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**Mediating self-regulation in a  
kindergarten class in South Africa:  
An exploratory case study.**

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MASTERS BY DISSERTATION ONLY

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***COMPULSORY DECLARATION***

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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## **ABSTRACT**

This thesis examines the role of a teacher as a mediator who has the potential to facilitate self-regulation in preschool learners. The study examines whether, within a South African classroom case study, the conscious mediation by an educator, together with the use of scaffolding within Vygotsky's theory of (ZPD), enables preschoolers to successfully achieve self-regulation and thereby manage their cognitive and emotional development. The constructs of emotional intelligence and how they link to socio-emotional learning, are discussed. This qualitative case study was informed by Karpov and Vygotsky's theories on how children learn and develop self-regulatory processes. It involved a demographic of twenty-five preschool learners in a multi-cultural South African preschool. Extending the period of fantasy play, providing appropriate dialogue, working with a fairytale theme within the classroom environment and consciously managing organizational and problem-solving skills, were the methods used to promote self-regulation. The variables tested were problem-solving skills, organizational skills and emotional competency. Testing took place by means of filmed observation and interviews. A significant contrast emerged between the pre-mediation and post-mediation conditions in each of these three areas, which suggests that conscious mediation is a valuable means of promoting self-regulation. The significance of self-regulation in education is discussed.

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## **LIST OF ABBREVIATIONS**

Emotional intelligence (EI)	7
Emotional competence (EC)	8
Emotional Quotient (EQ)	7
Outcomes Based Education (OBE)	9
Early childhood Development (ECD)	9
Western Cape Education Department (WCED)	9
National Curriculum Statement (NCS)	10
Zone of Proximal Development (ZPD)	21
International Federation of Football Association (FIFA)	82

## **1 INTRODUCTION**

Three years ago, the school at which the researcher works recognized the need for a programme in Emotional Intelligence (EI) (Bar-on, 2003) and has been running this programme with some success. The term ‘Emotional Intelligence’ was first used in 1990 by Salovey and Mayer who described it as:

the ability to perceive accurately, appraise and express emotions; the ability to access and or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth.

(Mayer & Salovey, 2001, p.10)

Daniel Goleman (1995 & 2007) popularized Emotional Intelligence and raised awareness around the importance of social intelligence through his books on the subject but it was Reuben Bar-on (2003) who coined the term “EQ” emotional quotient.

Zeidner, Matthews, Roberts and MacCann (2003) point out the difficulties around defining and even labeling EI. They put forward the notion that the character of emotional intelligence changes depending on what is being analyzed and what the influences may be. EI is more biologically based when looking at the individual temperaments of learners but more social when examining self-regulation. Both are considered important. Furthermore EI changes as the child develops and becomes more aware. They suggest that the label of EI be used as a general term for emotional

skills but that Saarni's (2000) title of Emotional Competence (EC) is better suited to the aspects of self-regulation. Zeidner et al (2003, p.86) describe E.C as a "truly mixed model, explicitly involving context and the self in developing, maintaining and expressing competence and emphasizing the role of social relationships, disposition and motivation as well as one's developmental history." The mediator, in this case the researcher, must take all of this into account when assisting the learner to obtain levels of self-regulation. Self-regulation is an important aspect of EC because an emotionally competent individual is better able to regulate their behaviour and consequently succeed in their goals. For the purposes of this thesis which focuses specifically on self-regulation, emotional intelligence will be referred to as either emotional skills or EC

As an educator the researcher had been consciously mediating, providing clearly defined boundaries, helping learners to understand their emotions and those of their peers, and had used a variety of forms of encouragement whilst modeling appropriate behaviour for instance sharing and caring; labeling our feelings; providing problem-solving dialogue and positive reinforcement for appropriate behaviour.

## **1.1 Statement of problem**

Bodrova and Leong (2007) urge educators to allocate more time to play in the preschool programme because it is through play that the child moves forward and develops. "...play contains all developmental tendencies in a condensed form; in play it is as though the child were trying to jump above the level of his normal behavior" (Vygotsky, 1933, p.16). This would

suggest that play has the potential to help the preschooler to regulate their behaviour. In the researcher's experience, prior to the implementation of Outcomes Based Education (OBE) the curriculum for Early Childhood Development (ECD) was focused on familiarising learners with their alphabet and numbers, producing artwork linked to themes and providing lengthy periods of supervised play. In South African classrooms much of the play centered on household themes and whilst educators were present, they were not actively mediating. Rubtsov and Yudina (2010) argue that current studies show a tendency to spend the preschool years cramming knowledge of numbers, letters and phonics into the daily programme and that the reason for this is the natural desire to learn that is exhibited by most preschool students and consequently exploited by policy makers. "...the child's development is artificially accelerated and the preschool education is made more "adult" " (Rubtsov & Yudin, 2010, p.8). Rubtsov and Yudin consider this a grave error on the part of educators and support the concept that play should be encouraged.

The researcher's experience has been that the importance of ECD in South African schools has been elevated but there remains confusion about how to provide opportunities for learners coming from diverse cultural backgrounds to develop their full potential. When the Western Cape Education Department (WCED) introduced OBE they placed the emphasis on literacy, numeracy and life skills and required educators to provide evidence that they were 'getting results' (Firmani, 2003). The need for accountability stemmed from South Africa's apartheid background which had rendered many educators poorly equipped to teach and consequently under-performing (Taylor, 2008). Continuous assessment determined accountability resulting

in educators spending too much time assessing and insufficient time dedicated to creativity and play. It could be argued that the inclusion of life skills as one of the key areas of learning was an attempt to acknowledge the importance of the child's emotional and social development. Our National Curriculum statement (NCS) describes critical outcomes which should promote learners who are "responsible... members of a team...able to manage themselves and work effectively" (NCS 2002, p. 1). These are all qualities that are inherent in an individual who is displaying self-regulation. What appears to be lacking in the curriculum is the guidance necessary for educators to achieve the latter together with continuous assessment requiring a prematurely formal learning environment (Taylor, 2008).

Whilst alternative philosophies of education such as Montessori or Steiner schools are available in South Africa, these are generally private and therefore limited to a more privileged class. Steiner education places more emphasis on creativity and play which would suggest that learners would have the opportunity to develop self-regulation (Petrasch, 2002). What is not certain however is if the 'play' involves conscious mediation on the part of the educator which would be necessary if the learner is to achieve internalization of new concepts. Montessori education allows for learning through self-discovery with opportunities for learners to choose how they wish to learn and when (Lillard, 2006). It particularly emphasizes the importance of preschool education. This researcher would argue that without conscious mediation on the part of the educator, there is potential for little or no learning to take place irrespective of the chosen philosophy of education. These issues are outside the realm of this thesis or case study but should be explored in future research.

