the study by Barton et al. (2015) comprised 52 pupils drawn from two UK primary schools. Another study presented a total of 35 children

(O'Connor & Stagnitti, 2011). This indicates that the sample size within the current study is satisfactory.

**Teacher participants.** Scholars reviewed for this research recommended that the size of the interview sample should be from six to 12 participants (Tashakkori & Teddlie, 2010). To meet the objectives of this study, all teachers from both schools were invited to participate (eight teachers). All the teachers were female and were qualified preschool educators. The teachers' years of experience ranged between one and 10 years. The teachers' demographic profile is shown in Table 3.3.

**Participants** of the current study were not 'blind' to the intervention – they were aware of the nature of the interventions. To facilitate this, a consent form was collected from parents and teachers and an information sheet of the study were given to them; both of these documents sought to make plain the nature of the interventions. A few simple details were also given to the children to get their verbal consent to participate in the LPP intervention; this included informing them that they will play (free play) instated of corner play.

**Table 3-3** *The demographic profile of the teacher in the Interview*

| The demographic profile of the teacher in the Interview |                     |   | Total |
|---|---------------------|---|-------|
| Gender  | Male                | 0 | 8     |
|   | Female              | 8 |       |
| Degree type   | Education           | 1 | 8     |
|   | Childhood Education | 7 |       |
| Qualifications<br>(Education level)                     | Undergraduate       | 7 | 8     |
|   | Postgraduate        | 1 |       |
| Experience  | 1-2 Years           | 1 | 8     |
|   | 3-5 Years           | 3 |       |
|   | 6-10 years          | 4 |       |
|   | Above 10 years      | 0 |       |
| Role  | Teachers            | 6 | 8     |
|   | Assistant Teachers  | 2 |       |

### 3.5 STUDY INSTRUMENTS

This section aims to provide information about the data collection instruments that have been used to achieve the aims of the study. The current study used three main instruments:

Goodman's Strengths and Difficulties questionnaire, semi-structured interviews, and focus group discussions.

### **3.5.1 Goodman's Strengths and Difficulties Questionnaire (SDQ)**

The current study uses the questionnaire to measure the impact of play intervention on children's social-emotional development from parents' and teachers' perspectives. The questionnaire is an instrument consisting of a series of questions and attitude opinion statements designed to elicit responses, which can then be converted into measures of the variable under investigation (Franklin & Osborne, 1971).

The current study used the Strengths and Difficulties Questionnaire SDQ to measure the social-emotional development of participating children, as reported by their parents and teachers. This tool is a universal screener of the behavioural, social, and emotional functioning of children (Goodman, 1997). A one-sided SDQ (4–16 years) version for parents and teachers is used to evaluate the social-emotional development of those children participating in the study.

Several tools can be used to evaluate children's social-emotional development such as: the Social-Emotional Assets and Resilience Scale (SEARS); the Social Skills Improvement System Rating Scales (SSISRS), and; the Behavioural and Emotional Rating Scale (BERS). The advantage of using the SDQ as a measurement tool rather than SEARS, SSISRS, or BERS, is that SDQ is relatively brief, user friendly and simple, taking on average only five minutes to complete (Klasen et al., 2000). The SDQ questionnaire fits on just one page. The SDQ accommodates the linguistic needs of Arabic-speaking parents and teacher, as an Arabic version of the questionnaire is freely available. Furthermore, the SDQ has only three scores – 'not true' 'somewhat true' or 'certainly true' – thereby reducing the risk of busy parents' and teachers' indecision when completing the form. The SDQ further assesses children's skills in familiar settings, in the current study home and school.



The SDQ design meets the needs of researchers, clinicians, and educationalists. This brief behavioural screening questionnaire can be used for children and adolescents aged from four to 16 years (Goodman, 1997; Goodman & Scott, 1999; Goodman et al., 2000), and focuses on strengths as well as difficulties; it provides a balanced coverage of the emotions and social behaviour of children and young people. The SDQ investigates 25 attributes, some positive and some negative. These 25 items score in five main scales including emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour. Each scale is measured by five items (Goodman, 1997; Goodman & Scott, 1999):

1. Emotional symptoms (0-10): measures how often the child feels worried, tearful, nervous, clingy and scared. For example: 'Many fears, easily scared'.
2. Conduct problems (0-10): measures temper, obedience, fighting, telling lies or cheating and stealing. Example: 'Often fights with other children'.
3. Hyperactivity/inattention scale (0-10): investigates the presence of hyperactivity, impulsivity and the child's attention span. For example: 'Easily distracted, concentration wanders'.
4. Peer problems (0-10): measures whether a child feels solitary or alone, is liked or picked on by other children and relations with adults and peers. For example: 'Generally liked by other children'.
5. Prosocial behaviour (0-10): measures positive behaviours and whether the child is caring, helpful and considerate towards other people. For example: 'Helpful if someone is hurt'.

The first four subscales (emotional symptoms, conduct problems, hyperactivity, and peer problems) give a total difficulties (TD) score ranging from 0-40; high scores indicate greater problems. The fifth scale (prosocial behaviour) gives a separate rating of positive behaviour. Here, higher scores indicate more positive prosocial behaviours. According to the SDQ, children can be categorized into either three-band (normal, borderline, and abnormal) based on their scores. For example, Children in the 'normal' category would get

a score of 0 to 13 on the total difficulties scale on the parent version, and 0 to 11 on the teachers version. These bands were defined based on a population-based survey, attempting to choose cut-points such that 80% of children scored 'normal', 10% 'borderline' and 10% 'abnormal' (Goodman, 1997).

The SDQ has been well validated in the UK (Goodman, 1997; Goodman & Scott, 1999) and in a number of culturally diverse countries including Australia (Hawes & Dadds, 2004); Germany (Klasen et al., 2000); Sweden (Smedje et al., 1999), and Bangladesh (Mullick & Goodman, 2001). The SDQ has demonstrated convergent validity with the Child Behavior Checklist (CBCL) (Achenbach, 1991a; Goodman & Scott, 1999), the Youth Self-Report (YSR) (Achenbach, 1991b; Muris et al., 2004), and the Rutter questionnaire, from which it was originally developed (Elander & Rutter, 1996; Goodman, 1997).

The SDQ addresses and establishes consistency and reliability. For example, Goodman and Scott's (1999) examination of the stability of the SDQ in a sample of British children over a three- to four-week period, demonstrated a satisfactory Intra-Class Correlation Coefficient (ICC) (0.74 – 0.83), and an excellent test-retest reliability. Another study employed a two-weeks' retest evaluation of the stability of the SDQ, and noted that the rating of the total SDQ score was stable at 0.96 (Smedje et al., 1999).

The current study uses the Arabic version of the SDQ. This version has been widely used in clinical, educational and research contexts in Saudi Arabia and other Arabic-speaking countries (Al-Modayfer, & Alatiq, 2015; Maajeeny, 2019; Alyahri, Goodman, 2006). Alyahri and Goodman (2006) evaluated the Arabic version of the SDQ and concluded that it is a valid and reliable tool for assessing young people's attitudes, behaviors, developmental skills and wellbeing. El-Keshky and Emam (2015) indicated that the Arabic version of the SDQ has robust psychometric properties and functioned well in Saudi Arabia. The typical scores presented by using the tool in Saudi Arabia and other Arab countries appear to be comparable to those achieved in Anglophone countries such as the United Kingdom, the United states and Australia. A copy of the SDQ can be found in Appendix (7).

Because the SDQ produces information about children's behavioural, social, and emotional functioning, the researcher used a biographical questionnaire for both teachers and parents that comprised of closed questions to obtain factual background information. Information obtained about the teachers included their academic qualifications, years of teaching experience and their training process. Parental knowledge, their age and educational level was only included within the first round of data collection as a means of collecting background and baseline information in order to progress the investigation. However, an important caveat when using SDQ-derived data is that it is necessary to retain an awareness of the subjective nature of SDQ. While SDQ data can indeed be quantified, this does not necessarily mean that SDQ captures 'hard', objective facts. Rather, the data gleaned from the SDQ remains subjective in that represents only participants' perceptions of the matter under investigation. Thus, in order to use SDQ-derived data effectively it is necessary when analysing these data to retain an awareness of their 'hidden' subjectivity.

### **3.5.2 Semi-structured teachers' interview**

One-to-one semi-structured interviews were conducted for the present study, the aim of which is to identify teachers' perspectives on play interventions. Bryman (2016) stated that the semi-structured interview is conducted when 'the researcher has a list of questions or fairly specific topic to be covered, often referred as an interview guide, but the interviewee has a great deal of leeway in how to reply' (p.468). The semi-structured interview was chosen because it can be easily managed and allows participants time to think, speak, and be heard (Creswell, 2014). This type of interview has the potential to provide rich data, as participants had various opportunities to freely share their knowledge, ideas, and beliefs. The researcher initially set up interview schedules with all the teachers who were participating from the respective preschools in Riyadh. The schedule enables both researchers and participants to stay focused on the research topic and to anticipate possible difficulties (Merriam & Tisdell, 2015). The researcher then asked the preschool principals if it would be possible to conduct the interviews at their schools. The participants were informed that the interviews would be recorded so that the researcher could precisely transcribe the interviews at a later date. The researcher prepared the recording device. The

participants were informed that all names would be replaced with numbers in order to protect anonymity.

The interview was a time for the interviewees to have their voices heard, with the researcher acting as the facilitator. The general questions were designed to encourage conversation. In recognition of the fact that semi-structured interviews frequently include open-ended questions meaning that the discussions may deviate from the interview guide, all interviews were recorded and transcribed in a later analysis. As the language most often spoken in Saudi Arabia is Arabic, the researcher conducted the interviews in Arabic. The transcribed interviews were then translated into English; an external professional undertook the translation.

The current study interview comprised of open-ended questions to allow the participants to express their perceptions, thoughts and feelings. Questions related to the teachers' understanding of the concept of play, the role of play in children's development, the use of play intervention in preschool settings, and any challenges arising from using play intervention. A copy of the interview, which was piloted and used in the present study, can be found in Appendix (8).

### **3.5.3 Focus group discussion with children**

The use of focus groups in the current study aimed to explore children's experiences of the play intervention. A focus group is 'a way of collecting qualitative data, which essentially involves engaging a small number of people in an informal group discussion, focused around a particular topic or set of issues' (Wilkinson & Silverman, 2004, p. 177).

The current study used focus groups as they are an economical, fast, and efficient method for obtaining data from multiple participants; another advantage of the focus group is the environment in which they are conducted, the relevant schools, which are socially-oriented contexts (Krueger, 2014). The sense of belonging to a group can encourage a feeling of safety, leading to a greater willingness for the participants to share information (Vaughn et al., 1996).

The researcher was aware that when facilitating a focus group with children it is important to create a trusting, nurturing atmosphere which allows for greater communication between

each child and the researcher. Therefore, the discussions took place in the children's classroom. It has been noted that younger children particularly can benefit from small focus groups; therefore, each group was made up of five to six children (Gibson, 2012; Heary & Hennessy, 2002). Gibson (2012) and Heary and Hennessy (2002) specified that focus groups involving children under the age of 10 should not last for more than 45 minutes, so in the current study this was applied to each focus group. Throughout all discussions the researcher was mindful of the fact that each child is an individual who has the right to free expression in an accepting environment.

Therefore, the current study involved 10 focus group discussions, each group involving five to six children. The process followed includes open-ended questions, to allow the participants to express their opinions, thoughts and feelings. The questions were designed to facilitate a greater understanding of how the children felt about both their play experience and the materials used. A copy of the focus group discussion, which was piloted and used in the present study, can be found in Appendix (9).

During the play intervention sessions, each child was asked to use an iPad to take photos of their favourite and least favourite play materials. These photos were used to stimulate discussion. Following the group's engagement in the six weeks' play intervention, the researcher obtained verbal permission from the children for them to take part in the focus group discussion.

As discussed above, the current study used three main instruments; the SDQ, semi-structured interviews, and focus group discussions. These three tools were not the only way to study the effect of the play intervention. The use of observations, for example, could have been a useful data collection tool in this study, as observations could further enrich the data and could provide more information (Baker, 2006; Jamshed, 2014; Moyles, 2002). However, establishing observations for this study would have put the resources available for this study, particularly time resources, under considerable pressure. Further, observations might have involved obtaining a further set of permissions at the institutional and ministerial levels, which also would have jeopardized precious time resources. A further concern was that the presence of an observer unfamiliar to the children (i.e. the researcher) during the children's play might have caused the children to become self-

conscious, thereby limiting the freedom of their play and making the children feel controlled and monitored. Likewise, the presence of an unknown observer might also have constrained the naturalness and spontaneity of the children's play.

### **3.6 STUDY PROCEDURE**

Swansea University reviewed the research protocol for ethical treatment of human subjects. Application for approval by Swansea University was completed and approved prior to the recruitment of participants and data collection. To conduct the research study in the KSA, approval was obtained from the Administration of Planning and Developing of Educational Council in the KSA. The data collection procedure was conducted in three main stages: see Table 3.4.

#### **3.6.1 Stage one pre-intervention data collection**

After receiving the necessary permissions and approvals, all respective parents and teachers received a written information sheet: see Appendices (1) and (2). The researcher met with the preschool teachers to explain the research purposes and procedures and answer any questions they might have.

Three weeks before the study every teacher received an envelope of forms, including a letter explaining the study (Appendix 2) and an informed consent form (Appendix 4). A signed teacher consent form was required from each teacher. It was essential to provide sufficient time for teachers to engage in interactions and observations with children. The study therefore began approximately three weeks after schools began their first semester of the 2018-2019 teaching year.

Parents also received a similar envelope, containing a letter explaining the study (Appendix 1) and an informed consent form (Appendix 3). Parents were asked to provide general demographic information about their children; for example, details of the child's age and gender. Those students who were permitted to participate in the study were given a participant number to protect their anonymity.

The finalisation of the assigned groups within each school also began in this stage. Both schools have two classes, with each class being treated as a separate group. Letters A and B were used to label the classes, as letter A refers to the first intervention group in both schools and letter B refers to the second intervention group for both schools.

At the end of this stage, but before running the six-week play sessions, parents and teachers received the SDQ questionnaire and were asked to evaluate their child's social-emotional development in test one 'T1'. In this study each child was rated by one parent, usually the mother and one teacher all eight teachers were involved in the use of the SDQ. This stage of the data collection continued for approximately three weeks from 2<sup>nd</sup> to 13<sup>th</sup> of September 2018.

### **3.6.2 Stage two intervention**

The second stage of the data collection began after having collected the first SDQ questionnaire test one "T1" from children's parents and teachers. This stage mainly comprised of the implementation of the study of play which lasted for 12 weeks. The following section highlights the type of the study's intervention and the implementation of the play intervention.

#### ***The study's intervention (Loose Parts Play)***

The LPP was chosen as an intervention in the current study. LPP was originally described as involving open-ended materials that can be manipulated in a variety of ways including transporting, constructing and arranging, allowing children to develop their own play ideas (Nicholson, 1972). Loose parts materials can be moved, carried, combined, redesigned, lined up, and taken apart and put back together in multiple ways. They are materials with no specific set of directions that can be used alone or combined with other materials (Nicholson, 1972). LPP intervention includes everything and anything that the children choose to use in their playing space. Recycled household materials and real-life resources such as empty milk or juice bottles, fishing nets, boxes, buoys, shells, paper, coloured pencils, wooden spoons, bread baskets, tarpaulins, computer keyboards, old clothes for dressing up and so on could all be used during LPP intervention.

the open-ended materials involved in LPP are intended put children in a position of autonomy, freedom, and control. LPP gives children the opportunities to feel playfulness; it offers children the chance to engage in a playful unstructured free play, which is not dominated by adults or by specific aims. LPP seeks to allow each child to use their imagination to create spaces to play using whatever is in their vicinity – the variety of choice being the main factor. LPP is an opportunity for children to play with friends, investigate, discover, explore, create, and engage in trial and error in order to learn for themselves by using their initiative and learning to make their own judgements and choices. This type of play offers children the chance to engage in unstructured free play. LPP has no predetermined use of the materials or outcome, and the children can adapt materials to be used in multiple ways (Ridgers et al., 2012; Staempfli, 2009). Such unstructured environments have limited guidelines and rules, allowing and encouraging children to create their own play activities loose parts gives children the freedom to develop their play experiences based on their own ideas and goals (Änggård, 2011).

To accommodate the LPP sessions some classroom adaptations were necessary. Fortunately, the classrooms were originally divided into very specific learning centers, each with storage space for various play equipment set up for the children to use each day. The floor plan of the classrooms before starting the intervention is shown in Appendix (12).

The encouragement of group activities and peer interactions being the primary interest for the current study. The furniture was portable, so that it could be easily moved to accommodate the LPP. The researcher rearranged the classroom design to minimize corner boundaries to ensure that the play activities and materials were not confined to any one specific corner. In this way, the children were able to use equipment in any way or location they wanted. The large meeting area in the centre of the classroom was kept for the use of blocks and large equipment during the play sessions. No changes were made to certain parts of the classroom such as the small quiet area was located in one corner of the classroom, which was enclosed with bookshelves running around the wall space. The floor plan of the LPP intervention classrooms is shown in Appendix (13).



### ***The implementation of loose parts play intervention***

As the current study follows a pre-test/post-test counterbalanced design, children were required to take part in LPP intervention sessions alternately. As stated earlier, a typical preschool daily schedule is divided into five parts: a 20-30-minute morning circle led by the teacher; then a corner activities session of 45-60 minutes duration; a mealtime of 30 minutes; next 45-60 minutes of outdoor play; finally, an end-of-the-day circle lasting about 30 minutes. In this study, the play LPP intervention took place in class specifically during the corner activities session, three sessions a week over a period of six weeks.

Whilst Group A took part in the LPP play sessions during the first six weeks of the experiment period, Group B followed a normal schedule 'corner activities' session during the same six-week period. At the end of the first six-week period, both parents and teachers were asked to evaluate the social-emotional development of children in both groups, A and B by using the SDQ questionnaire, hereafter referred to as test two 'T2'.

During the second six-week period, group A received the normal day schedule 'corner activities' whereas group B took part in the LPP sessions. At the end of this stage, both parents and teachers were asked to evaluate the social-emotional development of children in both groups A and B, by using the SDQ questionnaire, hereafter referred to as test three 'T3': see the previous Figure 3.3.

When the play sessions occurred and how long they continued were determined based on the following: 1) The researcher was allowed three months in which to gather the data, this being the case for all Saudi PhD students; 2) Evidence from previous studies was reviewed by the researcher. For example, the play intervention studied by Hyndman et al. (2014) lasted for 30 minutes, twice a week for seven weeks. Another study looked at five weeks of play sessions (Thibodeau et al., 2016). The play sessions in the current study therefore took place within these parameters.

During the LPP session children were asked to take photos of their favourite and least favourite play materials the photos being of play equipment, not each other. These photos formed the basis of the focus group discussion. During the play sessions the researcher was responsible for providing an environment with alternative opportunities for play where

children feel empowered to take control and direct play, deciding what equipment and space will be available, to ensure that all equipment is safe for the children to use, ensuring that there are enough resources for the number of children playing with them (at least five objects per child), checking anything that requires fixing, and discarding or replacing items whenever necessary during play intervention, to ensure both consistency and to address any health and safety problems that might arise.

During the LPP sessions teachers were supposed to play a specific role. This included ensuring the creation of an open environment so that each child could play freely whilst also complying with health and safety requirements, counting to 10 before intervening in any child's play and only then doing so when invited, and standing back and allowing each child to lead his or her own play while resisting the temptation to suggest activities or mediate in disputes. The role also included observing each child and trying to understand what is happening both in their mind and with their play relationships with other children, asking each child if they think they can work out a solution to the problems, and giving the children a five-minute warning before the end of the session.

### **3.6.3 Stage three post-intervention data collection**

The third stage started after completion of the LPP sessions. This stage mainly focused on collecting the qualitative data, including interviews with teachers and focus group discussions with children.

Following the play intervention sessions, semi-structured interviews with teachers were undertaken, in order to ascertain what teachers felt about the use of play, particularly LPP intervention. A total of eight interviews with teachers were completed. The interview questions asked were open-ended, allowing the participants to express their opinions, thoughts and feelings. All interviews were recorded and transcribed by the researcher.

Focus group discussions with children were also run by the researcher after the play sessions. The aim of these sessions was to explore what children thought about the play sessions. The photos taken by children during the play sessions were used as prompts to stimulate discussion, with the photos taken by children forming the basis of the discussion.

*Table 3-4 Data collection stages*

| Stage              | Description                                |                | Dates   | Steps   |
|--------------------|--|----------------|---|---|
| <i>Stage one</i>   | <b>Pre-Intervention Data Collection</b>    |                | For both group (A) and (B)<br>(from 2 <sup>nd</sup> to 13 <sup>th</sup> Sep 2018)       | 1- Meet with the preschool teachers and explain the research purposes, procedures and answer their questions.<br>2- Distribute participation information sheets to children's parents and teachers.<br>3- Conduct the SDQ questionnaire Test 1 (T1) for children's social-emotional skills. The questionnaire to be completed by children's teachers and parents. |
| <i>Stage two</i>   | <b>Intervention</b>                        | <b>Group A</b> | 1-LPP intervention for 6 weeks (from 16 <sup>th</sup> Sep to 23 <sup>rd</sup> Oct 2018) | 1- 6 weeks LPP Play Intervention Strategy. Regular weekly meeting to check if participants need any help.<br>2- Conduct Test 2 (T2) for children SDQ questionnaire for teachers and parents.  |
|                    |  |                | 2- Normal class for 6 weeks (23 <sup>rd</sup> of oct to 6 <sup>th</sup> of Dec)         | 1- Run the normal kindergarten class for 6 weeks.<br>2- Conduct Test 3 (T3) for children SDQ questionnaire for teachers and parents   |
|                    |  | <b>Group B</b> | 1- Normal class for 6 weeks (from 16 <sup>th</sup> Sep to 23 <sup>rd</sup> Oct 2018)    | 1- Run the normal kindergarten class for 6 weeks.<br>2- Conduct Test 2 (T2) for children SDQ questionnaire for teachers and parents   |
|                    |  |                | 2- LPP intervention for 6 weeks (23 <sup>rd</sup> of oct to 6 <sup>th</sup> of Dec)     | 1- 6 weeks LPP Play Intervention Strategy. Regular weekly meeting to check if participants need any help.<br>2- Conduct Test 3 (T3) for children SDQ questionnaire for teachers and parents.  |
| <i>Stage three</i> | <b>Post- intervention data collection.</b> | <b>Group A</b> | After-play intervention (24 <sup>th</sup> of Oct for 1 week)                            | 1- Focus group discussion with children.<br>2- Teachers' interviews.  |
|                    |  | <b>Group B</b> | After-play intervention (6 <sup>th</sup> of Dec for 1 week)                             |   |

### 3.7 PILOTING THE STUDY INSTRUMENTS

In the current study, several steps were taken to improve the reliability and validity of its investigations. These included the choice of measuring tools and the researcher improving her ability to use such tools, with the pilot study providing a good opportunity for practice. Conducting an initial pilot study provides advanced warning about where the research might fail. The process will also point to whether the proposed methods or instruments of research are indeed appropriate, or too complicated; identifying any areas where research protocols may require adjustment or flexibility to allow research to continue. The pilot also provided an opportunity to identify and mitigate any research risks that might occur (Van

Teijlingen & Hundley, 2002): Robson (2002) stated that a pilot study helps researchers to identify some of the inevitable problems of converting their design into reality.

The main aim of piloting instruments, within the current study, is testing the questions and checking the clarity of the items or the contents of the instruments. The time needed to practise the questionnaire, transcribe data or verify the accuracy of the interview and focus group notes can help improve the researcher's expertise, identify related problems, and allow for a calculation of the necessary allocation of time.

The choice of a sample size for pilot studies is guided as much by cost and time constraints as by the size and variability of the population (Cohen et al., 2017; Hertzog, 2008). Some educators refer to the indication in the extant literature which states that a pilot study sample should be 10% of the sample projected for the larger parent study (Lackey & Wingate, 1998). Others recommended that the size should range from 10 to 40 (Hertzog, 2008). Within the current study there are 59 children enrolled across the two schools and eight teachers. In order to test the initial procedures for the current study, instruments were piloted and pre-tested with a group of 10 children and two teachers. The participants chosen for the pilot study were not involved in the main study. The pilot study took place in May 2018, in Riyadh, KSA.

### **3.7.1 Piloting the quantitative elements of the study**

The Arabic version of the SDQ questionnaire was piloted with a group of 10 children of both genders. The piloting of the SDQ questionnaire was tests its validity and feasibility.

'Tool validity' refers to the extent to which the questions measure what they were intended to measure (Bryman, 2016). Frequency distributions were initially calculated in order to assess the distribution of responses across sections. This analysis indicated whether the questions posed in the questionnaire yielded the kind of data they were designed to obtain. 'Content validity' (Bryman, 2016) was assessed in the current study to determine the language, content and structure of the Arabic version of the SDQ. Participants in the pilot study were asked if the questionnaire structure, questions and language used were clear and easily comprehensible.

Feasibility was evaluated by consideration of the response rate, the time taken to fill out the questionnaire, and the accuracy of data recorded. In the pilot study teachers took between four and six minutes to complete the questionnaire. The average length of time to complete the survey was therefore just five minutes, with no missing data and no withdrawing. This showed the questionnaire to be appropriate as a tool and in terms of content.

The researcher had planned to test the research instrument reliability during this stage, but due to the pilot study sample size (N=10) applying the reliability test was not feasible. The reliability of the questionnaire was therefore tested during the main study.

### **3.7.2 Piloting the qualitative elements of the study**

The researcher designed both the interview and the focus group discussion questions, using the format of a few general questions to encourage conversation. The questions are led by the responses from the participants. However, in order to test the initial procedures, some general questions from both interview and focus group were piloted and pre-tested. The sample selected for the pilot study consisted of two Saudi female preschool teachers and 10 children all from Riyadh, the Saudi capital.

The semi-structured interview questions were piloted face-to-face with the two teachers, who were chosen because they were similar to the main study sample. Both respondents had no problems in understanding the questions. The time for each interview session was between 30 and 35 minutes. The interviews were recorded, transcribed and translated into English.

The focus groups were piloted with two groups of five children aged between five and six (N=10) after they had taken part in two free play sessions each lasting for one hour. The researcher prepared the free play equipment in a five-by-six-metre room and asked the children to take photos of their most favourite and least favourite piece of equipment with an iPad. After one day the photos were printed out and two focus group discussions took place with the children, piloting the questions. The children had no problem in

understanding the questions and the time taken for each focus group discussion was around 15 minutes. The discussions were recorded, transcribed and translated into English.

The comments and feedback from those taking part in the pilot were taken into account and used to improve the quality of the questions. It was also useful to ascertain whether anything was missing, and questions were added to both the children's focus group questions and teachers' interview questions.

### **3.8 DATA ANALYSIS**

#### **3.8.1 Data analysis strategy for the quantitative strategy**

A total of 59 children participated in the quantitative phase of the current study. After completion of the data collection stage, the researcher began the data entry and analysis using the Statistical Package for Social Sciences (SPSS) Version 22 for Windows. Quality control was also undertaken by the researcher at this stage of coding and data entry. To begin with, the raw data were scrutinised for omissions, inconsistencies and potential errors. The researcher corrected any errors by checking the data against hard copies of the questionnaires. The data were then checked for missing values (Field, 2013).

Analysis was undertaken in order to assess the impact of the play intervention on children's social-emotional skills. The Shapiro-Wilk statistic test was carried out in order to test for normality. It has been argued that the Shapiro-Wilk test can be used for small sample sizes (50 or less), as is the case in this study (Althouse et al., 1998; Mendes & Pala, 2003; Razali & Wah, 2011)

The data were of normal distribution; therefore, the parametric test repeated measures; ANOVA (analysis of variance) was used to analyse and identify any significant differences between the three SDQ tests (T1, T2 and T3). The assumption of sphericity was violated, as assessed by Mauchly's test of sphericity. Therefore, a Greenhouse-Geisser correction was applied. The Bonferroni *post hoc* test was used for the purpose of testing all possible pairwise combinations of levels of the within-subjects' factor from T1 to T2 and T3 for all the SDQ subscales. Confidence intervals were computed at a 95% level of confidence for

each SDQ test (T1, T2 and T3). Statistical significance was defined as the p-value  $<0.05$  (Field, 2013; Simpson, 2015). The alpha level ( $\alpha$ ) was used to assess data reliability.

### **3.8.2 Data analysis for the qualitative strategy**

Qualitative data analysis is concerned with the extrapolation of useful information from raw data, and the interpretation of the findings to best answer the research question (Cohen et al., 2017). The thematic analysis method was used to analyse qualitative data. This method is generally considered to be flexible and can potentially provide a rich and detailed explanation that would assist the understanding of the researcher (Braun & Clarke, 2006).

In the current study, the objective of the thematic analysis method was to transform the raw data into emergent themes from which to derive meaning: to demonstrate the content in relation to the research questions. A ‘theme’ essentially captures something important about the data with respect to the research question, representing some level of patterned response or meaning (Braun & Clarke, 2006).

The qualitative data analysis in the current study took an inductive, rather than a deductive, approach. The inductive approach of the thematic analysis means that the themes identified are strongly linked to the data themselves. In other words, the themes emerging are not related to the interview questions, as much as they are strongly related to the main research question (Braun & Clarke, 2006). Data were thematically analysed to discern patterns which could improve our understanding of the effectiveness of play.

The researcher analysed the data manually as this is considered an appropriate technique. Whilst computer software can facilitate the analysis of qualitative data, it has led to some concerns being raised (Bryman, 2016). These include the de-contextualising of the data and the consequent loss of narrative flow during the fragmentation process. Moreover, some researchers maintain that the process of coding and retrieving evident in software programs fails to identify the interactive component of data collected from qualitative methods (Savin-Baden & Howell-Major, 2013).

To ensure methodological rigour in the thematic analysis, the researcher implemented a six-phase recursive process model devised by Braun and Clarke (2006) with steps as

follows: 1) Become familiar with the data by reading and re-reading the transcripts, with the researcher starting to take notes and any primary reflections. Transcripts should be checked against the original records to ensure accuracy. 2) Generate the initial codes for each segment of data relevant to the research question. After becoming familiar with the data, the researcher starts producing initial lists of the interesting elements of the data, in a systematic way. The collected codes are then listed, and all the relevant information pertaining to these codes reported. The researcher was keen to code as many potential categories as possible. The researcher organised the data into meaningful groups and thought about the relationships between them. 3) The third step begins once all the data have been coded and grouped and includes a search for themes that capture something significant or unusual relating to the data and research question. The researcher then re-focuses the analysis on a broader level of themes, instead of focusing on the codes, as in the second step. Tables were used to sort the different codes into various themes. 4) The fourth step involves the researcher reviewing and defining the various themes, to ensure that both the codes and the developing theme are forming a coherent pattern. The validity of the individual themes is then reviewed, according to the set of data. Once the researcher is satisfied with the developed themes and sure that they cover views from the perspectives of both teachers and children, the fifth step begins. 5) In this step, the themes were fully defined to identify the essence of each. At this stage, the researcher identified the essence of each theme; what is it about, what story the theme is telling, and how are themes related and connected to each other? 6) In this final step, the researcher wrote up the analysis as a report including the findings of the qualitative phase of the study.

### **3.9 TRUSTWORTHINESS**

Building trust is not about the personal characteristics of the investigator. Instead, it is a developmental process that occurs over time (Lincoln & Guba, 2010). According to Lincoln and Guba (2010), trustworthiness in the context of mixed-methods research includes four criterion areas: credibility, transferability, dependability, and confirmability. In this section the researcher analyses these criteria in detail and the way in which standards of trustworthiness were achieved.



In terms of *credibility*, there is a notion that credibility is improved through data-checking, logical groupings and analyses (Lincoln & Guba, 2010). Therefore, the researcher used the peer debriefing method and discussed the coding and themes analysis of the interviews and focus group discussion with another colleague. Moreover, the researcher obtained feedback from this study's doctoral supervisors, in which they recommended some themes and advised that some codes and themes be renamed. Consulting these differing sources helped to address the issue of individual prejudice: research credibility is parallel to the internal validity in the quantitative studies (Shenton, 2004).

In order to achieve credibility, the final research findings are developed from three different research methods; namely a standardised questionnaire, interviews with teachers, and focus groups with children. The aim in using a mixed-method approach was to realise the strengths of both qualitative and quantitative methods and limit their shortcomings. The researcher also enhanced the validity by using multiple-sites (two separate preschools) and multi-groups (group A and group B).

*Transferability* refers to the ways in which the findings of the current study can be applied to other studies involving similar practices, questions or participants (Marshall & Rossman, 2016). The researcher endeavoured to meet this requirement by offering a clear and detailed account of the study's methods of data collection and participants. The findings from this study may be transferable to other countries that share similar demographic, linguistic, social, cultural, and religious contexts. The findings may also be applied to other populations or settings.

*Dependability* in social research signifies that the outcomes are reliable and can be replicated in similar contexts and circumstances (Hammersley, 2007). In order to ensure dependability within the current study, the researcher kept a record of all the methods used in data collection such as digital recordings, interviews and focus group transcripts. This then enables future researchers to validate the data analysis.

Within the current study, dependability was associated with qualified translation. In order to prevent misunderstandings around language and because it was conducted in Saudi Arabia, both interview questions and focus group discussions were translated from Arabic

into English. The chief focus of the translation process was to make sure that there was minimal loss of meaning between the two languages. All interview and focus group transcripts were translated from Arabic to English by a specialist translator from the Lingua Translation Company. The English versions of the transcripts were then back translated into Arabic to check the accuracy of the translation. An independent academic in a similar field from the King Saud University was given samples of the interviews and focus group transcripts in order to check the accessibility and accuracy of any technical language.

**Conformability** denotes the degree to which the outcomes of a study can be confirmed by the collected data (Cohen et al., 2017). Confirmability is associated with objectivity. In order to minimise personal, subjective bias during analysis of the interview and focus group scripts, two external reviewers were invited to each review one type of script. After that, the researcher discussed the themes and sub-themes with the external reviewers, as well as the supervisors. This step promoted the confirmability of the study (Bryman, 2016; Shenton, 2004).

### **3.10 ETHICAL CONSIDERATIONS**

Ethics in social research is a complex and continually evolving field, but ethics have been defined as ‘a matter of principled sensitivity to the rights of others’ (Douglas, 1976, p. 810). Restrictions based on ethical concerns are referred to as ‘rules of conduct’ (Robson, 2002, p. 65). These are designed to determine whether a particular pattern of behaviour in the conduct of research is acceptable in individual and social terms. Thus, it is the responsibility of ethical researchers to protect the wellbeing and interests of research participants and ‘non-maleficence’ preventing any harm from being done to them (Keller & Lee, 2003; Lankshear & Knobel, 2004). These ethical principles were carefully considered at every stage of the current study.

In this study, the researcher followed the BPS principle specifically (respect, competence, responsibility and integrity) (Ethics Committee of the British Psychological Society, 2009). The ethical audit of this research study involved a number of stages. Before conducting the study, the researcher first gained ethical approval from Swansea University Ethical

Committee (see Appendix 10). Next, the researcher contacted the Saudi Education Council to obtain approval to conduct the study by collecting data from two pre-schools in Riyadh, Saudi Arabia (see Appendix 11). Two to three weeks before the study a consent form was obtained from the eight teachers in both schools (Appendix 4). A letter was also shared with the parents of child participants in order to obtain informed consent for their child to take part in the study and for them to agree to completing the questionnaires (Appendix 3). These letters were translated into Arabic, that being the first language of the participants. The participants had a deliberation period of two weeks to decide whether they would like to participate or not. Each adult participant, both parents and staff, received a consent form (Appendices 3 and 4). The consent form provided the participants with information about the researcher, the aims of the study, and reassured them of their right to unconditionally withdraw their participation from the study at any stage.

Regarding consent obtained from children, verbal permission was obtained from the children prior to the play session, seeking their consent to take part in the session. Again, verbal permission was taken from children before the focus group discussion seeking their consent to taking part in it. If any parents or child refused consent, the child would still be able to play, but their data would not be included in the study.

The researcher is mindful of the ethical concerns related to the confidentiality and anonymity of the participants (Lankshear & Knobel, 2004). The researcher informed teachers that if any child became distressed during play, a protection procedure would be undertaken, such as asking the child to choose another activity, or asking them whether they would prefer to move into the other group (the group not participating in the intervention).

Furthermore, all participants were informed that providing personal details or participating in the research was not mandatory, and that personal details would be kept under conditions of strict confidentiality and used only for statistical representation of the study. No real names of teachers, children and parents were used, with all participants' names being replaced with numbers or nicknames throughout the entire research process.

One potential anonymity-related problem that could occur came from asking the children to use an iPad to take photos of equipment only. If they were to inadvertently take photos of another child, it would be deleted immediately.

All paper copies of the data (consent forms, completed questionnaires, focus group and interviews' records) were kept in locked cabinets in the researcher's office. The electronic copies of the entered data were also saved on a secured university-based computer and protected by a password. In addition, the folders containing these files were encrypted and protected by a password. Consequently, privacy, confidentiality, and anonymity were upheld and protected.

It is also necessary to share those aspects of the study that would be beneficial for participants and the children's development. It was explained, not only in the consent form but also during discussions, that the researcher would be readily available to discuss any concerns and questions that might arise during or as a result of the research. The researcher outlined the ways in which she could be contacted and that she was happy for the participants to return at any time for further explanation and debriefing. Great effort was taken to ensure that no potentially harmful actions were performed or used, and there were no foreseen hazards anticipated during the conducting of the study. Ultimately, after completion of this study, debriefing forms (appendices 5 and 6) would be emailed to the participants, including a link to the results of the study.

### **SUMMARY OF CHAPTER THREE**

This chapter described the overarching aim of the research, which was to investigate the use of play sessions on children's social-emotional development during the early childhood phase of education, in Riyadh, Saudi Arabia. The content covered the three main areas of study: the impact of play on children's social-emotional development; the teachers' perspectives on the play intervention, and; the children's reports of their experiences of the play intervention.

This chapter examined the central philosophical and research theories that underpinned the study's design and explained the reasons why this study nested within the pragmatic

paradigm, allowing the researcher to use mixed-method research to glean and record data from several different sources: parents, teachers, and children. Also, this chapter presented the various data collection methods (questionnaire, semi-structured interviews and focus groups) the sampling approach (purposive sampling) and the data analysis for each data collection method. The ethical aspects to the methodology were outlined. The following chapter presents the findings of this study.

## **4 CHAPTER FOUR: QUANTITATIVE RESULTS**

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### **INTRODUCTION TO CHAPTER FOUR**

This chapter presents the results of the quantitative study, in terms of collecting and analysing the quantitative data. It aims to examine the impact of play intervention on children's social-emotional development. This chapter provides results for two main research questions:

- 1- What is the impact of play intervention in children's social-emotional development, as viewed from parents' perspective?
- 2- What is the impact of play intervention in children's social-emotional development, as viewed from teachers' perspective?

Data were collected via a questionnaire. A total of fifty-nine children (N=59) participated with the first group intervention accounting for 31 and the second group intervention accounting for 28 pupil-participants. The sample comprised of 29 male and 30 female children. The pupil-participants were aged between five and six years (60 and 27 months), with a mean age of 66.98 months.

Children were allocated to play intervention sessions alternately, and a pre-test/post-test counterbalanced design was used to measure the impact of the play intervention. Children's social-emotional development was measured by using the Strength and Difficulties Questionnaire (SDQ). Both parents' and teachers' reports were used.

This chapter has two main sections. The first section presents the results of the impact of play intervention in children's social-emotional development from parents' perspective. The second section outlines the results of the impact of play intervention from teachers' perspective.

#### **4.1 RESEARCH QUESTION: WHAT IS THE IMPACT OF PLAY INTERVENTION ON CHILDREN'S SOCIAL-EMOTIONAL DEVELOPMENT, AS VIEWED FROM THE PARENTS' PERSPECTIVE?**

The current study uses the SDQ to measure the impact of play intervention on children's social-emotional development from parents' perspective. The SDQ includes five subscales: emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behaviour. Before presenting the results of the parents' SDQ, the reliability of the data is presented. This is followed by the results of the parents' SDQ.

##### **4.1.1 Parents' SDQ reliability**

Determining the reliability of a tool is the process of measuring its consistency to ensure that it correctly measures what it has been created to measure. The main criterion that has been used to assess reliability is Cronbach's Alpha value. Cronbach's Alpha coefficient is considered as an indicator of internal consistency of the entire scale. Ideally, Cronbach's Alpha coefficient has to be more than 0.7. However, 0.5 or 0.6 can be accepted (Churchill Jr, 1979). The reliability for parents' SDQ has been tested in the three-time tests (Test 1, Test 2 and Test 3). The Cronbach's Alpha value for parents' SDQ for all three-time tests scale were reliable and can be used to measure the skills. Cronbach's Alpha values are shown in Table 4.1.

***Table 4-1 Cronbach's Alpha value for parents' SDQ tests 1, 2 and 3.***

| <b>Parents' SDQ subscale</b>      | <b>Test (1)<br/>Cronbach's<br/>Alpha</b> | <b>Test (2)<br/>Cronbach's<br/>Alpha</b> | <b>Test (3)<br/>Cronbach's<br/>Alpha</b> |
|-----------------------------------|--|--|--|
| <b>Emotional symptoms</b>         | .677                                     | .683                                     | .617                                     |
| <b>Conduct problems</b>           | .701                                     | .702                                     | .624                                     |
| <b>Hyperactivity/inattention</b>  | .705                                     | .775                                     | .656                                     |
| <b>Peer relationship problems</b> | .641                                     | .656                                     | .751                                     |
| <b>Prosocial behaviour</b>        | .680                                     | .800                                     | .792                                     |
| <b>Total difficulties</b>         | .630                                     | .634                                     | .697                                     |

#### **4.1.2 Parents' SDQ analysis and results**

For the current study, there were no outliers, and the data were normally distributed, as assessed by the Shapiro-Wilk, Skewness and Kurtosis tests ( $p > .05$ ) see (appendix 14). Therefore, repeated measures ANOVA was used, the assumption of sphericity was violated, as assessed by Mauchly's test of sphericity, and Greenhouse-Geisser correction was applied. The Bonferroni post hoc test was used for the purpose of testing all possible pairwise combinations of levels of the within-subjects factor from T1 to T2 and T3 for the SDQ. Independent sample t-tests were also conducted to identify any differences between groups. Subscales pertinent to the intervention (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour) were of primary interest.

In line with previous findings (Flower et al., 2014; Gibson et al., 2017; Kirk & Jay, 2018), it was predicted that the first group intervention (A) would have a lower score on the total difficulties subscale after the intervention (T2) than before the intervention (T1). This includes total difficulties, emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems as a lower score in these subscales indicates a lower incidence of problems or symptoms.

It was also predicted that the first group intervention (A) would have a higher score on the prosocial behaviour skills scale after the intervention (T2) than before the intervention (T1), as a higher score of the prosocial behaviour indicates fewer problems.

Regarding the second group intervention (B) it was predicted that they would have lower score on the total difficulties score after the intervention (T3) than before the intervention (T2). This includes emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems. In addition, it was also predicted that the second group intervention (B) would achieve a higher score on the prosocial behaviour skills after the intervention (T3) than before the intervention (T2).



The parents' SDQ for all subscales scores were examined three times – at T1, T2 and T3 – for both the first group intervention (A), and the second group intervention (B). Descriptive statistics, results of tests of Within-Subjects Effects, Pairwise Comparisons, and independent sample t-tests are presented in Tables 4.2, 4.3, 4.4, 4.5 and Figure 4.1.

**Table 4-2** Descriptive statistics for parents' SDQ scores: first group intervention (A) and second group intervention (B).

| Parents' SDQ Subscale          | First group intervention (A) (N=31) |                 |                 | Second group intervention (B) (N=28) |                 |                 |
|--------------------------------|-------------------------------------|-----------------|-----------------|--------------------------------------|-----------------|-----------------|
|                                | T1<br>Mean (SD)                     | T2<br>Mean (SD) | T3<br>Mean (SD) | T1<br>Mean (SD)                      | T2<br>Mean (SD) | T3<br>Mean (SD) |
| Total difficulties             | 9.68 (4.323)                        | 4.52 (3.182)    | 4.90 (3.636)    | 9.54 (5.000)                         | 8.14 (4.813)    | 4.04 (3.214)    |
| Emotional symptoms             | 2.48 (1.913)                        | .71 (.903)      | .81 (1.078)     | 1.93(1.359)                          | 2.07 (1.514)    | .43 (.504)      |
| Conduct problems               | 1.65 (1.112)                        | .90 (.870)      | 1.03 (.912)     | 1.79 (1.315)                         | 1.43 (1.289)    | .64 (.780)      |
| Hyperactivity/inattention      | 3.10 (1.832)                        | 2.06 (1.459)    | 2.03 (1.516)    | 2.89 (2.025)                         | 2.07 (1.741)    | 1.71 (1.410)    |
| Peer relationship problems     | 2.45 (1.609)                        | .84 (1.241)     | 1.03 (1.303)    | 2.93 (1.741)                         | 2.57 (1.643)    | 1.25 (1.456)    |
| Prosocial behaviour (strength) | 7.16 (1.881)                        | 8.74 (1.094)    | 9.54 (5.000)    | 8.14 (4.813)                         | 9.07 (.979)     | 9.89 (.315)     |

**Table 4-3 Tests of Within-Subjects Effects for parents' SDQ subscales**

| <b>Group</b>   | <b>Source</b>          | <b>Df</b> | <b>Mean Square</b> | <b>F</b> | <b>Sig.</b> |
|----------------|------------------------|-----------|--------------------|----------|-------------|
| <b>Group A</b> | Parents' SDQ total     | 1.592     | 321.832            | 119.779  | .000        |
|                |                        | 47.759    | 2.687              |          |             |
|                | Parents' SDQ emotional | 1.116     | 55.293             | 30.031   | .000        |
|                |                        | 33.476    | 1.841              |          |             |
|                | Parents' SDQ conduct   | 1.129     | 8.628              | 10.342   | .002        |
|                |                        | 33.871    | .834               |          |             |
|                | Parents' SDQ hyper     | 1.215     | 18.714             | 12.964   | .000        |
|                |                        | 36.440    | 1.444              |          |             |
|                | Parents' SDQ peer      | 1.523     | 31.566             | 30.533   | .000        |
|                |                        | 45.700    | 1.034              |          |             |
|                | Parents' SDQ prosocial | 1.037     | 50.806             | 20.112   | .000        |
|                |                        | 31.124    | 2.526              |          |             |
| <b>Group</b>   | <b>Source</b>          | <b>Df</b> | <b>Mean Square</b> | <b>F</b> | <b>Sig.</b> |
| <b>Group B</b> | Parents' SDQ total     | 1.455     | 314.679            | 95.995   | .000        |
|                |                        | 39.287    | 3.278              |          |             |
|                | Parents' SDQ emotional | 1.446     | 32.079             | 40.458   | .000        |
|                |                        | 39.038    | .793               |          |             |
|                | Parents' SDQ conduct   | 1.998     | 9.580              | 19.735   | .000        |
|                |                        | 53.952    | .485               |          |             |
|                | Parents' SDQ hyper     | 1.838     | 11.128             | 8.876    | .001        |
|                |                        | 49.623    | 1.254              |          |             |
|                | Parents' SDQ peer      | 1.996     | 21.939             | 37.474   | .000        |
|                |                        | 53.886    | .585               |          |             |
|                | parents SDQ prosocial  | 1.576     | 14.336             | 14.975   | .000        |
|                |                        | 42.557    | .957               |          |             |

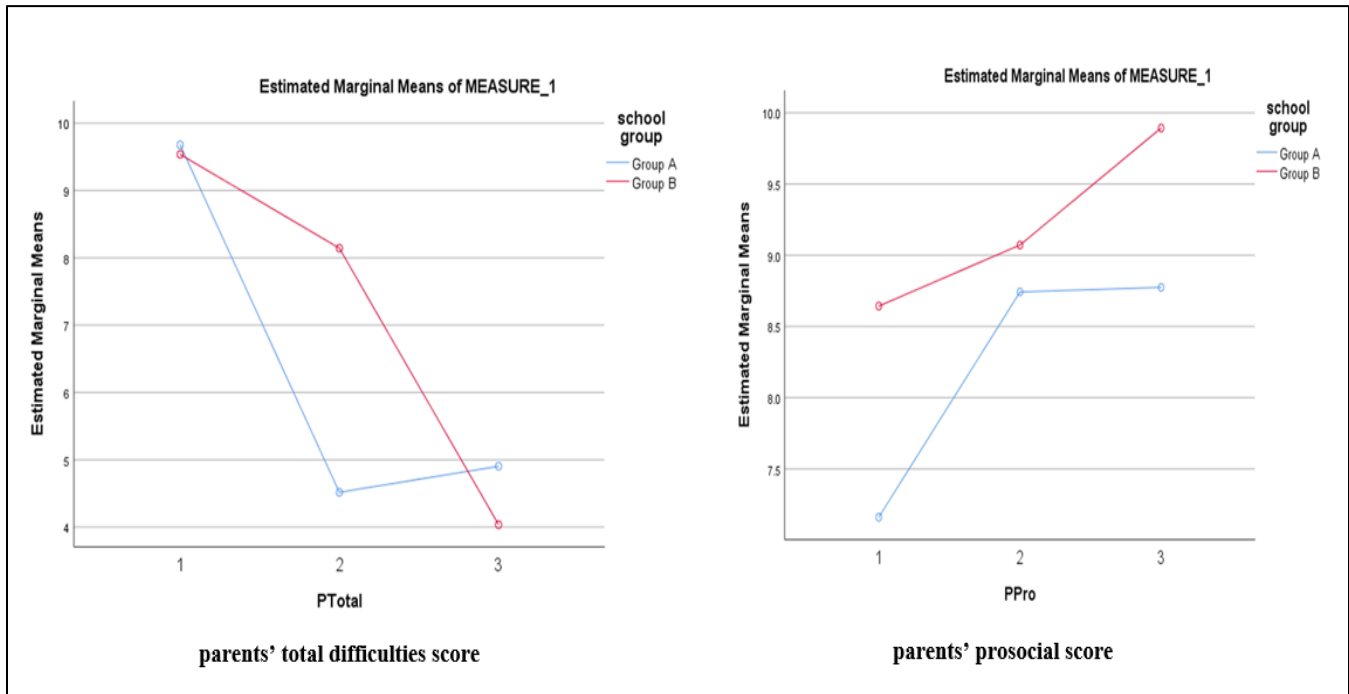
**Table 4-4** Pairwise Comparisons for parents' SDQ subscales

| Group   | SDQ                 | Test 1 to Test 2 |                   |   |             | Test 2 to Test 3 |                   |   |             |
|---------|---------------------|------------------|-------------------|---|-------------|------------------|-------------------|---|-------------|
| Group A | Parents' SDQ Scales | Mean Difference  | Sig. <sup>b</sup> | 95% Confidence Interval for Difference <sup>b</sup> |             | Mean Difference  | Sig. <sup>b</sup> | 95% Confidence Interval for Difference <sup>b</sup> |             |
|         |                     |                  |                   | Lower Bound   | Upper Bound |                  |                   | Lower Bound   | Upper Bound |
|         | Total difficulties  | -5.161*          | .000              | -6.125  | -4.198      | .387             | .500              | .305  | -1.080      |
|         | Emotional           | -1.774*          | .000              | -2.467  | -1.081      | .097             | 1.000             | -.175   | .369        |
|         | Conduct             | -.742*           | .005              | -1.280  | -.203       | .129             | .130              | -.026   | .284        |
|         | Hyper               | -1.032*          | .002              | -1.713  | -.352       | -.032            | 1.000             | -.308   | .243        |
|         | Peer                | -1.613*          | .000              | -2.264  | -.962       | .194             | .618              | -.186   | .573        |
|         | Prosocial           | 1.581*           | .000              | .695  | 2.467       | .032             | 1.000             | -.111   | .176        |
| Group   | SDQ                 | Test 1 to Test 2 |                   |   |             | Test 2 to Test 3 |                   |   |             |
| Group B | Parents' SDQ Scale  | Mean Difference  | Sig. <sup>b</sup> | 95% Confidence Interval for Difference <sup>b</sup> |             | Mean Difference  | Sig. <sup>b</sup> | 95% Confidence Interval for Difference <sup>b</sup> |             |
|         |                     |                  |                   | Lower Bound   | Upper Bound |                  |                   | Lower Bound   | Upper Bound |
|         | Total difficulties  | -1.393*          | .000              | -2.128  | -.658       | - 4.107*         | .000              | -5.144  | -3.071      |
|         | Emotional           | .143             | .880              | -.197   | .483        | -1.643*          | .000              | -2.275  | -1.010      |
|         | Conduct             | -.357            | .200              | -.834   | .120        | -.786*           | .001              | -1.266  | -.306       |
|         | Hyper               | -.821*           | .008              | -1.452  | -.191       | -.357            | .674              | -1.091  | .376        |
|         | Peer                | -.357            | .288              | -.886   | .171        | -1.321*          | .000              | -1.831  | -.812       |
|         | Prosocial           | .429             | .168              | -.120   | .977        | .821*            | .000              | .347  | 1.296       |

**Table 4-5 Independent sample T test for parents' SDQ subscales**

| <b>Parent SDQ test 1</b> |                             | <b>F</b> | <b>Sig.</b> | <b>T</b> | <b>Df</b> |
|--------------------------|-----------------------------|----------|-------------|----------|-----------|
| Parent emotion test 1    | Equal variances assumed     | 2.463    | .122        | 1.273    | 57        |
|                          | Equal variances not assumed |          |             | 1.295    | 54.120    |
| Parent conduct test 1    | Equal variances assumed     | 4.070    | .052        | -.445    | 57        |
|                          | Equal variances not assumed |          |             | -.441    | 53.170    |
| Parent hyper test 1      | Equal variances assumed     | .182     | .671        | .406     | 57        |
|                          | Equal variances not assumed |          |             | .404     | 54.754    |
| Parent peer test 1       | Equal variances assumed     | .957     | .332        | -1.094   | 57        |
|                          | Equal variances not assumed |          |             | -1.089   | 55.174    |
| Parent prosocial test 1  | Equal variances assumed     | 2.086    | .154        | -3.285   | 57        |
|                          | Equal variances not assumed |          |             | -3.318   | 56.514    |
| Parent total test 1      | Equal variances assumed     | .585     | .448        | .117     | 57        |
|                          | Equal variances not assumed |          |             | .116     | 53.729    |
| <b>Parent SDQ test 2</b> |                             | <b>F</b> | <b>Sig.</b> | <b>T</b> | <b>Df</b> |
| Parent emotion test 2    | Equal variances assumed     | 18.794   | .001        | -4.246   | 57        |
|                          | Equal variances not assumed |          |             | -4.143   | 43.096    |
| Parent conduct test 2    | Equal variances assumed     | 4.431    | .040        | -1.851   | 57        |
|                          | Equal variances not assumed |          |             | -1.815   | 46.681    |
| Parent hyper test 2      | Equal variances assumed     | .118     | .732        | -.017    | 57        |
|                          | Equal variances not assumed |          |             | -.016    | 52.944    |
| Parent peer test 2       | Equal variances assumed     | 5.361    | .024        | -4.599   | 57        |
|                          | Equal variances not assumed |          |             | -4.534   | 50.041    |
| Parent prosocial test 2  | Equal variances assumed     | 2.227    | .041        | -1.214   | 57        |
|                          | Equal variances not assumed |          |             | -1.221   | 56.996    |
| Parent total test 2      | Equal variances assumed     | 5.578    | .022        | -3.445   | 57        |
|                          | Equal variances not assumed |          |             | -3.376   | 46.065    |
| <b>Parent SDQ test 3</b> |                             | <b>F</b> | <b>Sig.</b> | <b>T</b> | <b>Df</b> |
| Parent emotion test 3    | Equal variances assumed     | 4.401    | .051        | 1.695    | 57        |
|                          | Equal variances not assumed |          |             | 1.752    | 43.456    |
| Parent conduct test 3    | Equal variances assumed     | .129     | .721        | 1.753    | 57        |
|                          | Equal variances not assumed |          |             | 1.767    | 56.842    |
| Parent hyper test 3      | Equal variances assumed     | 2.811    | .099        | .831     | 57        |
|                          | Equal variances not assumed |          |             | .834     | 56.944    |
| Parent peer test 3       | Equal variances assumed     | .963     | .331        | -.606    | 57        |
|                          | Equal variances not assumed |          |             | -.603    | 54.521    |
| Parent prosocial test 3  | Equal variances assumed     | 45.785   | .051        | -3.878   | 57        |
|                          | Equal variances not assumed |          |             | -3.802   | 34.719    |
| Parent total test 3      | Equal variances assumed     | .063     | .803        | .966     | 57        |
|                          | Equal variances not assumed |          |             | .973     | 56.978    |

**Figure 4.1** Line graph for parents' SDQ results



### ***Parents' SDQ total difficulties score***

The total difficulties TD score mainly includes four scales (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems). For these scales, a higher score indicates a greater incidence of problems or symptoms. Results are presented in Tables 4.2, 4.3, 4.4 and 4.5 as well as in Figure 4.1.

The intervention significantly impacts children's TD score over time, as seen for the first intervention group (A)  $F(1.592, 47.759) = 119.779, p < .001$ , with a TD score decreasing from pre-intervention T1 ( $M = 9.68, SD = 4.32 \text{ mg/L}$ ) to post-intervention T2 ( $M = 4.52, SD = 3.18 \text{ mg/L}$ ). *Post hoc* analysis with a Bonferroni adjustment revealed that the TD score significantly decreased from pre- to post-intervention ( $M = -5.161 \text{ mg/L}$ , 95% CI [-6.125, -4.198],  $p < .001$ ). This effect was sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) show no significant changes ( $M = .387 \text{ mg/L}$ , 95% CI [.305, -1.080],  $p = .500$ ).

The statistics have also demonstrated significant changes in children's TD score over time for the second group (B)  $F(1.455, 39.287) = 95.995, p < .001$ , with a total difficulties score decreasing from pre-intervention T2 ( $M = 8.14, SD = 4.81 \text{ mg/L}$ ) to post-intervention T3 ( $M = 4.04, SD = 3.21 \text{ mg/L}$ ). Post hoc analysis revealed a significant decrease from pre- to post-intervention ( $M = -4.107 \text{ mg/L}$ , 95% CI  $[-5.144, -3.071]$ ,  $p < .001$ ).

The data in Table 4.4 show that in group B there is also significant effects for the curriculum; this difference can be seen between T1 and T2 ( $M = -1.39, \text{mg/L}$ , 95% CI  $[-2.128, -.658]$ ,  $p < .001$ ). However, the effects of the intervention are much greater than those of the curriculum.

To identify any between group differences, independent samples t-tests were conducted. The results in table 4.5 do not show any significant difference in total difficulties score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of total difficulties score. The t-test for T1 illustrated a comparable level of total difficulties  $T(57) = .117, p = .448$ . At T2 the mean total difficulties score for the first group intervention (A) had decreased significantly, and a significant difference between groups was evident  $T(57) = -3.445, p = .022$ . At T3 the mean total difficulties score for the second group intervention (B) had decreased significantly and the mean score for groups was comparable  $T(57) = .966, p = .803$ .

### ***Parents' SDQ emotional symptoms score***

The intervention elicited significant changes in emotional symptoms score for the first group intervention (A)  $F(1.116, 33.476) = 30.031, p < .001$ , with a score decreasing from pre-intervention T1 ( $M = 2.48, SD = 1.91 \text{ mg/L}$ ) to post-intervention T2 ( $M = .71, SD = .903 \text{ mg/L}$ ). Post hoc analysis revealed a decrease from pre- to post-intervention ( $M = -1.774 \text{ mg/L}$ , 95% CI  $[-2.467, -1.081]$ ,  $p < .001$ ). This effect was sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) do not show different ( $M = .097 \text{ mg/L}$ , 95% CI  $[-.175, .369]$ ,  $p = 1.000$ ). The statistics have also demonstrated significant changes in emotional symptoms score for the second group intervention (B)  $F(1.446, 39.038) = 40.458, p < .001$ , with a score decreasing from pre-intervention T2 ( $M = 2.07, SD = 1.514 \text{ mg/L}$ ) to post-intervention T3 ( $M = .43, SD = .504$

mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -1.64$  mg/L, 95% CI [-2.275, -1.010],  $p < .001$ ).

To identify any differences between groups, independent sample t-tests were conducted. The results in table 4.5 do not show any significant difference in emotional symptoms mean-score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level for emotional symptoms. The T-test for T1 illustrated a comparable level of emotional symptoms  $T(57) = 1.273$ ,  $p = .122$ . At T2, the mean emotional symptoms score for the first group intervention (A) had decreased significantly, and a significant difference between the groups was evident  $T(57) = -4.246$ ,  $p < .001$ . At T3, the mean emotional symptoms score for the second group intervention (B) had decreased significantly and the difference between groups was comparable:  $T(57) = 1.695$ ,  $p = .051$ .

#### ***Parents' SDQ conduct problems score***

Statistics elicited significant changes in conduct problem score for the first group intervention (A)  $F(1.129, 33.871) = 10.342$ ,  $p = .002$ , with a score decreasing from pre-intervention T1 ( $M = 1.65$ ,  $SD = 1.11$  mg/L) to post-intervention T2 ( $M = .90$ ,  $SD = .870$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -.742$  mg/L, 95% CI [-1.280, -.203],  $p = .005$ ). This effect was sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) show no significant changes ( $M = .129$  mg/L, 95% CI [-.026, .284],  $p = .130$ ).

The results also demonstrated significant changes in conduct problem score for the second group (B)  $F(1.998, 53.952) = 19.735$ ,  $p < .001$ , with a score decreasing from pre-intervention T2 ( $M = 1.43$ ,  $SD = 1.289$  mg/L) to post-intervention T3 ( $M = .64$ ,  $SD = .780$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -.786$  mg/L, 95% CI [-1.266, -.306],  $p = .001$ ). Between-group differences for conduct problems were tested. The results in table 4.5 do not show any significant difference in conduct problems score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of conduct problems. The T-test for T1 illustrated a comparable level of conduct problems:  $T(57) = -.445$ ,  $p = .052$ . At T2, the

mean conduct problems score for the first group intervention (A) had decreased significantly, and a significant difference between groups was evident:  $T(57) = -1.851, p = .040$ . At T3, the mean conduct problems score for the second group intervention (B) had decreased significantly and the mean score for groups was comparable:  $T(57) = 1.753, p = .721$ .

### ***Parents' SDQ hyperactivity/inattention score***

The intervention elicited significant changes in children's hyperactivity score, as for first group intervention (A)  $F(1.215, 36.440) = 12.964, p < .001$ , with a decrease from pre-intervention T1 ( $M = 3.10, SD = 1.83 \text{ mg/L}$ ) to post-intervention T2 ( $M = 2.06, SD = 1.46 \text{ mg/L}$ ). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -1.032 \text{ mg/L}$ , 95% CI  $[-1.713, -.352]$ ,  $p = .002$ ). The intervention effects were sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) are not significant ( $M = -.032 \text{ mg/L}$ , 95% CI  $[-.308, .243]$ ,  $p = 1.000$ ).

For group (B) the statistics have demonstrated significant changes in hyperactivity score  $F(1.838, 49.623) = 8.876, p = .001$ . *Post hoc* analysis revealed that hyperactivity score did not significantly changed from pre- to post-intervention ( $M = -.357 \text{ mg/L}$ , 95% CI  $[-1.091, .376]$ ,  $p = .674$ ). However, analysis revealed that children's hyperactivity score significantly changed after the use of the preschool curriculum ( $M = -.821 \text{ mg/L}$ , 95% CI  $[-1.452, -.191]$ ,  $p = .008$ ). with the difference between T1 ( $M = 2.89, SD = 2.025 \text{ mg/L}$ ) and T2 ( $M = 2.07, SD = 1.74 \text{ mg/L}$ ). Between-group differences in hyperactivity level was tested, as shown in table 4.5. The results do not show any significant difference in hyperactivity level at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of hyperactivity:  $T(57) = .406, p = .671$ . At T2 results do not show any significant difference in hyperactivity level between groups  $T(57) = -.017, p = .732$ . Similarly, at T3 the mean of hyperactivity level remains insignificant:  $T(57) = .831, p = .099$ .



### ***Parents' SDQ peer relationship problems score***

The play intervention elicited significant changes in peer relationship problems score for the first group intervention (A)  $F(1.523, 45.700) = 30.533, p < .001$ ., with a score decreasing from pre-intervention T1 ( $M = 2.45, SD = 1.61 \text{ mg/L}$ ) to post-intervention T2 ( $M = .84, SD = 1.24 \text{ mg/L}$ ). Post hoc analysis revealed a decrease from pre- to post-intervention ( $M = -1.613 \text{ mg/L}, 95\% \text{ CI } [-2.264, -.962], p < .001$ ). The intervention effects were sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) do not illustrate a significant difference ( $M = .194 \text{ mg/L}, 95\% \text{ CI } [-.186, .573], p = .618$ ).

The results also demonstrated significant changes in peer relationship problems score for the second group (B)  $F(1.996, 53.886) = 37.474, p < .001$ ., with a score decreasing from pre-intervention T2 ( $M = 2.57, SD = 1.643 \text{ mg/L}$ ) to post-intervention T3 ( $M = 1.25, SD = 1.456 \text{ mg/L}$ ). Post hoc analysis revealed a decrease from pre- to post-intervention ( $M = -1.321 \text{ mg/L}, 95\% \text{ CI } [-1.831, -.812], p < .001$ ). Between-group differences in peer relationship problems were tested. Results in table 4.5 do not show any significant difference in peer problems score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of peer problems. The t-test for T1 illustrated a comparable level of peer problems  $T(57) = -1.094, p = .331$ . At T2, the mean peer problems score for the first group intervention (A) had decreased significantly, and a significant difference between groups was evident:  $T(57) = -4.599, p = .024$ . At T3, the mean peer problems score for the second group intervention (B) had decreased significantly and the mean score for groups was comparable:  $T(57) = -.606, p = .331$ .

### ***Parents' SDQ prosocial behaviour score (strengtht)***

For this scale, a higher score indicates fewer problems. As can be seen in Tables 4.3 and 4.4, the play intervention elicited significant changes in the prosocial behaviour score, as for first group intervention (A)  $F(1.037, 31.124) = 20.112, p < .001$ . with increasing from pre-intervention T1 ( $M = 7.16, SD = 1.88 \text{ mg/L}$ ) to post-intervention T2 ( $M = 8.74, SD = 1.09 \text{ mg/L}$ ). Post hoc analysis revealed an increase from pre- to post-intervention ( $M = 1.581 \text{ mg/L}, 95\% \text{ CI } [.695, 2.467], p < .001$ ). This effect was sustained as the differences

between T2 (post-intervention) and T3 (six weeks of using the curriculum) do not significantly change ( $M = .032 \text{ mg/L}$ , 95% CI  $[-.111, .176]$ ,  $p = 1.000$ ).

The changes in prosocial behaviour also were significant for the second group intervention (B)  $F(1.576, 42.557) = 14.975$ ,  $p < .001$ . with a score increasing from pre-intervention T2 ( $M = 9.07$ ,  $SD = .979 \text{ mg/L}$ ) to post-intervention T3 ( $M = 9.89$ ,  $SD = .315 \text{ mg/L}$ ). *Post hoc* analysis revealed an increase from pre- to post-intervention ( $M = .821 \text{ mg/L}$ , 95% CI  $[.347, 1.296]$ ,  $p < .001$ ). Between-groups differences in prosocial behavior were tested. The results in table 4.5 do not show any significant difference in prosocial score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of prosocial behaviour. The T-test for T1 illustrated a comparable level of prosocial problems  $T(57) = -.385$ ,  $p = .154$ . At T2, the mean prosocial score for the first group intervention (A) had increased significantly, and a significant difference between groups was evident:  $T(57) = -1.214$ ,  $p = .041$ . At T3, the mean prosocial problems score for the second group intervention (B) had increased significantly, and the mean score for groups was comparable:  $T(57) = -3.878$ ,  $p = .051$ .

#### 4.1.3 Summary of parents' SDQ results

The previous section examined the impact of the play intervention on children's social-emotional skills from parents' perspective. It provides results for the following research question:

- What is the impact of play intervention on children's social-emotional development from the parents' perspective?

A pre-test/post-test counterbalanced design was used to measure the impact of the play intervention. Children's social-emotional skills was measured by using the SDQ. Repeated measures ANOVA was conducted to determine whether there were significant differences in SDQ score over three time points, parents' SDQ results showed that:

- 1- Play intervention has positively impacted preschool children's social-emotional development.

- 2- Play intervention helps to reduce children's emotional defects and improves their positive emotions.
- 3- Play intervention helps to reduce children's conduct defects.
- 4- Play intervention reduces children's peer problems and improves their relationships.
- 5- Play intervention has an impact on children's prosocial behaviour, as it improved children's positive prosocial behaviours.
- 6- The analysis of the data of group A shows that play significantly reduced children's hyperactivity. However, the data for group B illustrated that children's hyperactivity does not significantly change after using play intervention.
- 7- The analysis of the data of group A shows that the play intervention effects were sustained after six weeks of stopping the intervention.
- 8- The independent sample t-test analysis does not show any significant difference between groups in the SDQ scores at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level on the SDQ. At T2, the SDQ score for the first group intervention (A) had changed considerably, and a significant difference between the groups was evident. After the second group intervention (B) had undergone the play intervention, the differences between the groups had diminished in T3, and both groups had a comparable score from the SDQ.

#### **4.2 RESEARCH QUESTION: WHAT IS THE IMPACT OF PLAY INTERVENTION ON CHILDREN'S SOCIAL-EMOTIONAL DEVELOPMENT, AS VIEWED FROM THE TEACHERS' PERSPECTIVE?**

To examine the effects of the play intervention on children's social-emotional development from teachers' perspectives, the differences for the three-time tests, Test 1 (T1), Test 2 (T2) and Test 3 (T3) were examined. Subscales (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour) were of primary interest of the intervention. There were no outliers, and as assessed by Shapiro-Wilk the data were normally distributed ( $p > .05$ ) see (appendix 15). Repeated measures

ANOVA was used, and the assumption of sphericity was violated, as assessed by Mauchly's test of sphericity. The study applied the Greenhouse-Geisser correction. The Bonferroni *post hoc* test was used for the purpose of testing all possible pairwise combinations of levels of the within-subjects factor from T1 to T2 and T3 for the SDQ. Independent sample t-tests were conducted to identify any between-group differences. Before presenting the results of the teachers' SDQ, the reliability of the data is given. This is followed by the analysis and results of teachers' SDQ.

#### 4.2.1 Teachers' SDQ reliability

The main criterion that has been used to assess reliability is Cronbach's Alpha value. Cronbach's Alpha coefficient has to be more than 0.7. However, 0.5 or 0.6 can be accepted at research (Churchill Jr, 1979). The reliability for teachers' SDQ has been tested in the three-time tests (Test 1, Test 2 and Test 3). The Cronbach's Alpha value for teachers' SDQ was reliable for all three-time tests which means that scale can be used to measure the skills. Cronbach's Alpha values are shown in Table 4.6.

**Table 4-6** Cronbach's Alpha value for teachers' SDQ tests, 1, 2 and 3.

| teachers' SDQ subscale     | Test (1)<br>Cronbach's<br>Alpha | Test (2)<br>Cronbach's<br>Alpha | Test (3)<br>Cronbach's<br>Alpha |
|----------------------------|---------------------------------|---------------------------------|---------------------------------|
| Emotional symptoms         | .694                            | .634                            | .746                            |
| Conduct problems           | .623                            | .684                            | .699                            |
| Hyperactivity/inattention  | .611                            | .719                            | .656                            |
| Peer relationship problems | .630                            | .741                            | .731                            |
| Prosocial behaviour        | .659                            | .651                            | .712                            |
| Total difficulties         | .693 <sup>a</sup>               | .733                            | .687                            |

#### 4.2.2 Teachers' SDQ analysis and results

For this part of the study, there were no outliers, and the data were normally distributed, as assessed by the Shapiro-Wilk, Skewness and Kurtosis tests ( $p > .05$ ) see (appendix 15). Therefore, repeated measures ANOVA was used, the assumption of sphericity was violated, as assessed by Mauchly's test of sphericity, and Greenhouse-Geisser correction was applied. The Bonferroni *post hoc* test was used for the purpose of testing all possible pairwise combinations of levels of the within-subjects factor from T1 to T2 and T3 for the SDQ. Independent sample t-tests were also conducted to identify any differences between groups. Subscales pertinent to the intervention (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour) were of primary interest.

Just as with the parents' SDQ, with an inspection of mean scores for teachers' SDQ, it was predicted that the intervention first group (A) would have lower score on the difficulties subscale after the intervention (T2) than before the intervention (T1). This includes: total difficulties, emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems. A lower score in these subscales indicates less incidence of problems or symptoms. Furthermore, it was predicted that the intervention first group (A) would achieve a higher score on the pro-social behaviour skills after the intervention (T2) than before the intervention (T1), as a higher score for prosocial behaviour indicates higher prosocial ability.

Compared to the intervention first group (A), the teachers' SDQ results for the intervention second group (B) would have a lower score on the difficulties score after the play intervention (T3) than before the intervention (T2). This also includes emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems. In addition, the intervention's second group (B) would achieve a higher score on the prosocial behaviour skills after the play intervention (T3) than before the intervention (T2).

Teachers' SDQ for all subscales scores were examined three times – T1, T2 and T3 – for both the first group intervention (A), and the second group intervention (B). Descriptive

statistics, results of tests of Within-Subjects Effects, Pairwise Comparisons and independent samples T test are presented in Tables 4.7, 4.8, 4.9, 4.10 and Figure 4.2.