Bodrova and Leong (2007) noted in their observations of various preschools throughout the United States that learners showed a limited variety of themes in their role play; they indulged in re-enacting television programmes that were violent and they required realistic props in order to act out their games. Props according to Bodrova and Leong (2007) are of key importance to the preschoolers' ability to regulate role play as it is the props that determine which role has been assigned to a child thereby serving as an external mediator. For example if a child is wearing a crown then they would be seen as a princess but if they are draped in a blanket and holding a stick they may be seen as the wicked witch. Multifaceted props such as a cloth or broom stick are preferable to realistic props because they enable the child to explore possibilities and thereby develop their imagination.

Bodrova and Leong (2007) attribute immature play skills to children having too many organized extra-murals which are designed to teach specific skills but which do not allow for the development of socio-dramatic play that would result in learners acquiring fundamental social skills. They argue that most school programmes do not pay attention to underlying cognitive and emotional competencies and do not address the child's ability to self-regulate (Bodrova & Leong, 2005). This means therefore that parents are actually defining the goals for their children and the child is not learning to shape goals for themselves.

What has become evident to the researcher from anecdotal evidence, as an educator teaching five- to seven-year old learners is:

- 1) That they are frequently acting out television programmes and their language development is often poor.
- 2) They are struggling to resolve conflict.
- 3) They are disorganized with their tasks and struggle to plan their creative activities.
- 4) They frequently mislay or lose their possessions.
- 5) They are impulsive in their actions when they physically lash out at another learner or say things that are inappropriate. This is also seen in impulsive behaviour that can lead to accidents when learners play in a dangerous manner.
- 6) They sometimes lack motivation to persevere with a more challenging task and consequently rush through the task.
- 7) Some learners are having difficulty initiating play and also sustaining a game.

When the researcher intervened and provided appropriate dialogue and problem-solving techniques, the learners appeared to be able to regulate their behaviour. Additionally, when the researcher focused on emotions and made learners more aware of what they were feeling at any given time and validated their feelings by listening to them during a care circle<sup>1</sup>, they seem less impulsive and better able to understand their feelings and those of their peers. When the researcher set goals and unpacked a task in order to help a learner plan their activity, they seem better able to achieve an end result. Karpov (2005) views conscious mediation of self-regulation as beneficial to learning in a preschool setting because preschoolers are seen to learn

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<sup>1</sup> A care circle is a morning ring in which learners state how they are feeling using a rating of 1-4 on their fingers.

primarily through play but this play according to Karpov needs to be carefully mediated in order to fully benefit the learner. This would therefore suggest that Karpov's (2005) view of conscious mediation fostering the development of self-regulation within the preschool setting could be beneficial to the cognitive and emotional development of the learner. As an educator, the researcher was therefore providing some form of mediation and helping the learners to notice what they were feeling at a particular time and in so doing they appeared to be less impulsive. This in turn helped them to begin to regulate their behaviour and to draw from past experience to determine what behaviour was appropriate in a given situation (Van der Veer & Valsiner, 1991). This case study aimed to prove if conscious mediation could bring about an improvement in learner's capacity to self-regulate. The importance of self-regulation is evident in Bodrova and Leong's (2007) suggestion that by managing their behaviour the child is better able to develop emotionally and consequently should be open to the cognitive development that is part of our schooling system. By this they mean that when a learner is controlling their emotions they are free to learn rather than receiving negative feedback from an educator or possibly wasting time involved in inappropriate activities.

## 1.2 Aim

The aim of this study was to determine whether conscious mediation on the part of the educator would facilitate self-regulation in the development of the preschoolers participating in a South African case study.

In this thesis, self-regulation refers to:

.....a deep internal mechanism that underlies mindful, intentional and thoughtful behaviours of children. It is the capacity to control one's impulses, both to stop doing something (even if one wants to continue doing it) and to start doing something (even if one doesn't want to do it). Self-regulated children can delay gratification and suppress their impulses long enough to think ahead to the possible consequences of their action, or to consider alternative actions that would be more appropriate.

(Bodrova & Leong, 2005, p.55)

The term "mediation" is defined by Bodrova and Leong (2007) as a means by which the educator contributes to the restructuring of the child's mind by promoting the transformation of lower mental functions into higher mental functions. The educator, as mediator, provides the scaffolding which allows the child to make the transition from a position of maximum assisted performance to one of independent performance thereby achieving self-regulation (Bodrova & Leong, 2007). This understanding of mediation is the definition upon which this thesis is grounded.

Karpov (2005), an eminent scholar in the Neo-Vygotskian mould, discusses how children acquire self regulation by means of conscious mediation by the educator within a fantasy corner and general classroom environment. He suggests that it is only when the educator actively provides the necessary dialogue to resolve conflict, provides tools for problems solving, unpacks tasks into manageable steps and sets up fantasy corners that stimulate learners to explore the adult world, that self-regulation will be optimized by the mediator. This concept interested the researcher as a preschool teacher who had observed the interaction of preschoolers whilst playing in the fantasy corner, and following the tradition (in my experience) of South African classrooms whereby we simply allow learners to freely play and do not mediate unless a crisis ensues. By “fantasy play area”, the researcher means the area in the classroom that is constructed in such a way as to allow for children to indulge in role play and to use props to promote their fantasy. This area can be consciously developed by the educator by using particular themes such as themes from fairy tales or themes from our working environments such as a household or a supermarket.

In the fantasy corner, when dressing up as a “mother” going to work and talking on her cellular phone, the learner has the opportunity to socialize with their peers and to try out aspects of the adult world and in so doing they begin to develop self-regulation. Jerome S. Bruner a prominent American psychologist who has made substantial contributions to cognitive psychology and learning theory, says that “Imitation of adult patterns takes place not directly, but through incorporation in play” (Bruner, 1977, p.179). He argues that children play first and foremost because it is enjoyable and they are good at it but also that play performs the important function of

enabling the child to appreciate the rules of the society in which they live (Bruner, 1971). Furthermore the child is able to experience a reduction in the pressures of impulse and begin the process of intrinsic learning (Bruner, 1971).

Karpov (2005) advocates fostering a more deliberate application of this cognitive skill by means of mediation. He suggests that it is important for learners to have plenty of opportunities to play and would agree with Bruner that it is in this environment that self-regulation begins to become intrinsic. He would take it further however in that he feels it is important for the mediator (the educator) to play a bigger role in facilitating the process of internalization of learning. This he deems possible when the educator provides an appropriate learning environment and consciously supplies the dialogue necessary to resolve conflict or solve problem.