**Table 4-7** Descriptive statistics for teachers' SDQ scores: first intervention group A and second intervention group B.

| Teacher's SDQ Subscale                    | First group intervention (A) (N=31) |                 |                 | Second group intervention (B) (N=28) |                 |                 |
|---|-------------------------------------|-----------------|-----------------|--------------------------------------|-----------------|-----------------|
|   | T1<br>Mean (SD)                     | T2<br>Mean (SD) | T3<br>Mean (SD) | T1<br>Mean (SD)                      | T2<br>Mean (SD) | T3<br>Mean (SD) |
| <b>Total difficulties</b>                 | 8.16 (5.119)                        | 4.32 (3.037)    | 4.26 (3.109)    | 9.36 (4.580)                         | 7.68 (4.164)    | 3.54 (3.616)    |
| <b>Emotional symptoms</b>                 | 1.61 (1.745)                        | .61 (.882)      | .65 (.915)      | 1.32(1.056)                          | 1.50 (1.139)    | .14 (.356)      |
| <b>Conduct problems</b>                   | 1.55 (1.179)                        | .48 (.724)      | .52 (.769)      | 1.57 (1.451)                         | 1.36 (1.062)    | .50 (.839)      |
| <b>Hyperactivity/inattention</b>          | 3.13 (2.330)                        | 2.23 (1.924)    | 2.07 (1.818)    | 2.54 (2.442)                         | 1.79 (2.007)    | 1.54 (1.732)    |
| <b>Peer relationship problems</b>         | 1.90 (1.469)                        | 1.03 (.912)     | 1.06 (.998)     | 3.93 (2.054)                         | 3.04 (2.045)    | 1.39 (1.571)    |
| <b>Prosocial behaviour<br/>(strength)</b> | 7.06 (2.097)                        | 9.03 (1.110)    | 8.97 (1.140)    | 8.54 (1.621)                         | 8.54 (1.503)    | 9.32 (1.124)    |

*Table 4-8 Tests of Within-Subjects Effects for teachers' SDQ subscales*

| Group   | Source                  | Df     | Mean Square | F      | Sig. |
|---------|-------------------------|--------|-------------|--------|------|
| Group A | Teachers' SDQ total     | 1.113  | 278.396     | 47.347 | .000 |
|         |                         | 33.378 | 5.880       |        |      |
|         | Teachers' SDQ emotional | 1.027  | 19.495      | 17.337 | .000 |
|         |                         | 30.811 | 1.124       |        |      |
|         | Teachers' SDQ conduct   | 1.062  | 21.405      | 42.794 | .000 |
|         |                         | 31.859 | .500        |        |      |
|         | Teachers' SDQ hyper     | 1.726  | 11.444      | 19.816 | .000 |
|         |                         | 50.061 | .578        |        |      |
|         | Teachers' SDQ peer      | 1.096  | 13.790      | 14.376 | .000 |
|         |                         | 32.889 | .959        |        |      |
|         | Teachers' SDQ prosocial | 1.039  | 74.592      | 48.580 | .000 |
|         |                         | 31.163 | 1.535       |        |      |
| Group   | Source                  | Df     | Mean Square | F      | Sig. |
| Group B | Teachers' SDQ total     | 1.935  | 259.895     | 97.513 | .000 |
|         |                         | 52.233 | 2.665       |        |      |
|         | Teachers' SDQ emotional | 1.780  | 17.112      | 34.917 | .000 |
|         |                         | 48.049 | .490        |        |      |
|         | Teachers' SDQ conduct   | 1.602  | 11.235      | 20.250 | .000 |
|         |                         | 43.257 | .555        |        |      |
|         | Teachers' SDQ hyper     | 1.837  | 8.258       | 6.517  | .006 |
|         |                         | 49.587 | 1.267       |        |      |
|         | Teachers' SDQ peer      | 1.918  | 48.295      | 36.772 | .000 |
|         |                         | 51.793 | 1.313       |        |      |
|         | Teachers' SDQ prosocial | 1.917  | 6.011       | 7.325  | .002 |
|         |                         | 51.764 | .821        |        |      |

**Table 4-9** Pairwise Comparisons for teachers' SDQ subscales

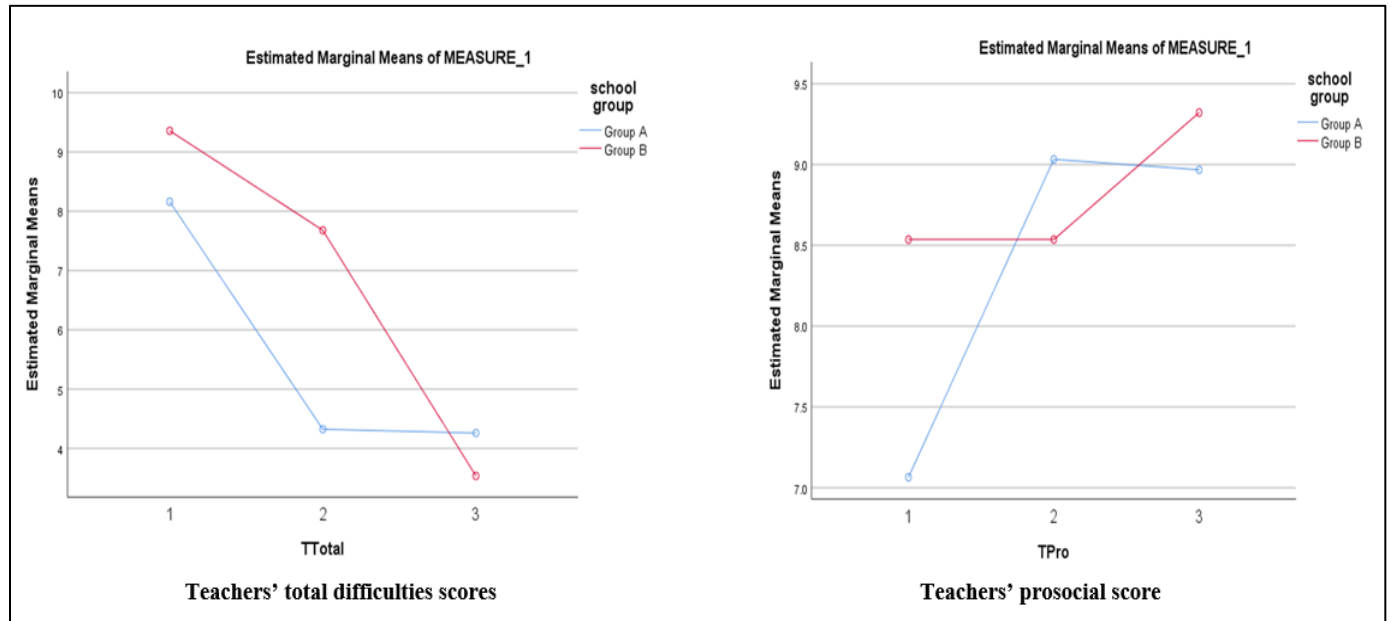
| Group   | Test                    | Test 1 to Test 2 |       |   |             | Test 2 to Test 3 |       |   |             |
|---------|-------------------------|------------------|-------|---|-------------|------------------|-------|---|-------------|
| Group A | Teachers' SDQ Subscales | Mean Difference  | Sig.b | 95% Confidence Interval for Difference <sup>b</sup> |             | Mean Difference  | Sig.b | 95% Confidence Interval for Difference <sup>b</sup> |             |
|         |                         |                  |       | Lower Bound   | Upper Bound |                  |       | Lower Bound   | Upper Bound |
|         | Total difficulties      | -3.839*          | .000  | -5.200  | -2.477      | -.065            | 1.000 | -.453   | .324        |
|         | Emotional               | -1.000*          | .000  | -1.588  | -.412       | .065             | .976  | -.050   | .114        |
|         | Conduct                 | -1.065*          | .000  | -1.471  | -.658       | .032             | .976  | -.050   | .114        |
|         | Hyper                   | -.900*           | .000  | -1.377  | -.423       | -.167            | .775  | -.534   | .201        |
|         | Peer                    | -.871*           | .002  | -1.444  | -.298       | .032             | 1.000 | -.111   | .176        |
|         | Prosocial               | 1.968*           | .000  | 1.277   | 2.658       | -.065            | .482  | -.178   | .049        |
| Group   | Test                    | Test 1 to Test 2 |       |   |             | Test 2 to Test 3 |       |   |             |
| Group B | Teachers' SDQ subscales | Mean Difference  | Sig.b | 95% Confidence Interval for Difference <sup>b</sup> |             | Mean Difference  | Sig.b | 95% Confidence Interval for Difference <sup>b</sup> |             |
|         |                         |                  |       | Lower Bound   | Upper Bound |                  |       | Lower Bound   | Upper Bound |
|         | Total difficulties      | -1.679*          | .001  | -2.670  | -.687       | -4.143*          | .000  | -5.270  | -3.016      |
|         | Emotional               | .179             | .695  | -.194   | .551        | -1.357*          | .000  | -1.869  | -.845       |
|         | Conduct                 | -.214            | .483  | -.594   | .165        | -.857*           | .000  | -1.266  | -.448       |
|         | Hyper                   | -.750            | .080  | -1.566  | .066        | -.250            | .948  | -.874   | .374        |
|         | Peer                    | -.893*           | .033  | -1.727  | -.059       | -1.643*          | .000  | -2.340  | -.946       |
|         | Prosocial               | .000             | 1.000 | -.656   | .656        | .786*            | .008  | .179  | 1.392       |



*Table 4-10 independent samples T test for teachers' SDQ subscales*

| Teachers SDQ test 1      |                             | F      | Sig. | T      | Df     |
|--------------------------|-----------------------------|--------|------|--------|--------|
| Teacher emotion test 1   | Equal variances assumed     | 11.723 | .056 | .766   | 57     |
|                          | Equal variances not assumed |        |      | .784   | 50.105 |
| Teacher conduct test 1   | Equal variances assumed     | 2.032  | .159 | -.067  | 57     |
|                          | Equal variances not assumed |        |      | -.067  | 52.111 |
| Teacher hyper test 1     | Equal variances assumed     | .383   | .538 | .909   | 57     |
|                          | Equal variances not assumed |        |      | .906   | 55.524 |
| Teacher peer test 1      | Equal variances assumed     | .259   | .612 | -4.389 | 57     |
|                          | Equal variances not assumed |        |      | -4.316 | 48.411 |
| Teacher prosocial test 1 | Equal variances assumed     | 2.300  | .135 | -2.991 | 57     |
|                          | Equal variances not assumed |        |      | -3.031 | 55.730 |
| Teacher total test 1     | Equal variances assumed     | 2.007  | .162 | -.942  | 57     |
|                          | Equal variances not assumed |        |      | -.947  | 56.997 |
| Teachers SDQ test 2      |                             | F      | Sig. | T      | Df     |
| Teacher emotion test 2   | Equal variances assumed     | 2.130  | .040 | -3.363 | 57     |
|                          | Equal variances not assumed |        |      | -3.320 | 50.787 |
| Teacher conduct test 2   | Equal variances assumed     | 4.204  | .045 | -3.722 | 57     |
|                          | Equal variances not assumed |        |      | -3.652 | 47.003 |
| Teacher hyper test 2     | Equal variances assumed     | .121   | .729 | .801   | 57     |
|                          | Equal variances not assumed |        |      | .799   | 55.655 |
| Teacher peer test 2      | Equal variances assumed     | 8.188  | .006 | -4.940 | 57     |
|                          | Equal variances not assumed |        |      | -4.772 | 36.513 |
| Teacher prosocial test 2 | Equal variances assumed     | 5.327  | .025 | 1.453  | 57     |
|                          | Equal variances not assumed |        |      | 1.431  | 49.380 |
| Teacher total test 2     | Equal variances assumed     | 2.888  | .035 | -3.561 | 57     |
|                          | Equal variances not assumed |        |      | -3.505 | 49.003 |
| Teachers SDQ test 3      |                             | F      | Sig. | T      | Df     |
| Teacher emotion test 3   | Equal variances assumed     | 22.582 | .054 | 2.723  | 57     |
|                          | Equal variances not assumed |        |      | 2.829  | 39.685 |
| Teacher conduct test 3   | Equal variances assumed     | .007   | .935 | .077   | 57     |
|                          | Equal variances not assumed |        |      | .077   | 55.017 |
| Teacher hyper test 3     | Equal variances assumed     | .003   | .960 | 1.137  | 56     |
|                          | Equal variances not assumed |        |      | 1.139  | 55.974 |
| Teacher peer test 3      | Equal variances assumed     | 10.017 | .052 | -.968  | 57     |
|                          | Equal variances not assumed |        |      | -.947  | 44.888 |
| Teacher prosocial test 3 | Equal variances assumed     | .006   | .941 | -1.198 | 57     |
|                          | Equal variances not assumed |        |      | -1.199 | 56.545 |
| Teacher total test 3     | Equal variances assumed     | .751   | .390 | .825   | 57     |
|                          | Equal variances not assumed |        |      | .819   | 53.591 |

**Figure 4. 2** Line graph for teachers' SDQ results



### ***Teachers' SDQ total difficulties score***

The total difficulties (TD) score scale mainly includes four scales (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems). For these scales, a higher score indicates a greater incidence of problems or symptoms. Results are presented in Tables 4.7, 4.8, 4.9 and 4.10 as well as Figure 4.2.

Results illustrate that the play intervention elicited significant changes in the TD score, as seen for the first group intervention (A)  $F(1.113, 33.378) = 47.347, p < .001$ , with a decrease from pre-intervention T1 ( $M = 8.16, SD = 5.12$  mg/L) to post-intervention T2 ( $M = 4.32, SD = 3.04$  mg/L). *Post hoc* analysis with a Bonferroni adjustment revealed a significant decrease from pre- to post-intervention ( $M = -3.84$  mg/L, 95% CI  $[-5.20, -2.48]$ ,  $p < .001$ ). The intervention effects were sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) are not significant ( $M = -.065$  mg/L, 95% CI  $[-.453, .324]$ ,  $p = 1.000$ ).

The statistics have also demonstrated that the intervention elicited significant changes in the children's TD score for the second group (B)  $F(1.935, 52.233) = 97.513, p < .001$ , with a decrease from pre-intervention T2 ( $M = 7.68, SD = 4.16 \text{ mg/L}$ ) to post-intervention T3 ( $M = 3.54, SD = 3.62 \text{ mg/L}$ ). *Post hoc* analysis revealed that the TD score decreased from pre- to post-intervention ( $M = -4.14 \text{ mg/L}$ , 95% CI  $[-5.27, -3.02]$ ,  $p < .001$ ).

The data also show that in group B there is also an effect for the curriculum; as the TD score decreased from T1 ( $M = 9.36, SD = 4.58 \text{ mg/L}$ ) to T2 ( $M = 7.68, SD = 4.16 \text{ mg/L}$ ) ( $M = -1.68, \text{mg/L}$ , 95% CI  $[-2.670, -.687]$ ,  $p < .001$ ). However, the effects of play intervention are much greater than those of the curriculum.

To identify any between-group differences, independent sample t-tests were conducted. Results in table 4.10 do not show any significant difference in total difficulties score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of total difficulties score. T-test for T1 illustrated a comparable level of total difficulties:  $T(57) = -.942, p = .162$ . At T2, the mean total difficulties score for the first group intervention (A) had decreased significantly and a significant difference between groups was evident:  $T(57) = -3.561, p = .035$ . At T3, the mean total difficulties score for the second group intervention (B) had decreased significantly, and the mean score for groups was comparable:  $T(57) = .825, p = .390$ .

### ***Teachers' SDQ emotional symptoms score***

The intervention elicited significant changes in emotional symptoms score for the first group intervention (A)  $F(1.027, 30.811) = 17.337, p < .001$ , with a score decreasing from pre-intervention T1 ( $M = 1.61, SD = 1.75 \text{ mg/L}$ ) to post-intervention T2 ( $M = .61, SD = .882 \text{ mg/L}$ ). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -1.000 \text{ mg/L}$ , 95% CI  $[-1.586, -.412]$ ,  $p < .001$ ). The intervention effects were sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) are not significant ( $M = .065 \text{ mg/L}$ , 95% CI  $[-.050, .114]$ ,  $p = .976$ ).

The statistics also demonstrated significant changes in emotional symptoms score for the second group intervention (B)  $F(1.780, 48.049) = 34.917, p < .001$ , with a score decreasing from pre-intervention T2 ( $M = 1.50, SD = 1.14 \text{ mg/L}$ ) to post-intervention T3

( $M = .14$ ,  $SD = .356$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -1.36$  mg/L, 95% CI [-1.869, -.845],  $p < .001$ ). To identify any between-group differences, independent sample t-tests were conducted. Results in table 4.10 do not show any significant difference in the emotional symptoms mean score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of emotional symptoms. The t-test for T1 illustrated a comparable level of emotional symptoms:  $T(57) = .766$ ,  $p = .056$ . At T2, the mean emotional symptoms score for the first group intervention (A) had decreased significantly, and a significant difference between groups was evident:  $T(57) = -3.363$ ,  $p < .040$ . At T3, the mean emotional symptoms score for the second group intervention, (B), had decreased significantly and the difference between groups was comparable:  $T(57) = 2.723$ ,  $p = .054$ .

### ***Teachers' SDQ conduct problems score***

The intervention elicited significant changes in the conduct problems score for the first group intervention (A)  $F(1.062, 31.859) = 42.794$ ,  $p < .001$ ., with a score decreasing from pre-intervention T1 ( $M = 1.55$ ,  $SD = 1.179$  mg/L) to post-intervention T2 ( $M = .48$ ,  $SD = .724$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -1.065$  mg/L, 95% CI [-1.471, -.658],  $p < .001$ ). This effect was sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) show no significant changes ( $M = .032$ mg/L, 95% CI [ -.050, .114],  $p = .976$ ).

The results also demonstrated significant changes in conduct problems over time for the second group (B)  $F(1.602, 43.257) = 20.250$ ,  $p < .001$ ., with a score decreasing from pre-intervention T2 ( $M = 1.36$ ,  $SD = 1.062$  mg/L) to post-intervention T3 ( $M = .50$ ,  $SD = .839$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -.857$  mg/L, 95% CI [-1.266, -.448],  $p < .001$ ). Between-group differences in conduct problems were tested. Results in table 4.10 do not show any significant difference in conduct problems score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of conduct problems. The T-test for T1 illustrated a comparable level of conduct problems:  $T(57) = -.067$ ,  $p = .159$ . At T2, the mean conduct problems score for the first group intervention (A) had decreased significantly, and a significant difference between groups was evident:  $T(57) = -3.722$ ,  $p$

= .045. At T3, the mean conduct problems score for the second group intervention, (B), had decreased significantly, and the mean score for groups was comparable:  $T(57) = .077$ ,  $p = .935$ .

#### ***Teachers' SDQ hyperactivity/ inattention score***

The play elicited significant changes in hyperactivity score over time for the first group intervention (A)  $F(1.726, 50.061) = 19.816$ ,  $p < .001$ ., with a decrease from pre-intervention T1 ( $M = 3.13$ ,  $SD = 2.33$  mg/L) to post-intervention T2 ( $M = 2.23$ ,  $SD = 1.924$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -.900$  mg/L, 95% CI [-1.377, -.423],  $p < .001$ ). The intervention effects were sustained as the differences between T2 (post-intervention) and T3 (six weeks of using the curriculum) are not significant ( $M = -.167$  mg/L, 95% CI [-.537, .201],  $p = .775$ ). However, the statistics have demonstrated that the intervention did not lead to significant changes in hyperactivity score for the second group (B)  $F(1.837, 49.587) = 6.517$ ,  $p < .005$ . Between-group differences in hyperactivity level were tested, as shown in table 4.2. Results do not show any significant difference in hyperactivity level at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of hyperactivity:  $T(57) = .909$ ,  $p = .538$ . At T2, results do not show any significant difference in hyperactivity level between groups  $T(57) = .801$ ,  $p = .729$ . Similarly, at T3 the mean of hyperactivity level remains insignificant:  $T(57) = 1.137$ ,  $p = .960$ .

#### ***Teachers' SDQ peer relationship problems score***

The intervention elicited significant changes in peer relationship score, as seen for the first group intervention (A)  $F(1.096, 32.889) = 14.376$ ,  $p < .001$ ., with a score decreasing from pre-intervention T1 ( $M = 1.90$ ,  $SD = 1.469$  mg/L) to post-intervention T2 ( $M = 1.03$ ,  $SD = .912$  mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -.871$  mg/L, 95% CI [-1.444, -.298],  $p = .002$ ). The intervention effects were sustained as the differences in T2 (post-intervention) and T3 (six weeks of using the curriculum) do not show significant changes ( $M = .032$  mg/L, 95% CI [-.111, .176],  $p = 1.000$ ).

For the second intervention group (B) the play elicited significant changes in peer relationship score  $F(1.918, 51.793) = 36.772$ ,  $p < .001$ ., with a decrease from pre-

intervention T2 ( $M = 3.04$ ,  $SD = 2.045$  mg/L) to post-intervention T3 ( $M = 1.39$ ,  $SD = 1.571$ mg/L). *Post hoc* analysis revealed a decrease from pre- to post-intervention ( $M = -1.643$  mg/L, 95% CI [-2.340, -.946],  $p < .001$ ). The data shows that the peer relationship scale in group (B) was also affected by the curriculum which is shown in the difference between T1( $M = 3.93$ ,  $SD = 2.054$ mg/L) and T2 ( $M = 3.04$ ,  $SD = 2.045$ mg/L) ( $M = -.893$  mg/L, 95% CI [-1.727, -.059],  $p = .033$ ). However, comparing the effects of the curriculum with the play, the effect of play is much greater. Between-group differences in peer relationships problems were tested. The results in table 4.10 do not show any significant difference in peer problems score at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level of peer problems. The t-test for T1 illustrated a comparable level of peer problems  $T(57) = -4.389$ ,  $p = .612$ . At T2, the mean peer problems score for the first group intervention (A) had decreased markedly, and a significant difference between groups was evident:  $T(57) = -4.940$ ,  $p = .006$ . At T3, the mean peer problems score for the second group intervention, (B), had decreased significantly, and the mean score for groups was comparable:  $T(57) = -.968$ ,  $p = .052$ .

### ***Teachers' SDQ prosocial behaviour score***

For this scale a higher score indicates fewer problems. The intervention elicited significant changes in prosocial behaviour, as for first group intervention (A)  $F(1.039, 31.163) = 48.580$ ,  $p < .001$ ., with an increase from pre-intervention T1 ( $M = 7.06$ ,  $SD = 2.097$  mg/L) to post-intervention T2 ( $M = 9.03$ ,  $SD = 1.11$  mg/L). *Post hoc* analysis revealed an increase from pre- to post-intervention ( $M = 1.968$  mg/L, 95% CI [ 1.277, 2.658],  $p < .001$ ). This effect was sustained as the differences in T2 (post-intervention) and T3 (six weeks of using the curriculum) are not significant ( $M = -.065$ mg/L, 95% CI [-.178, .049],  $p = .482$ ). Additionally, the intervention elicited significant changes in the prosocial behaviour score for the second group intervention (B)  $F(1.917, 51.764) = 7.325$ ,  $p = .002$ ., with an increase from pre-intervention T2 ( $M = 8.54$ ,  $SD = 1.503$  mg/L) to post-intervention T3 ( $M = 9.32$ ,  $SD = 1.124$  mg/L). *Post hoc* analysis revealed an increase from pre- to post-intervention ( $M = .786$  mg/L, 95% CI [.179, 1.392],  $p = .008$ ). Between-group differences in prosocial behaviour were tested. The results in table 4.10 do not show any significant difference in prosocial score at T1. Both groups (first group intervention A and second group

intervention B) started at nearly the same level of prosocial behaviour. The t-test for T1 illustrated a comparable level of prosocial problems  $T(57) = -2.991, p = .135$ . At T2, the mean prosocial score for the first group intervention (A) had increased significantly, and a significant difference between groups was evident:  $T(57) = 1.453, p = .025$ . At T3, the mean prosocial problems score for the second group intervention (B) had increased significantly, and the mean score for both groups was comparable:  $T(57) = -1.198, p = .941$ .

#### **4.2.3 Summary of teachers' SDQ results**

The previous section examined the impact of the play intervention on children's social-emotional development from teachers' perspective. It provides results for the question:

- What is the impact of play intervention on children's social-emotional development from the teachers' perspective?

A pre-test/post-test counterbalanced design was used to measure the impact of the play intervention. Children's social-emotional development was measured by using the SDQ. Repeated measures ANOVA was conducted to determine whether there were statistically significant differences in SDQ score over three time points. Teachers' SDQ results showed that:

- 1- Play intervention has a positive impact on children's social-emotional development.
- 2- Play intervention helps to reduce children's emotional defects and improve the positive emotion.
- 3- Play intervention helps to reduce children's conduct defects and problems.
- 4- Play intervention affected children's peer problems score, as it reduced children's peer problems and improved their friendship scores.
- 5- Play intervention has improved children's positive prosocial behaviour.
- 6- The analysis of the data of group A shows that the use of play reduced children's hyperactivity. However, the data for group B illustrated that children's hyperactivity does not significantly change after using the play intervention.

- 7- The analysis of the data of group A shows that the play intervention effects were sustained after six weeks of stopping the intervention.
- 8- The independent sample t-tests analysis does not show any significant difference between groups in the SDQ scores at T1. Both groups (first group intervention A and second group intervention B) started at nearly the same level from the SDQ. At T2, the SDQ score for the first group intervention (A) had changed significantly, and a significant difference between groups was evident. After the second group intervention, (B), had undergone the play intervention, the differences had disappeared: in T3 and both groups had a comparable score from the SDQ.

## **SUMMARY OF CHAPTER FOUR**

This chapter has examined the impact of the play intervention on children's social-emotional skills from parents' and teachers' perspectives. It provides results for two main research questions:

- 1- What is the impact of play intervention on children's social-emotional development from the parents' perspective?
- 2- What is the impact of play intervention on children's social-emotional development from the teachers' perspective?

Fifty-nine ( $N=59$ ) of normal developmental pupils aged between five and six years (60 and 72 months), with mean age ( $M= 66.98$ ,  $SD= 3.376$ ) participated in the study. Children were allocated to play intervention sessions alternately, and a pre-test/post-test counterbalanced design was used to measure the impact of the play intervention. Children's social-emotional skills was measured by using the SDQ. Both parents' and teachers' reports were used.

There were no missing data or outliers and the data were normally distributed, as assessed by Shapiro-Wilk test ( $p > .05$ ). Repeated measures ANOVA was conducted to determine whether there were statistically significant differences in SDQ score over the three time points.



Interestingly, both parents and teachers shared the same perspectives of the impact of play intervention in children's social-emotional development. The results illustrated that there was a significant difference in the level of social-emotional skills displayed by children in the two groups. Children's after-play intervention sessions scored significantly less problematic behaviour in their emotional symptoms, conduct problems, and peer relationship problems. Yet, play intervention does not seem to affect children's hyperactivity levels. Significantly, children who took the play intervention sessions scored significantly higher in their prosocial behaviour. The analysis of the data shows that the play intervention effects were sustained after six weeks of stopping the intervention.

In summary, there was a statistically significant difference between the means at the different time points. Therefore, we can accept the alternative hypothesis. Findings support the view that play is a way to increase children's social-emotional development.

## **5 CHAPTER FIVE: QUALITATIVE RESULTS**

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### **INTRODUCTION TO CHAPTER FIVE**

This chapter provides an explanation of the qualitative study. It aims to examine the perceptions of the preschool teachers and children on the play intervention. Specifically, it seeks to answer the following research questions:

1. What are the views of the teachers on the use of play intervention?
2. What are the children's experiences of play intervention?

A semi-structured interview format was used with teachers to identify the teachers' points of view regarding the use of play in general and the play intervention specifically. Furthermore, focus group discussions at the end of the intervention were conducted with the children as participants. The main aim of the focus group discussion was to understand children's views and experiences of the play intervention. This chapter includes two main sections: the first section provides the teachers' interview analysis; the second section provides the analysis of the children's focus group data.

### **5.1 RESEARCH QUESTION: WHAT ARE THE TEACHERS' VIEWS ABOUT THE USE OF PLAY INTERVENTION?**

Eight qualified preschool teachers participated in the current study. Each teacher used the LPP intervention in her class and evaluated her children's social-emotional development on three occasions, as described in Chapter four. After that, semi-structured, one-to-one interviews were conducted with each teacher; each interview lasted between 40 and 50 minutes and was conducted in a quiet room at the preschool. Based on the analysis of teacher's interviews transcripts, four main themes and 14 sub-themes emerged.

The emergent themes are presented in each of their accounts as follows:

1- The concept and characteristics of play. This theme considers the understanding of the concept of children's play amongst the teachers, and how the teachers articulate their understanding of play and its characteristics.

2- The functions of play. This theme considers what teachers believe regarding the role of play within a child's life.

3- The developmental benefits of play. This theme considers and deals with the benefits of play in relation with children's development, including all developmental domains – language, physical, cognitive, and social-emotional development.

4- Play and education practice. This theme deals specifically with teachers' practices and considers how teachers felt regarding the use of LPP.

These superordinate themes will be closely examined and then summarized: a short summary brings together the overall findings. For easy reference, please see the table below (Table 5.1).

***Table 5-1 Themes and subthemes for teachers' interviews***

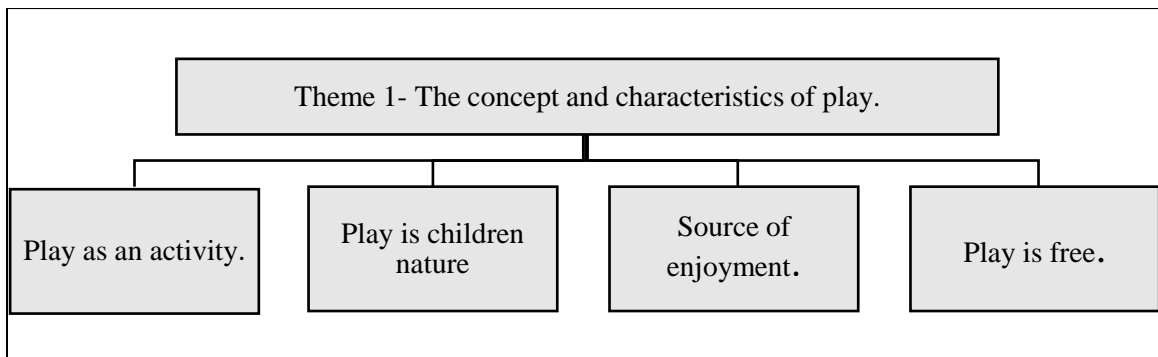
| Research question | What is the teachers' view about the use of play intervention? |                                 |   |  |
|-------------------|--|---------------------------------|---|--|
| Themes            | Theme 1-The concept and characteristics of play.               | Theme 2- The functions of play. | Theme3- developmental benefits of play. | Theme4- play and practice                |
| Subtheme 1        | Play as activity.  | Expending the child energy.     | Social-emotional development            | General attitude toward LPP intervention |
| Subtheme 2        | Play is children nature  | Observation tool.               | Language development.                   | Types of play.                           |
| Subtheme 3        | Source of enjoyment.   | Teacher-child relationship      | Cognitive Development                   | Challenges of implementation LPP.        |
| Subtheme 4        | Play is free.  |                                 | Physical development.                   |  |

### ***Theme (1): the concept and characteristics of play***

The first theme considers the understanding of the concept of children's play amongst the teachers; that is, how the teachers articulate their understanding of play and its characteristics. In order to fully understand how the preschool teachers in this study view play, at the beginning of their individual interview, all participants were asked to describe and define the concept of children's play.

When considering the notion of play, four main subthemes clearly emerged. The responses from teachers suggested that they felt that play is an activity that is inherent within the nature of children. Teachers were asked to use some adjectives to describe children when involved in play; it was clear from the responses that they viewed play as a source of enjoyment and a means of offering free choices to those children taking part. Figure 5.1 provides the four sub-themes identified for this theme.

***Figure 5. 1 The concept and characteristics of play.***



#### ***Subtheme (1): Play as an activity***

When discussing the concept of play, some teachers found it difficult to give a definitive meaning for the word 'play'. As Teacher 7 (Te7) states, *'it's really not easy to define play; it's a very general word, I think it has different meanings among different people'*. She added *'for me I think play is what children do, it's their special way to spend time'*. Te6

remarked *‘actually it’s difficult to define children’s play but we can say that its children’s world and their life’* and added *‘all experience children used to do could be play’*. The use of words such as *‘do’* and *‘experience’* illustrates that these two teachers clearly linked the definition of play with the activities with which the children were involved.

Other teachers described play as an activity in a far more direct way, for instance, Te5 shares that *‘Play is one of the most lovable activities to children’*. She added *‘dancing, drawing and colouring, watching television, singing, running and all physical activities are play’*. A similar view was shared by Te3, as she mentions that *‘Play... means all free activities that children love to do’*. Te4 also uses the word *‘active’* to define children’s play when she states, *‘play is a word which could describe the active of the child with the surrounding environment’*.

Te7 also acknowledges that play can exist in both structured and non-structured formats; she stated, *‘most of the time we plan for these activities to achieve special aims. Yet, play also emerge without any planning. I realise that children play at any time with anything and anyone’*.

### ***Subtheme (2): Play is in children’s nature***

When describing the way in which children play, most the teachers questioned in the study used words such as *‘children’s nature’*, *‘need’* and *‘tendency’*. Te1 encapsulates this overall sentiment by saying *‘play is a part of the children; whenever there are children, there is play’*. Most of the teachers agreed that play is essential for children. From the perspective of those teachers who took part in the study, they were clearly of the opinion that children are born with the innate desire to play. This is illustrated with the following statements: Te4 *‘Play is a basic need for children’*, and Te8 adds *‘Play is one of the most important interests of children, children like to play ... it is one of their key needs’*. Te’5 also states that *‘play is a natural need and tendency for children’*.

When participants were questioned as to why they implemented play as a strategy within the classroom, they cited the fact that to play is already in the nature of a child. Te1, for example, states that *‘we use play for several reasons: It is a child’s need and nature’*. She goes further when she comments that *‘it is an essential need for them like eating, drinking*

*and sleeping*'. Te3 also states, *'we use play because it is an acceptable method to children... children do not only like it, they actually need it'*. This view was also echoed by Te6, when she explains that *'play is a basic need for children therefore, we are about implementation play... during play time children be more comfortable than any other time'*.

One teacher, Te7, goes further by highlighting the rights of children *'as a teacher my role is to meet children's needs and this is their right. Children have the right to play, move, experiment, try and test new things. Giving children the opportunities to play is really important it's their right'*.

### ***Subtheme (3): Source of enjoyment***

Six out of the eight teachers who took part in the study clearly felt that for children, play meant enjoyment. This is illustrated with the following statements: Te3 states that *'Play could be a general word to describe all free activities that children ... enjoy it'*. Te6 also mentions that *'play is fun for children'*. The fact that play is enjoyable for children is a good reason for it to be used by the teachers as a strategy within the classroom. Te8 states *'I use play during class time because the children enjoy it'*. Te7 also realizes that *'play has a great role at a preschool. when a child plays, he is enjoying himself'*.

Some teachers clearly feels that the play itself does not need to be specific, as children enjoy all kinds of play. This view is clearly shown in the following statement from Te7; *'for children, the type of play doesn't really matter. I realize that children enjoy participating in all play types they enjoy both indoor and outdoor play'*.

Several teachers highlighted the enjoyment aspect of play by describing children's actions. Te4 states that *'play makes the child laugh and laugh'*. Te8 also feels that play is important, and she states that *'during play we see children's smiles, we hear their laughing which a lot of time becomes a giggle'*.

### ***Subtheme (4): Play involves freedom***

Freedom was seen as a characteristic of play by some of the teachers participating in the interviews. The teachers believed that being involved in playful activities could allow children to practice autonomy, freedom and making choices as stated by Te8: *'Play gives*

*children a big space of making choices. So, the child is exercising the freedom of choosing the tools, games and peers*'. Other teachers shared this sentiment, such as Te2 when she states that *'play arises when children are free to do what they want to do'*. Te3 describes the activity of play in the following way: *'Play could be a general word to describe all free activities'*.

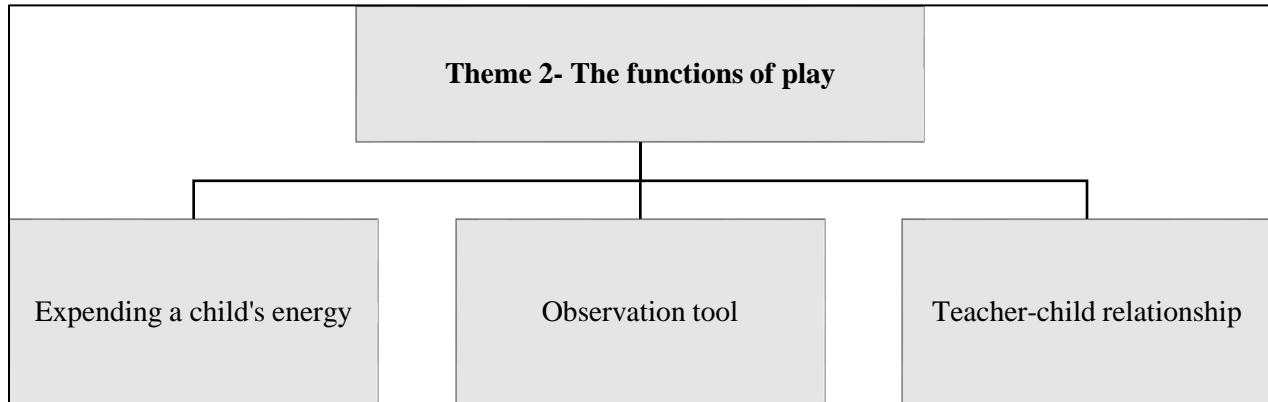
Te5 goes further, as she links play with personal freedom, stating that *'the child is entirely representing his own person during play. During play children do not only choose what materials, tools or games they want but also behave freely; so they do what they want and talk as much as they like'*. Te8 highlights the significance of autonomy and freedom within children's play, believing that freedom is the very essence of play, stating, *'giving children the opportunity to choose what they want is very important; without such freedom play will not be play, and children may lose their interest in it'*.

### ***Theme (2): The functions of play***

The second theme considers the function of children's play from the point of view of teachers; that is to say, what do teachers believe is the role of play within a child's life? So as to better understand what the preschool teachers in this study thought of the various functions of play, all participants were asked about their reasons for using play in the preschool setting.

It this study found that the teachers had a good understanding of the functions of play, giving many reasons for using play with children in preschools. When analyzing the interviews three main subthemes emerged including the expending of child energy, play as an observation tool, and the teacher-child relationship. Figure 5.2 provides these three subthemes identified for this theme.

**Figure 5. 2** The functions of play



***Subtheme (1) expending a child's energy***

Six out of the eight teachers who took part in the study believe that play helps children to expend their energy in a positive way, as stated by Te3: *'Play is essential because a child has energy and needs to vent it. Besides, play gives children a chance to move about, run and get going'*. Te6 comments, *'Usually, children have energy to move about and jump by which they vent this energy through play in a positive way'*. Te7 clearly holds a similar view, as she says, *'Play... has an essential role in the preschool... Play is also used as a means to vent the children's energy as they run, jump, move about, all these things are an energy that is vented'*.

Teachers reported that movement through play activities allowed the children to release energy, after which they became more focused. This point of view is illustrated in the following statement from Te1: *'When we teach children after play time, they are quiet and ready to learn'*. She explains, *'I mean guided teaching, such as teaching letters and numbers. After playing, the child is more receptive and ready to sit, learn and focus'*.

Another teacher goes further, highlighting the importance of coordinating the teaching schedule, so that learning time follows a period of play, reasoning that this allows her to better control the children. As Te6, reports *'it vents their energy. I am keen to have play in preschool. I always try to coordinate the schedule so that the periods that require focus*



*and quiet come after play time. It becomes easy to control children's behavior and they became very quiet'.*

***Subtheme (2): Play as an observation tool***

The second most held opinion by the teachers around play was that it can be used as an observation tool, which enables the teacher to understand the characteristics, interests, dispositions, and desires of the children. Five out of the eight teachers state that they use play as a means of observing children throughout the day. For instance, one teacher, Te3, focused on the importance of using play as a means of getting to know and understand the children, particularly at the beginning of the school year. She says that *'Usually, at the beginning of the term I do not know the children or their characters, what do they like and do not. So, I use play in order to know children ... to understand them and know their way of thinking'.*

This particular function of play, as a means of observing and better understanding children was also highlighted by other teachers, with the following statements,

Te2: *'It helps me know the children's character. There is a shy, sociable, introverted, nervous or jealous child. So, play helps me observe children and know their characters'.*

Te5: *'Play helps us identify the children's interests and dispositions. For example, there are children who always imagine themselves construction workers, others imagine they are cooks or teachers...etc.'*

Te7: *Play is a means through which we identify children's interest s... During play, we can notice that there are children who tend to play a certain game more than other games. For example, I have a child who always plays he is a doctor, another child plays she is a teacher. Also, there are children who enjoy playing construction games. All these are indicative of a child's interests, disposition and desires'.*

### ***Subtheme (3): Teacher-child relationship***

The third subtheme to emerge is that of the teacher-child relationship. Three teachers, Te2, Te5 and Te6, reported that play was vital in shaping the teacher-child relationship. They highlighted the positive effect of play in developing a warm relationship between teacher and children. Te2 states that:

*'It also helps me build a good relationship with them... play gives me a chance to sit, talk, contact and share play with them. in this way, I become closer to children and they start trusting and loving me. Play really give me the opportunity to interact with children'.*

Another teacher, Te5, highlights how play was able to help her and the child to build a good relationship and to be more comfortable getting to know each other, she states:

*'I think that play is an interesting means... as it helps us gain their love and trust. In the class, there might be children who are unhappy... in such a condition, ... I share play with them; hence, my relationship started with them and became stronger. They begin to love me and talk with me and as a result we both feel more comfortable with each other'.*

Te6 focuses more on the benefits for the one-to-one relationship. Unlike other methods, she believes that play enables teachers to spend time with each child individually, stating *'during the day we use so many activities and methods ... most of the activities we use do not give us the chance to interact with each child separately. In play I stay with each child, play gives me the time I need to interact with each child'.*

### ***Theme (3): Developmental benefits of play***

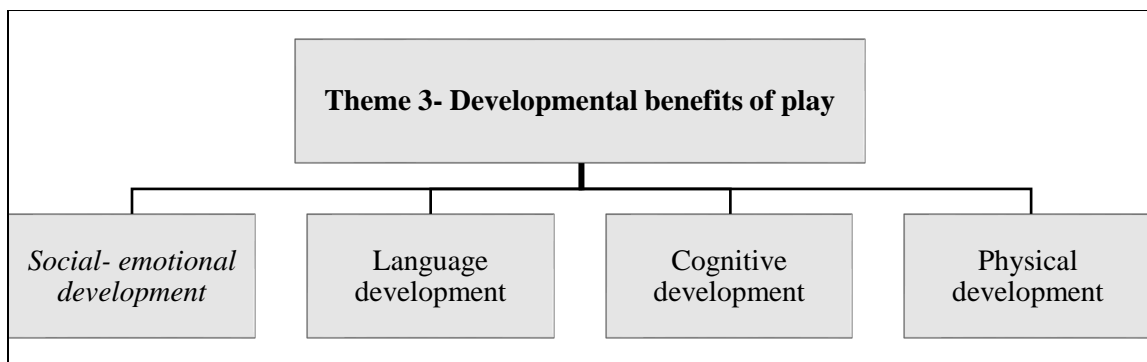
The third theme to emerge through interviews with teachers deals with the benefits of play in relation to children's development. All teachers participating in the study were asked to outline what they saw as the relationship of play with the developmental domains of children. They were also asked what benefits they thought that children gained during play.

All respondents agreed that play had a pivotal role within all developmental domains. For instance, Te2, stated that *‘with no doubt! Play has a relation with the child's skills and development from many aspects: linguistic, psychological, cognitive and social’*. A similar view was held by Te7, who described the effectiveness of children’s play in developing a child’s comprehensive ability, stating that:

*‘When a child plays, he is developed in a comprehensive, unlimited way because of a specific skill. In other words, we find the child talks, participates, thinks, plans, executes plans and set rules with which they all comply, and all this is done independently with no interference from me as a teacher’.*

From the teachers’ perspectives, four subthemes emerged under the theme developmental benefits of play: social-emotional development; language development; cognitive development, and; physical development. Figure 5.3 provides the four sub-themes identified for this theme.

**Figure 5. 3 Theme 3- Developmental benefits of play**



#### ***Subtheme (1): Social-emotional development***

Social-emotional development was the developmental domain most frequently mentioned by the teachers who took part in the current study. Seven out of eight teachers saw play as a way in which children hone their communication and socialising skills, as well as being a way to learn about feelings and emotions.

***Regarding social development,*** teachers highlight the role of play when it comes to children developing relationships and friendships, this can be clearly seen with the

following statement from Te2: *'Play is also used for developing children's social skills. The child, during play, gets to know other children and the similarity between him and another child, so he makes friends with him'*. Te7 also highlights the use of play as a means of improving children's social skills as she states, *'Play is used for several reasons, ... It is used to develop the child's growth and his relations with his friends. We start noticing them making groups, for example, we find three children playing in building blocks, another group, which has four children, is acting that they make a cake'*.

The teachers also observed how play was able to support children in developing their prosocial skills. As noticed by Te3, *'When children play, I frequently hear them say words like "what do you think" or "I have an idea". The child takes the initiative and cooperates with other children'*. Te8 pointed out something similar when she observes that, *'In free play, there is a great interaction among the children, so we find them ... help each other'*.

Acceptance skills was another area that was highlighted. as Te2 states that *'In play, the child gets to know the differences between people, so he begins to accept other children who are different from him in their dispositions and styles'*. Child acceptance skills were also highlighted by Te8:

*'Through play children began to accept each other. That's to say, I find them planning and each one gives an idea, yet at the same time everyone accepts the other's idea. Once, the children were looking at a big piece of fabric. One child said: "Let's make a tent". The rest of the children were excited about the idea and began gathering the tent's items ... during building time there were a lot of suggestions given by children, they learn from each other, they show a good level of acceptance for each other's ideas'*.

Teachers go further, by using play as means of reinforcing the manners expected by society. Two teachers in particular, Te1 and Te4, show that they are aware of the role of play in supporting the development of manners. Te1 believes that preschools in general aim to support the upbringing of children and prepare them to be a responsible person and a member of a bigger society. Believing this can be achieved through children's play, as she states:

*'At preschool we generally aim to bring up the child, to raise children on social manners such as taking permission, thanking others. We let them practice these manners during their play, i.e. when someone gives them something, they should thank him for that, and when they want something, they should ask politely and wait for their turn'.*

Play was closely linked with the personality of the child. Several teachers believe that play has a powerful impact on the formation of a child's personality, agreeing that experiences gained through play give children opportunities to hone their individual personalities, which is illustrated by the following statements Te2 states: *'Play has a great role in developing the children's character'*. Te4 emphasises that *'Play is very essential in preschool because through play a child's character develops'*. Te3, gives an example of this particular function of play, stating that *'with a shy child, we try to put him with a group to play with. In time, he becomes less shy'*. Teachers also mentioned the importance of play in improving the self-confidence of a child. Te8 states, *'In play, a child tries and fails, then tries again and succeeds, so he feels confident in himself'*.

***In regard to emotional development***, the analysis of the teachers' interviews indicates that the teachers were also aware of the importance of play in contributing to the healthy emotional development of a child. One teacher, Te5, mentions the importance of play when it comes to creating a positive atmosphere within the preschool, saying that:

*'There might be children who are unhappy because of their separation from their parents, especially if it were their first year in preschool. In such a condition, I use play to relieve them of their sadness'.*

Te7 is of a similar opinion, stating that, *'when a child plays, he is enjoying himself and he feels happy; therefore, he likes the school and feels happy and comfortable there'*. Te2 also acknowledges this important aspect of play, *'When there is something that attracts children to a preschool, they feel happy to come and become enthusiastic to attend regularly. Play is the most attractive thing to children for which they will not be absent, and it makes them love the preschool more'*.

Participants also tended to agree that play has a pivotal role in supporting children to better express their feelings. Te1 remarks that:

*‘When a child assumes a particular role or takes on a particular character, this helps self-expression of them self and of their problems ... I had a child who was fearful of the dentist. While he was playing with a doll, he used to say to it, “we will go to the doctor. Do not be scared. He will only see your teeth and give you medicine”. Here, the child is trying to understand his feelings and cope with them’.*

This was also underlined by Te8:

*‘A child needs to play to express his thoughts, his feelings and to get things off his chest... a child during play re-enacts the incidents that happened to him in actual life. For example, a child was playing with a doll and was talking to it saying: “You ate too much sweets. Stop it. No more eating of sweets today”. Thus, I knew that the child had a similar experience and he was acting out the situation again taking on the dominant role, which makes him feel powerful and he accepts the situation or understands it’.*

Play does not only enable children to better understand their own feelings, it also enables them to empathize with the feelings of others. Te5 notices:

*‘Play gives a child a chance to understand ... others' feelings too. Once, the children were thinking what to do with boxes. Reem gave her idea, and Noaf suggested another idea. The group liked Noaf's suggestion, so Reem got upset. When I asked: Why was Reem upset? They said: because she wanted us to make a mountain and we wanted to make a house!’.*

### ***Subtheme (2): Language development:***

In the interviews, five out of the eight teachers who took part agreed that the experience of play had a positive effect on the language development of a child. When playing, children use language to communicate. Te3 states that, *‘play has a significant role in preschools ... play gives children a space to use and develop their language’*. Te5 adds that *‘play provides opportunities for children to interact and speak with each other’*.

The various responses received from teachers indicate that during play children use language in different ways; they ask, discuss, describe and make plans. Te4 acknowledges the important role that play has in the child's language development, stating that:

*'There is a big relationship between children's language and play; play gives children a space and chance for communicating and acquiring vocabularies. When a child explains what he did or suggests a particular game, this develops his vocabulary very well ... Once, a child was playing with marbles and asked me what's its name. I told him it is 'marbles', and he kept repeating the word'.*

Te8 discusses the role of play in children's language development emphasizing the fact that play experiences provide a friendly atmosphere in which to practice language. She stated that, *'in play there is no right and wrong, there is no direct communication with adults. As a result, the child feels free to use language and to make language errors. In such situation the child practices language and learns from his mistakes'.*

### ***Subtheme (3): Cognitive development***

The third subtheme refers to a child's ability to think and learn. Five out of the eight teachers were aware that play was able to improve cognitive ability in an enjoyable manner. Some teachers pointed out the role of play regarding improving children's knowledge, believing that through play children are able to learn new things. This view was highlighted by Te5, who associates play with learning, saying:

*'I use play to convey some concepts to children, such as the concept of how iron is attracted by a magnet. If I want to convey the concept of attraction or non-attraction, I bring a lot of materials/tools, such as cotton, tissues, plastics ... etc., and I give magnets to the children, then we play together as if we are looking for a treasure. (of course, the treasure here is iron or the items attracted by magnets)'.*

Te2 also has a similar point of view, stating that, *'Play has a great role in increasing children's knowledge... When a child plays in a water-pool, he gets to know concepts such as floating and diving and water characteristics'.*

As well as improving knowledge in scientific areas, play can also have a positive effect on maths skills, as can be seen in the following statement from Te5: *‘play role is not confined to scientific concepts. We have also other concepts such as classifying colours, organising things according to their size. Besides, a child could learn about numbers; for example, when he builds something, I asked him how many triangles or pillars he used?’*

One important aspect of cognitive development is logical thinking, as Te6 illustrates, *‘play reflects the ability of the child to think and plan’*; she goes on to explain further: *‘One day, the children were playing with blocks, they were building a tower, one of them was catching a large block. He was planning to put it over the building, the rest of the group said “no don’t put it”. Another child added, “we cannot add a large block over the small one it will fall down” ....’*

The ability to solve problems is an important aspect of cognitive development, with three teachers pointing out that play provides many opportunities for children to deal with problems. As mentioned by Te5, *‘The most distinguishing element of this play is that it gives children a chance to face problems and solve them. He might fail but he will try once, twice, even thrice’*.

#### ***Subtheme (4): Physical development***

The final developmental domain teachers remarked upon in the interviews was that of physical development. Four teachers were of the opinion that play had an important role when it came to improving children’s physicality. These teachers pointed out that play includes activities that involve movement, which in turn helps in the development of motor skills. According to the interviews, one of the main reasons for using play in preschool settings is the effect that it has on a child’s physical development, as stated by Te6: *‘Play is used in kindergartens because it helps develop child's motor skills, so we see the children jump, run, slide and so on.’*

Teachers were aware that play has an impact not only upon children’s gross motor skills, but also their fine ones. Activities such as colouring, drawing, playing with puzzles and building blocks are crucial in the development of children’s hand-eye coordination, a view echoed by both Te1 and Te2. Te1 mentions that *‘play has a relation with the children's*



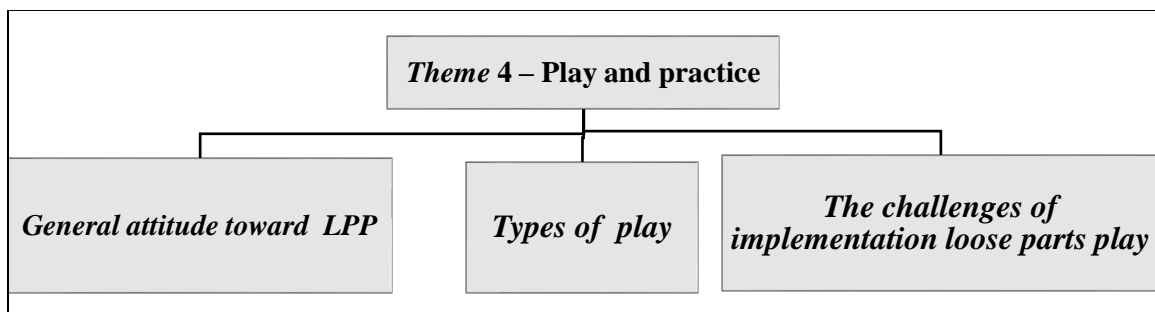
*skills and development. When a child plays with blocks, for example, they develop their hands' and fingers' muscles'. Another example was given by Te2 'when a child is colouring, this helps him... develop his finger muscles'.*

One teacher expressly linked the importance of play with child physical health. Te4 highlighted the role of play in maintaining levels of activity for children and its subsequent effect on child health. She states: *'Play is very important because it keeps children active, in play we see children jump, run and move; such activities are very important for children's health. It makes their muscles and bones stronger. It also helps child to stay fit'.*

#### ***Theme (4): Play and practice***

Whilst previous themes illustrate teacher's view of play in general, this fourth theme deals specifically with teachers' practices. This includes an evaluation of how teachers felt regarding the concept of the LPP. All participants were asked for their individual opinion, after having used LPP intervention over a period of six weeks. After analysis of their answers three subthemes emerged; these were: general attitude toward the LPP intervention; the various types of play, and; the challenges of the implementing the LPP intervention. Figure 5.4 shows these sub-themes.

***Figure 5. 4 Theme 4 – Play and practice***



##### ***Subtheme (1): General attitude toward loose parts play intervention***

This subtheme summarizes the teacher's views about the implementation of the LPP intervention within a preschool setting. After using LPP for a period of six weeks, one

teacher, Te6, who had just one year's experience of working with preschool children, felt negativity towards LPP, as she states: *'Frankly speaking, I did not like it. I feel there is some randomness, no clear goals. I feel there is chaos. In fact, I am not sure of the effectiveness of this kind of play'*. She adds: *'I like structured play, it has a plan with which I can control children'*. When asked if she thought there were any benefits to the use of LPP she states, *'I think the benefits of the free play are limited compared with structured play; structured play is very useful. I can bring a game through which children learn ... So, in structured play I set aims for each game'*.

However, her view was not shared by all the other participants. One teacher, Te2, described how her position towards LPP changed over the intervention period, stating that, *'Frankly, at the beginning I was not convinced and felt that the children would not accept it ... However, by the time I was surprised to find that they liked it'*.

All other participants held positive opinions regarding LPP. Several positive phrases were used by teachers when describing their experiences such as 'I love', 'I like', 'good' and 'useful'. Some teachers tend to give a general opinion regarding LPP, such as Te3 who states that *'I like play without restrictions'*. Te4 agrees, *'It was a good experience. I liked this kind of play'*, and Te8 states, *'I think it is a very successful method'*.

Some teachers' responses were influenced by the opinion of the children; for example Te2 mentions, *'I believe it is a good method. The children liked it very much. They always ask when playtime comes'*. Te7 echoes this sentiment: *'Children also were much enjoying their time in LPP; there was a great enthusiasm'*.

Teachers' attitudes regarding LPP is divided into to three main factors: play equipment, the chance of freedom, and the creativity level, Each of which is described in the following sections.

***Play equipment:*** One of the most interesting aspects of the LPP from the teachers' points of view were the choice of items. Teachers were clearly impressed with the choices made. Te1 states that *'I like the use of consumed materials. It was amazing to use real materials in play'*. Te7 draws attention to the importance of using new equipment with children, which she felt helped to break the routine, *'It was a change from routine play. Children*

*are used to the usual play tools. In LPP, many new tools have been used such as cupcake tray, buttons, paper boxes and other materials, all this makes children so excited'.*

**The chance for freedom and control:** The second factor that arose for teachers during a consideration of LPP was that it affords autonomy, freedom, and control. Te5 states, *'in such unstructured play our role is to keep children play freely, to not disturb children and keep them practice the freedom and be independent'*. Whilst freedom appears to be a subtheme of the first theme (the concept and characteristics of play) it now reappears as an element of the LPP. Some teachers emphasized that the level of freedom, choice, and control afforded by LPP was much higher than any other kinds of play. This can be seen in the following response from Te1: *'In terms of benefits, I think that LPP is more beneficial for children than any other kind of play because it gives the child a high chance to plan, think freely, choose, and control the situation'*.

A similar opinion was held by Te3 and Te4, although they tended to compare the freedom and control level of LPP with the freedom level in corner play. Te3 states *'Yet, loose parts are possibly distinguished with giving the child a chance to plan, implement the plans and invent methods to deal with the play materials, and this is contrary to a corners' play'*. Te4 also mentions that, *'In corner play, each group of tools has its special corner; thus, there is... a limited freedom. But, according to the method we recently used, it is possible that the child would gather unrelated items together and use them for play, the child has a really wide space to choose freely and use the tools in the way they want'*.

**The creativity level:** Child creativity emerged as an important element of LPP. Most teachers' responses highlighted that such playful experience allows the child and gives the teachers more opportunities to practice their creativity. As highlights by Te2: *'Children were playing in a way that never came to my mind before'*. She adds: *'For example, using the sponge. Sometimes they used it as a cake, so they began decorating it. Another time they imagined it as an ice-cream, and once it was among the doctor's instruments when they played a doctor's role'*. A similar opinion was evidenced by Te1, when she states that *'once, a child asked me about pebbles: teacher, what are they for? Another child said about a pebble: It is a potato. Let's cook it. Then, they started the play and made potato soup (with the pebbles) and put it in small plates!'*.

When it came to creative opportunities, some teachers drew direct comparisons between structured play and LPP. With regard to LPP Te3 states, *'I think it gives them a wider space for creativity more than structured play. In LPP, the child is the planner and the executer'*. This comparison is also made by Te4 when she states: *'I liked this kind of play because there is a wide space for creativity ... One tool can be used for many things... there were no restrictions, unlike the corner play. Children may move tools and play with unrelated things, yet they find a relation somehow'*. She recounts an example of such playful use of the materials: *'...coloured crayons, which we used to add them in the (Art Corner) and the children used them for colouring. In the LPP, some children took the crayons and put them in a pot and imagined that they were spaghetti'*.

### **Subtheme (2): Types of play**

The second subtheme, the shape play and practice theme highlighted the teachers' observation of the most common types of play favoured by children during LPP. In order to find out what types of play were evident during LPP sessions, all participants were asked to describe and categorize children's play. Most respondents indicated that there was a wide variety of play within their classrooms. Teachers noted that LPP does not focus on one type of play rather than the other, they recognized that this intervention gives the children the chance to choose the type of play in which they want to engage. They identified the emergence of four main types of play, namely: dramatic play; physical play; arts play, and; group play.

***Dramatic play:*** Five of the eight respondents remarked on the children's use of dramatic play. They noticed that this particular type of play was seen to occur most often, with the children making use of the various play equipment available. Activities such as cooking, dressing up, puppets, and dolls were the most common examples of dramatic play observed. Te1 notes that, *'I think that imitation and make-believe were the most common play types. We find the child uses tools to represent characters and assumes roles. Some children pretend they are chefs and start to bake or make a cake'*. Te2 agrees, as she observes that *'fantasy play is predominant in the children's play. Materials such as newspapers, trays, cups, restaurants' menus, and food containers were highly used by children'*. Te4 made the observation that in her classroom there were seemingly no limits

to dramatic play, stating that *‘when children are playing with sand, they use small dolls or animals, so they end with dramatic play’*.

**Physical play:** Te4 was keen to point out the greater opportunities that existed to incorporate physical play during LPP sessions. The teachers observed that the children were able to practice several physical activities during this type of play, such as jumping, throwing and building with blocks. As noticed by Te1: *‘physical and motor games were a common type of play. I remember that children used to play with small balls trying to drop them in the basket’*. A similar view was highlighted by Te5, who noticed that children seemed to prefer this kind of play, stating: *‘during loose parts time my children become active and positive, they really like to use things and employ materials to practice kinds of motor activities’*. She goes on to give a further example of such play: *‘When we provide the sand children enjoy pour it from one container to another’*.

**Art play:** This play type was also observed to be very common during LPP sessions. Four of the teachers involved remarked on children enjoying artistic play of some sort. One participant, Te3, states that, *‘children use kitchen paper tubes, empty milk and oil boxes, glue, tape, buttons and other materials in a very interesting way they tap materials together and making amazing artworks’*. Te5 found her own personal experience of children engaged in artistic play to be unforgettable: *‘Playing with arts was highly including in children’s activities; I can’t forget when a group of children made a car by using cartons, paper tubes and plastic dishes. Another time a group of children made an airplane’*.

Children were also observed enjoying performing arts. Te6 states that, *‘activities such as drumming, and dancing were appeared during children’s play’*. She mentions that *‘children enjoy using sticks, tries, and boxes in making sounds and tunes’*.

**Group play:** The fourth and final type of play which emerged was the group play. An analysis of the teachers’ interviews shows that LPP involves a significant amount of group play. As observed by Te3, *‘in general I think; group play was dominant during play time’*. Most of the teachers agreed that group play was prevalent during the play sessions. Te4 noticed that *‘there was play in big groups, so you find a group of four children or more playing the same game, the group could be smaller’*.

During the course of the interviews the teachers did not themselves mention that any children engaged in individual play. They were therefore specifically asked about this. From their responses it was very clear that children spent very little time engaged in individual play, as compared with group play. Most of the teachers observed that whilst a child might begin to play alone, this quickly changed to group play. Te2 remarks: *‘I noticed that some children began to play alone, and after a while I saw them playing with another child; gradually, the group became bigger’*. Some teachers were more precise in their observations of the time spent in individual play, such as Te3 who states, *‘Yes, there was individual play, at the beginning of play time, especially if there are new tools. Some children tend to play with them alone, but after 5 to 10 minutes they start to play with a group’*.

### **Subtheme (3): Challenges when using Loose Parts play**

This subtheme considers the challenges faced by teachers who implement LPP intervention. That is to say, the researcher wanted to know whether any barriers to LPP exist within the Saudi preschool setting. As previously illustrated, all participants considered play to be an extremely useful strategy to use with preschoolers. However, when discussing the challenges in using LPP intervention several potential barriers were identified, including: lack of support; class management; time pressure; the use of play materials; children’s safety; lack of space, and; the teachers’ role. These were seen to be the most common obstacles to using LPP interventions in the Saudi preschool context.

***Lack of support:*** This was the most common barrier cited by those teachers interviewed. Four out of eight teachers remarked that not all parents and principals fully understood the importance of play, as they feel academic learning to be more beneficial for children than play. As noticed by Te1, *‘Once, a supervisor entered my class while the children were having the loose parts play session. She asked me: “what are they doing?” I explained to her ... I felt she did not like this, she immediately asked whether the children wrote anything today’*. Similarly, Te7 notices that not everyone shared her belief in the benefit of free play, stating:

*‘I am convinced about the importance of play and its benefit for children at this age. However, the principal and mothers focus much more on what did the child*

*learn, what did they write, does they read or not ... the principal and mothers deal with play as a secondary activity. Families do not realize that their children are developing and learning until they see they have done something, such as writing numbers, letters or memorizing a song”.*

Furthermore, one teacher expressed her discomfort during periods of LPP, when she described the class as being chaotic. She felt that others would view that as indicative of her own lack of ability as a teacher. Te6 states: *‘When children play. The whole class turns into chaos ... Frankly, this makes me tense. I do not like others to see the class at this time’*. She justifies this sentiment by stating, *‘If someone saw the class at this condition, they would think that I am careless, and I am not able to control the children. They will not understand that this is the way of play’*.

**Class management** was also identified as a barrier of the LPP by four teachers. According to them, there were problems with organizing both the class structure and children’s behaviour. The fact that LPP involves many tools and other play materials meant that tidying these up was not easy for the children. Te5 states, *‘the most difficult thing I faced was to tidy up after they finished their play ... because there are many small things, the children become slack. Usually I have to follow them up and make sure that everything is back in its place’*. This view was also held by Te1 who states that, *‘after play time, children become inactive and idle to tidy up the room. So, I always make an effort to make them tidy up after they finish playing’*.

Teachers also highlighted the fact that the exuberant nature of LPP sometimes led to difficulties in controlling the children’s behavior. As Te2 states: *‘The most difficult thing I felt was controlling the children, or what I can call behaviour management ... sometimes children get excited, so they raise their voices and move quickly from one place to another’*.

Regarding behavioural management, one more teacher made a direct comparison between LPP and structured play. Te1 notes that using structured play is easier than LPP. She states, *‘In structured play, there are more rules ... Frankly speaking, this is easier for me as a teacher in terms of controlling children and maintaining order and quiet in the class’*.

**Time pressure.** The third difficulty faced by teachers as they applied LPP was time pressure due to the pressures of work. Preschool teachers are expected to observe and evaluate children, achieve curriculum aims, and deal with parents and principals, all of which adds to the pressures of the role. Three out of the eight teachers questioned felt the pressure of not having enough time to complete all their work requirements. This is clearly shown with the following statements from Te1: *‘In the pre-school curriculum, there is a focus on letters and numbers. Every week we teach children a new letter, which needs effort, means and time. On the other hand, play also needs time. Sometimes it is difficult for us to make a balance between play and teaching’.*

During her interview, Te2 acknowledges the fact that she is worried about involving play stating that, *‘I feel if I am going to provide loose parts play, it will be a little difficult...Possibly difficulty in time and effort. I am required to finish the curriculum, evaluate the children and deal with parents. So, providing play could be an additional burden on me’.*

**Use of play materials:** The fourth area of difficulty identified was the use of play materials. LPP involves many new materials which some children may be unsure about using. Two teachers agreed that this problem was evident specifically at the beginning of the play intervention. Te4 points out that, *‘I think the beginning of the intervention was difficult; children at the beginning had no idea how to use tools’.* However, she did observe that such difficulty fades with time, remarking, *‘During the first sessions, I used to play in front of them just like a child; I talk and describe what I am doing, then they followed me and began to create and invent things’.*

**Children’s safety:** The fifth barrier identified concerns children’s safety. Teachers realize that LPP can involve tiny materials, such as buttons and small stones. There could also be sharp materials like pens and wooden sticks. Two teachers were particularly fearful of having such objects in a classroom environment, and expressly linked the presence of such items with concerns over safety. Te4 states that, *‘the thing of which I was most scared was the small things, such as marbles, pebbles, beads. I feared that children might put them in their mouths or throw them at others. This makes me tense’.* The teacher understood the importance of allowing the children to play with such potentially dangerous materials, but



was firmly of the opinion that it was of paramount importance that teachers pay close attention to the children's use of such materials during play sessions, as is clearly illustrated in her following statement: *'These tools are essential, and a child should use in his play ... But I should pay attention and focus when little things were around.'* She added, *'If it was my choice, I would never use such tools in my class.'*

Te8 also highlights the fact that children's play could be viewed as being potentially unsafe. She described the exuberant way in which children moved and used equipment during play sessions, stating, *'for me, the most difficult thing is the play intensity, particularly with boys. My class children like to play with a little boyishness.'* She goes on to give an example of the intense nature of children's play, *'One may be play acting as a thief and the other one as a policeman, so there is some intensity and I worry about their movements.'*

**Lack of space:** The size of children's classroom seemed a potential hinderance for free play – it has already been stated that loose parts involve a significantly larger amount of equipment. Two out of the eight teachers pointed out the importance of having a large classroom space when engaging in LPP. Te3 had this to say: *'I believe if the place was bigger, it would give the children a greater chance to be creative and they would move about more comfortably'*. Te8 observes, *'Children need space to move and play. I think if the class were bigger, for sure the children would enjoy it more and they will be more creative.'* Having a larger class, according to the teachers, is not only important for children's play; it has a positive effect on teachers too. Te8 states that *'having bigger space will help us to be more organized'*.

**Teachers' role:** The final issue identified is related to the role of the teacher. Only one teacher, Te3, pointed out that she feels some confusion over her role within LPP. According to Te3, in structured play she felt that she had a clearly defined role, giving suggestions and instructions. However, within LPP such a role does not really exist. In free play she has to intervene less and be more of an observer. Te3 expresses her view by stating that *'The most difficult thing I faced was to not interfere in the children's play. Usually in structured play, I used to give suggestions, remarks. When two children quarrel with each other, I usually interfere. Yet, in loose parts play I feel hesitant over whether to interfere or not'*.

### 5.1.1 Summary of the teachers' interview results

The previous section provides results for the third research question: 'What is the teachers' view about the use of play intervention'. The analysis of teacher's interviews illustrates four main themes. The emergent themes are presented as follows:

#### 1- Theme (1): The concept and characteristics of play

This theme considers the understanding of the concept of children's play amongst the teachers, and how the teachers articulate their understanding of play and its characteristics. When considering the notion of play, four main subthemes emerged:

- **Subtheme (1): Play as an activity;** teachers questioned in the study linked the definition of play with the activities that children love to be involved with. Words such as *do*, *experience*, and *activity* were used by the teachers to describe children's play.
- **Subtheme (2): Play is in children's nature;** teachers who took part in the study agree that play is essential and is a basic need for preschool-age children. Those teachers were clearly of the opinion that children are born with the innate desire to play. Teachers questioned in the study used words such as children's *nature*, *need* and *tendency*.
- **Subtheme (3): Source of enjoyment;** teachers who took part in the study describe play as a source of enjoyment for the players. Teachers described children's actions during play time by using words such as *enjoying*, *smiling*, *laughing*, and *giggle*.
- **Subtheme (4): Play involves freedom;** freedom was seen as a characteristic of play by some of the teachers participating in the interview. Those teachers believe that being involved in play allows children the freedom to practice making choices as during play children choose the materials, games, and peers.

#### 2- Theme (2): The functions of play

This theme considers the function of children's play from the point of view of teachers; that is to say, what teachers believe is the role of play in a child's life. Three main subthemes emerged through teachers' interviews:

- ***Subtheme (1): Expending a child's energy***, teachers who took part in the study believe in the function of play to expend children's energy in a positive way. During play children move from place to another, jump, and run such activities allowed the children to release their energy.
- ***Subtheme (2): Play as an observation tool***, teachers participating in the interview, believe in the observational function of play, as it can be used as an observational tool to understand the characteristics, interests, dispositions and desires of the children.
- ***Subtheme (3): Teacher-child relationship***: teachers who took part in the current study believe in the function of play to shape the teacher-child relationship. According to the teachers, play can help teachers in developing a good and warm relationship between them and children.

### **3- Theme (3): Developmental benefits of play**

This theme deals with the benefits of play in relation with children's comprehensive development. From the teachers' perspectives four subthemes emerged:

- ***Subtheme (1): Social-emotional development***; social-emotional development was the developmental domain most frequently mentioned by the teachers. Teachers highlight the role of play when it comes to children developing friendships, acceptance, respect, and reinforcing children's manners. Teachers also show awareness of the importance of play in contributing to the healthy emotional development of a child. Teachers emphasized that play enables children to better understand their own feelings and enables them to empathize with the feelings of others.
- ***Subtheme (2): Language development***; several teachers highlighted the positive effect of play on the language development of a child. Teachers emphasized the fact that play provides a friendly atmosphere in which to practice language. During playing, children use language to communicate, ask, discuss, describe, and make plans.
- ***Subtheme (3): Cognitive development***; teachers were aware that play was able to improve children's cognitive ability in a fun way. Teachers pointed out the role of

play when it comes to improving children knowledge, believing that through play children can learn scientific concepts, mathematic concepts, and problem-solving skills.

- ***Subtheme (4): Physical development;*** teachers were of the opinion that play had an important role when it came to improving children's physicality. Teachers pointed out that play includes activities that involve movement, which in turn help in the development of children's gross and fine motor skills.

#### **4- Theme (4) play and practice**

This theme deals specifically with teachers' practices. This mainly includes an evaluation of how teachers felt regarding the concept and implementation of the loose parts play. After the analysis of teachers answers three subthemes emerged:

- ***Subtheme (1): General attitude toward LPP intervention;*** seven out of eight teachers held positive opinions regarding LPP. Teachers were clearly impressed with the loose parts materials, as they liked the use of real, natural and recycled materials. They appreciated the chance of freedom and the opportunities afforded to children to practice autonomy and choice offered by LPP intervention. One teacher, however, was clearly against the use of LPP method. This was because she felt it to be random and chaotic with no clear goals.
- ***Subtheme (2): Types of play;*** the teachers identified the emergence of four main types of play during the LPP sessions, namely: dramatic play; physical play; art play, and; group play.
- ***Subtheme (3): Challenges when using loose parts play;*** several potential barriers were identified in relation to LPP, namely: lack of support; class management; time pressure; the use of play materials; children's safety; lack of space, and; the teachers' role.

## **5.2 RESEARCH QUESTION: WHAT ARE THE CHILDREN’S VIEWS ABOUT THE PLAY INTERVENTION?**

This section focuses on the fourth research question: ‘What are the children’s views about the play intervention?’ This question focuses on children’s perspectives of their play practices, how they feel about playing, how they experience play activities and why they prefer certain play activities and materials over others. Focus groups were used to give the children the chance to express their various opinions. A total of 10 focus group discussions with 51 children were carried out to gather children’s views of the play intervention after their participation in the six-week loose parts play intervention.

Children in the current study were asked to take digital images of the materials they enjoyed playing with the most and the least. The aim of having these pictures is to stimulate the focus group discussion. Before presenting the analysis of the focus group analysis, an overview of children’s favourite and least favourite materials is given in the following section.

### **5.2.1 Children’s most and least favourite play materials**

During play intervention sessions children were asked to take pictures of their most and least favourite play materials. They used an iPad to take these pictures. A total of 633 pictures were taken by children with 491 pictures being labelled as favourites and 142 pictures labelled as least favourite.

From the point of view of the children, their favourite play materials were the plastic and paper boxes, cupcakes tray, empty milk or juice bottles, buttons, tins, metal cans, stones, sand, dishes and kitchen tools, feathers, hair rolls (curlers), sponges, newspapers, empty kitchen roll holders and both natural and artificial flowers and leaves. Conversely, the most unpopular amongst children were the roll of drawing paper, baskets, blankets and shower curtains, plastic hats, and wool threads. All groups were asked to give their opinions about these materials. Table 5.2 shows the most and least favourite play materials from the children’s point of view.

**Table 5-2 Most and least favourite play materials**

| Tool                                     | Most Favourite | Least Favourite |
|--|----------------|-----------------|
| Plastic and paper boxes                  | 40             | 2               |
| Cupcake tray                             | 34             |                 |
| Sand (and small resources for sand play) | 37             | 1               |
| Leaves, feathers, shells, flowers        | 35             | -               |
| Stones/pebbles                           | 30             | 2               |
| Milk, oil, and cleaning crates           | 32             | -               |
| Drawing paper roll                       | 1              | 28              |
| Empty kitchen and toilet roll tubes      | 38             | -               |
| Keyboard                                 | 23             | 3               |
| Newspapers                               | 21             | -               |
| Plastic hats                             | 2              | 9               |
| Large shallow tray                       | 29             | -               |
| Dishes and kitchen tools                 | 22             | -               |
| Blankets and shower curtains             | 2              | 20              |
| Baskets for collecting / transporting    | 1              | 23              |
| Cloth cutter                             | 4              | 18              |
| Sponge                                   | 34             | 2               |
| Wool threads                             | 2              | 30              |
| Hair rollers                             | 10             | 1               |
| Buttons                                  | 31             | -               |
| Tins, metal cans                         | 27             | 2               |
| Bottle caps                              | 16             | 1               |
| Phone                                    | 10             | -               |
| Restaurant menus                         | 10             | -               |
| Total                                    | 491            | 142             |

### **5.2.2 Children's focus group analysis**

All 633 pictures were classified according to the type and similarity of the material. In this way similar materials were collected together. Samples from each group of pictures were used in the focus group discussion and all children were asked to give their view of these materials. Participants were asked about their personal performance, preferences, and the reasons behind their positive and negative views of the play materials or experience.