Elkonin (1974) a soviet psychologist and student of Lev Vygotsky, suggests that it is at the end of preschool that children begin to manage their emotions in a more “thoughtful” manner and this is the beginning of more regulated emotions and behaviour. This was particularly relevant to this thesis in that the age group that made up the case study comprised the year before Grade 1 and consequently the end of preschool. It would therefore be expected that these learners should show signs of internalizing self-regulation and understanding the rules of the society in which they participate. Educational psychologists Bodrova and Leong (2007) would agree with Elkonin and his suggestion that preschoolers would now be at a stage of development that supports self-regulation.

As toddlers, children are impulsive in their behaviour but as preschoolers, according to Bodrova and Leong (2007) they have begun to learn from past experiences and this helps them to regulate their behaviour. In the act of play the preschooler will have had ample opportunity to understand rules in a game, possibly experience rejection by their peers when they fail to respect the rules and acceptance when they lead a game successfully. Physical self-regulation begins before cognitive regulation which is more complete by the end of elementary school (Bodrova & Leong, 2007).

Bodrova and Leong state that it is important to realize that self-regulation has two aspects namely the behaviour which the child should avoid as well as the behaviour that they should employ. For Bodrova and Leong (2007), a truly self-regulated child is able to adopt intentional behaviour, think before acting and respond appropriately to any given situation. For example a self-regulated preschooler should be able to recognize the need to ask for a particular toy rather than snatch from a peer and to offer to share the toy at a given time and in so doing gaining *kudos* with their friends.

Karpov (2005) puts forward the notion that the adult plays a key role in the child's ability to develop self-regulation because it is the adult who presents an attitude towards learning, provides stimulating objects, models situational language and helps the child to develop their motivation to learn. This role is performed by the educator in the preschool classroom when she provides tools for learning such as material that can be draped as a cape or used as a tent; when she gives the child the dialogue to resolve a conflict for instance "Please may I have a turn with the princess crown"; when she sets up creative activities that stimulate new learning and provide discussion, for

example planting beans and making a giant beanstalk. Language is intimately tied to actions and this enables the child to internalise their new learning and develop levels of self-regulation (Karpov, 2005). Private speech together with reacting to peers and or educators, helps the child to learn to regulate behaviour and internalise new learning (Wertsch, 1979).

At the preschool level objects can be manipulated to represent any manner of things for example, a wooden block could be a cellphone and a piece of netting, a veil. Whilst indulging in this type of fantasy play, the learners are continuously describing how the game will be played out. In this way according to Vygotsky, they are organizing their thinking and regulating their behaviour (Van der Veer & Valsiner, 1991). As an infant the child is initially interested in manipulating objects presented to them by the adult or primary caregiver on whom the child is largely focused (Bruner, 1977). The child changes from simply exploring their environment to observing the links between the objects they are manipulating and their purpose. The focus changes to one of object-orientated actions whereby the adult draws the child's attention to the context of the object; a spoon is used for eating (Karpov, 2005: p. 86). The importance of language and social interaction between the adult and the child was highlighted by Vygotsky.

The relevance of Vygotsky's perspective on mediation and internalization is often noted and is firmly grounded in verbal activities within a socio-cultural setting (Fox & Riconscente, 2008). The child becomes aware of the structure of their thought processes, for example at preschool level they know that they are feeling angry because they are unable to dictate how a game is to be played, and they need help to direct and control their thoughts

in order to resolve their conflict. This would potentially mean coming to an educator or more mature peer to ask how they may calm down and learn to play without conflict (Fox & Riconscente, 2008). Vygotsky (1967) suggests that the child first uses external speech to clarify their situation and may even ask the educator or more mature peer to assist them to find the appropriate dialogue, but ultimately they internalise speech and thought as they become more practiced in any given situation within a social setting “...the meaning of words are shared by a community and therefore understood” (Bodrova & Leong, 2007, p.64).

Bruner (1985) interprets Vygotsky’s ideas on language and its significance for the child as beginning first with the child’s interaction with an adult or more competent peer and then becoming sufficiently practiced to allow for internal dialogue. According to Muthivhi (2008), what Vygotsky and Bruner are suggesting is that language is important both as a means of social communication and as a means of learning at a deeper level. Vygotsky (1978) refers to this as “internalization” and is a natural progression from the language acquired in the home environment or school, to the inner dialogue which allows for the control of actions and problem solving: in other words the development of self-regulation. In order to understand how a child acquires self-regulation, the researcher needs to appreciate how the child learns. It is Piaget who has helped establish a theoretical framework within which educators can understand this complex process.

Piaget provides researchers with an in-depth appreciation for how the child internalises new information which results in their regulating their behaviour. For Piaget the child develops by means of restructuring

mechanisms of assimilation and accommodation which enable equilibration (Fox & Riconscente, 2008). By actively engaging with an object in the environment, the child comes to know the purpose of the object and internalises this information by shifting existing schemas (Lloyd, 1995). Vygotsky also suggests a process of adaptation which results in the transforming of the self but unlike Piaget, his emphasis is not on a formal operational process only but rather on the importance of social interaction and language. “Piaget emphasized the internal structuration of thought while, from Vygotsky’s point of view such structuration has to be considered against the background of how the sociocultural context within which it arises has, in turn, been structured” (Muthivhi & Broom, 2009: p. 2). Therefore interaction with peers assists with a shift in metacognition (the knowledge of our own thoughts and thought processes) as our peers serve as a means of comparison and alternative view point (Fox & Riconscente, 2008). A preschooler may therefore learn from their peers that sharing a toy is better than creating conflict because it allows for friendships to develop and opportunities to play a game.

Self-regulation for Piaget (1959) encompasses intentional regulation of thought and actions which are developed intellectually through problem solving, intention and direction of thought. The child moves towards self-regulation both emotionally and intellectually through acting on and in their environment. “Logic provides the rules of thought while morality provides the rules for feeling; intention and will are the self-regulatory vehicles bringing thought and action, emotion, and desire in line with these rules” (Fox & Riconscente, 2008, p. 380).

Piaget's cognitive constructivist theory and Lev Vygotsky's theory of mediation describes children as being active in their learning through their contact with other people and their environment. Both Vygotsky and Piaget stress the active intellectual effort that children have to make in order to develop and learn. Although much has been made of the differences between these two intellectual giants, Muthivhi and Broom feel that "the two theoretical traditions should motivate for their complimentary application in empirical research to facilitate a more comprehensive interpretation of observations" (2009, p.2).

In the role as a preschool educator, the researcher has had the opportunity to empirically observe Vygotsky's theoretical assertion that children play beyond their actual chronological years in order to imitate adult behaviour and achieve the latter. Therefore if a child of five years of age is pretending to be a learner being taught by her teacher, they are learning about adult relationships and the expectations of society. In this way according to Karpov (2005) society decides the leading activities but it is through socio-dramatic play that the child is able to experiment with role play and begin to understand the rules of the game. Vygotsky (1978) referred to this as the Zone of Proximal Development (ZPD). The ZPD is seen as a mental potential that we all have, but which can only be developed when we collaborate with someone who is more competent (Vygotsky, 1978). Thus, if a preschooler is struggling to resolve conflict during fantasy play, when given the correct dialogue and guidance, namely some form of mediation, they should be able to develop self-regulation.

Jerome Bruner (Lloyd, 1995) developed the theory of ZPD further by introducing the idea of “scaffolding” whereby the more competent adult provides support for new learning but slowly withdraws the support as the learner becomes more capable. This is essentially how the educator is able to mediate within a learning environment. The educator may initially provide the dialogue to resolve conflict around sharing a particular ‘dressing up’ item and perhaps suggest that learners determine who will be given an opportunity to use a particular dress up tool on a given day, thereby helping learners to plan their play (Bodrova & Leong, 2007). The learners may need repeated reminding of how to ask for something and how to share the item but slowly they will begin to employ these techniques without needing support or scaffolding from the educator. The educator can then begin to remove their support and new learning will have occurred. Karpov (2005) emphasizes the importance of the educator consciously fostering self-regulation through mediation in the context of joint activity both in socio-dramatic play and the classroom environment and that this results in internalization of new learning and consequently the development of self-regulation. Self-regulation is a learnt developmental capacity which we all acquire from mediation from our parents, peers and social environment. Studies have also shown that preschoolers develop this more easily within the realm of role play (Connolly & Doyle, 1984).

The theoretical foundation of Vygotsky, Piaget, Karpov and Bruner supports some form of mediation by peers and educator in order to facilitate the mastery of self-regulation. Self-regulation is key to the success of a child’s academic career for without it they are unable to organize their thinking, problem solve, set goals and be motivated for new learning (Bodrova &

Leong, 2005). It would therefore be essential for learners to acquire these skills as soon as possible, with preschool being a good starting point.

### **1.3 Rationale**

Karpov (2005) suggests that by extending conscious mediation into the general classroom activities and building on the theme within the fantasy corner, the educator increases their potential for achieving self-regulation in their learners. The researcher wished to test this theory and not only mediate within the fantasy area, but also extend the theme into the classroom and see if additional activities would increase self-regulation.

The researcher was interested in the cognitive development of children and over a 25 year teaching experience, had witnessed a number of changes which the researcher felt needed to be explored. Currently the researcher experiences the students in the classroom as being neglected by their parents who are frequently working and appear to have little time to spend with their children. The researcher is often asked by parents how they can manage to spend time with their children whilst doing necessary evening chores. They also inform the researcher that it is easier to let their child sit in front of the television whilst they do the chores, than to spend time with the child at the end of the day. Furthermore they rarely read to their children or actively engage in activities with them. Most frequently time spent involves visits to shopping malls or “Macdonalds” (the fast food restaurant) and occasional outings to the cinema. As parents have to work long hours, many of the learners are placed in aftercare facilities where they are primarily influenced by their peers and older learners. This would suggest that the traditional role

model (namely the parents) from which children learn appears to be lacking (Bodrova & Leong, 2007). This gap has resulted in children looking to television, computer games and peers, to provide their mediated learning.

Observation in the researcher's classroom has shown that many children do not have good emotional skills, problem-solving or organizational skills and consequently lack self-regulation. This means that they are unable to manage their behaviour and frequently struggle to resolve conflict; act without thinking first; are unable to manage their academic tasks in a logical manner and often mislay possessions or do not know what is expected of them in a regular weekly routine. Rubtsov and Yudina prominent educational psychologists when discussing current problems pertaining to preschool education said the following:

It is in the preschool age that all major parameters and characteristics of the human personality and mentality are formed, and the direction and quality of an individual's intellectual, emotional and physical abilities as well as interests and potentials are determined.

(Rubtsov & Yudina, 2010, p.7)

It could be argued therefore that it is of paramount importance that as an educator, the researcher establishes a foundation of self-regulation. Learners need to be able to control their initial impulses in order to carry out learning tasks at the time they are requested by the educator and not just when a child has the will to perform. They are also required to make decisions about their behaviour, solve problems and hopefully make the best possible choice for their circumstances. Furthermore they need to understand their own emotions and be able to understand those of their peers. In this way they are

able to organize their thinking and learning and in so doing are more likely to realize their academic potential. It has fallen to the educator to provide positive interaction and mediation that will allow for the development of self-regulation and the ability to problem solve.

Perels, Merget-Kullmann, Wende, Schmitz and Buchbinder (2009) point out in their research that there is a dearth of information about the effects of intervention to support self-regulation at preschool<sup>2</sup> level and that it is essential for children to acquire self-regulation as it is an important factor for effective learning because it impacts on their ability to organize knowledge and problem solve.

Bodrova and Leong (2005) consider it essential for teachers to know how self regulation develops in young children and what may or may not work to promote this skill in the classroom. Perels et al.'s (2009) study provides an excellent foundation for this research as it targets key areas for the acquisition of self-regulation and recognizes that the educator must also have appropriate skills for facilitating self-regulation. Bodrova and Leong's (2007) research would be consistent with the researcher's view that there is a profound need for educators to become actively involved in helping learners to acquire self-regulation because they are struggling to obtain these skills in the home environment and are frequently enacting inappropriate television programmes and often do not understand their own emotions or those of their peers. To this effect, Fox and Lentini (2006) argue that "When young

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<sup>2</sup> preschool refers to the ages 5 to 7 years and is the year directly before children in South African schools enter Grade 1. They enter Grade 1 at 6 turning 7 and are in Preschool from age 5 to 6 with the exception of repeats who may be 6 turning 7. It is traditionally a year in which educators prepare learners for Grade 1 but many of the learners have already been attending kindergarten from the age of 2 because their parents are working. Kindergarten is usually only from age 2 to 5 years and can be very informal or follow specific learning programmes, e.g. Montessori or Steiner. (WCED, 2006).

children do not know how to identify emotions, handle disappointment and anger or develop relationships with peers, a teachers' best response is to teach!" (Fox & Lentini, 2006, p. 42).

Experience within the researcher's classroom has shown that children who lack organizational skills and have poor impulse control, do indeed struggle to complete tasks and achieve new learning. By organizational skills the researcher refers to the ability to logically think through what the learner is doing and what would be the best way to solve a problem or task. This is essential for carrying out a series of instructions and ultimately succeeding with the task at hand. By "impulse control" the researcher means When there is a lack of ability in a preschooler to think before acting in any given situation. This is important because without careful thought the learner is at risk of making a poor decision which could cause conflict or the inability to complete tasks that are assigned to them. Furthermore it would appear that a greater number of children enter the preschool classroom with the aforementioned problems, despite having attended some form of schooling from as young as two years of age (Bodrova & Leong, 2007). This is further supported by WCED (2006) documents that state that Grade-R learners are not ready for formal schooling because of the effects of poverty, TV, lack of opportunities to play, poor language development, lack of parent involvement and lack of engagement with books before school entrance.