When those children taking part were initially asked for their opinion of their loose parts play experiences and the materials they used in play, they expressed their preferences by using words such as '*I like*', '*I love*', '*good*', and '*nice*'. Children like play in general and when they were asked about why they preferred some play materials over others they

simply said because *'I like it'*. This expression was often used by children when answering the question *'Why this was your favourite tool'*. For instance, when children were asked *'What do you think of the cupcake tray with buttons?'*, Khalid said *'Nice, teacher'*, Lamees also repeated *'Nice, I like it'*. I further asked, *'Why do you like it?'* Faisal answered *'Because I like to play with it'*.

'Love' was used by children as a means of expressing their view of some materials such as bottle caps. When children were asked *'Why did you like them so much?'* Yara states *'because I love them'*. Shells are another favourite play material for children, and when the researcher asked children about such preferences Hanaa said, *'we had a good time'*. Another favourite material was the sponge, of which Ali said, *'It is nice'*. Nora further added *'It is nice, I like it'*. Lulu added *'Me, too, teacher. I like it'*.

On the other hand, expressions such as *'I don't like'*, and *'I don't love'* were used by children to express why they disliked some materials. For example, when I asked children about the velvet fabric *'Why you didn't like it?'* Reem said, *'because I don't like to play with it'*, and Rania added *'because I don't love it'*.

While previous views from children were somewhat generic, some detailed answers were also given by children. Children were able to give some justifications in answering questions such as *'why did you like this material?'* *'Why don't you love this tool?'* And so on. Based on the analysis of the children's focus group transcripts, affordances emerged as a main theme. An explanation of this themes is follows.

### **- Theme (1): Affordances**

It has been found that the participants' responses mainly related to affordance; *affordance* in this respect refers to the opportunities afforded by the play activities and materials. Three main subthemes linked with affordance emerged: first, *emotional* affordance, second, *social* affordance and third, *functional* affordance. Under each of these subthemes there are some categories. An explanation and examination of these subthemes follows. For easy reference please see Table 5.3 for the main findings.

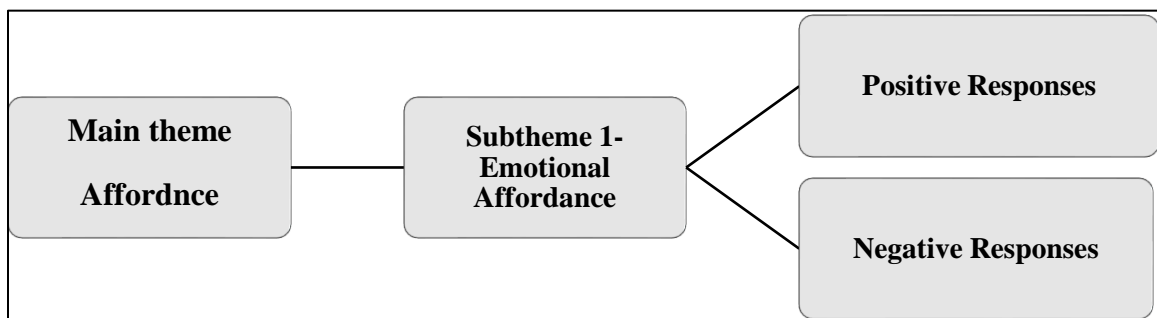
**Table 5-3** Children's focus group thematic analysis.

| Main Theme | Affordance            |                    |                           |                           |                  |                        |                            |                    |
|------------|-----------------------|--------------------|---------------------------|---------------------------|------------------|------------------------|----------------------------|--------------------|
| Subtheme   | Emotional Affordances |                    | Social Affordances        |                           |                  | Functional affordances |                            |                    |
| Category   | Positive responses    | Negative responses | Child-child socialisation | Adult-child socialisation | Social practices | Flexibility of use     | Characteristic of the tool | Level of challenge |

***Subtheme (1): Emotional affordance***

The first subtheme to emerge from the children's focus group discussion related to their emotions and feelings during the play time and when using the play tool. When the children were questioned why they liked some materials but not others, many of them had difficulty answering. They did, however, give some justification for their opinion. Two main categories of emotive justification emerged; namely, positive responses and negative responses – see Figure 5.5.

**Figure 5. 5** Subtheme 1- Emotional Affordance.



**Positive responses** mainly refer to the child's positive feelings afforded by the play experience. Expressions such as '*fun*', '*very exciting*', and '*happiness*' were often used by children to give reasons why they liked a particular material or activity. For example, when



children articulated their thoughts about the sponge, Muhammad stated: *'Teacher. I enjoy playing with these things'*. Ahmad further added, *'It is fun to play with'*. A similar expression was used by Bandar when he gave his opinion of the straws, stating that *'I like them because I wanted to have fun'*.

Sand play appeared to be a favourite activity for the children, and Dalia had this to say about the sand tray: *'...It is very exciting'*. The word *'happiness'* was also used by children during the focus group discussion. Toilet and kitchen paper rolls were some of the favourite play materials for children. Haya had this to say about them, *'I like them because I feel happy when I play with them'*. Saad agreed and said, *'I was happy to look through them'*.

Some children made interesting arguments as to why they like to play with things that are not traditionally classed as toys, such as stones, newspapers, shells, and trays. Hana sees the LPP materials as being interesting alternatives to their usual toys. Several children agreed with this, saying that these play materials are more fun and exciting than other toys. This is illustrated in the following statements about the tin cans, which were one of children's favourite materials; Hana stated, *'I liked to play with things not games'*, and Yara added, *'it is fun to play with real things'*.

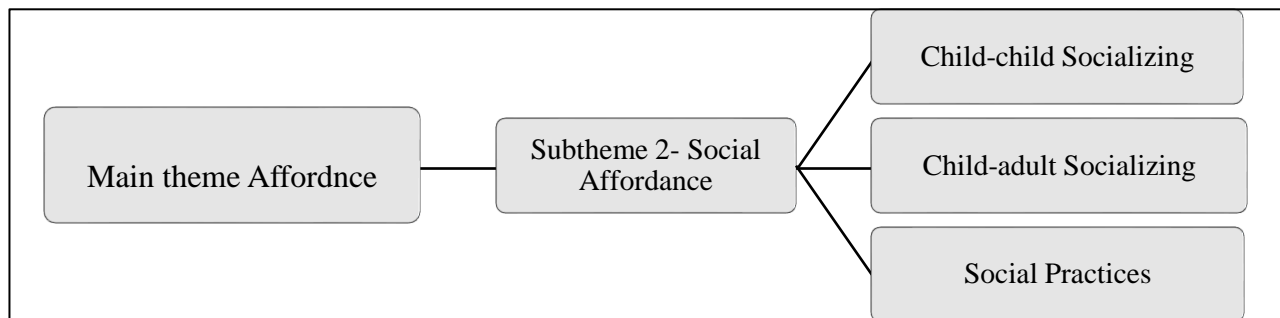
**Negative responses** is another area of the children's emotive justification. Negative responses primarily refer to the child's negative feelings afforded by the play materials. In explaining their negative feelings towards some play materials, a large number of children referred to the small amount of pleasure they had from such items. For example, when the researcher asked children why the basket was one of their least favourite play materials, some refer this back to the amount of pleasure it gave. For example, Mona said, *'I don't like it, ... It was not fun'*. *'Boring'* was a term also used by children to justify their negative view about some of the play materials, such as blankets. When I asked the children why they did not like them, Haya stated *'because it is boring'*. Osama also agreed by saying *'yes, it's very boring'*.

### ***Subtheme (2): Social affordance***

The second subtheme to emerge from the children's focus group discussion is related to their need to socialise. Playful experiences and activities give children the opportunity of

social interaction that they need. During play, children help each other, making suggestions, cooperating and effectively making contact with each other and with adults. This social affordance subtheme is categorized into three categories, namely: child-child socializing; child-adult socializing, and; social practices – see Figure 5.6.

**Figure 5. 6 Subtheme 2- Social Affordance**



**Child-child socialising.** Children stated that LPP materials gave them opportunities to have playful contact with each other, such as sharing things and having parties. Tree leaves and stones, for example, were some of the children’s favourite play items. When explaining the reason behind this they cited the opportunities for socializing they had when they used them. As Ali states, *‘we can use them for making tea and give it to our friends to drink’*. Nora said, *‘because I made a cake... and gave my friends to eat’*. When the same material was discussed with another group of children Asma said, *‘I like it because we put them on a tray and made pizza and had a party’*. Fayeze: *‘Me, too. I had a party’*. Another tool that was a favourite for the children was the cupcake tray with buttons. When the researcher asked children why this was the case, Hanaa said, *‘Me and Ali made vanilla ice-cream and pink strawberry and we sold it to our friends’*. During the discussion one child, Muhammad, asked whether the materials could be brought again. When the researcher asked him *‘Why? Did you like the materials?’*, Ahmad answered, *‘because we all played with them’*.

Furthermore, Bandar, Saud and Yara were all pleased about having a large number of materials to choose from. For instance, a lot of pictures were taken of the hair rollers (curlers) and when the researcher asked the children about them, Bandar answered,

*'Because they are so many'.* Saud added *'Yes. It's enough for all of us'.* Yara agreed with that adding *'Many things allow us to play together'.*

***Child-adult socialising*** The aspect of socializing during the play activities was not limited to just making friends or socializing with peers; child-adult socialization was also referred to by the children. When the researcher asked the children, *'Were you excited when you were making a soup with shells and stones'*, Muhammad pointed out, *'Teacher, it was very nice... I gave my friends and teacher Areej'*. Khalid added, *'teacher Areej likes the soup, she said it is very delicious'*.

During play time the children created a car using water bottles, cartons and some craft materials. The photo of this car was one of their favourite pictures which the children commented on by saying, *'we made this car and gave it to Miss Aljohara'*. When children were asked about their view of such interaction and the teachers' involvement in play Ahmad stated, *'Yes, I love it when teacher plays with me'*. Yasser added, *'when teacher plays it becomes great fun'*.

***Social practices.*** Analysis of the focus group discussion indicates that the children were interested in playing with materials that they primarily saw in their home environment, or that are used by their families. Milk and detergent cans, for example, were some of their favourite materials. When the researcher asked the children *'What is nice about them?'* Rana commented, *'We buy this milk.'* Saad added, *'At home, we have like this'*. During another group discussion about metal pots, jugs and glasses, Emad stated that he liked them *'Because we have like them at home'*, further commenting: *'My grandma uses it to make tea'*. The researcher also asked, *'Do you enjoy playing with things that look like the ones you have at home?'* The children answered *'Ya, very nice'*.

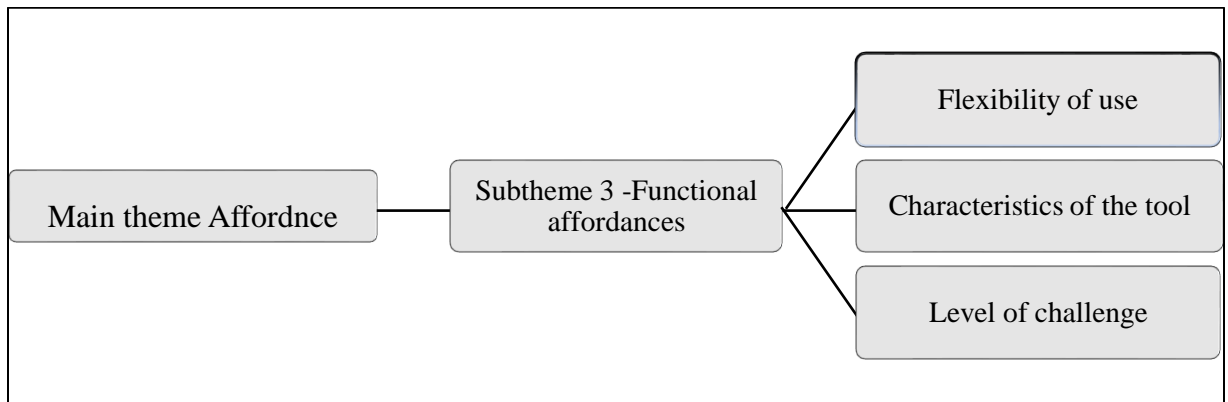
Additionally, children clearly enjoyed playing with realia, such as kitchen utensils. According to the children, these play tools gave them the opportunities to act playfully, pretend, and act out social scenarios. During this type of play, children are able to act as adults, for example, using a red decorated ornament and pretending it is a fire which can then be used for cooking. When the researcher asked the children about the red feather, Muhammad stated, *'I liked it because I can cook in it'*. Faisal added, *'We made fire of it, my father do the same when camping'*. Similarly, spoons, dishes, cups and teapots were

some of the favourite play tools, and when the researcher asked the children what they thought of these (kitchen utensils) Noaf answered, *‘this make me play like adults’*. Salih added *‘I cook like my Mom’*.

### **Subtheme (3): Functional affordances**

The third subtheme to emerge from the group discussion was around the functionality of the play materials. The children were initially asked for their opinion of their play materials and, overall, their playful attitude. Some responses were related to the materials’ functionality, in this regard three main categories emerged: flexibility of the use; the characteristics of the tool, and; the level of challenge. See Figure 5.7.

**Figure 5. 7 Subtheme 3 -Functional affordances**



**Flexibility of use:** The user-friendly nature of the play materials emerged as a common reason around children’s positive views of play. Many children showed admiration for some materials because of the many ways they could be used. Certain play materials gave children the space to act playfully, practice freedom, create, invent, and do many different things. Tools such as cartons, boxes, sponges, kitchen rolls, sand, and artificial and natural flowers and leaves were chosen by the children as their favourite play materials. Through discussion the children made clear that they felt that these materials were flexible and could be used in playful ways. Regarding their preference for the plastic boxes for example, children stated *‘because we enter into them’*. Muhammad commented, *‘Oh, yah teacher. We can do many things with them’*. Nora added *‘We throw the ball into them’*. Lulu further said, *‘We hit on them and Omar was dancing. Ha, Ha, Ha’*.

On the other hand, children expressed a negative view of some play materials, linking that with their limited use. For instance, when I asked the children why baskets were one of their least favourite materials, Lulu pointed out, *'Because I don't do anything with them'*, and Ahmad added, *'we can do only little thing with them'*.

***The characteristics of the tools.*** The characteristics of tools emerged as one of the most common factors influencing playfulness. The characteristics include all aspects of the tools such as the tools' colour, size and material. Many children mentioned that certain characteristics of some tools influenced their view of play and their playful experiences.

The tools' colour, for example, was revealed as one important factor. The cupcake tray with colourful buttons was one of the most interesting tools for the children. Lamees states, *'I like it because it has many colours'*. Muhammad further mentioned, *'I like it because I put each colour together'*. As well as a reason for liking something, colour could also be a reason for disliking something. For instance, when the researcher asked the children why they did not play with a piece of yellow fabric Nora said, *'I didn't like the colour'*. Muhammad agreed by stating, *'Me, too, teacher. I don't like the yellow colour'*. The researcher questioned them further: *'Do you think if their colour was not yellow, you would like them?'* Nora answered, *'can you, teacher, bring red colour'*. Ali added *'I like blue colour, teacher'*.

The size of the tool also could affect the children's perception of the play experience. Regarding plastic boxes, Muhannad said he liked them *'because they are very big'*. On the other hand, children also found that the large size of blankets and shower curtains rendered them useless. When the researcher asked the children *'Why didn't you like the cloth cutter?'*, Hanaa stated that *'It was very big'*. Lamees added, *'Teacher! I couldn't carry it alone by myself'*. Khalid also agreed. *'Me, too, teacher'*. Similarly, the children stated that the length of the wool threads was the main reason behind their negative attitude towards it. As Sulaiman stated, *'it is tall and interlocked'*.

One final factor linked with the characteristics of the tools is the tool's material, or what it is made from. For instance, children did not like the long roll of drawing paper as much as other tools. When the researcher asked them why, Dalia said that *"Because it got torn"*. Hebba agreed, *'I drew on it and it was torn'*. Some children did not like the paper roll, as

Hana stated, *'When I start drawing, it got damaged and cracked'*. The children were also not keen on the plastic hats. Muhannad stated that, *'It is uncomfortable when I put it on'*, and Ahmad added, *'It scratched me, teacher'*.

**Level of challenge.** The degree of challenge offered by play materials significantly influenced the viewpoints of the children. Some children clearly enjoyed the challenges posed by certain materials. Sponges were amongst the children's favourite play materials, and during a group discussion the children expressed their enjoyment of the challenges they encountered when playing with these sponges. Lulu mentioned that *'we use sponges to build, me and Ali made a challenge: who will build the longest mountain?'* Ali commented, *'It was very, very difficult. I made a long mountain and it fell down.'* Challenging play could help children to act in a more playful way, as Ali further added: *'Another time, teacher, we made a very long mountain, but it didn't fall down. It was very funny'*. Nora further mentioned that *'it was very, very exciting'*. Children also like plastic boxes, when the researcher asked about them Reem said, *'we threw balls inside them and we were able to get all of them inside'*.

### 5.2.3 Summary of Children's Focus Group Results

The fourth research question which was documented in this chapter is, 'What are the children's views about the play intervention?' This question focuses on children's perceptions of their play behaviours, how they feel about playing, how they experience play activities, and why they prefer certain play activities and materials over others. Based on the analysis of the focus group discussions, the following results have been found:

- 1- Affordance emerged as a main theme; affordance refers to the opportunities afforded by the play activities and materials. Three main subthemes linked with affordance emerged:
  - **Emotional affordances.** Children expressed their view of play materials by linking this to their emotions and feelings. Both positive emotions such as feeling full of fun, exciting, and happy, and negative emotions such as boredom, affect children's view of play materials and practice.

- ***Social affordances.*** According to the children, loose parts play materials gave them the chance to socialise. This includes socialising with each other, socialising with teachers, and interacting within larger social practices.
- ***Functional affordances.*** Children expressed their view of play materials by linking this to the materials' characteristics. The colour, size, level of challenge and what materials the item is made of are important aspects which affect children's view of play.

## **SUMMARY OF CHAPTER FIVE**

This chapter shed light on the qualitative findings of this study. It commenced with an exploration of the teachers' views on the use of play intervention. Eight teachers participated in semi-structured interviews. The results of the teachers' interviews indicated four main themes: the concept and characteristics of play; the functions of play; the developmental benefits of play, and; play and practice.

The chapter also addressed children's views of the play intervention. A total of 10 focus groups were carried out, each with around five children. The thematic analysis of the focus group discussions show that children's views of play were influenced by the affordances that were given by the tool and the play experience. Affordance was the main theme of the analysis of children's view and it included three subthemes: emotional affordance; social affordance, and; characteristic affordance. The following chapter discusses both these results in tandem with the quantitative results.

## **6 CHAPTER SIX DISCUSSION**

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### **INTRODUCTION TO CHAPTER SIX**

Play is considered to be very important part of early childhood. Scholars such as Johnson et al. (1999) and Frost et al. (2008) have demonstrated the importance of play in facilitating children's development in all of the developmental domains, including social-emotional development.

This study examines the effectiveness of play on the social-emotional development of preschool children in Riyadh, Saudi Arabia. The current study focuses on preschool children of both genders, between the ages of five and six years. This study aimed to provide the answers to four main questions.

1. What is the impact of play intervention on a child's social-emotional development, as viewed from the parents' perspective?
2. What is the effect of play intervention on a child's social-emotional development, as viewed from the teachers' perspective?
3. What are the views of the teachers on the use of play intervention?
4. What are the children's experiences of play intervention?

The findings of the current study indicate that the use of play intervention in preschool children's classrooms can provide many new and varied opportunities for children's social-emotional development. The findings highlighted a significant difference in the level of social-emotional development after the children had participated in the play intervention sessions. With after-play intervention there was significantly fewer problematic behaviours, including emotional issues, conduct problems, and peer relationship problems. Children's after-play intervention also scored higher in terms of their prosocial development. The positive effect of the play intervention is lasting, since children's social-emotional score is retained and does not change after stopping the intervention.



The information obtained from interviews with teachers indicated that they were aware of the effectiveness and importance of using play with preschool children. They agreed that play is an essential and basic need for pre-school age children. They appreciated the pivotal role of play within all developmental domains including, social-emotional development. However, they also identified several barriers to the use of play.

From the children's focus group discussion, it was apparent that children had both positive and negative emotional responses toward various play materials. Children highlighted the fact that loose parts play materials give them the chance to socialise with each other and with teachers and create more imitate social situations. The characteristics of the tool, such as materials' flexibility, offer them enhanced freedom and choices.

This chapter discusses the main findings presented in Chapter four and five, comparing them with the findings of previous research in the field of play intervention and children's social-emotional development. This chapter begins with a discussion of the impact of play intervention in children's social-emotional development from parents' and teachers' perspectives. This is followed by a discussion of the teachers' view about play and the use of play intervention. Next, comes a discussion of children's experiences of the play intervention. Following this a general discussion of the study's findings is given.

## **6.1 THE IMPACT OF PLAY INTERVENTION ON CHILDREN'S SOCIAL-EMOTIONAL DEVELOPMENT FROM PARENTS' AND TEACHERS' PERSPECTIVES**

The current study hypothesized that play intervention would improve children's social-emotional development; this hypothesis was drawn up based on the 'Lifespan Model of Developmental Challenge' (Hendry & Kloep, 2002). To recap, the Lifespan Model of Development predicts that various factors and processes influence human development. According to the Lifespan Model, development is the ability to deal with life challenges and learn from them. This model predicts that to successfully meet everyday challenges, humans need resources; some of these resources are innate, some are learned. Others are structurally determined; some are personal, and some are societal.

This study argued that, during childhood, children could face normative and non-normative challenges, including social-emotional challenges. The study suggests that play is a natural resource for children's development, and play has an important role in helping children to develop a rich resource pool and improve their social and emotional development. This study argued that if the child acquires a resource pool which is rich in opportunities from a playful experience, they are better equipped to meet life's small and large challenges later on. The argument that play intervention and the playful experience will improve children's social-emotional development appears to have been confirmed by the results of the present study. Play intervention allows children to practice autonomy, freedom, and choice. It significantly impacts children's development and specifically their emotional state, conduct problems, peer problems, and prosocial behaviour.

The current study's results appear to illustrate that the positive effects of play intervention on children's social-emotional development is long-lasting, as children's social-emotional score is retained and does not change after stopping the intervention. The current study used LPP play intervention in classroom settings, and the results show a positive effect of the play on children's social-emotional development from both teachers' and parents' perspectives. This suggests that when children develop their social-emotional skills and acquire a rich resource pool through a playful environment and experiences, their socio-emotional development can be enhanced, allowing them to face small and large challenges, not only in the classroom and school settings, but also in other settings such as their home. These results appear to corroborate the Lifespan Model of Development (Hendry & Kloep, 2002) and strongly correspond to the findings of Howard and McInnes (2013), which suggest that when children perceive an activity to be 'playful', the activity scored higher and showed evidence of enhanced emotional wellbeing than was the case with children who undertook non-playful activities. Similarly, Ramani (2012) studied children's communication skills under two settings: a playful setting and structured setting. Four- and five-year-old peers completed a playful, flexible, and child-driven building task, or a more structured, adult-driven building task. The results suggest that play contexts can promote higher levels of co-operation and more effective learning and performance in young children than the structured contexts. In a more recent study, the effects of a playful activity programme on the development of preschool children's social skills were studied. A total

of 60 children aged from five to six years-old participated in the study. The children were randomly divided into two groups, experimental and control; the experimental group participated in a four-week playful programme, while the control group did not participate in any kind of playful activity. The results indicated that there was a statistically significant correlation between the degree of development in children's social skills, and the extent to which they participated in playful activities (Loukatari et al., 2019).

The current study's findings provide evidence that play intervention offers a variety of opportunities for children to gain a rich resource pool, and to acquire positive attributes socially and emotionally. The results further show that engaging in a playful experience can be a resource for children's development and can give them opportunities to participate in autonomy, freedom and choice in a playful context that affects positively their abilities, skills and development. These findings are in line with previous research, which found that increasing children's opportunities to use play in preschool settings should support their development in positive ways (Fattore et al., 2007; Flannigan & Dietze, 2017; Ho et al., 2017; Perryman & Bowers, 2018; Woolf, 2011). In a recent article Yogman et al. (2018) stated that play is fundamentally important for developing 21st century skills, including problem solving, collaboration, and creativity, all of which require the executive functioning skills that are critical for success as an adult. Furthermore, Kascsak (2012) argued that play can indeed have a positive impact upon the emotional and social life of children and enable them to develop their social and emotional skills. The current study used the SDQ and focused on five main scales: emotional problems, conduct problems, hyperactivity, peer problems, and prosocial behaviour. Each of these scales is discussed below.

***Emotional problems scale:*** The emotional problems scale in this study measured how often the child feels worried, tearful, nervous, clingy, and scared. One of the most interesting findings of the current study revealed that children participating in the play intervention showed a significant decrease in their emotional deficits such as anxiety and sadness, and turned these deficits into more positive feelings. Participation in a playful experience helped children to face the emotional challenges they meet and to express their negative feelings in a more positive way. These investigations strongly confirmed the idea

that the characteristics inherent in play, which separate it from other modes of action (namely: the child's perception of autonomy, freedom, control, and independence), create a playful low-risk environment with lower levels of anxiety. This lowered level of anxiety leads in turn to an increased sense of wellbeing, emotional security, and subsequently improved task performance (Howard, 2010). The apparent effectiveness of play in providing healthy emotional development corresponds with Freudian theory, wherein play offers an opportunity for children to experience catharsis, and so come to terms with traumatic experiences and events by providing a way to express difficult feelings (Hyder, 2004; Saracho & Spodek, 2003). The current evidence thus appears to be in line with Freud's theory, as he argued that play is a context in which children express their emotions, and in which they adapt to external society (Freud, 1961). Freud maintained that play allows children to deal with stress and replace negative feelings with positive ones; such processes allow children to follow a normal course of emotional development (Hyder, 2004; Saracho & Spodek, 2003).

This result is in line with Stulmaker and Ray's findings (2015), who explored the effects of play on young children with anxiety symptoms. They found that children who received play significantly decreased their overall levels of anxiety and worry. The relation between play and anxiety was the interest of Li et al. (2016), who showed that ill children who received hospital play interventions exhibited fewer negative emotions and experienced lower levels of anxiety than those children who received the more usual care.

LPP involves many types of play including pretend play; Goldstein and Lerner (2018) suggested that when children use pretense during play, such as pretending to be animals and human characters, this could help them to improve their emotional control. Pedro-Carroll and Jones (2005) found that play was an essential component of their interventions programme; they found that using tools such as puppets is helpful in enabling children to safely express feelings, learn, and practice new skills. Given the importance of pretend play in children's emotional development as suggested by the above cited empirical evidence, it is important that children are given substantial opportunities to engage in pretend play both at school and in home settings (Rao & Gibson, 2019).

Gray (2011) extended this, exploring the relation between play and negative emotion; he contended that the decline in play has contributed to the rise of psychopathology in young people. He suggested that over the past half century in the United States and other developed nations, children's free play with other children has declined. This decline is often blamed on the seductive qualities of computer games and Internet activities. Over the same period, anxiety and depression have increased in parallel among children and young people there.

***Conduct problems scale.*** This scale measures temper, obedience, fighting, telling lies, cheating and stealing. Play intervention does appear to be a resource for children to improve their conduct problems. Problems such as anger, disobedience and aggression appear to decrease through the play interventions. This seems to confirm the idea that introducing open-ended loose parts materials could lead to fewer incidents of aggressive behaviour (Bundy et al., 2009). Such results appear to be in line with the study carried out by Jafari et al. (2011), as they examined the relationship between play and children's conduct behaviours. The participants in their study were 16 children who had conduct problems and showed severe symptoms of Oppositional Defiant Disorder, Hyperactivity, and Attention Deficit Hyperactivity Disorder (ADHD). The study randomly divided the children into one control and one experimental group. The results of Jafari et al. (2011) show that children's disobedience can be reduced through play. Kotler and McMahon (2004) focused on the effects of play on child compliance, noncompliance, and aversive behaviour. They found that play intervention positively affects children's skills in compliance; as, after the intervention, children showed increases in compliance and decreases in noncompliance and aversive behaviour. Such positive effects of play on children's conduct skills was confirmed by Leung (2015), as he examined whether a child-centred play training model enhances children's ability to externalize problems such as aggressive and destructive behaviour. He found that, after 10 weeks of the play intervention, children's externalization of problems, especially aggressive behaviour, was reduced.

This body of evidence thus appears to be in line with Vygotsky's theory, whereby he framed play as an act liberating the child from their situational constraints to become more effective members of the wider society. The aim of play, according to Vygotsky, is to facilitate development through to full adjustment to the rules and demands of the wider society. Vygotsky regarded make-believe play, which is rule-based play, as the primary catalyst for the development of children's self-regulative skills (Berk et al., 2006). Vygotsky further proposed that, through play, the child 'learns to follow the line of greatest resistance, for by subordinating themselves to rules, children renounce what they want since subjection to rule and renunciation of spontaneous impulsive action constitute the path to maximum pleasure in play' (Vygotsky, 1967, pp. 13-14).

Regarding the effectiveness of play on children's conduct skills, not all the previous studies were promising. For example, when compared to the current study, Gardner et al. (2003) appear to differ. They examined the relationship between mother-child spontaneous joint play and the development of conduct problems in preschoolers. The authors suggested that time spent in activities, including solitary play, did not appear to predict changes in children's conduct scores over time. Nevertheless, they concede that play can make a contribution to the very early development of conduct. The differences between the findings of Gardner et al. and the present study may relate to the type of play involved, since Loose Parts Play involves a higher amount of group and free play than the more solitary forms of play in Gardner et al.'s (2003) study.

***Peer problems scale.*** One important skill by the SDQ is related to peer problems. This scale measures whether a child feels lonely, is picked on by other children, and what their relationships are generally with both adults and children. The current study finds that participating in playful experience significantly enriches children's resource pool, and positively affects their peer interactions. This finding supports previous studies such as Coplan et al. (2010), as they found that children who participated in play sessions demonstrated a significant decrease in observed socially wary behaviours, and an increase in socially competent behaviours at preschool. In another study O'Connor and Stagnitti (2011) found that children who participated in a play intervention became less disruptive and disconnected, and more socially connected with their peers. These findings are further

supported by Li et al. (2016); the goal of their study was to provide a preliminary evaluation of an early play intervention programme to promote social interaction skills among young, extremely shy children. The findings indicated that, as compared with the shyness controls, shy children who participated in the play programme were observed to demonstrate significantly greater post-intervention frequencies of positive peer interactions, such as group play and peer conversations.

***Prosocial behaviour scale.*** The prosocial behaviour scale is part of the SDQ; this scale measures positive behaviours, and whether the children are caring, helpful and considerate towards others. Regarding the children's prosocial behaviour, the current study shows that play is a natural resource for children; the play intervention significantly improved a range of positive social behaviours for the children such as sharing things and helping others. This finding appears to confirm an earlier study, which found that during play sessions children exhibited a range of positive behaviours such as turn-taking, leadership, cooperation, decision making, assigning roles, assigning tasks, and problem-solving (Flannigan & Dietze, 2017). Li et al. (2016) also provided a preliminary evaluation of unstructured free play intervention: they found that a play programme demonstrates significantly greater post-intervention frequencies of prosocial behaviours. Such results suggest that free play offers a range of interaction opportunities between children. Such interactions may be especially helpful as children negotiate different roles and realize that different roles entail and require different behaviours (Dunn & Cutting, 1999).

Improvements in children's prosocial skills have the potential to positively affect children's future well-being. Jones et al. (2015) likewise found statistically significant associations between measured prosocial skills in kindergarten, and key young adult outcomes across the multiple domains of education, employment, criminal activity, substance abuse, and mental health. This result strongly supports the idea that the characteristics inherent in play – namely the child's perceptions of autonomy, freedom and control – can build children's resource pool and help them to better face future life challenges.

Nevertheless, such promising results were not found in all previous studies; several studies have not been conclusive in demonstrating the effectiveness of play interventions in facilitating child social development. For example, Bronz (2004) examined how effective

playgroup interventions were in developing social competence, executive functioning and general good behaviour in a group of 24 four-to-six-year-old children living in out-of-home care. The children in the intervention group participated in twice-weekly sessions, and two hour therapeutic playgroups over a period of seven weeks. The results showed that there were no significant benefits to playgroup intervention in children's social skills or executive functioning in this context.

***Hyperactivity/inattention scale.*** The hyperactivity scale investigates the presence of hyperactivity, impulsivity and lowered attention span. While results from this study were positive and appeared promising regarding the emotional symptoms, conduct problems, peer problems and prosocial skills, this was not necessarily the case with hyperactivity and inattention. Both the analysis of parents' and teachers' SDQ illustrated that the play intervention does not significantly affect the hyperactivity level for children. The deficit of LPP intervention in impacting the hyperactivity level could be due to the type of play involved in the loose parts play, as LPP includes high levels of gross and fine motor physical activity (Haas, 1996; Maxwell et al., 2008). It could be argued that the greater degree of physical activity and the high level of interaction between children affect children's behavior, so they remain active and energetic during and after the play.

Nevertheless, this result has not previously been found: the insignificant effects of play intervention on children's hyperactivity and inattention levels in the current study differs from the findings of other studies, as these indicate that play can be used to reduce the hyperactivity level for children (Abdollahian et al., 2013; Jafari et al., 2011). However, such differences in results could relate to the differences in the play technique used, and their different socio-cultural settings: the current study use a different play intervention in a different context. Furthermore, differences in results might also be related to the differences between the participants and their level of hyperactivity. While the current study examined the effect of play intervention on typical developmental children, one of the previous studies had examined the effects of play specifically on children clinically diagnosed with ADHD (Abdollahian et al., 2013), and the other had studied children who suffer from Behavioural Disorder (Jafari et al., 2011).



The previous discussion mainly assesses the results of the first two research questions of the current study, which were: ‘What is the effect of play intervention on a child’s social-emotional development as viewed from the parents’ perspective?’ and, ‘What is the effect of play intervention on a child’s social-emotional development, as viewed from the teachers’ perspective?’ The argument that play intervention and the playful experience will improve children’s social-emotional development appears to have been confirmed by the results of the present study, with the sole exception of hyperactivity levels noted above. Participating in playful settings thus significantly impacts children’s resource pool and helps them better deal with normative and nonnormative social-emotional challenges. The following section involves the discussion of the third research question: ‘What are the views of the teachers on the use of play intervention?’

## **6.2 TEACHERS’ VIEW OF THE USE OF PLAY INTERVENTION**

Play in the current study does appear to be a resource for children’s social-emotional development, participating in playful settings positively impacted children’s skills. Teachers’ views in this study were consistent with these findings: preschool teachers considered the centrality of play in children’s to be a healthy development. This study explored teachers’ views about play intervention by investigating the perceptions and experiences of a group of eight teacher-participants who used the LPP intervention in their classes. The results of teachers’ interviews indicated four main themes: the concept and characteristics of play; the functions of play; the developmental benefits of play; and play and practice. Each of these themes has several subthemes. The following section discusses the main interview findings.

### ***The concept and characteristics of play***

The first theme to emerge whilst interviewing the teachers was their understanding of the concept of children’s play. When discussing the concept of play, some teachers found it difficult to give a definitive meaning for the word ‘play’. Indeed, Moyles (2010) stated that, like many innate human processes, play is hard to define because it is such a varied, flexible and a unique experience for each individual. Participants in the current study linked the definition of play with activities that children like to do and be involved in. They

repeatedly mentioned the word ‘activity’ to describe play. This seems to agree with previous literature, where the primary goal for children’s engagement in play is to ‘be where the action is’ (James, 1998; Strandell, 2000). In this study, teachers attempted to define play by giving specifications about the nature of play as an activity that relates to the child’s nature – enjoyable and free.

Most of the teachers who participated in the current study highlighted the relation between play activities and the preschool children’s natures and needs. During the interviews teachers used words such as ‘childrens’ nature’, ‘needs’ and ‘tendencies’. This view supports the idea that play is an important part of children's lives, and that many of their activities can be characterized as ‘play’ (Sandberg & Heden, 2011). Previous literature suggested that play is the most valuable of developmental opportunities, and a natural part of childhood (Spodek & Saracho, 2003). Saudi teachers’ view of play as a natural need for children appears to be consistent with Turkish childhood educators, Tekin and Tekin (2007), who noticed that Turkish teachers regarded play to be a naturally occurring need among all children.

The analysis of teachers’ interviews in the current study illustrates that preschool teachers consider enjoyment as characteristic of children’s play. Teachers in the current study tended to focus on the fun and enjoyment aspects of play. The teachers associated play with children’s smiles, laughing and giggles. Such a view reflects teachers’ understanding of playfulness as an attitude or state of mind (Sutton-Smith, 1997a). Teachers’ perceptions on enjoyment as a characteristic of children’s play in this study resembled those in previous studies, including a study by Ahn (2008), in which he explores what the word ‘play’ means for Korean preschool teachers. Ahn showed that teachers considered play to be a fun and enjoyable activity. Izumi-Taylor et al. (2014) also conducted a study with the aim of better understanding the meaning of play in early years education, from the teachers’ viewpoint. The participants comprised of 75 American, Japanese and Taiwanese early years teachers. Qualitative analysis of the data obtained revealed several themes. Enjoyment was one such theme, with teachers emphasising the fact that children should enjoy play for the sake of playing.

The teachers' viewpoint of fun as a significant characteristic of children's play is consistent with how children themselves view play. Glenn et al. (2013) stated that children did not depict play as something which fulfilled a particular purpose or outcome. Children seldom knowingly play for some educational benefit; the basic motive for children's play is the experience of pleasure and playfulness that it affords (Pramling Samuelsson & Johansson, 2006). In an additional attempt to understand children's perceptions of play, Ramazan et al. (2012) conducted a study with a sample of 40 children between the ages of five and six. Children were interviewed to gain their response to the question: 'What does play mean to you, how would you describe play?' The researchers found that pre-school children equated play with happiness and fun.