## 1.4 Research question

This thesis aimed to explore whether the conscious mediation on the part of the researcher within the classroom and fantasy play environment would facilitate the development of self-regulation on the part of the preschool learner. Three areas were selected to help define the parameters of self-regulation and they were as follows:

- Organizational skills
- Problems-solving skills
- Emotional skills/competency.

By organizational skills this researcher means the ability by the learner to manage their given tasks in a logical and effective manner resulting in the timeous completion of the task at hand. It also covers their capacity to demonstrate organization of thought when explaining a simple task such as making a sandwich. Finally it should encompass some evidence of comprehension of instructions given by the researcher.

Problem-solving skills for the purposes of this thesis are defined as the ability or lack thereof to resolve conflict with peers and to understand instructions given by the researcher. The learner may display difficulties in resolving conflict or solving a problem without assistance from the mediator or their peers.

Emotional competency or skills relates to the learners' understanding of their feelings or those of their peers as seen in their actions and dialogue. It includes some evidence of in-depth comprehension of emotions as being

complex and ever changing. It also links to the learners' ability to control their impulses particularly around issues of aggression or inappropriate dialogue.

#### ***1.4.1 Sub-questions***

Questions that were examined within the body of this case study were as follows:

- 1) Did learners' capacity to regulate problem solving and emotional competency benefit from being given the appropriate dialogue when they were struggling to problem solve, for instance sharing an item during fantasy play?
- 2) Did learners' capacity to problem solve benefit from being given tools to facilitate sharing, for instance a chart determining who would make use of a popular toy?
- 3) Did learners' emotional competency benefit from positive forms of self-regulation, for example a sharing tree which encouraged learners to remember to share?
- 4) Did learners' capacity to organise benefit from having a task broken down into simple steps and then repeated a number of times? Did this facilitate the development of organisational skills?
- 5) Did learners' capacity to self-regulate benefit from opportunities to practice new learning for instance being able to practice data capture over a two-week period?
- 6) Did learners' capacity for emotional competency benefit from extended periods of role play attached to a general fantasy theme, for example *Jack and the Beanstalk*?

- 7) Did the dramatization of a story involving all role players, facilitate a more comprehensive understanding of emotions?
- 8) Did the extension of a theme from the fantasy play area into the general class activities allow for improved development of self-regulation?
- 9) Was there evidence of a shift in self-regulation between the pre-mediation and post-mediation conditions and what was the significance of the expected shift?

### **1.5 Outline of this thesis**

In Chapter One the researcher introduces the nature of the problem which is being examined in this thesis, describing the aim of the thesis, rationale and the research questions that were to be addressed.

In Chapter Two the researcher provides the theoretical background upon which this case study was based and which speaks to the validity of the data that was gathered within a qualitative research project such as this. The theoretical focus was grounded in the work of Vygotsky, Piaget and Karpov.

In Chapter Three some of the literature exploring empirical studies that have already been done in the area of self-regulation and mediation was discussed in detail and linked to how they were relevant to this case study.

Chapter four explains what research methods were employed and how they were implemented. The relevance of the choice of research methods will be discussed and linked to the purpose of the thesis.

Chapter five examines the data that has been collected and briefly indicates points for consideration when analyzing the data.

Chapter six is a detailed discussion explaining the relevance of the findings and connecting them to the literature review in chapter three and the theoretical foundation in chapter two.

Chapter seven discusses the conclusions the researcher has drawn and will also express some of the problems that have been encountered when engaging in this research project.

Chapter eight deals with the question of the relevance of this case study to teachers in South African schools and hopes to provide some useful information.

In the following Chapter, I address the theoretical framework behind the importance of play and mediation in achieving self-regulation.

## **2 THEORETICAL FRAMEWORK**

This chapter focuses on Vygotskian and Neo-Vygotskian theorists because they provide relevant insight into the problem being investigated; that is, self-regulation and how conscious mediation can facilitate this aspect of learning in preschoolers.

The work done by prominent Soviet Psychologist such as Vygotsky, Luria, Leont'ev, Galperin and Elkonin has demonstrated that the dominant activity at preschool level is play. Play is significant at this level of development as it allows for imitation of adult behaviour; the development of language and meaning together with the opportunities to internalise generalizations which help to regulate behaviour within socially accepted norms (Elkonin, 1974).

### **2.1 History of play**

Vygotsky (1967) describes play as a 'leading source of development' in the preschool years. Elkonin's (1974, 2005) writings on the history of theories of play, demonstrates that our understanding of its significance has changed particularly through the work of Lev Vygotsky and the Neo-Vygotskians.

According to Elkonin (2005) it was Groos who raised our awareness of how play can assist the child to adapt to the working world and also elevated the concept of play to one of developmental importance. This thesis demonstrates that play continues to be an important aspect of learning.

Buhler (1930) describes how the child wants to engage in play because it is pleasurable and it is this that motivates their desire to play. Elkonin (2005) says that pleasure does indeed act as a motivator but it also enables the child to repeat the same game until they feel they have mastered its content. The Neo-Vygotskians argue that motivation promotes learning through the individual goals that the learner sets. F. Buytendijk (Elkonin, 2005) raises our awareness of how objects allow for possibilities of play as reaction to the environment in which the child finds itself and Galperin (1969) put forward the theory that through play the child is 'orientating' themselves to already existing situations thereby developing appropriate social behaviour. These theorists have demonstrated that play is key to learning but it is the mediation of the educator that has the potential to facilitate self-regulation.

Elkonin (1974, 2005) feels that the closest we have come to understanding the role of play in the development of the preschool child, is through the work of Lev Vygotsky.

## **2.2 Mediation**

It is Vygotsky's socio-cultural theory that has helped to shape our thinking around mediation in the classroom. Vygotsky (1967) believed that meaning is constructed through a combination of language and its cultural context and that when children indulge in play they are extending to new limits already existing skills (Bruner, 1977). For Vygotsky, humans are very different from their animal relations because they bring to the learning environment an evolutionary capacity to adapt and manipulate their environment and have consequently built up cultural and historical tools (Van der Veer &

Valsiner, 1991). This collective social history is brought to the classroom and transferred from learner to learner and from educator to learner through the process of mediation. Vygotsky describes the mediational process as being goal directed and a conscious activity in which the educator creates an environment that is conducive to learning (Van der Veer & Valsiner, 1991). Vygotsky sees mediation as happening with the assistance of signs and that this gives it its generative quality. This encompasses the social and cultural qualities of the relationship between the teacher or mediator and the child (Moll, 2004).

Cognition is distributed across mind and society, in the activities of learners and other people, in the artifacts and sign systems they use, and in the institutions in which they participate.

(Moll, 2004, p.107)

Language occurs at the same time as the child begins to use symbols and it is this language that opens the door to understanding things that are not necessarily present (Piaget, 2001). Bruner (1997) says that whilst Piaget did not use the term mediation, he did see the child's development as being "interactionist" because it is dependent on a reciprocal mutually dependent interaction between people and their environments which could be seen as a form of mediation. "The mind mediates between the external world and individual experience" (Bruner, 1997, p. 68). The child influences the caregiver to provide them with something they require and the caregiver then influences the child by giving them what has been requested. In this way mediation and self-regulation are interrelated.

Piaget (1972) sets forth a system by which children learn in stages and by so doing he suggests that a child will only learn from a mediator and society if he is in a developmental stage where he is able to receive that information (Moll, 2004). This is why he places so much emphasis on equilibration namely self-regulation by means of a biological system. He is therefore placing less emphasis on the role of society and culture in his explanation of development. Furthermore he argues that children develop understandings of core knowledge. This core knowledge together with the rate at which a learner develops will vary from individual to individual presenting different levels of ability (Moll, 2004). This is particularly obvious at preschool level where learners are at the pre-operational stage of development (Piaget & Inhelder, 1973). Piaget is important to this thesis because he establishes a framework upon which we can hang cognitive theories and provides educators with an understanding of what learners are capable of achieving at a particular stage of development (Moll, 2004). It is however the socio-cultural perspective presented by Vygotsky that is key to how children learn through play.

Children develop as a result of their interactions with their social environment which may include parents, teachers, siblings, friends and peers. It can also include their relationship to significant objects such as toys, books and culturally specific practices that children engage in both in the classroom, at home and in the playground (Bodrova & Leong, 2001). Karpov (2005) states that “Object centered mediated interaction increases the child’s ability to learn new language.” Vygotsky (1978) explains this when he describes the child using a broomstick to represent a horse and exploring the possibilities and language of a game.

A divergence between the fields of meaning and vision first occurs at preschool age. In play thought is separated from objects and action arises from ideas rather than from things:

A piece of wood begins to be a doll and a stick a horse. Action according to rules begins to be determined by ideas and not by objects themselves. This is such a reversal of the child's relation to the real. Immediate, concrete situation that it is hard to underestimate its full significance. The child does not do this all at once because it is terribly difficult for a child to sever thought (the meaning of a word) from object.

(Vygotsky, 1978, p.97)

Elkonin (1974) argues that preschool children during play which is linked to fairy tales demonstrate a particular type of realism that necessitates the supplementing of missing elements into the situation with imaginative images that are assigned to random objects. Play now consists of representing one thing as another (Piaget, 2001) for instance a rectangular block becomes a cellular phone. There is however a set of rules within fantasy play that is directly linked to realism and consequently does not permit complete abandonment of reality. This is because preschoolers have a great wealth of life experience from which they can draw when defining their imaginary games and testing their realities (Elkonin, 1974). Learning within a socio-cultural framework helps define common goals and values in a particular game.

Vygotsky (1978) put forward the idea that we bring to the classroom our own individual cultural and historical makeup and that in the school environment, children learn by interacting on a social basis through a window of mediation (Moll, 2004). They are not however passive but rather active partners in these interactions, constructing knowledge, new skills and behavioural attitudes whilst playing (Bodrova & Leong, 2001). The child is seen as benefiting from jointly performed tasks because they have the ability to imitate the behaviour of their more able partners but this imitation is not merely mechanical in nature (Elkonin, 1971). The child is imitating things that exist beyond their current capabilities allowing for learning through experiential insight (Van der Veer & Valsiner, 1991). The learner is being mediated whilst interacting with their more capable peers.

Mediation according to Vygotsky (1978) can occur through communication, firstly at the individual level when the child organizes their thinking by means of external dialogue to create a specific plan which they then secondly, act on. Luria (1973) supports this notion when he explains that “speech” is a tool for intellectual activity and a method of regulating or organizing human mental processes. He suggests that it is through speech that information can be generalized and then a decision made or a conclusion drawn by the individual. In this way the child is then regulating their behaviour. Luria argues that when the mother puts a label to a particular item, such as a spoon, the child is actively drawn to that item and begins to understand its true meaning. He refers to this as the ‘social organization of attention’ and considers this an important step in the development of higher mental orders (Luria 1973). It is whilst engaged in play that the child frequently makes use of external dialogue and directs the

rules of a game. The type of activity that the preschooler engages in will be decided by the 'leading activity' which allows for the creation of new mental processes and the restructuring of old ones (Leont'ev, 1978).

The leading activity is determined by society but according to Karpov (2005), it must be encouraged through role play and mediation on the part of the educator. The child is not yet able to engage in the leading activity as an individual, but can participate as long as she is supported by an adult or group of peers (Bodrova & Leong 2007). The leading activity is crucial for the emergence of new developmental accomplishments because when engaged in a leading activity the child learns skills which make it possible for her to begin the transition to other types of interactions with the environment (Bodrova & Leong, 2007). Elkonin (1974) supports this idea when he explains that play is a deeply emotional activity for a preschooler and if they are sufficiently stimulated by a theme, it will be reflected in their creative activities. Their role play is determined by events that are considered important by the child and the part he plays must be emotionally attractive (Elkonin 1974).

This is supported by Hedegaard (1999) who states that in the preschool years activities are primarily linked to family and that two dominant motives develop. The first is acquired through social and emotional connectedness to other people and the second through learning everyday activities. This means that the dominant motives for activities are emotional closeness or exploration of the world, and for school going age, they are related to peer groups, role play and learning connections with literacy and learning competencies (Hedegaard, 1999).

Play itself is a means of assisting the child to regulate their impulses because the role that they have been assigned has particular characteristics and rules.

At every step the child is faced with a conflict between the rules of the game and what he would do if he could suddenly act spontaneously. In the game he acts counter to the way he wants to act. A child's greatest self-control occurs in play.

(Vygotsky, 1978, p.99)

By engaging in play the child is learning to regulate their behaviour because they are experiencing the need to regulate within their imagined roles (Bruner, 1997). This is further developed by means of mediation through external dialogue. Piaget (1959) is said to see egocentric speech as being almost mindless and having no function, whereas Vygotsky sees this as part of the child's problem-solving skills but which more or less disappears when the child takes on mediated viewpoints and develops inner speech (Rowe & Wertsch, 2007). This is a fundamentally social activity linked to the child's ability to plan and therefore self-regulate.