One more important characteristic of play that appears in the current study is freedom. The Saudi teachers recognised that play gives the children the opportunities to practice choice and freedom. They confirmed that during play children practice autonomy, plan, control and make their own decisions in their choice of toys, games and friends, and that they enjoy doing so. This appears to be in line with the idea that play is the opposite of receiving guidance from adults (Emilsson et al., 2016). King (1979) found that children described play activities as those that were voluntary, under the child's control and not under adult control. Research on children's perspectives of play consistently shows that they value freedom and making choice in play (Kapasi & Gleave, 2009). In interviews with children, they view play as the thing they think they can influence at preschool (Sheridan & Samuelsson, 2001).

### ***The functions of play***

The function of play was one of the themes to emerge in the interview analysis: interviews show that teachers believe in the role of play in preschools. Regarding play function, three main subthemes emerged during the interviews: firstly, the expending of children's energy; secondly, play as an observation tool, and; thirdly, the teacher-child relationship.

Expenditure of a child's energy was one important function of play reported by teachers, as they believe of the power of play to vent children's energy. Teachers frequently mentioned their belief that children have a great deal of energy and they need to find a way to vent it. Teachers highlighted how play provides a positive way for the children to do so. Play,

as teachers view it, gives children a chance to move about, run and get going. This reflects the teachers' belief in the classic 'Surplus Energy Theory' of play, which was developed by the eighteenth-century German poet and philosopher Friedrich Schiller, who described play as aimless activity and a means of expending excess energy (Mellou, 1994). According to this theory, a person who generates excessive energy not already used up through their labours feels the need to engage in play in order to exhaust their energy reserve (Gaona, 2001). Such a view supports the common notion that since children are not employed in work-related activities, they naturally have a greater capacity to play. The discharge of energy through play, according to Surplus Energy Theory, states that play restores balance to the body (Verenikina et al., 2003). The perspective of play by the arousal modulation philosophy suggests that play keeps the body and mind at an optimal state of arousal, relieving boredom or reducing excess arousal (Berlyne, 1960; Ellis, 1973).

Another function of play to emerge in the current study was the use of play as an observation tool. During the interviews, teachers referred to their use of play in classroom to observe children; they highlighted that play helped them to understand better the children's characteristics, interests, dispositions, and desires. This view is supported by previous literature; for example, Kelly-Vance and Ryalls (2008) highlighted how play provides a means to observe how the children develop, and consequently inform how best to educate them. Several educators have documented the effectiveness of using play to observe children given that, children develop every facet of human experience through the act of play (Bray & Cooper, 2007; O'Grady & Dusing, 2015; Schulz & Bonawitz, 2007). This strongly supports the idea that children tend to display their skills by simply showing or doing them, rather than working to produce an abstracted representation of them (Shepard et al., 1998). Observing children while playing is considered an important aspect of play (Wood & Attfield, 2005). Observing children during play could help teachers to be aware of and understand children's play activities (Johnson et al., 1987; Reifel & Yeatman, 1993).

An additional function of play that emerged during teachers' interviews was the role of play in shaping the teacher-child relationship. Teachers reported that play can foster a strong connection between them and the preschoolers. According to the teacher-

participants, play can lead to developing a warm relationship between the teachers and the children. Such a function of play is perhaps the main reason why play is important (Ivrendi, 2020). Healthy relationships between teachers and children can positively affect children's development, successes, and wellbeing (Pianta et al., 2002; Pianta & Stuhlman., 2004; Sabol & Pianta, 2012). Ray (2007) investigated the impact of two school counselling interventions on teacher-child relationship stress; one of these interventions was based on play. The study was conducted with 93 child-participants aged between pre-kindergarten age to fifth grade. Results suggested significant differences pre-testing and post-testing on the Index of Teaching Stress: post-test there was less stress. These treatment groups were found to have brought about a statistically significant reduction in teacher and student problems, with a significant reduction in total stress.

### ***The developmental benefits of play***

This was the third theme to emerge through the teachers' interviews. This theme deals with the benefits of play in relation to children's development. This study has earlier suggested that play is a natural resource for children development, and that it will significantly improve children's development. Teachers' perspectives on children's play in this study were consistent with this view. Interviews show that teachers tended to view play as a resource for children's development. All respondents indicated that they were in agreement about the positive role of play in promoting a healthy child's development. This result fits well with the Lifespan Model of Development, and provides new insights into the way various factors and processes can influence that development (Hendry & Kloep, 2002). In the current study, the main developmental domains that teachers focused on were social-emotional development, language development, cognitive development, and physical development.

***Social-emotional development.*** The developmental domain most frequently mentioned by the teachers was the children's social-emotional development. Ideas such as the role of play in helping children to face challenges and building children's relationships, friendships, personality, manners, and healthy emotional development were repeatedly mentioned by teacher-participants.

The teachers valued the role of play and the importance of engaging in a playful experience in helping children to face normative and nonnormative emotional challenges, and to express their feelings: the interviews illustrate how the teachers maintained that play allows children to deal with stress, and replace negative feelings with positive ones. Teachers reported that play helped the children disperse negative feelings, as the child during play re-enacts incidents from real life. This supports the idea that play serves as a resource pool and empowers children to meet intellectual and emotional challenges. The characteristics inherent in play, which separate it from other modes of action, namely the child's perception of autonomy, freedom, control, and independence, create a playful low-risk environment with lower levels of anxiety. This lower level of anxiety leads to an increased sense of wellbeing, emotional security and subsequent improved task performance (Fearn & Howard, 2012; Howard, 2010).

The preschool teachers who participated in this study emphasized the role of play in offering positive emotions and feelings for children. The teachers highlighted that the implementation of play could help children to be happy. In this regard, Moore and Lynch (2018) explored the conceptualizations of happiness (as a proxy measure of wellbeing) among children aged six to eight years. Their results suggested that the children perceived their participation in pleasurable occupations, which typically involved play, as vital contributors to their overall sense of happiness (wellbeing). Children's conceptualization of wellbeing consistently related to play and playful occupation. Fattore et al. (2009) explored children's views of what constitutes wellbeing. They found that participating in playful activities where children experienced choice, fun, and freedom was important for their sense of wellbeing. This result is consistent with Farmer et al. (2017), who found that children who participated in play interventions were more likely to report being happy at school. This in turn echoes Freud's view of play, where he argued that play is a context in which children express their emotions and feelings cathartically, adapting to external society (Slade et al., 1999).

The teachers in the current study further considered play to enhance children's friendships. Teachers saw play as a way in which children hone both their communication and socializing skills, highlighting the importance of play in the development of children's

relationships. Scholars have stated the importance of having friends and socializing in the school settings as having supportive relationships with peers and friends offer better outcomes for school adjustment (Danby et al., 2012; Erath et al., 2008; Kawabata et al., 2019). On the other hand, children who are rejected by their peers at school are more likely to participate less in classroom activities, report feelings of isolation, indicate that they do not want to go to school, and achieve less (Buhs & Ladd, 2001).

Teachers in the current study stated that play offered many opportunities for the child to interact with other children, share ideas, and give suggestions. Teachers showed how play developed children's experience, and how a peer can help children's learning through facilitating interactions. For instance, one child taught and mentored the rest of the group when building a tent; this demonstrated a more knowledgeable child scaffolding the wider group. This view of teachers strongly confirms what Vygotsky named the 'zone of proximal development'; this is the boundary between the child's actual and potential level of development and in which the assistance of another peer enables the transition from one to the other, particularly by adapting real-life social scenarios to the world of play (Hughes, 2009; Scarlett et al., 2004; Verenikina et al., 2003).

***Language development.*** Teachers who participated in the current study tended to view play as a way for the children to use and practice language. Teachers' responses in this study indicate that, in play, children use language in several ways: they ask, discuss, describe, and make plans. Previous studies have highlighted that children's language skills chiefly emerge through engagement in social interactions (O'Neil-Pirozzi, 2009; Paes & Ellefson, 2018). Bruner (1983) wrote, 'the most complicated grammatical and pragmatic forms of language appear first in play activity' (p.65). Evidence suggests that children are indeed more likely to use complex language when they play than when they do not (Bergen & Mauer, 2000; Christie & Roskos, 2006). More recently, Nicolopoulou et al. (2015) emphasized the value of preschool play-based practices as they can contribute to promoting both children's oral language and their emergent literacy. The view of the centrality of play in children's language development is consistent with Vygotsky's view of children's play, as he remarks on play as an oral practice, which could effectively improve preschooler's language skills (Andresen, 2005; Vygotsky, 1967).

***Cognitive development.*** An additional developmental domain highlighted by the teachers in this study was children's cognitive skills. The teachers focused on the role of play in shaping children's cognitive development. The teachers appeared to believe in the pedagogical role of play, since they emphasized the role of play in improving children's knowledge. Teachers documented that through play children begin to learn basic scientific concepts and mathematical skills in an enjoyable way. Floating, diving, the characteristics of water, and learning about numbers was mentioned as examples for the use of play to improve children's knowledge. The link between play and learning has been demonstrated by several researchers. Fisher et al. (2011) showed that, while playing, children practice skills such as addition, subtraction, measuring and ascertaining volume. In this regard, Bento and Dias (2017) emphasized the value of adding rich elements for children's play; for example, adding natural tools could promote education in its broadest sense. They stated that activities related to playing with soil and water can serve as examples of learning opportunities in which concepts related to mathematics and science were promoted in an integrated way. White (2012) added that play with objects such as blocks, sand and balls facilitate logical scientific thinking, such as the cause-and-effect principle.

Some educators strongly believe in play as an educational tool. For example, DeVries (2001) identified a spectrum of opinions existing between the notion of play as integral to learning and as extraneous to it. The author argued that play can be disguised as academic work. The learning benefits of play cannot be ignored: studies offer empirical evidence for the belief that play and learning are closely related in young children (Panksepp & Biven, 2012). Some educators tend to behave too 'teacherly' and misuse children's play to attain their own educational goals, thus spoiling children's fun (Samuelsson & Carlsson, 2008). According to Sutton-Smith (1997b) the belief in play as an educational tool has become so dominant that we tend to forget the playing child. Children's ideas of play generally centre 'on having fun, being outdoors, being with friends, choosing freely' (p. 49). Teachers who took part in the current study show a good understanding of this point, as they value the freedom and fun aspects of play and considered them as important characteristics of children's play.



***Physical development.*** The role of play in improving children's physical development emerged as one reason behind teachers' use of play in preschool. Teachers confirm the centrality of play in relation to children's physical skills. Interview analysis shows that play includes activities such as running and jumping, and these activities involve high levels of physical movement. Teachers believe that such activities help in the development of children's motor skills. This is in line with previous studies which highlighted the use of play in improving both gross and fine motor skills (Essa, 2012; Marr et al., 2003; Rahmadani et al., 2017; Van der Linde et al., 2015). The health benefits of play involving physical activity are many. Studies illustrate that active play can generate great physical benefits such as increasing physical activity levels, improved fundamental movement skills and improving a child's weight (Goldfield et al., 2016; Janssen, 2014; Johnstone et al., 2017). The development of physical skills in childhood is essential to promoting an active lifestyle and the prevention of obesity (Ansari et al., 2015; Pellegrini & Smith, 1998).

### ***Play and practice***

While previous themes discussed play in general, a further interest in this study involved exploring teacher's perspectives of the LPP specifically. This includes an evaluation of how teachers felt regarding the use of LPP. The analysis of teachers' answers illustrates three main subthemes, namely: teachers' attitudes toward the LPP intervention; the various types of play, and; the challenges to the implementation the LPP intervention.

***General attitude towards the LPP intervention.*** Teachers were asked about their views on LPP intervention, and seven out of the eight teachers stated positive opinions regarding LPP. One of the most interesting aspects of the LPP from the teachers' views was the choice of play tools. Teachers find that it is good to use new equipment with children such as newspaper, trays, and buttons. They stated that such unstructured play offered children a beneficial degree of freedom, choice, and creativity. The freedom level in LPP, according to the teachers, was higher than in any other methods of play. The teachers emphasized that LPP offered children a significant opportunity to practice autonomy, to plan, and to choose. LPP creates a fear-free flexible environment that allows children to try out new ideas, test boundaries and take risks. Such chance to play independently and freely is

important as it enables children to experience a sense of power in their play and developing their social relationships and emotional skills (Canning, 2007).

Teachers in the current study emphasized the amount of creativity offered by LPP materials. They showed how loose parts materials are flexible and there is no prescribed way to use them. According to the teachers, such materials afford children the opportunity to create and use the same tool in different ways and for various ideas. One teacher mentioned the sponge, as an example, and states that sometimes children used it as a cake, so they decorate it, another time they imagined it as an ice-cream, and once it was among the doctor's instruments when they played a doctor's role. This view confirms the viewpoints of Sutton (2011) and Sear (2016) who suggested that the inclusion of movable elements or 'loose parts' for young children increases and expands the possibilities for creativity. Loose parts give children the chance to develop their play experiences based on their ideas and goals, rather than the play being predetermined by the materials or surroundings determined by adults (Änggård, 2011).

Nevertheless, not all the teacher-participants agreed about the power of LPP: a teacher with a single year's experience expressed her view that such play involves 'some randomness, no clear goals'. Such a view could be the result of that teacher's relative lack of experience: teachers with more experience showed greater satisfaction with LPP. Teachers' experience could affect their view and skills; as Casto (2004) noted, teachers who had taught more years were more confident in their skills and practices.

***The various types of play.*** Regarding the play and practices theme, one subtheme that emerged from interview data concerns play types: in general, cooperative group play was the most common form of play. Most of the teacher-participants in the current study agreed that group play was a significant aspect of LPP time, with the children spending relatively little time in individual play. Scholars have shown the positive impacts that play, specifically cooperative group games, has on the socialization and prosocial behaviours of children as this type of play encourages children to take part, enjoy, accept other, share and cooperate (Garaigordobil et al., 1996). The centrality of group play in the LPP could be one of the aspects behind the intervention succeed in improving children's social-emotional development.

LPP, according to the teachers, offers and involves several play types such as dramatic play, physical play, and arts play. Teachers commented that loose parts play in general does not focus on one type of play more than another. They recognized that this type of play intervention allows the children the chance to choose the type of play in which they want to engage. Such diversity in play types is important as it supports the children's development and allows them to explore their surrounding environment. Miller and Almon (2009) explain that providing many different types of play can often overlap in engaging and rich play scenarios: The well-developed player has a repertoire with many forms of play; the playful kindergarten supports them all.

***Challenges of using LPP.*** This was the final subtheme related to the play and practice theme. Lack of support, time pressure, management problems, materials usage, children's safety, lack of space, and the teacher's role were reported as barriers to the implementation of LPP. Each of these challenges is discussed below.

*Lack of support:* Half of the current study participants pointed out that they face problems with parents' and the principals' support; this includes lack of their awareness of the importance of play. Some families saw play as merely incidental to childhood development and preferred more traditional learning methods. This is in line with O'Gorman and Ailwood's observation (2012) that most parents considered play to be acceptable if it happened after the 'work' of school was completed. They preferred less play in the classroom. A similar barrier was highlighted by Hurwitz (2002) who mentioned that many adults appeared to view play-based activities as nothing more than 'mindless play', adding that such adults feel there is no learning value in children's play. Adults who are unaware of child development theory may have difficulty appreciating how play in the classroom is able to encourage children's learning and growth. Regarding this, Isenberg and Quisenberry (2002) insisted on the imperative that all educators, parents, and policy makers who work with children should fully understand the importance of play.

*Time pressure:* Teachers in the current study expressed how they need to achieve curriculum goals and standards; this factor combined to cause a kind of pressure that can impede the use of play in educational settings in the KSA. Teachers are now working in an era of accountability where escalating academic standards metrics are expected as the norm

(Gallant, 2009). Preschool has recently become rife with mandated academic curricular standards that are prescriptive rather than emergent in nature (Heydon & Wang, 2006). These shifting curricular expectations have led to an increasing emphasis on the delivery of structured, academic learning for preschool children (Bassok et al., 2016; Fisher et al., 2008; Frost et al., 2008; Ranz-Smith, 2007). Teachers face the challenge of balancing the teaching of academic skills with developmentally appropriate practices, such as play (Pyle & Bigelow, 2015). This challenge is in line with previous studies; for example, Rentzou et al. (2019) indicated that teachers use play in their daily programmes only after they complete academic activities such as math, science and art. This agrees with Baker's (2014) observations of the factors that impact on the quantity and quality of play time permitted by teachers in Abu Dhabi (a neighbouring country to the KSA and culturally quite similar). Data were collected through focus groups comprising of 62 preschool teachers. A number of factors were shown to impact negatively on play time, including the teacher's lack of time, and the pressure of achieving academic goals (Baker, 2014).

*Management problems.* Management was mentioned as one of the most significant difficulties teachers faced when seeking to apply LPP. In the current study, teachers emphasized how LPP makes extensive use of tools and play materials. Accordingly, tidying up these materials after using them is not easy, and the children become slack in doing so. This corresponds with previous studies which documented that young children are likely to face problems when it comes to tidying up materials (DeVries & Zan, 1994), as some children in early childhood classrooms often try to avoid doing the clean-up work (Corsaro, 2003).

Regarding management problems, teachers in this study expressed how they faced some problems in controlling children's behaviour during play session, such as children's movements and their loud voices. Such problems may occur because of the features of LPP: as Gold et al., (2015) described, LPP materials have the power to promote and influence children's physical activity. Therefore, it could be argued that the greater degree of physical activity and the high level of interaction between children during play sessions could cause some real or perceived behavioral challenges such as children's loud voices and rapid movements.

*Lack of space.* Teachers further mentioned some environmental difficulties in adapting LPP. For instance, the class size and the lack of space emerged to be one of the challenges to the effective use of LPP in class. Teachers stressed the importance of having a large classroom space when encouraging LPP, as the children then had more space to move around. This could be one reason why the majority of previous research has centred around LPP at outdoor environment (e.g., Houser et al., 2019; Maxwell et al., 2008; Neill, 2018; Olsen & Smith, 2017).

*Material usage.* Teacher-participants related some challenges connected with the children's usage of LPP materials. They reported that LPP involves the use of diverse and rich materials which might be unfamiliar to the children playing with them. Thus, the teachers imply that some children may feel unclear about how to use such materials, especially at the beginning of the intervention. This has been supported by Spencer et al. (2019) who found that a potential challenge associated with LPP is the apprehension associated with the materials, particularly when they are first introduced. They stated that the educator described how some of the children seemed lost at first and for some children they just stood at the back and waited. However, this perspective is contestable: it might be argued that having a rich, and in some regards, unfamiliar play environment is important for the development of creative play. Educators point out that children's play depends largely upon the play materials and equipment at-hand (Fromberg, 2002; Frost et al., 2008; Isenberg & Jalongo, 1997). Having rich and diverse play materials available might better meet children's different interests and aptitudes. Gerdes et al. (2013) reported that, to enable the children's development, it is important to use a range of materials wisely. When children have access to a variety of materials, opportunities for them to promote their comprehensive development will be enhanced (Gerdes et al., 2013).

*Children's safety.* A further challenge that emerged linked with loose parts materials was the children's safety. Some teachers reported that LPP might include some very tiny materials, such as buttons and stones. LPP might also include slightly sharp tools for example, pens and wooden sticks. Some teachers expressed fears of the safety implications of having such materials in class. Nevertheless, having such materials available in a suitably supervised context is important to the enriching of the children's play experience.

Little (2010) examined risk-taking as an integral part of children's play. He highlighted that being allowed the opportunity to take risks is important for all aspects of children's development. Little and Eager (2010) stated that child development and play quality is enhanced when the environment allows children to explore their surroundings, experiment, try new things, accept challenges and take risks. Risk during play allows children to test their limits, try new skills and activities, and learn about their bodies and their capabilities. In doing so, they acquire and eventually master a wide range of fundamental skills (Little & Sweller, 2015). Little and Wyver (2008) highlighted how challenge and risk during play allows children to not only extend their physical development, but also to improve their intellectual and social development.

*Teachers' role.* The final challenge reported regarding the use of play intervention in preschool contexts was related to the teachers' roles. Only one teacher reported that she sometimes was a little confused as to her role. Such confusion is probably due to her relative lack of experience. She stated that she was used to giving suggestions, instructions, and solving children's problems. Yet in the LPP this is not her role. This challenge could guide us that when applying LPP in preschool; problems might emerge between what teachers are used to in other settings, and what they should do in LPP. Wood (2010a) reported that early childhood practitioners continue to struggle with their provision and, particularly, with their role in play. Practitioners' understanding about their role in play will influence how they interact and become involved with children in the play.

The previous section discusses the results of the third research question which highlights the teachers' view of using play intervention. The following section discusses the results of the final research question, which is about children's views of play intervention.

### **6.3 CHILDREN'S VIEWS OF THE PLAY INTERVENTION**

Harcourt (2011) reported that it is possible that the way children experience childhood, and how adults perceive it to be experienced, may result in a disjunction between the actual and the observed. Scholars have noted the necessity of investigating children's perceptions of play, on the basis that children might experience play in different ways than the adults have theorized. Recently, efforts have been made to include the perspectives of the players,

*the children themselves* (Einarsdottir, 2014). This is important, as there is a need to foreground these underrepresented stakeholders' views (Colliver, 2012). Play practitioners perhaps should talk to children regarding their play experiences. Understanding children's perceptions of play might help practitioners in terms of understanding what play is from children's perspectives, enabling them to take a more playful attitude and approach to such activities, facilitating a sense of wellbeing in children, and using playfulness in practice (Howard & McInnes, 2013; Thomas et al., 2006).

The current study's engagement with data derived from children is in part motivated and informed by the concept of children's rights, specifically the child's right to express their views freely as expressed in Articles 12 and 13 of the UNCRC (UNICEF, 2003). This section of the study focuses on children's perceptions of their play experiences, activities, and materials. It discusses how children consider their play experience, and why some children prefer certain play activities and materials to others, and how they experience these activities.

During the intervention period, children were asked to take pictures of their most and least favourite play materials. As mentioned in Chapter five above, a total of 633 pictures were taken by children with 491 pictures being labelled as most favourite and 142 pictures labeled as least favourite. All 633 pictures were classified according to the type and similarity of the material; in this way, similar materials were grouped together. Samples from each group of pictures were used in the focus group discussion, and children were asked to give their views of these materials. From the point of view of the children, their favourite play materials were the plastic and paper boxes, cupcakes trays, empty milk or juice bottles, buttons, tins, metal cans, stones, sand, dishes and kitchen tools, feathers, hair rolls (curlers), sponges, newspapers, empty kitchen roll holders and both natural and artificial flowers and leaves. Conversely, the most unpopular amongst the children were the drawing paper rolls, baskets, blankets and shower curtains, plastic hats, and wool threads.

As stated earlier, the current study finds that the participants' responses were mainly related with the affordance. That refers to the opportunities afforded by the play activities and materials. This theme includes ideas related to three main sub-themes which are emotional

affordances, social affordances, and functional affordances. Each of these sub-themes includes several categories and are discussed in the following section.

### ***Emotional affordances***

Focus group results indicated that one of the most important factors affecting children's experience of LPP was related with children's feelings. Emotional Affordances emerged as a sub-theme behind the children's view of play materials. When the children were asked about their preferring of some play materials to other materials, they simply said 'I like it!', 'It is nice', and 'I love it!' On the other hand, the children also used expressions such as 'I don't like' and 'I do not love' to express their views of their least favourite materials.

During the focus group discussion children gave some justifications for their choices; they related their views to their personal feelings and emotions. Phrases such as 'pleasure', having a 'good time', 'having fun', 'exciting' and 'happy' were frequently used by children to explain their positive feelings regarding some play materials such as the straws and sand. The children also mentioned their negative views and feeling about some of the play materials in relation to the amount of pleasure they obtained from them: they used expressions such as 'It was not fun' to address why they did not like certain materials such as the basket and the blanket. Children frequently used the tools that they described as 'fun' during their play; Humbert et al. (2006) emphasized that if an activity was deemed to be fun, the children were eager to participate. This is very consistent with previous studies which state that the basic motive for children's play is the experience of pleasure that it affords (Samuelsson & Carlsson, 2008). In this regard, Ramazan et al. (2012) conducted a study with a sample of 40 children between the ages of five and six. Children were interviewed to gain their response to the play. The researchers found that participants viewed play as having fun and being happy.

### ***Social affordances***

In the current study, children expressed that they like LPP materials because they gave them the chance of socialization, and this was one of the focus group's sub-themes. The social affordance subtheme was categorized into three categories: child-child socializing, child-adult socializing, and social practices.



Social interaction with peers thus appears to be an important influence on children's views of their play. The children explained the reason behind loving some play materials such as tree leaves. They cited that such materials give them the opportunities for socializing and sharing things with their friends. This result corresponds to Cook and Hess's findings (2001), they stated that children revealed their desire to socialize: they emphasized the importance of having playmates, and the necessity of children meeting children. This aligns well with previous research by Jago et al. (2009), who reported that friends were important not only for initiating play, but also for sustaining participation in active play over time. The children in the current study were interested in some play materials more than others because they gave them the chance to act socially with each other and make friends. Having a friend, as noted by Huser (2010), was important for enabling play and making it more enjoyable. The child can be motivated to join in with social play to make friends, but this can also be reversed, in that the reason the child might want to join in with play is because they want to be with friends or someone they like (Avgitidou, 1997). The role of LPP materials in shaping and building relationships, leadership, inclusion, and reduced conflicts was highlighted as a benefit of the LPP by Spencer et al. (2019), who stated that the use of LPP encouraged children to work together and cooperate on tasks.

The aspect of socializing during play was not limited to making friends or socializing with peers, child-adult socialization was also referenced by the children. According to them, LPP materials gave them diverse ways to contact and generally socialize with teachers. For example, a group of children made a soup by using materials such as stones, dry leaves, and wooden sticks and gave it to the teacher to taste it. In this study, the fact that teachers and children were able to socialize with each other seemed to be a very enjoyable experience. Yet, this view does not appear to have been the case in previous studies. King (1979) attempted to understand how kindergarten children defined play and found that children described play activities as those that were under the child's control and did not involve adults. Conversely, non-play activities were described as those that were under adult control, and the adult was involved. Howard et al. (2006) found that children only viewed play as really being 'play' when there was no adult present. This was further emphasised by King and Howard (2014), as they investigated children's perception of choice during their play. Their study showed that children's perception of choice was

significantly reduced if an adult was involved in the play activity. Similarly, Frost et al. (2005) noticed that excessive teacher participation is seen as intrusive by children and lessens their interest in the activity. Even though previous research has shown that children hold a specific view of adults' involvement in play, children in the current study tended to see adults as play partners. This could reflect the teachers' understanding of children's play and their role within it, as preschool teacher training has moved on since 1979-2005. It has been shown that when play practitioners have a secure understanding of children's play and their role within it, they interact with children in a playful way, which affords them autonomy, choice, and control (McInnes et al., 2011). This enables the children to view practitioners as play partners and to not use the cue of adult presence to differentiate between play and not play (McInnes et al., 2011). Differences in children's perspectives of adults' involvement could likely be due to the differences between cultures as the previous studies were conducted in the United Kingdom, and the current study was conducted in the KSA.

The analysis of data indicates that children were particularly interested in playing with items commonly used by their family or that are familiar from their surrounding environment. Milk bottles, metal pots, trays and empty detergent cans were all seen to be interesting play tools. According to the children, such materials allowed them to role play their parents and other family members. This view is linked with Practice or Pre-exercise Theory, a classic theory that continues to be shape contemporary thought. Pre-exercise Theory views play as a means of learning about the external world. Karl Groos (1898–1901) argued that play is an instinctive practice that helps individuals hone skills that will be useful to them in later life (Bergen, 2014). According to Groos, the instinct to play is present from birth (Tassoni & Hucker, 2005), and facilitates skills that form the basis of important life skills needed in maturity (Mellou, 1994; Slentz & Krogh, 2001).

### ***Functional affordances***

The third sub-theme that emerged through the focus group discussions deals with the function of the play materials. This sub-theme was related with the materials' function and use. This includes three main categories: flexibility of the use, characteristics of the tool, and level of challenge.

From the focus group discussions, the study has revealed that some participants' responses were related to and linked with the flexibility of the materials. Many children viewed their choice of the most favourite and the least favourite play materials according to the number of things they can do with the tools. For example, children expressed the reasons behind their love of playing with the large plastic boxes as being because they allowed them to do many different things, such as enter them, throw the ball into them and hit them. These boxes allowed children to practice freedom and choice. This recalls the idea that LPP materials offer children the freedom, autonomy, choices and opportunity to develop their play experiences based on their ideas and goals, rather than the play being predetermined by the materials or surroundings, or adult educators (Änggård, 2011; Beloglovsky & Daly, 2016). Open-ended materials thus gave the children the chance to use their imagination. As highlighted by de Valk et al. (2015), open-ended materials are used to support creativity, with children being considered active participants with much freedom to create their own activities. Bekker et al. (2008) stated that children liked playing in the open-ended play more than playing in the pre-set games. The children showed that that they could create more diverse games with interactive objects. This aligns with the theory of situated action, which holds that children do not necessarily structure their activity beforehand, but rather develop meanings in situated interactions (Suchman, 1987).

The children's view of play and play materials are also affected by the materials' characteristics; tools' characteristics emerged as one of the key subthemes in the current study. This subtheme includes the tool's materials, colour and size. One important factor linked with the characteristic of the tools is a tool's material, or what it is made from. For instance, children did not like the long roll of drawing paper as much as other tools, the child stated that it damaged and cracked easily. The durability of some of the LPP materials was a problem faced by the educators. Spencer et al. (2019) stated that there were some LPP tools that broke. Another important factor related with the characteristic of the tools is the tools' colour and size. Regarding these aspects, children differ; while some children like to play with large tools such as the big boxes, others do not like large tools. While one child might love a specific colour, another may not; therefore, it is good practice to enrich the play environment and offer as wide a variety of tools for children to choose and play with as is possible. The preparation of the play environment supports and enhances the

children's play experience: high quality, rich play environments are the foundation for sustained, complex play for all children (Doctoroff, 2001).

One more category related to the functional affordance of the play tools sub-theme to emerge in the current study is that of the level of challenges. This was one factor behind how children viewed a given play experience. Some children linked their like of a given material to the challenges it provided. Some play materials appeared to give the children space to think, try, make mistakes and reflect. Child development and play quality is enhanced when the environment allows children to safely explore their surroundings, experiment, try new things and accept challenges. On the other hand, there is a concern that as risk minimization strategies become more stringent, play spaces are becoming more boring (UK Department for Culture, Media & Sport, 2004). Educators emphasize that the use of loose parts seemed to help children become less fearful of play and learn to take progressively more healthy risks (Spencer et al., 2019). The children in the current study described how some play activities and materials were more challenging than others. They emphasized that during play they liked to challenge themselves; for example, they tried to make a mountain by putting sponges one above the other until finally they were successful. This can be connected to the development of the children's self-confidence: children acquire self-confidence and self-esteem as a result of successful playful experiences (Bunker, 1991).

## **6.4 POSSIBLE ALTERNATIVE FACTORS**

To better understand the results above, it is important to justify the reasons behind the changes in children's social emotional development. In the current study, the main change made in the daily schedule was to integrate the LPP intervention into the hour-long corner activities. As stated in Chapter Two, the corner activities are designed to enable play and enhance children's choices, offering the children the chance to choose what to learn, and to choose materials and tools for themselves (see Alshoaibi, 2018). Normally, the teachers prepare the play corners thematically, providing activities that promote children's development in literacy and numeracy, and physical, mental and socio-emotional abilities. While the corner activates provide time for children to play, this play is different to LPP.

According to the results of the teachers' interview and children's focus group discussion, the main difference between LPP and corner play are in the opportunities LPP provides for freedom, creativity, choice, control, autonomy, and socializing (see Änggård, 2011; Nicholson, 1972).

Teachers participating in the study generally thought that the level of freedom in the LPP was higher than the level of freedom in any other activities, including corner activities. Teachers emphasized that LPP offered children a beneficial degree of practice, autonomy, freedom, choice, and control. Teachers emphasized that LPP creates a fear-free flexible environment that allows children to try out new ideas, test boundaries and take risks (see Milteer et al., 2012; O'Neill, 2013; Yogman et al., 2018). Such opportunities to play independently and freely are important, as they enable children to experience a sense of power in their play (Canning, 2007).

Another aspect was the tools and materials used in LPP: teachers expressed their admiration of using recycled materials and new equipment with children, such as newspaper, trays, restaurant menus and buttons. Teachers emphasized the flexibility of such materials, and they perceived that these materials afforded the children the opportunity to think, create, and use the same tools in different ways (Bekker et al., 2008). The creative opportunities offered by the play materials featured powerfully not only in teachers' interviews, but also in the children's focus group discussions. Many children indicated a direct correlation between their favourite play materials and the flexibility of the tool usage and, the increased number of different things they could do with those materials.

A further difference between LPP and the usual corner activities lay in relation to the number of children engaging in the play activity. In corner activities there is a limited number of children in each corner, usually between three to five children per corner, during this time children are expected to follow this rule. Yet In LPP there is no limit for the number of children participating in the activities and games. Children can participate and play with large or small groups, or even play individually. Most of the teacher-participants in the current study agreed that group play was a significant aspect of LPP time, with the children spending relatively little time in individual play. This closely matches the

children's views of play: as the analysis of the focus group discussion reveals, children consistently expressed how they enjoy LPP materials because these activities give them the chance of social interaction with their peers and making friends. Thus, the chance for the children to practice freedom, creativity, choice, control, autonomy, and socialising in LPP might well explain the decrease in children reporting social and emotional problems in the SDQ after using LPP.

The findings of this study present a positive assessment of LPP interventions in enhancing preschool children's learning experiences and their social and emotional wellbeing in the context of preschool education in the KSA. Nevertheless, it is useful to consider possible alternative explanations that may also have affected the SDQ scores and other data. These could include the researcher authority, desirability bias, and some novelty or the Hawthorne Effect (Chiesa & Hobbs, 2006).

**Researcher 'authority'.** According to Hofstede Insights (2021), the KSA scores a very high power-distance score of 95%, and a relatively low individualism score of 25%, suggesting a social context with a high deference to real or perceived authority, and a low level of individual opposition to it. Further, high levels of education, and particularly titles such as 'Dr.' or 'Professor' carry a high level of social status and real or perceived 'cultural capital' (Sullivan, 2001). Whereas the adults with whom the researcher interacted in this study would be aware that as a PhD researcher the author of this study held no real coercive, political or economic power over them, the possibility that they might defer to the researcher's more abstract authority, their cultural capital (Sullivan, 2001); the researcher's status as a doctoral candidate at a Western university (and therefore a potential future decision-maker) cannot be discounted as a 'power' factor, and this could bias respondents' responses in this study, thereby affecting the data. Female educators in particular might perceive this researcher's role as contributing to the wider phenomenon of female emancipation and the expansion of women's socio-economic roles in the KSA, and a desire to see 'one of their own' acquire the coveted status of 'Dr.' might affect the data: this researcher is a Saudi woman from Riyadh from a family of teachers. To a degree, clarity of communication as to the aims, scale, and scope of this study may have limited expectations in that regard, helping to ensure that their responses were more 'natural', and

the data therefore more valid. However, the possibility that participants might have deferred to the researcher's cultural capital and perceived authority thereby affecting the data cannot be entirely discounted.

**Desirability bias.** This is the tendency of respondents to answer questions in a way they think will please or satisfy the questioner, or in a way which avoids embarrassment over issues which are or are perceived to be socially contentious – giving the questioner what the respondents think is the 'right' answer from the perspective of the questioner.

So, a question needs to be asked as to what extent desirability bias influenced responses in the context of this study. Desirability bias can be profound when the topic is socially contentious, for example sexual practices, taking illicit substances, or personal health and hygiene (Krumpal, 2011). The topic of this study – play interventions in preschool education – does not at first glance seem problematic in terms of social desirability. However, it is possible that parents wanting to be seen as having done the best for their child might constitute a more subtle form of desirability bias, especially in the family-orientated cultural context of Saudi Arabia (Hofstede Insights, 2021). Against this, it is worth considering the status of play in traditional education in the KSA. As in neighboring countries, all phases of education have undergone profound change. That change is ongoing, and the current study is a small part of this ongoing process of reform. However, it is quite likely that much of the parents' education would have taken place under the traditional system which emphasized rote learning, quite strict discipline, and crucially saw education and play as diametric opposites rather than as complimentary. It might be assumed that this cultural background might bias some parents against play intervention in formal education, thereby cancelling out, at least to a degree, the social desirability of wanting to be seen to have been doing 'the best' for their children. These factors considered, it is prudent to assume when discussing the data that desirability bias of one sort or another might be present, but that its presence is complex, simultaneously biasing responses both in favour of but also against play interventions in this context.

**Novelty (The Hawthorne Effect).** As mentioned above, education in Saudi Arabia, as in many countries in the region, has been subject to a process of reform for around two decades. This reform is ongoing. The motivation of much of this reform has been of

economic: the perception of governments that the traditional education systems are inadequate for developing a workforce which has the attitudes and skills sets required by a twenty-first century ‘knowledge economy’, especially given the imperatives of the KSA and its neighbors to economically diversify away from hydrocarbon-based economies. As such these reforms have often been announced with considerable fanfare, and have generated considerable media attention, generally favourable. This could quite likely bias parents towards believing that the play interventions were beneficial, especially if parents perceive the interventions as part of a wider initiative of national development. The fact that parents were not blind to the interventions but were blind to their timings, and the use of the SDQ rather than in person face-to-face interviews, may go some way to countering desirability bias and the Hawthorne effect, but it does not completely mitigate them (Chiesa & Hobbs, 2006). Parental attitudes to the interventions (and therefore the degree of desirability bias) is an interesting topic, but was beyond the scope and resources of this study. However, this does suggest a need for research on social attitudes to education reform and development initiatives in the KSA and the other five Gulf Cooperation Council states (GCC): Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates). As well as being useful in its own right, such a study could provide an evidence base whereby studies such as the current study could assess the extent of desirability and related biases. In the meantime, maintaining an awareness of such biases and the ways in which they can affect the data is important.