The problem solving aspect of external dialogue frequently requires intervention on the part of the preschool educator (Karpov, 2005). It is here that she must help provide the language necessary that will lead to self regulation as discussion of emotions is important in building emotional competence and therefore self-regulation (Zeidner, Matthews, Roberts & MacCann, 2003). Adult mediation guides the child and gives them the tools to plan and direct their thinking thereby becoming more logical, less impulsive and better able to regulate their behaviour (Elkonin, 1974). Much

of the self talk by the preschooler occurs during fantasy play, which traditionally is an area where preschoolers in South African kindergarten classrooms are given the freedom to play without structure or intervention.

Elkonin (1974), a student of Vygotsky, points out that the child needs the adult to develop their sense of generalizations and it is when the child achieves generalization of ideas that they are able to stand back from the newly acquired information and compare their actions to those of the adult thereby “gaining access to the meaning and aims of human activity” (Elkonin, 1971, p.16). By drawing on previous experience of objects and situations, the preschooler is able to create entirely new concepts and isolate general characteristics of particular objects (Elkonin, 1974).

### **2.3 Zone of proximal development**

Self-regulation for Vygotsky is achieved through social interaction and begins with the child exploring their innate potential to imitate adult behaviour through “adult watching” (Bruner, 1977, p.179). The child’s developmental potential is evidenced by the degree to which they benefit from external intervention (Glick, 1997). Learning would lead development if it occurs within the child’s Zone of proximal development (ZPD) where skills and concepts (which are beginning to emerge) can come to fruition with the appropriate guidance of the educator, peers or significant others (Bodrova & Leong, 2001). The concept of the ZPD would therefore suggest that learning can lead developmental change and the use of mediation will influence the child’s capacity to develop.

Furthermore Vygotsky sees this occurring on two plains namely firstly at the interpersonal level (that is socially between people) and then subsequently at the intrapersonal level (namely inside the child) (Glick, 1997). At preschool level (by this the researcher means the year proceeding Grade 1) this guidance could take the form of mediation within fantasy play which provides the opportunity for the preschooler to learn how to delay gratification; listen to instructions and plan a task (Karpov, 2005). In so doing they are developing self-regulation (Elkonin, 1974).

Karpov (2005) explains that self-regulation occurs through the child in the course of mediation acquiring and mastering new psychological tools, which result in the development of new mental processes. "...the learning of specific abilities in one domain transforms the intellectual functioning in other areas." (Van der Veer & Valsiner, 1991). These mental processes outgrow the child's current activity, which creates the basis for their switching to a new activity (Rowe & Wertsch, 2007). Vygotsky argues that the child does not develop in a straight line but rather develops through 'discontinuity, a replacement of one function by another, a displacement and conflict of two systems' (Vygotsky, 1997, p.225). Higher mental processes are mediated by psychological tools such as language, signs and symbols. These are taught by adults, for example the educator, to children during their mutual activities and they are internalised by the child thereby working as a further mediation (Karpov & Haywood, 1998). From the Neo-Vygotskian point of view, mediation not only creates Zones of proximal development of new mental processes, but also creates Zones of proximal development of new activities of children through the conversion of their goals into motives

and actions into activities (Karpov, 2005). Piaget shares the Vygotskian perspective that learning should be active.

Piaget suggests a linear form of development. The Swiss genetic epistemologist, devoted extensive time to empirical studies which helped to develop his theory that the child discovers new learning through their actions and the conflict they experience when encountering something unknown (Nash, Stoch & Harper, 1990). These qualitative changes which he referred to as *stages* are influenced by the child's capacity to adapt within its environment and its ability to resolve conflict or problems that arise when the child encounters new information that is in conflict with existing schemas (Gross, 1992). He referred to this process as *equilibration* or *self-regulation* which results in the child shifting existing schemas and internalizing action into thought where it becomes decentralized and reversible (Gross, 1992). Each stage develops from a previous one and results in a new perspective for the child. The interaction with other human beings particularly regarding language and communication is key to the normal development of the brain as stimulation takes place at key stages but does not have to be particularly sophisticated (Blakemore & Frith, 2005). The child is seen as actively involved in their own growth and constantly constructing their own understanding of the world. In this way the child learns self control and moves from one phase of development to another (Lloyd, 1995).

Vygotsky (1997) sees the development of self-control as part of our natural desire to control our environment and that we do this by means of cultural influences and auxiliary means. How we acquire an ability to control our

will is also determined by our needing to understand a situation completely. This only happens through social interaction, experience and guidance from a mediator (Rowe & Wertsch, 2007). A sense of conflict between motives can assist us to decide what choices we make but ‘a decision is made and the conflict ends often long before the real or actual conflict begins’ (Vygotsky, 1997, p.215). Experience helps the child to develop a ‘general rule of thumb’ by which he can begin to control his decisions. Vygotsky (1997) also suggests that when we are undecided about our decisions we often introduce an auxiliary means. For example in preschool if a child has had a particular item of clothing for a long time and there is conflict over sharing this item, the mediator may suggest that after five minutes the item should be passed on to another learner. This means that the time issue is used to resolve the conflict and a choice is made before the conflict actually erupts.

## **2.4 Internalization**

Piaget and Vygotsky agree that a child’s development is a series of qualitative changes that cannot be viewed as just an expanding repertoire of skills or ideas (Bodrova & Leong, 2007). For Piaget the developmental changes take place in stages (Nash et al., 1990) whilst for Vygotsky the emphasis was around the restructuring of the child’s mind that takes place during the period of transition from one stage to another with less emphasis on each stage’s characteristics (Karpov, 2005).

According to Piaget, how the child adapts to their environment involves two processes namely *assimilation* and *accommodation* (Gross, 1992). The child is seen as utilizing something from their environment which is then

assimilated into their existing structures (Piaget & Inhelder, 1973). Neither assimilation nor accommodation occur independently of one another and are ways of acting upon the world. This then triggers a necessary change and the information is internalised to accommodate new learning. Internalization of new information and how it helps to regulate our behaviour, is one way of describing self-regulation which is something that every child acquires through mediation but which the educator hopes to foster within the school context. It could therefore be said that Piaget was instrumental in introducing the concept of self-regulation. He is however frequently criticized for not addressing the social aspects of learning and the influence of language on our cognitive development.

Language is key to the internalization of new learning and performs two primary functions according to Vygotsky (1978), namely as a means to socially co-ordinate the actions of various people and also as a tool for thinking. Vygotsky saw the learner as thinking verbally and that self-talk is simply a means of thinking aloud (Van der Veer & Valsiner, 1991). By expressing their thoughts aloud, the child is attempting to organize their thinking. This would make language a powerful tool for cognitive processing and the development of cognition (Bodrova & Leong, 2007).