Something similar can be said of **novelty** and its possible influence on the children’s behaviour (Aibar et al., 2021). While the use of a control group is useful in distinguishing the differences between with-intervention and without-intervention attitudes and behaviours, it can only hint at extent of novelty bias among the children. Therefore, an awareness of the potential for novelty bias should likewise inform the discussion. A follow-up study, or even a larger longitudinal study would be needed to investigate the degree to which the improvements noted in this study are permanent, and the degree to which they are due to novelty (studies from elsewhere suggest a degree of permanency to the improvements). Such a study could also inform understanding the degree to which teachers remain committed to the ‘spirit’ of play intervention rather than just to its letter – useful



information in contexts such as the KSA and the Gulf region, where many education reforms are implemented ‘top-down’.

## **6.5 LIMITATIONS OF THE STUDY**

As with all studies of this kind, the current study presents a number of limitations: it is limited geographically to the Kingdom of Saudi Arabia, specifically the capital, Riyadh; a study that also involved regional cities and rural locations in the KSA might show variations in practice. The study is also limited in its participants’ age range: it is focused on preschool children mainly aged from five to six – a larger study might well also involve studies of play in primary education. Further, in the current study the role of parents was only to evaluate their children’s skills and development. However, interviewing parents and gathering information about their views of play might have provided more information as to social attitudes to play in education, providing a more comprehensive appreciation of how play in education is perceived socially in the KSA, which could then inform policies aimed at encouraging play in education. Interviews with school principals and decision makers could also provide a useful supplementary data stream.

Perhaps the single most significant limitation concerns resources, financial, and most significantly, time. The period during which the play intervention was relatively short (six weeks), a longer period of intervention might have a greater effect on children’s development; likewise, a longitudinal study of children’s development across phases of education would be invaluable. The period for gathering the data was also short (15 weeks); a longer period would help better assess the long-term effects of the play intervention. Likewise (as is usual with doctoral research) this study was conducted by a single researcher, whereas a postdoctoral research study would more likely be conducted by a small team over a more extended period of time with better financial and time resources. These limitations of time and resources have underpinned the design of the methodology, which had to be based on what was realistically achievable given the above constraints. This in turn led to two methodological compromises.

**Observations:** these conducted in real time would have added useful fourth source of data to the current study and helped better triangulate the other sources of data. One concern was that the presence of an unfamiliar adult (the researcher) would impact negatively upon the ‘naturalness’ and spontaneity of the children’s play (O’Sullivan, 2006). There would be two possible ways around this: that the researcher became a familiar figure to the children, or; that participant teachers acted as observers, but this would have required specific training, further permissions, and adjustments to the teachers’ timetables: the resources available rendered both options impractical, and meaningful participant-observation (the researcher as an observer-participant) should have had to have taken place over a more extended period of time. Nevertheless, observations would have provided a useful additional data stream, both for the purposes of greater triangulation, and also as a way of facilitating reflection on practice -- (a focus group of participating teacher-observers conducted after completion of the play intervention would be a further enhancement of the observations and a further data source – see Kennedy-Lewis, 2012). As it stands, the current study was conducted with the resources available, and when designing the methodology, it was important not to undermine the project by attempting to do more than was realistically achievable given financial, logistical, permissions, researcher, training and above all time constraints. A larger, postdoctoral project would likely be less constrained in these terms.

**The Strengths and Difficulties Questionnaire (SDQ).** As discussed earlier, the SDQ has a reputation as a reliable, readily available, and user-friendly tool (easily usable for both the researcher and the parents) for gathering quantitative data. Given the limitations discussed in this section, these are significant advantages to the SDQ. However, the tool itself does have certain limitations. The original design context of the SDQ was within child psychopathology, emotional adjustment, psychiatric disorders, and mental health. This context, however, is only tangentially related to the current study. When used as an aid to clinical diagnosis, the SDQ’s three-point scoring system (Not True, Somewhat True, Certainly True), provides the clarity required in a diagnostic context, and avoids ambiguities that might impair diagnosis. When used in education research, however, the three-point scoring system is something of a blunt instrument, because it can filter out the nuance required for the provision of ‘rich’ data (Hutchinson, 1986), limiting variation in

the ‘normal’ range: whilst ‘Not True’ and ‘Certainly True’ provide unambiguous data, ‘Somewhat True’ arguably hides more than it reveals. While a wider-ranged scoring system is undesirable in clinical diagnosis, it is perhaps what is needed in education research, where nuance matters more than ‘ill/not ill’. The limitations in the three-point scoring scale would very likely have affected the data gathered in this study. A project with greater resources might have produced a tailored questionnaire perhaps using a five-point Likert scale (Stolk, Y. et al., 2017). In the absence of such resource, the researcher follow Stolk, Kaplan and Szwarc’s advice (2017) and interpret the SDQ data ‘with caution’ below.

## **6.6 OVERVIEW OF THE DISCUSSION**

While the previous part discusses the study’s findings, limitations, and other alternative factors, this part aims to link the main findings together and provide an overall understanding of the results. The current study has investigated the relationship between preschool children’s social-emotional development and play interventions in the context of Riyadh, Saudi Arabia. To obtain a comprehensive understanding of the effects of play intervention on children’s development, the study has sought to measure the impact of play intervention from the parents’ and teachers’ perspectives by using the Strengths and Difficulties questionnaire (SDQ).

This study has drawn on the ‘Lifespan Model of Developmental Challenge’ introduced by Hendry and Kloep (2002). This model predicts that various factors and processes influence human beings’ development and ability to deal with life challenges. The model foresees that to successfully meet everyday challenges, human beings need certain resources. The present study has argued that children during childhood could face normative and non-normative challenges; one of which is social and emotional challenges. This study suggests that play is a natural resource for children’s development, and it will play an important role in improving children’s social and emotional development. The study hypothesized that play intervention will successfully improve children’s social-emotional development. The study’s hypothesis and the argument that the characteristics inherent in play – namely, the child’s perception of autonomy, freedom, control, and independence – create a playful low-risk environment with lower levels of anxiety (Howard, 2010) seem to have been confirmed in the present study. This is very significant.

Interestingly, the analysis of the SDQ questionnaire shows that both parents and teachers hold the similar views of the role of play in improving children skills. Generally, the use of play intervention in this context seems to have effectively improved children's social-emotional development. Such results fit well with the Lifespan Model of Development (Hendry & Kloep, 2002). More specifically, this study finds that play intervention can play a vital role regarding reducing problematic behaviours, minimizing children's negative emotions, improving their social conduct skills, and enhancing their peer-to-peer relationships. The results indicate that play intervention also has a positive effect on improving children's prosocial skills such as caring and helpful. However, the current study does not show any evidence of the use of play regarding the children's hyperactivity level, such as children's impulsivity and attention span. The study's findings provide evidence that play intervention offers a variety of opportunities for children to get a rich resource pool, and to social and emotional attributes. The current study's results illustrate that engaging in a playful experience can be a resource of children development and can give them opportunities to participate autonomy, freedom and choice in a playful context that affect their abilities, skills and development.

This study illustrates that the positive effects of the play intervention last, and have a longer-term effect on children over time, since children's social-emotional score is retained and do not change after stopping the intervention. The current study used the play intervention in the classroom settings and the results demonstrate a positive effect of the play on children's social-emotional development from both teachers' and parents' perspectives. This could lead to the possibility that when children develop their social-emotional skills and get a rich resource pool through a playful environment and playful experiences, their development can be extended and will allow them to face small and large challenges not only in the classroom and school settings but also in different settings later in life.

Teachers' perspectives on children's play in this study were consistent with the view of play as a natural resource for children's development. Teacher respondents in the current study agreed that play has a pivotal role within all human developmental domains. This includes cognitive, physical, language and social-emotional development. Social-

emotional development was the developmental domain most frequently mentioned by the teachers. The analysis of the interviews illustrated that preschool teachers believed the role of play in general and the LPP intervention in particular. Play, according to most of the teachers, helps children to face challenges and express their feelings, while providing healthy emotional development, and inculcating positive feelings in the preschool developmental and learning environment. Teachers, furthermore, highlighted the role of the play intervention regarding children developing relationships and friendships. Ideas such as the role of play in building children's relationships, friendships, and social manners were repeatedly mentioned by teachers during the interviews.

Most of the teachers who participated in the study mentioned the connection between play and children's natures and needs. During the interviews teachers illustrated how play is an important and enjoyable method to use with preschool children. The responses from the teachers suggested that they felt play to be an activity inherent within children. Therefore, they introduced play as a strategy to use within the class. It was clear from the responses of the teachers that they viewed play as a means of offering freedom, autonomy, choice and a source of enjoyment to those children taking part. Very similar views appear to be held by the children themselves: as the focus group results indicated, the positive feelings afforded by the play tools were one of the most important factors affecting children's experience of play and in extension their socialization, and developmental, emotional and physical wellbeing. Expressions such as 'fun', 'very exciting', and 'happiness' were often used by children to as reasons why they liked a particular LPP material or activity.

The fact that the children enjoy and love play so much was not the only reason behind the teachers' use of play with preschool children. Teachers interviewed for the current study specifically highlighted several important functions of play such as: the role of play in helping children to expend their energy in a positive way; the use of play as an observation tool which enables the teacher to understand the characteristics, interests, dispositions and desires of the children, and; the vitality of play in shaping the teacher-child relationship. The teachers tended to see play as a means of establishing a good relationship between themselves and the children in the class, allowing them greater opportunities to interact with the children. Indeed, this viewpoint was not only held by teachers, but also by the

children, as they recognized that play allows them many ways in which to socialize with teachers.

Seven out of the eight teachers interviewed as part of the current study felt positively about LPP, for three main reasons. Firstly, the play equipment: teachers noticed that using recycled and natural materials in play helped to break the routine and make play more exciting for the children. A similar view was clearly held by the children, as analysis of the focus group discussion indicates that children are interested in playing with materials that they see primarily in their homes or are otherwise used by their families, such as milk bottles and kitchen utensils. Secondly, teachers were of the opinion that the level of freedom, choice and autonomy that comes with loose parts play is greater than any other types of play. Thirdly, the teachers generally approved of LLP because of the level of creativity that it allows the children. A significant number of teachers felt that free play allows the child more opportunities to practice their creativity. This creativity offers opportunities: the play materials featured powerfully not only in teachers' interviews but also in children's focus group discussions. Many children indicated a direct correlation between their favourite play materials for flexibility of the tool usage and the number of things they can do with those materials.

LPP, according to the teachers, offers and involves several play types such as dramatic play, physical play, and arts play. In general, cooperative group play was the most common form of play that children tend to involve in during their LPP time. Most of the teacher-participants in the current study agreed that group play was a significant aspect of LPP, with the children spending relatively little time in individual play. This closely matches the children's views of play: as the analysis of the focus group discussion finds, children consistently express how much they enjoy LPP materials because these activities give them the chance of social interaction with their peers and making friends. Thus, this positive expression from both teachers' and children's perspectives might well explain the decrease in social and emotional problems and the enhancement of prosocial skills after the LPP interventions.

Finally, this study has discussed the potential barriers of using play intervention in preschool settings. Teachers emphasized several challenges relating to the implementation

of LPP in the classroom. Half of the current study participants stressed that they face problems with parents' and the Principals' support; this includes lack of their awareness of the importance of play. Teachers face the challenge of balancing the need to achieve curriculum goals and standards, and meeting management metrics with the use of play. Materials usage and safety were also highlighted by the teachers as one of the challenges they face. Teachers in the present study emphasized how LPP involves various and rich materials which could be new for children. According to the teachers, some children may feel unclear about how to use these materials. Yet, the focus group discussion with children emphasized how children liked the novelty of the play materials, because they provided pleasure, fun, and challenges that enriched their play experience. Lack of space for children to move around, management of the educational environment, and potentially boisterous behaviours were seen as another area of challenge.

Even though this study offered promising results regarding the effectiveness of play in enhancing children's development, it could have included some possible alternative factors which may have affected the results. These factors could include the researcher's authority, desirability bias, and some novelty (see 6.4). As with all studies, the current study has a number of limitations. Some of these limitations relate to the geographical aspects, as this study is limited geographically to the Kingdom of Saudi Arabia, specifically the capital, Riyadh. The study is also limited in its participants' age range, study resources, financial, and most significantly, time (see 6.5).

## **SUMMARY OF CHAPTER SIX**

The current study's findings tend to confirm the theoretical framework previously suggested in Chapter One. A discussion of this study's findings has been provided in this chapter, tempered by a consideration of the limitations of this study, possible alternative explanations for the phenomena noted in the findings, and how possible biases may have affected the data. This chapter continued with a discussion of the impact of play intervention in children's social-emotional development from parents' and teachers' perspectives. This was followed by a discussion of the teachers' views regarding the use of play intervention in preschool classrooms. Next, a discussion of children's experience about the play intervention was provided. Finally, the chapter concluded with a general overview of this study's findings.

## 7 CHAPTER SEVEN: CONCLUSION

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### INTRODUCTION TO CHAPTER SEVEN

Children during early childhood have specific needs, especially with regard to their development and wellbeing. With increasing evidence showing a correlation between play and the child's social-emotional development, it is increasingly being seen as a necessity that researchers examine the use of play as an intervention method in education. The hypothesis tested in this study is that applying play intervention to children's classroom experiences will optimize their social-emotional development. Play interventions in general have made remarkable inroads in this area. The review of previous literatures in Chapter Two demonstrates that there has been a recent trend in the childhood education system in Saudi Arabia, which seeks to reinforce pre-school learning by focusing on the role and value of play in enhancing the skills and development of young children. However, the use of play intervention for preschool children is practically non-existent, and the studies into it are extremely limited, as they tend to focus on the theoretical underpinnings and identifying the theoretical base of children's play and development. Studies in the KSA suggest that the implementation of play in Saudi's preschools is very limited and relatively inappropriate to the children's needs. There are no studies that investigate the effect of using play intervention on children's social-emotional development, the opinions of Saudi preschool teachers and children regarding play have seldom been heard.

The current study uses a mixed-methods research strategy to investigate the effect of a play intervention on children's social-emotional development. A counterbalanced pre-post-test design was used with a sample of ( $N=59$ ) preschool pupils of between five and six years of age with an average age of ( $66.98\text{-month}$ ,  $SD\ 3.376$ ). This repeated measure design is used where each child participates in two conditions: LPP interventions and normal classes over a 12-week period. This design aims to compare signs of social-emotional development exhibited by the two groups of children. One group of children participated in LPP intervention classes for the first six weeks, then the 'normal' classes for the second six weeks. A second group of children participated in the normal classes for the first six weeks, then the play intervention for the second six weeks. Children's social-emotional



development was measured by using the SDQ, both parents' and teachers' reports were used (Goodman, 1997).

To gain a deeper understanding, teachers' perspectives on the play intervention involved interviewing eight teachers. A total of ten focus groups with 51 children were also carried out to gather children's views of the play intervention. The study hypothesised that play intervention will significantly improve children's social-emotional development. The study objectives were:

- To measure the impact of play intervention on children's social-emotional development from parents' perspectives.
- To measure the impact of play intervention on children's social-emotional development from teachers' perspectives.
- To identify teachers' views about the use of play intervention.
- To understand children's experience of play intervention.

The purpose of this chapter is to present a summary of the research findings. This chapter also contains the contribution of the study to the body of knowledge related to play intervention, and recommendations for policy and teachers.

## **7.1 SUMMARY OF THE MAIN FINDINGS**

The summary of the study findings pertaining to each of the research questions is presented in this section.

### ***7.1.1- Research question 1: What is the impact of play intervention on children's social-emotional development, as viewed from parents' perspectives?***

Generally, there was a significant difference in the level of social-emotional development displayed by children in the two groups. The use of the play intervention has positively impacted preschool children's social-emotional development as it helps to reduce children's emotional deficits and improve their positive emotions. Play intervention has

also played an important role in reducing children's conduct deficits. The use of play has reduced children's peer problems and improved their relationships with peers and teachers. Play intervention has a significant beneficial impact on improving children's prosocial behaviour. The analysis of the data of group A shows that play significantly reduced children's hyperactivity. However, the data for group B illustrated that children's hyperactivity does not significantly change after using play intervention. The analysis of the data of group A shows that the play intervention effects were sustained six weeks after stopping the intervention.

### ***7.1.2- Research question 2: What is the impact of play intervention in children's social-emotional development, as viewed from teachers' perspectives?***

The findings demonstrate that teachers share similar views to those of parents: according to the teachers, there was a significant difference in the level of social-emotional development displayed by children in the two groups. Play intervention appears to have positively impacted children's social-emotional development. It helps to reduce children's emotional deficits and improved their positive emotions. Play intervention has helped to reduce children's conduct deficits and conduct problems. It has positively affected children's peer problems score, reducing the children's peer problems and improving their friendships. Play intervention has improved children's positive prosocial behaviour. However, the data illustrated that children's hyperactivity did not significantly change after using the play intervention. The analysis of the data of group A shows that the play intervention effects were sustained after six weeks of stopping the intervention.

### ***7.1.3- Research question 3: What are the views of the teachers on the use of play intervention?***

The results of teachers' interviews indicated four main themes: (i) the concept and characteristics of play; (ii) the functions of play; (iii) the developmental benefits of play, and (iv) play and practice. The teachers intuitively thought of play as an activity that is natural, free and enjoyable. The function of play was one of the themes to emerge in the

analysis of the interviews: the interviews show that teachers strongly affirmed the positive role of play in preschool settings. Teachers notably mentioned a strengthening teacher-child relationships, enhanced observation opportunities, and expressing children's energy. The third theme that emerged from the teachers' interviews concerns the benefits of play in relation to children's development. All the teachers interviewed indicated that they agreed about the significant role of play in promoting the children's development. The main developmental domains that the teachers focused on were language, cognitive, physical and social-emotional development. The fourth theme concerned play and practices. Generally, the teachers stated their positive view toward LPP Intervention. Several positive phrases were used by teachers in describing their experiences such as, 'I like it, it is good and useful'. According to the teachers, the most common types of play employed were dramatic play, physical play, arts play, and group play. The interviews show that the teachers considered play as a good and an important strategy to use with preschoolers. Nevertheless, teachers did mention some barriers to using play intervention in children's classroom; these included lack of support, lack of space, the teachers' roles, children's safety, and time pressure.

#### ***7.1.4- Research question 4: What are the children's experiences of play intervention?***

During the intervention period, all children were given the chance to use iPads to take pictures of the most and least favourite play materials: the children took 633 pictures. A total of 491 pictures were described by children as favorite materials, and 142 pictures were labeled as least favorite. All 633 pictures were classified according to the type and similarity of the material, so similar materials were grouped together. Samples from each group of pictures were used in the focus group discussion; all children were asked about their view of these materials. The most favoured play materials from the children's point of view were the plastic and paper boxes, cupcakes tray, empty milk or juice bottles, buttons, tins, metal cans, stones, sand, dishes and kitchen tools, feathers, hair rolls (curlers), sponges, newspapers, empty kitchen roll holders and both natural and artificial flowers and leaves. On the other hand, children evaluated some play tools as their least favourite

materials such as the roll of drawing paper, baskets, blankets and shower curtains, plastic hats, and wool threads. All groups were asked to give their opinions about these materials.

The analysis of the focus groups shows that children's view of play was influenced by the affordance of the tool. Affordance in this regard refers to the opportunities afforded by the play activities and materials. This theme includes ideas related to three main sub-themes which are: (i) emotional affordances; (ii) social affordances, and; (iii) functional affordances.

Emotional affordances emerged as a sub-theme behind children's view of play materials. When children were asked about their preferring some play materials to other materials, they gave some justifications relates to their personal feelings. Feelings such as 'pleasure', having a 'good time', 'having fun', 'exciting' and 'happy' were frequently cited by children to explain their positive view of certain play materials. Children also mentioned their negative views and feeling about some of the play materials in relation to the amount of pleasure they obtained from them: they used expressions such as 'it was not fun' to address why they did not like certain materials.

Social affordances appear to be an important influence on children's views of their play. Children explained the reason behind them liking some play materials in terms of the opportunities afforded by the materials for socialising and sharing things with their friends and teachers. According to the children, LPP not only gave them several different ways to contact and generally socialise with others, but also allowed them to role play their parents and other family members.

The third sub-theme was the functional affordances of the play tools. This sub-theme was related with the materials' function and use. This includes flexibility of the use; children viewed their choice of the most favorite and the least favorite play materials according to the number of things they can do with the tools. Children in the current study preferred to play with tools that allowed them to practice their creativity and do many different things with them. Characteristics of the tool such as the tool colour, size, and material were also influential for children's views of their play experience. The final category related to the functional affordance of the play tools is that of the level of challenges: this was one factor behind how children viewed a given play experience. Some children linked their like of a

given material to the challenges it provided; children preferred play materials that gave them a space to think, try, and make mistakes.

## **7.2 CONTRIBUTIONS TO KNOWLEDGE**

This study makes important contributions to the knowledge base on children's play, playfulness and play intervention, with particular reference to the Kingdom of Saudi Arabia, and by implication the wider Arab region. Firstly, to the best of the researcher's knowledge, this is the first study that focuses on the use of play intervention in general and the effect of play in children's social-emotional development specifically within the context of childhood education in Saudi Arabia. This study shifts the attention of play studies from theory to practice, since the few related studies from Saudi Arabia focus on the philosophy and theory of play, showing the importance of play but without testing and evaluating its practical deployment in class. This study offers a pathway for educationalists and policy makers not only in Saudi Arabia and the wider Arab society but also in the wider world to review the opportunities that abound in exploring play intervention.

Furthermore, the present study has tried to draw a comprehensive view of using play intervention in preschool settings, incorporating the perspectives of teachers and children. This study offers an opportunity for teachers to convey their views in regard to play, express their ideas, and describe the challenges they may face which limit their use of play. This appears to be the first Saudi study that has involved child-derived data. In this sense, the study contributes to international studies in play and inclusive education discussions around the provision of play intervention and its effect on children's social-emotional skills development. The current study has thus made a distinct contribution to the literature regarding play intervention and children's experiences of play. Moreover, the current study strengthens the argument that participating in a playful intervention fosters the improvement of children's social-emotional development and, by implication, children's future success and well-being. This area is worthy of further exploration of the adoption of play intervention in preschools.

### **7.3 RECOMMENDATIONS FOR FUTURE PRACTICE**

Play intervention plays a significant role in increasing children's social-emotional development, and therefore helps prepare them for future academic and interpersonal success. It is therefore recommended that educational policy makers, school principals, and preschool practitioners enhance the quality of play used for children in preschools. Economically, the cost of the current study intervention tools LPP is very low: the open-ended materials used by the current study came from nature or recycling, making such research viable in school settings with limited budgets. Furthermore, there is the potential for encouraging children's active role by allowing them to bring to kindergarten recycled materials from their home; such practices could make the play experience more interesting for children and enhance their sense of being active learners.

Teachers and principals should be aware of the importance of the play environment and tools in shaping and enriching children's play experience. It should be their responsibility to enrich children's play environment by deploying a wide range of natural and artificial play materials. What children create should be respected by adult stakeholders, so that children's play activities are owned by the children. During play children create their own ways of using the play tools at hand; therefore, within the limits of health and safety, safeguarding, and appropriacy, teachers should not be too controlling of children's play, but rather should seek to enable children's autonomy, freedom, choice, and creativity.

The current study's results show that one of the most common challenges emerging from the teachers' interviews was the lack of support they got from school principals, colleagues and parents. Therefore, it is recommended for the MOE to develop Continuing Professional Development courses regarding the use of play intervention for teachers and principals, as well as the distribution of printed and online resources for parents to raise their awareness on the developmental benefits of play. Giving children time to play and act freely in familiar places is very important for children's development: it is as much a need as health, housing, and nutrition. Therefore, this study recommends setting a specific time for children's free play on the daily preschool schedule, just as time is set aside for lunch and physical exercise.

## **7.4 RECOMMENDATIONS FOR FUTURE RESEARCH**

The findings of this study demonstrate that children's social-emotional development could benefit from play intervention. However, further research is needed; several suggestions for future research have emerged from this study. First, there is a need for expanded studies on the subject, involving children in other age ranges at other phases of education, such as primary school. Second, there is a need for similar studies focusing on other developmental domains such as language, cognitive and physical development, and how development in these domains might be related to play. Such studies will give evidence related to the impact of play on the developmental aspects of these domains, which will enhance the potential for generalization of the findings. Third, further research should be conducted in Saudi Arabia and the wider Middle East countries that focuses on the children's definition of play and their perspectives of it. Finally, conducting a longitudinal study with follow-up measures would help elucidate the long-term impact of play intervention on children's social-emotional development.

## **CONCLUSION**

The current study on play intervention has used a mixed-method approach to investigate the effect of play on children's social-emotional development. A pre-test/post-test counterbalanced design was used to measure the impact of the play intervention quantitatively. Interviews and focus groups were used to explore teachers' and children's views of the use of the play intervention. By these means, the current study has provided useful evidence regarding the impact of the play intervention on children's social-emotional development. Preliminary evidence supporting the effectiveness of the LPP has been provided in this study, and the results of the present study suggest the utility of the play intervention in fostering the social-emotional development of preschool age children. Finally, this study constitutes a valuable contribution to the emerging field of international early years education studies in Saudi Arabia and the wider Middle East countries.

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## **APPENDIX (1) PARTICIPANT INFORMATION SHEET (CHILDREN'S PARENTS/CAREGIVER)**

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### **Research title:**

The impacts of play intervention on children's social-emotional skills in Riyadh, Saudi Arabia.

### **Invitation:**

We would like to invite you in a research study by filling out an assessment sheet about your child's skills. We would like also to invite your child to take part by trying a fun play-based intervention and having a short interview to help us know his/her experience on the play intervention.

Before you decide whether, or not, you and your child are going to participate, you need some information about why this research is being conducted, and what participation would involve for you. Please take some time to read the following information carefully. You may also wish to talk with others about this study. Please feel free to contact us if there is anything that is not clear, or if you would like some further information. Please take your time to decide whether, or not, you wish to take part in this research study.

### **What is the purpose of the study?**

This study aims to measure the impacts of a play-based intervention on preschool children's social-emotional skills in Riyadh, Saudi Arabia.

It is a PhD research project investigating the effect of play intervention in children's social-emotional skills. It also identifies children's experience about the play intervention.

This study will help to understand the role of play in children's social-emotional skills, and it is necessary to provide educational practices and reinforce pre-school learning in Saudi Arabia. It will also provide a simple new method to kindergarten teachers that helps them to improve children's social-emotional skills.

### **Who can take part?**

If your child is 5 to 6 years old, then you are invited to participate in this study.



**What are the possible benefits of taking part?**

The information that we obtain from this study will help to improve the early learning practices. It helps to provide kindergarten teachers with a simple and fun method to help them to improve children's social-emotional skills.

**Do I have to take part?**

No. Taking part in the study is voluntary. We will describe the study in this information sheet, and it is entirely up to you to decide whether, or not, your wish to take part. If you do decide for your child to take part, you will still be completely free to withdraw him/her from the study, at any time, without having to give a reason.

**How long will the study take?**

The intervention will run by your child's teachers for 6 weeks (3 hours per week). During the intervention time, your child is going to play freely.

Child social-emotional skills will be assessed by you as well as their teachers before the intervention, in the middle, and after it. An assessment tool will ask you for simple facts about the child's behaviour and will be answerable very quickly.

A short interview with your child is also needed to identify his/her experience about the use of play. This may take 10 minutes. All questions will ask for simple information about the child's experience, what his/her favourites and less favourites. None of these questions lead to detect your child's identity (e.g., name, address or contact information).

**What happens after I've agreed to participate in this study?**

After you have read this information sheet, you can sign the Consent Form. Once you have signed the consent form, pre-intervention assessment for your child's social-emotional skills will be taken. You are going to assess your child's skills before, in the middle of, and after intervention. The intervention will run by your child's teachers for 6 weeks (3 hours per week).

After running the intervention, a short conversation with your child will be held. Once we have finished completing the assessment and interview, all information will be stored in a locked filing cabinet. Then, it will be coded and statistically analysed by the researcher. All paper copies of the data will be kept in locked cabinets at all times, and no copies of these data will be personally identifiable, hence, strictly protecting privacy, confidentiality, and anonymity. Any paper information no longer required will be duly shredded by the researcher. If you and your child take part, the information that is collected during this study will be anonymised. The information that you provide will be safeguarded, and protected, to ensure your privacy and confidentiality. However, no participants in the study

will be personally identified in any reports or publications, and, at all times, the information that we provide will be safeguarded and protected to ensure complete confidentiality.

**What will happen if I do not want to carry on with the study?**

There are no implications for you or your child if you withdraw. It is your and your child's right to withdraw from the study at any time.

**Who is organising and funding the research?**

The research is organised by Swansea University as part of a PhD research project and it is funded by the Saudi Arabian Cultural Bureau in London.

**Who has reviewed the questionnaire?**

The study's questionnaire tool has been reviewed by the Human and Health Ethical Committee, Swansea University, the UK.

**Further information and contact details:**

For further information about this research study, please contact: Abrar Alghathami (Email: [REDACTED]), a PhD student at Swansea University, supervised by Dr. Justine Howard and Dr. Peter King.

**Thank you very much for taking the time to read this Participant Information Sheet.**

## **APPENDIX (2) PARTICIPANT INFORMATION SHEET (TEACHERS)**

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### **Research title:**

The impacts of play intervention on children's social-emotional skills in Riyadh, Saudi Arabia.

### **Invitation:**

We would like to invite you to take part in a research study by running a simple play-based intervention, completing a questionnaire about children's social-emotional skills, and finally having a short interview to help us know your perspectives on the play intervention.

Before you decide whether, or not, you wish to participate, you will need some information about why this research is being conducted, and what participation would involve for you. Please take some time to read the following information carefully. You may also wish to talk with others about this study. Please feel free to contact us if there is anything that is not clear, or if you would like some further information. Please take your time to decide whether, or not, you wish to take part in this research study.

### **What is the purpose of the study?**

This study aims to measure the impacts of a play-based intervention on preschool children's social-emotional skills in Riyadh, Saudi Arabia.

It is a PhD research project investigating the effect of play intervention in children's social-emotional skills. It also identifies teachers' and children's views about the use of play intervention.

This study will help to understand the role of play intervention in children's social-emotional skills that is necessary to provide educational practices and reinforce pre-school learning in Saudi Arabia. It will also provide a simple new method to help kindergarten teachers to improve children's social-emotional skills.

### **Who can take part?**

If you are currently a pre-school teacher, working with children aged 5 to 6 years in Riyadh, Saudi Arabia, then you are invited to participate in this study.

**What are the possible benefits of taking part?**

The information that we obtain from this study will help to improve the early learning practices. It helps to provide a simple and fun method to help kindergarten teachers improve children's social-emotional skills.

**Do I have to take part?**

No. Taking part in the study is voluntary. We will describe the study in this information sheet, and it is entirely up to you to decide whether, or not, you wish to take part. If you do decide to take part, you will still be completely free to withdraw from the study, at any time, without having to give a reason.

**How long will the study take?**

The intervention will run for 6 weeks (3 hours per week). During the intervention time, it is our responsibility to provide you with the intervention outline and with all the materials needed.

Pre-test, middle and post-test data are needed to assess the impacts of the intervention on children's social-emotional skills; each of which will take 15 to 20 minutes. Questions will ask for simple facts about the child's behaviour and will be answerable very quickly.

A short interview with you is also needed to identify your views about the use of play intervention. This may take 20 to 30 minutes. All questions will ask for simple information about your experience and will be answerable very quickly. None of these questions reveals your identity (e.g., name, address or contact information).

**What happens after I've agreed to participate in this study?**

After you have read this information sheet you can meet the researcher in your work place to sign the Consent Form. Once you have signed the consent form, a 30-minute presentation will be given to explain, clarify and discuss the intervention as well as answer your questions. We will provide you with the intervention outline and with all the materials needed to run the intervention in your class with your preschoolers. Pre-test, middle and post-test data are needed to assess the impacts of the intervention on children's social-emotional skills as we mentioned above, each of which will take 15 to 20 minutes. After running the intervention, a short interview with you will be conducted. Once you have finished completing the assessment and interview, the materials will be stored in a locked filing cabinet. Then it will be coded and statistically analysed by the research team. All paper copies of the data will be kept in locked cabinets at all times, and no copies of these data will be personally identifiable, hence, strictly protecting privacy, confidentiality, and anonymity. Any documented information no longer required will be duly shredded by the researcher. If you take part, the information that is collected during this study will be

anonymised. The information that you provide will be safeguarded, and protected, to ensure your privacy and confidentiality. However, no participants in the study will be personally identified in any reports or publications, and, at all times, the information that you provide will be safeguarded and protected to ensure complete confidentiality.

**What will happen if I do not want to carry on with the study?**

There are no implications for you if you withdraw. It is your right to withdraw from the study at any time.

**Who is organising and funding the research?**

The research is organised by Swansea University as part of a PhD research project and it is funded by the Saudi Arabian Cultural Bureau in London.

**Who has reviewed the questionnaire?**

The questionnaire tools have been reviewed by the Human and Health Ethical Committee, Swansea University, the UK.

**Further information and contact details:**

For further information about this research study, please contact: Abrar Alghathami (Email: [REDACTED]) a PhD student at Swansea University, supervised by Dr. Justine Howard and Dr. Peter King.

**Thank you very much for taking the time to read this Participant Information Sheet.**

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### **APPENDIX (3) CONSENT FORM (FOR CHILDREN’S PARENTS/ CAREGIVERS)**

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#### **The impacts of play intervention on children’s social-emotional skills in Riyadh, Saudi Arabia.**

Dear parents/caregivers,

I am a PhD student\* at Swansea University, United Kingdom, and I am happy to invite you and your child to participate in this study. The purpose of this study is to measure the impacts of a play-based intervention on preschool children’s social-emotional skills in Riyadh, Saudi Arabia. The intervention will take 6 weeks; this will string along with assessing child’s social-emotional skills and will be followed by a short chat with your child about his/her experiences (approximately 10 minutes). The results of this study will help to understand the role of play on children’s social-emotional skills, it is necessary to provide educational practices and reinforce pre-school learning in Saudi Arabia. Your and your child’s replies will be anonymous and will only be reported in aggregate. Participation in this study will not cause you or your child any risk or inconvenience. Participation is voluntary and if you would like to withdraw from the study, you may do so at any time without any negative consequences. By completing and turning in this consent form, you are verifying that you have read the explanation of the study, and you agree to participate.

**Thank you very much for participating. We wish you all the best.**

#### **Please initial box**

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily.

2. I understand that my child’s participation is voluntary and that he/she is free to withdraw at any time without giving any reason.

3. I agree to my child taking part in the above study.

**Name of child-----**

**Signature of parent/ caregiver-----**

\*This study is under the supervision of Dr. Justine Howard and Dr. Peter King. If you have any comments, kindly contact us on this email: [REDACTED]

Sr.No# .....

## APPENDIX (4) CONSENT FORM (FOR TEACHERS)

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### **The impacts of play intervention on children's social-emotional skills in Riyadh, Saudi Arabia.**

Dear teacher,

I am a PhD student\* at Swansea University, United Kingdom, and I am happy to invite you to participate in this study. The purpose of this study is to measure the impacts of a play-based intervention on preschool children's social-emotional skills in Riyadh, Saudi Arabia. The intervention will take 6 weeks; the assessment tool for children will take approximately 20 to 30 minutes to complete, and finally a 20-30 minute interview with you will be held. The results of this study will help to understand the role of play on children's social-emotional skills; it is necessary to provide educational practices and reinforce pre-school learning in Saudi Arabia. Your replies will be anonymous and will only be reported in aggregate. Participation in this study will not cause you any risk or inconvenience. Participation is voluntary and if you would like to withdraw from the study, you may do so at any time without any negative consequences. By completing and turning in this consent form you are verifying that you have read the explanation of the study, and you agree to participate.

Thank you very much for participating. We wish you all the best and success.

#### **Please initial box**

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.

3. I agree to take part in the above study.

**Signature of Participant** \_\_\_\_\_

\*This study is under the supervision of Dr. Justine Howard and Dr. Peter King. If you have any comments, kindly contact us on this email: [REDACTED]

Sr.No# .....

## **APPENDIX (5) DEBRIEFING FORM (CHILDREN’S PARENTS/ CAREGIVERS)**

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### **The impacts of play intervention on children’s social-emotional skills in Riyadh, Saudi Arabia.**

Dear parent/ caregiver

Thank you for participating in this study. The study is concerning the impacts of a play-based intervention on preschool children’s social-emotional skills, teachers’ perception toward it, and children’s experiences.

The results of the study will be analysed and sent to your child’s kindergarten, and you are welcome if you would like to look at it at any time. We greatly appreciate your cooperation.

If you have any questions regarding this study, please feel free to ask the researcher at any time by contacting Abrar Alghathami ([REDACTED])

In the event that you feel psychologically distressed by participation in this study, we encourage you to call Dr. Justine Howard OR Dr. Peter King, Swansea University, Swansea, UK. Tel: [REDACTED]

Thank you very much for participating. We wish you all the best.

**Abrar Alghathami.**

\*This study is under the supervision of Dr. Justine Howard and Dr. Peter King. If you have any comments, kindly contact us on this email: [REDACTED]



## **APPENDIX (6) DEBRIEFING FORM (TEACHERS)**

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### **The impacts of play intervention on children's social-emotional skills in Riyadh, Saudi Arabia.**

Dear teacher ....

Thank you for participating as a research participant in the present study concerning the impacts of a play-based intervention on preschool children's social-emotional skills, teachers' perception toward it, and children's experiences.

Again, we thank you for your participation in this study. The results of the study will be analysed and sent to your personal email and your workplace (kindergarten) to share the findings with you. We greatly appreciate your cooperation and recommendations.

If you have any questions regarding this study, please feel free to ask the researcher at any time by contacting Abrar Alghathami (email: [REDACTED])

In the event that you feel psychologically distressed by participation in this study, we encourage you to call Dr. Justine Howard OR Dr. Peter King, Swansea University, Swansea, UK. Tel: [REDACTED]

Thank you very much for participating. We wish you all the best.

Abrar Alghathami.

\*This study is under the supervision of Dr. Justine Howard and Dr. Peter King. If you have any comments, kindly contact us on this email: [REDACTED]

## APPENDIX (7) SDQ QUESTIONNAIRE

### Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name .....

Male/Female

Date of Birth.....

|   | Not<br>True              | Somewhat<br>True         | Certainly<br>True        |
|---|--------------------------|--------------------------|--------------------------|
| Considerate of other people's feelings                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Restless, overactive, cannot stay still for long                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Often complains of headaches, stomach-aches or sickness             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Shares readily with other children (treats, toys, pencils etc.)     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Often has temper tantrums or hot tempers                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Rather solitary, tends to play alone                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Generally obedient, usually does what adults request                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Many worries, often seems worried                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Helpful if someone is hurt, upset or feeling ill                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Constantly fidgeting or squirming                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Has at least one good friend  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Often fights with other children or bullies them                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Often unhappy, down-hearted or tearful                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Generally liked by other children                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Easily distracted, concentration wanders                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Nervous or clingy in new situations, easily loses confidence        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Kind to younger children  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Often lies or cheats  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Picked on or bullied by other children                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Often volunteers to help others (parents, teachers, other children) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Thinks things out before acting                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Steals from home, school or elsewhere                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Gets on better with adults than with other children                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Many fears, easily scared   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sees tasks through to the end, good attention span                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Signature .....

Date .....

Parent/Teacher/Other (please specify:)

**Thank you very much for your help**

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## **APPENDIX (8) TEACHERS' INTERVIEW**

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Teachers after each week of the intervention will be asked how the intervention is going. The final interview will be guided by the analysis of teachers' discussion. The final interview could include the following open questions.

- 1- How was your class during the play session?**
- 2- What was your experience of using the play intervention?**
- 3- Did you like the method of using the play intervention? Why?**
- 4- What was the benefit (if any) of using play intervention?**
- 5- What kind of challenges have you met in using the play intervention?**
- 6- Are you planning to use play intervention in the future? Why?**

## **APPENDIX (9) FOCUS GROUP FOR CHILDREN**

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During the intervention's play sessions, children will be asked to take photos of their favourite and less favourite materials and activities (photos of the materials not of each other). Focus group discussions at the end of the intervention will be held with children to discuss photos and talk about their experiences and points of view of the play intervention. Discussion will include the following points:

**1- These are your most favourite materials, why do you like them?**

**2- These are your least favourite materials, why are they your least favourite?**

## APPENDIX (10) SWANSEA UNIVERSITY ETHICAL APPROVAL

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25<sup>th</sup> April 2018

080318

The Impact of a Play Intervention on the Social-Emotional Skills of Kindergarten Children in Riyadh, Saudi Arabia

Abrar Alghathami

Dear Abrar

**Confirmation of Ethical Approval**

We would like to confirm that your research application entitled: "The Impact of a Play Intervention on the Social-Emotional Skills of Kindergarten Children in Riyadh, Saudi Arabia" was reviewed by members of the Swansea University CHHS Ethics Committee and was given approval on 23rd April 2018.

Regards,



Sherrill Snelgrove  
Chair, CHHS Research Ethics Committee  
[www.chhsresearchethics.swan.ac.uk](http://www.chhsresearchethics.swan.ac.uk)

# APPENDIX (11) MINISTRY OF EDUCATION IN SAUDI ARABIA

## ETHICAL APPROVAL

الرقم : ٢٢٩٤٠

التاريخ : ١٤٢٩/٨/٢٢

المرفقات : رسالة



وزارة التعليم  
Ministry of Education

المملكة العربية السعودية

وزارة التعليم

٢٨٠

الإدارة العامة للتعليم بمنطقة الرياض

إدارة التخطيط و المعلومات

---

تسهيل مهمة باحث

|                           |                |
|---------------------------|----------------|
| الاسم                     | السجل المدني   |
| أبرار بنت عبدالله العذامي | ١٠٠٧٨١٣٦٥٠     |
| العام الدراسي             | الدرجة العلمية |
| ١٤٣٩/١٤٣٨ هـ              | الدكتوراه      |
| جامعة سوانسيا / بريطانيا  | الجامعة        |

عنوان الدراسة: تأثير اللعب على مهارات الأطفال الاجتماعية والانفعالية في المملكة العربية السعودية .

عينة الدراسة : معلمة / طالبة .

المكرمة : قائدة مدرسة عهد الأهلية

المكرمة : قائدة مدرسة العناية الأهلية

السلام عليكم ورحمة الله وبركاته ، وبعد :

إشارة إلى قرار معالي وزير التعليم رقم ٣٨٧١٧٠٨٠ وتاريخ ١٤٣٨/٥/١٢ هـ بشأن تفويض الصلاحيات لمديري التعليم ، وبناءً على قرار سعادة مدير عام التعليم بمنطقة الرياض رقم ٣٨٩٢٠٧٩٣ وتاريخ ١٤٣٨/٦/٢٣ هـ بشأن تفويض الصلاحية لإدارة التخطيط و المعلومات لتسهيل مهمة الباحثين والباحثات ، وحيث تقدمت إلينا الباحثة ( الموضحة بياناتها أعلاه ) بطلب إجراء دراستها ، ونظراً لاكمال الأوراق المطلوبة نأمل تسهيل مهمتها . على أن تبدأ مع بداية الفصل الدراسي الأول للعام الدراسي ١٤٣٩ هـ / ١٤٤٠ هـ .

مع ملاحظة أن الباحثة تتحمل كامل المسؤولية المتعلقة بمختلف جوانب البحث ، ولا يعني سماح الإدارة العامة للتعليم موافقتها بالضرورة على مشكلة البحث أو على الطرق والأساليب المستخدمة في دراستها ومعالجتها .

وفقها الله

وفقها الله

شاكرين لكم وتقبلوا تحياتي..

مدير إدارة التخطيط و المعلومات

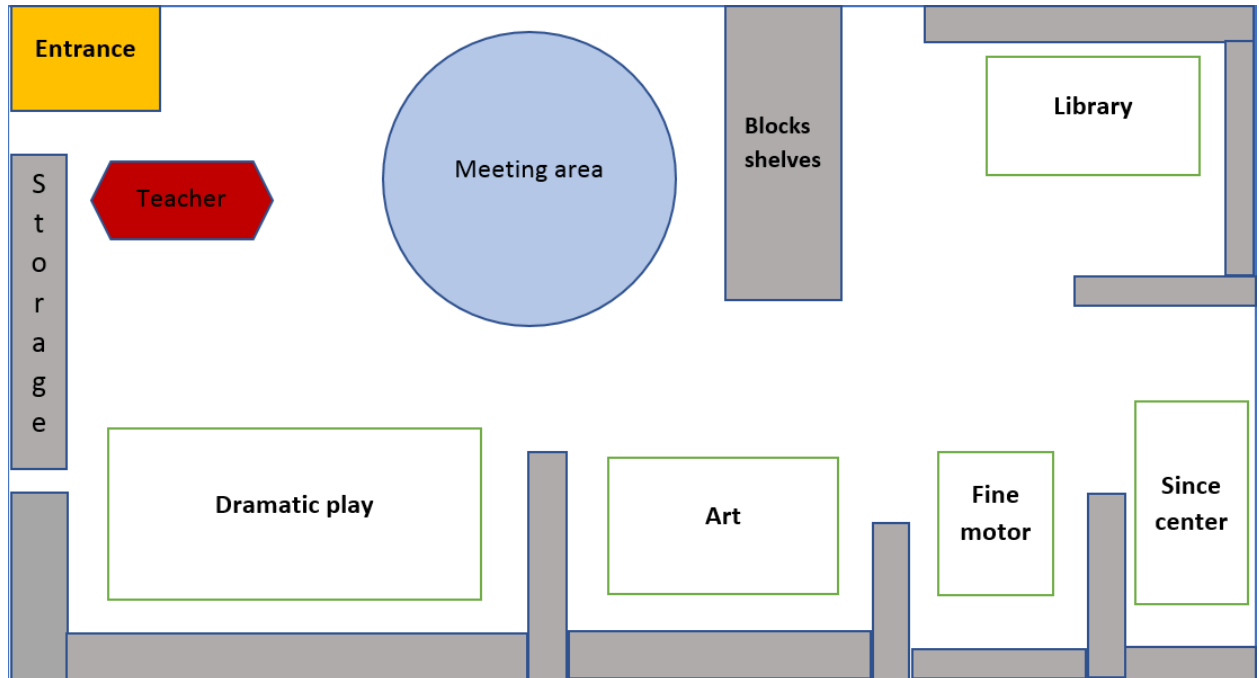
سعود بن راشد آل عبد اللطيف



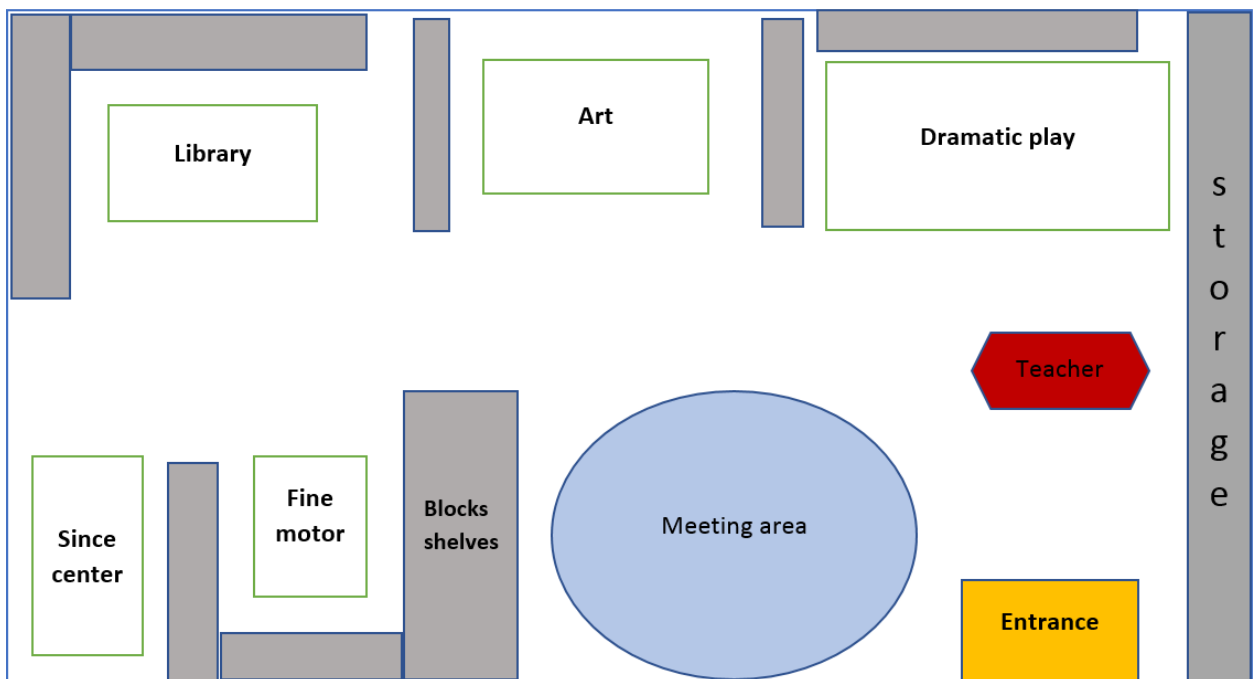
## APPENDIX (12) FLOOR PLAN FOR THE CLASS BEFORE INTERVENTION

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Floor plan for first preschool classroom

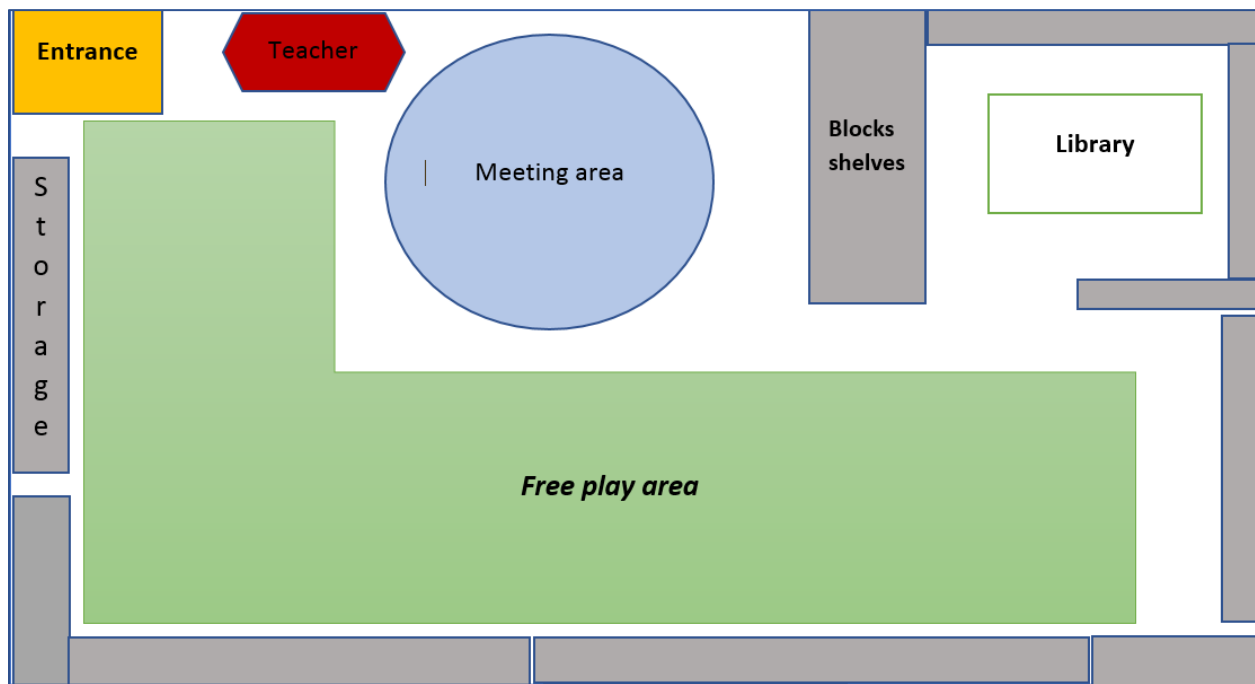


Floor plan for second preschool classroom

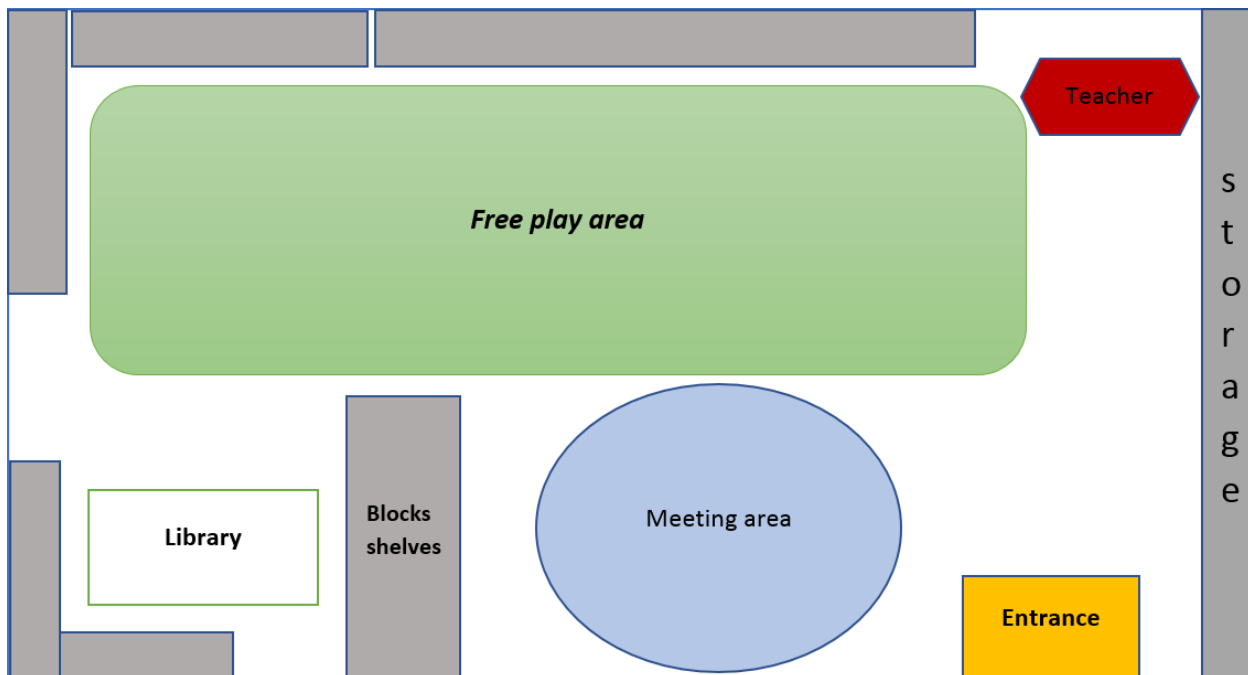


## APPENDIX (13) FLOOR PLAN FOR THE LPP INTERVENTION

Floor plan for first preschool classroom



Floor plan for second preschool classroom





## APPENDIX (14) TESTS OF NORMALITY SKEWNESS AND KURTOSIS FOR PARENTS SDQ

|                         |              | Tests of Normality              |    |      |              |    |      |
|-------------------------|--------------|---------------------------------|----|------|--------------|----|------|
|                         |              | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|                         | school group | Statistic                       | df | Sig. | Statistic    | df | Sig. |
| Parent emotion test 1   | Group A      | .213                            | 31 | .081 | .888         | 31 | .064 |
|                         | Group B      | .158                            | 28 | .073 | .903         | 28 | .053 |
| Parent conduct test 1   | Group A      | .203                            | 31 | .022 | .907         | 31 | .057 |
|                         | Group B      | .151                            | 28 | .102 | .949         | 28 | .185 |
| Parent hyper test 1     | Group A      | .156                            | 31 | .052 | .947         | 31 | .132 |
|                         | Group B      | .157                            | 28 | .073 | .913         | 28 | .064 |
| Parent peer test 1      | Group A      | .159                            | 31 | .055 | .938         | 31 | .075 |
|                         | Group B      | .203                            | 28 | .151 | .920         | 28 | .035 |
| Parent prosocial test 1 | Group A      | .138                            | 28 | .183 | .953         | 28 | .230 |
|                         | Group B      | .151                            | 31 | .071 | .930         | 31 | .075 |
| Parent total test 1     | Group A      | .151                            | 31 | .071 | .930         | 31 | .075 |
|                         | Group B      | .151                            | 28 | .102 | .949         | 28 | .185 |

a. Lilliefors Significance Correction

### Skewness AND Kurtosis

| Group A                |         | Parent emotion test 1 | Parent conduct test 1 | Parent hyper test 1 | Parent peer test 1 | Parent prosocial test 1 | Parent total test 1 |
|------------------------|---------|-----------------------|-----------------------|---------------------|--------------------|-------------------------|---------------------|
| N                      | Valid   | 31                    | 31                    | 31                  | 31                 | 31                      | 31                  |
|                        | Missing | 0                     | 0                     | 0                   | 0                  | 0                       | 0                   |
| Std. Deviation         |         | 1.183                 | .749                  | 1.566               | 1.167              | 1.221                   | 2.972               |
| Skewness               |         | .774                  | .339                  | -.314               | -.405              | -.406                   | .129                |
| Std. Error of Skewness |         | .421                  | .421                  | .421                | .421               | .421                    | .421                |
| Kurtosis               |         | -.957                 | -.993                 | -.661               | -.630              | -.996                   | -1.064              |
| Std. Error of Kurtosis |         | .821                  | .821                  | .821                | .821               | .821                    | .821                |
| Group B                |         | Parent emotion test 1 | Parent conduct test 1 | Parent hyper test 1 | Parent peer test 1 | Parent prosocial test 1 | Parent total test 1 |
| N                      | Valid   | 28                    | 28                    | 28                  | 28                 | 28                      | 28                  |
|                        | Missing | 0                     | 0                     | 0                   | 0                  | 0                       | 0                   |
| Std. Deviation         |         | 1.056                 | .832                  | 1.430               | 1.138              | 1.143                   | 2.860               |
| Skewness               |         | .306                  | .342                  | .647                | .095               | -.836                   | -.130               |
| Std. Error of Skewness |         | .441                  | .441                  | .441                | .441               | .441                    | .441                |
| Kurtosis               |         | -.642                 | .991                  | .639                | -.716              | -.961                   | -.690               |
| Std. Error of Kurtosis |         | .858                  | .858                  | .858                | .858               | .858                    | .858                |

| Tests of Normality      |              |                                 |    |      |              |    |      |
|-------------------------|--------------|---------------------------------|----|------|--------------|----|------|
|                         | school group | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|                         |              | Statistic                       | df | Sig. | Statistic    | df | Sig. |
| Parent emotion test 2   | Group A      | .268                            | 31 | .061 | .731         | 31 | .124 |
|                         | Group B      | .230                            | 28 | .053 | .859         | 28 | .053 |
| Parent conduct test 2   | Group A      | .237                            | 31 | .062 | .833         | 31 | .051 |
|                         | Group B      | .345                            | 28 | .102 | .807         | 28 | .185 |
| Parent hyper test 2     | Group A      | .219                            | 31 | .112 | .871         | 31 | .132 |
|                         | Group B      | .159                            | 28 | .061 | .899         | 28 | .064 |
| Parent peer test 2      | Group A      | .299                            | 31 | .055 | .713         | 31 | .075 |
|                         | Group B      | .243                            | 28 | .153 | .912         | 28 | .074 |
| Parent prosocial test 2 | Group A      | .238                            | 31 | .183 | .847         | 31 | .230 |
|                         | Group B      | .292                            | 28 | .071 | .790         | 28 | .062 |
| Parent total test 2     | Group A      | .153                            | 31 | .062 | .878         | 31 | .075 |
|                         | Group B      | .138                            | 28 | .183 | .958         | 28 | .306 |

a. Lilliefors Significance Correction

#### Skewness AND Kurtosis

| Statistics             |         |                       |                       |                     |                    |                         |                     |
|------------------------|---------|-----------------------|-----------------------|---------------------|--------------------|-------------------------|---------------------|
| Group A                |         | Parent emotion test 2 | Parent conduct test 2 | Parent hyper test 2 | Parent peer test 2 | Parent prosocial test 2 | Parent total test 2 |
| N                      | Valid   | 31                    | 31                    | 31                  | 31                 | 31                      | 31                  |
|                        | Missing | 0                     | 0                     | 0                   | 0                  | 0                       | 0                   |
| Std. Deviation         |         | .508                  | .402                  | 1.116               | .495               | 1.016                   | 1.315               |
| Skewness               |         | .068                  | -.431                 | .534                | .487               | -.068                   | .720                |
| Std. Error of Skewness |         | .421                  | .421                  | .421                | .421               | .421                    | .421                |
| Kurtosis               |         | -.838                 | .702                  | -1.133              | -.889              | -.938                   | -1.325              |
| Std. Error of Kurtosis |         | .821                  | .821                  | .821                | .821               | .821                    | .821                |
| Group B                |         | Parent emotion test 2 | Parent conduct test 2 | Parent hyper test 2 | Parent peer test 2 | Parent prosocial test 2 | Parent total test 2 |
| N                      | Valid   | 28                    | 28                    | 28                  | 28                 | 28                      | 28                  |
|                        | Missing | 0                     | 0                     | 0                   | 0                  | 0                       | 0                   |
| Std. Deviation         |         | 1.345                 | .441                  | .848                | 1.031              | .690                    | 2.149               |
| Skewness               |         | .213                  | -.321                 | .104                | .463               | -.806                   | -.246               |
| Std. Error of Skewness |         | .441                  | .441                  | .441                | .441               | .441                    | .441                |
| Kurtosis               |         | -.825                 | -.554                 | -.800               | .929               | .976                    | -.660               |
| Std. Error of Kurtosis |         | .858                  | .858                  | .858                | .858               | .858                    | .858                |

| Tests of Normality      |              |                                 |    |      |              |    |      |
|-------------------------|--------------|---------------------------------|----|------|--------------|----|------|
|                         | school group | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|                         |              | Statistic                       | df | Sig. | Statistic    | df | Sig. |
| Parent total test 3     | Group A      | .188                            | 31 | .061 | .816         | 31 | .064 |
|                         | Group B      | .162                            | 28 | .073 | .905         | 28 | .053 |
| Parent prosocial test 3 | Group A      | .221                            | 31 | .054 | .820         | 31 | .071 |
|                         | Group B      | .526                            | 28 | .102 | .361         | 28 | .205 |
| Parent peer test 3      | Group A      | .270                            | 31 | .052 | .784         | 31 | .132 |
|                         | Group B      | .282                            | 28 | .073 | .776         | 28 | .054 |
| Parent hyper test 3     | Group A      | .236                            | 31 | .060 | .895         | 31 | .065 |
|                         | Group B      | .277                            | 28 | .151 | .790         | 28 | .065 |
| Parent conduct test 3   | Group A      | .224                            | 31 | .183 | .855         | 31 | .230 |
|                         | Group B      | .295                            | 28 | .151 | .756         | 28 | .075 |
| Parent emotion test 3   | Group A      | .267                            | 31 | .071 | .720         | 31 | .056 |
|                         | Group B      | .374                            | 28 | .102 | .631         | 28 | .185 |

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#### Skewness AND Kurtosis

| Group A                |         | Parent emotion test 3 | Parent conduct test 3 | Parent hyper test 3 | Parent peer test 3 | Parent prosocial test 3 | Parent total test 3 |
|------------------------|---------|-----------------------|-----------------------|---------------------|--------------------|-------------------------|---------------------|
| N                      | Valid   | 31                    | 31                    | 31                  | 31                 | 31                      | 31                  |
|                        | Missing | 0                     | 0                     | 0                   | 0                  | 0                       | 0                   |
| Std. Deviation         |         | .508                  | .402                  | 1.116               | .909               | 1.016                   | 1.924               |
| Skewness               |         | .068                  | -.331                 | .534                | .487               | -.068                   | .437                |
| Std. Error of Skewness |         | .421                  | .421                  | .421                | .421               | .421                    | .421                |
| Kurtosis               |         | -.738                 | .702                  | -.903               | .697               | -.638                   | .713                |
| Std. Error of Kurtosis |         | .821                  | .821                  | .821                | .821               | .821                    | .821                |
| Group B                |         | Parent emotion test 3 | Parent conduct test 3 | Parent hyper test 3 | Parent peer test 3 | Parent prosocial test 3 | Parent total test 3 |
| N                      | Valid   | 28                    | 28                    | 28                  | 28                 | 28                      | 28                  |
|                        | Missing | 0                     | 0                     | 0                   | 0                  | 0                       | 0                   |
| Std. Deviation         |         | .418                  | .441                  | .535                | .460               | 1.020                   | 1.170               |
| Skewness               |         | .473                  | .221                  | .192                | .403               | -.069                   | .374                |
| Std. Error of Skewness |         | .441                  | .441                  | .441                | .441               | .441                    | .441                |
| Kurtosis               |         | .176                  | -.554                 | -.420               | -.676              | -.240                   | -.730               |
| Std. Error of Kurtosis |         | .858                  | .858                  | .858                | .858               | .858                    | .858                |

## APPENDIX (15) TESTS OF NORMALITY SKEWNESS AND KURTOSIS FOR TEACHERS SDQ

|                          |              | Tests of Normality |    |      |              |    |      |
|--------------------------|--------------|--------------------|----|------|--------------|----|------|
|                          |              | Kolmogorov-Smirnov |    |      | Shapiro-Wilk |    |      |
|                          | school group | Statistic          | df | Sig. | Statistic    | df | Sig. |
| teacher emotion test 1   | Group A      | .242               | 31 | .070 | .825         | 31 | .057 |
|                          | Group B      | .191               | 28 | .093 | .889         | 28 | .091 |
| teacher conduct test 1   | Group A      | .324               | 31 | .062 | .829         | 31 | .152 |
|                          | Group B      | .225               | 28 | .102 | .885         | 28 | .065 |
| teacher hyper test 1     | Group A      | .194               | 31 | .052 | .916         | 31 | .062 |
|                          | Group B      | .230               | 28 | .083 | .862         | 28 | .104 |
| teacher peer test 1      | Group A      | .150               | 31 | .073 | .918         | 31 | .125 |
|                          | Group B      | .272               | 28 | .080 | .770         | 28 | .065 |
| teacher prosocial test 1 | Group A      | .253               | 31 | .063 | .889         | 31 | .230 |
|                          | Group B      | .263               | 28 | .050 | .784         | 28 | .065 |
| teacher total test 1     | Group A      | .215               | 31 | .061 | .908         | 31 | .111 |
|                          | Group B      | .138               | 28 | .183 | .953         | 28 | .230 |

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### Skewness AND Kurtosis

|         |                        | teacher emotion test 1 | teacher conduct test 1 | teacher hyper test 1 | teacher peer test 1 | teacher prosocial test 1 | teacher total test 1 |
|---------|------------------------|------------------------|------------------------|----------------------|---------------------|--------------------------|----------------------|
| Group A | N                      | 31                     | 31                     | 31                   | 31                  | 31                       | 31                   |
|         | Valid                  | 31                     | 31                     | 31                   | 31                  | 31                       | 31                   |
|         | Missing                | 0                      | 0                      | 0                    | 0                   | 0                        | 0                    |
|         | Std. Deviation         | 1.503                  | .749                   | 2.446                | .791                | 2.172                    | 4.972                |
|         | Skewness               | .568                   | .486                   | .671                 | .663                | -.179                    | .715                 |
|         | Std. Error of Skewness | .421                   | .421                   | .421                 | .421                | .421                     | .421                 |
|         | Kurtosis               | .654                   | .759                   | .555                 | -.856               | .261                     | .885                 |
|         | Std. Error of Kurtosis | .821                   | .821                   | .821                 | .821                | .821                     | .821                 |
|         |                        | teacher emotion test 1 | teacher conduct test 1 | teacher hyper test 1 | teacher peer test 1 | teacher prosocial test 1 | teacher total test 1 |
| Group B | N                      | 28                     | 28                     | 28                   | 28                  | 28                       | 28                   |
|         | Valid                  | 28                     | 28                     | 28                   | 28                  | 28                       | 28                   |
|         | Missing                | 0                      | 0                      | 0                    | 0                   | 0                        | 0                    |
|         | Std. Deviation         | 1.103                  | 1.499                  | 2.663                | 1.944               | 1.858                    | 3.957                |
|         | Skewness               | .786                   | .437                   | .601                 | .760                | -.543                    | .650                 |
|         | Std. Error of Skewness | .441                   | .441                   | .441                 | .441                | .441                     | .441                 |
|         | Kurtosis               | .703                   | .657                   | .711                 | .835                | .699                     | .954                 |
|         | Std. Error of Kurtosis | .858                   | .858                   | .858                 | .858                | .858                     | .858                 |

|                          | school group | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |      |
|--------------------------|--------------|---------------------------------|----|-------|--------------|----|------|
|                          |              | Statistic                       | df | Sig.  | Statistic    | df | Sig. |
| teacher emotion test 2   | Group A      | .337                            | 31 | .071  | .708         | 31 | .064 |
|                          | Group B      | .241                            | 28 | .053  | .890         | 28 | .059 |
| teacher conduct test 2   | Group A      | .361                            | 31 | .062  | .674         | 31 | .054 |
|                          | Group B      | .239                            | 28 | .102  | .892         | 28 | .061 |
| teacher hyper test 2     | Group A      | .186                            | 31 | .076  | .886         | 31 | .064 |
|                          | Group B      | .259                            | 28 | .053  | .774         | 28 | .064 |
| teacher peer test 2      | Group A      | .224                            | 31 | .061  | .855         | 31 | .075 |
|                          | Group B      | .212                            | 28 | .151  | .868         | 28 | .055 |
| teacher prosocial test 2 | Group A      | .327                            | 31 | .183  | .739         | 31 | .230 |
|                          | Group B      | .228                            | 28 | .067  | .850         | 28 | .073 |
| teacher total test 2     | Group A      | .185                            | 31 | .071  | .843         | 31 | .085 |
|                          | Group B      | .125                            | 28 | .200* | .959         | 28 | .185 |

#### Skewness AND Kurtosis

| Group A                |         | teacher emotion<br>test 2 | teacher conduct<br>test 2 | teacher hyper<br>test 2 | teacher peer test<br>2 | teacher prosocial<br>test 2 | teacher total test<br>2 |
|------------------------|---------|---------------------------|---------------------------|-------------------------|------------------------|-----------------------------|-------------------------|
| N                      | Valid   | 31                        | 31                        | 31                      | 31                     | 31                          | 31                      |
|                        | Missing | 0                         | 0                         | 0                       | 0                      | 0                           | 0                       |
| Std. Deviation         |         | .643                      | .495                      | 1.668                   | .846                   | .783                        | 2.919                   |
| Skewness               |         | .575                      | -.487                     | .490                    | .258                   | -.759                       | .312                    |
| Std. Error of Skewness |         | .421                      | .421                      | .421                    | .421                   | .421                        | .421                    |
| Kurtosis               |         | .811                      | -.789                     | .781                    | -.670                  | .535                        | .713                    |
| Std. Error of Kurtosis |         | .821                      | .821                      | .821                    | .821                   | .821                        | .821                    |
| Group B                |         | teacher emotion<br>test 2 | teacher conduct<br>test 2 | teacher hyper<br>test 2 | teacher peer test<br>2 | teacher prosocial<br>test 2 | teacher total test<br>2 |
| N                      | Valid   | 28                        | 28                        | 28                      | 28                     | 28                          | 28                      |
|                        | Missing | 0                         | 0                         | 0                       | 0                      | 0                           | 0                       |
| Std. Deviation         |         | 1.105                     | .945                      | 1.679                   | 2.008                  | 1.607                       | 3.151                   |
| Skewness               |         | .879                      | .469                      | .605                    | .355                   | -.842                       | .093                    |
| Std. Error of Skewness |         | .441                      | .441                      | .441                    | .441                   | .441                        | .441                    |
| Kurtosis               |         | .803                      | -.505                     | .973                    | .998                   | .953                        | -.496                   |
| Std. Error of Kurtosis |         | .858                      | .858                      | .858                    | .858                   | .858                        | .858                    |

|                          |              | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|--------------------------|--------------|---------------------------------|----|------|--------------|----|------|
|                          | school group | Statistic                       | df | Sig. | Statistic    | df | Sig. |
| teacher emotion test 3   | Group A      | .332                            | 30 | .051 | .731         | 30 | .064 |
|                          | Group B      | .513                            | 28 | .062 | .419         | 28 | .073 |
| teacher conduct test 3   | Group A      | .354                            | 30 | .059 | .703         | 30 | .051 |
|                          | Group B      | .367                            | 28 | .102 | .622         | 28 | .185 |
| teacher hyper test 3     | Group A      | .204                            | 30 | .052 | .854         | 30 | .132 |
|                          | Group B      | .264                            | 28 | .073 | .807         | 28 | .084 |
| teacher peer test 3      | Group A      | .226                            | 30 | .065 | .849         | 30 | .075 |
|                          | Group B      | .241                            | 28 | .121 | .780         | 28 | .085 |
| teacher prosocial test 3 | Group A      | .278                            | 30 | .183 | .789         | 30 | .071 |
|                          | Group B      | .298                            | 28 | .058 | .633         | 28 | .085 |
| teacher total test 3     | Group A      | .182                            | 30 | .074 | .855         | 30 | .057 |
|                          | Group B      | .272                            | 28 | .062 | .787         | 28 | .185 |

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| Group A                |         | teacher emotion<br>test 3 | teacher conduct<br>test 3 | teacher hyper<br>test 3 | teacher peer test<br>3 | teacher prosocial<br>test 3 | teacher total test<br>3 |
|------------------------|---------|---------------------------|---------------------------|-------------------------|------------------------|-----------------------------|-------------------------|
| N                      | Valid   | 31                        | 31                        | 28                      | 31                     | 31                          | 31                      |
|                        | Missing | 0                         | 0                         | 3                       | 0                      | 0                           | 0                       |
| Std. Deviation         |         | .643                      | .495                      | 1.737                   | .846                   | .783                        | 2.919                   |
| Skewness               |         | .475                      | -.487                     | .313                    | .258                   | -.759                       | .602                    |
| Std. Error of Skewness |         | .421                      | .421                      | .421                    | .421                   | .421                        | .421                    |
| Kurtosis               |         | .721                      | -.889                     | .539                    | -.570                  | .535                        | .913                    |
| Std. Error of Kurtosis |         | .821                      | .821                      | .821                    | .821                   | .821                        | .821                    |
| Group B                |         | teacher emotion<br>test 3 | teacher conduct<br>test 3 | teacher hyper<br>test 3 | teacher peer test<br>3 | teacher prosocial<br>test 3 | teacher total test<br>3 |
| N                      | Valid   | 28                        | 28                        | 28                      | 28                     | 28                          | 28                      |
|                        | Missing | 0                         | 0                         | 0                       | 0                      | 0                           | 0                       |
| Std. Deviation         |         | .315                      | .962                      | 1.823                   | 1.503                  | 1.569                       | 3.735                   |
| Skewness               |         | .586                      | .515                      | .408                    | .617                   | -.506                       | .314                    |
| Std. Error of Skewness |         | .441                      | .441                      | .441                    | .441                   | .441                        | .441                    |
| Kurtosis               |         | .614                      | .644                      | .702                    | -.805                  | .929                        | .703                    |
| Std. Error of Kurtosis |         | .858                      | .858                      | .858                    | .858                   | .858                        | .858                    |