Cognition is developed through the internalization of new learning which results in the child beginning to regulate their behaviour. Karpov (2005) suggests that this is especially true when it is combined with an educator who is able to mediate. Karpov (2005) puts forward the notion that the child needs to understand the “why” part of adult behaviour before self-regulation can be achieved and that this can only happen if there is an adult available to

guide new learning. This would mean playing alongside the children, making suggestions on how to play and how the different characters in a story may feel. The educator may even suggest some rules for the game. In this way Karpov (2005) feels the educator is guiding the learning but allowing for freedom of expression.

Elkonin (1971) states that the child is not simply developing in one direction only but rather is multifaceted with one activity being dominant and altering the overall system of relations between the child and his surroundings. Elkonin (1971) further explains that the child's development is composed of periods that are chiefly devoted to the assimilation of objectives, motives and norms around human relations, as well as periods dominated by the acquisition of socially evolved modes of action with objects and consequently the child develops his cognitive and emotional capacities. Zeidner et al. (2003) argues that according to Vygotsky the child's proficiency at one level will set the potential for acquiring skills for the next level but it is within the socialization processes that the true potential is realized.

Neo-Vygotskians have developed Vygotsky's socio-cultural theory further by helping us to appreciate motivation in learning. Elkonin states that 'even when the child takes on a cognitive task and attempts to solve it, the practical or playful motives that arouse him to a particular type of activity transform the problem and provide a distinctive characteristic to the directionality of the child's thinking.' (Elkonin, 1974, p.234). He therefore suggests that the child begins to consciously grapple with problems and learn techniques that help him to solve these problems. It is the role of the

mediator to provide the tools within the play-learning environment. “The optimal conditions for the formation of understanding among younger preschoolers emerge in situations of play” (Elkonin 1974, p.250) but it is particularly the language usage between child and mediator that, according to Elkonin, helps the child to plan and set goals. Consequently it could be said that self-regulation develops within this mediated environment. In this thesis, motivation was additionally triggered by the co-creation of a fantasy corner grounded in a traditional fairy tale of *Jack and the Beanstalk*. By building the fantasy area collectively as a class, reading versions of the fairy tale and indulging in role play around the story, the learners were motivated to learn within this environment and independently obtained and applied new knowledge (Rubtsov & Yudina, 2010).

Socio-cultural theory has demonstrated that children have the potential to acquire new mental processes when they are placed in a stimulating environment (such as a fantasy play area) and are mediated not only by their more mature peers but also by their educator who assists them to problem solve, organize their tasks, set goals and resolve conflict. The combination of modeling appropriate behaviour together with deliberate teaching about emotions is widely regarded as an effective means of facilitating emotional competence and therefore self-regulation (Zeidner et al. 2003). The educator should supply appropriate props to help the children to assign meaning to objects. In this way learners are able to internalise their new thinking and begin to apply it to a variety of circumstances. The motivation to learn in the first place is fed by the natural desire to try out adult behaviour (within Vygotsky’s ZPD) together with the mediation the educator provides.

## **2.5 Higher mental functions**

According to Glick (1991), Vygotsky did not see all behaviours as being of the higher order and equally so, neither are they all of the lower order. He does however advocate research which helps us to understand mental functioning and differentiate between the two. “For Vygotsky, the higher functions reflected a uniquely “cultural” form of adaptation which involved both an overlay on and a reorganization of more basic psychological functions.” (Glick, 1991). Vygotsky makes the distinction between the child’s innate biological behaviour which enables them to walk, eat or sleep, and the higher mental functions which are culturally derived (Vygotsky 1997).

Now the teacher begins to understand that when the child enters into culture, he not only takes something from culture, assimilates something, take in something from outside, but culture itself profoundly refines the natural state of behaviour of the child and alters completely anew the whole course of his development. Differentiating the two plans of development in behaviour – the natural and the cultural – is the point of departure for the new theory rearing.

(Vygotsky 1997, p.223)

## **2.6 Conclusion**

In this chapter, I discussed a variety of theoretical approaches to understanding the mediation of self-regulation. Whilst Piaget has helped to

inform how we learn, the actual theoretical foundation for this thesis is a Vygotskian socio-cultural theory with particular emphasis on Karpov's concepts of conscious mediation.

Chapter three will examine some literature pertaining to the theme of self-regulation, how children can facilitate the acquisition thereof and what some studies have revealed, that support the purpose of this thesis.

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### **3 LITERATURE REVIEW**

Socio-cultural theory is at the heart of this thesis because it aims to explore the role of mediation in early childhood education and how effective it is in developing our cognitive processes, particularly self-regulation. How has our understanding of mediation and self-regulation developed?

This thesis will be examining the work of Lev Vygotsky and the Neo-Vygotskians (Haywood, 1998; Hedegaard, 1999; Davydov, 1995) particularly that of Karpov (2005) who has done extensive studies in how the child learns to self-regulate within fantasy play. He urges educators to consider all aspects of the child's make-up namely cognitive, emotional and physical, and examine the 'interrelationships of different aspects of child development' (Karpov, 2005). Zeidner et al. (2003) when reviewing the literature on emotional intelligence, come to the conclusion that it comprises three aspects namely it is related to the temperament of the child, their rule-based learning and competencies around insightful understanding. It is particularly the latter two that are important for the mediator to promote in order to facilitate self-regulation. As the child's temperament is inherited, the mediator can at best only 'modulate' this aspect of the child's development but they can give them the tools to deal with difficulties around their temperament and the ability to self-regulate (Zeidner et al. 2003). This thesis aims to focus particularly on the cognitive and EC of the child and how they acquire self-regulation through mediation.

It is widely accepted that the preschool years are amongst the most formative (Jahronmi & Stifter, 2008) and it would therefore make sense to

put in place the type of skills that would carry the learner through their future years of study.

Self regulation or the ability to control one's actions and responses is essential for healthy development across varied contexts. This ability comes in several forms, including emotional, behavioural and cognitive.

(Jahronmi & Stifter, 2008, p.125)

The literature suggests that at preschool level, the fantasy play area is a rich learning environment that can promote accelerated learning of social and emotional skills especially when sufficient time is given to this occupation and props and exciting themes are provided (Bodrova & Leong, 2007).

Zeidner et al. (2003) argue that between the ages of six and seven children are starting to learn 'scripts' for socially acceptable coping skills which include their expressions of genuine emotions and suppressed emotions when it is considered unacceptable to show "true" feelings. Karpov (2005) also argues that it is in this domain that effective learning can take place but only if the educator mediates to promote new learning.

According to Connolly and Doyle (1984), fantasy play requires a high level of complex cognitive and social abilities, for example sharing, co-operation, self regulation of affect and an appreciation of cognitive and behavioural role reciprocity. Their research into the relation of social fantasy play to several indices of social competence in three to six year old preschoolers revealed that the freedom from goal directedness and its intrinsic

motivations are what makes the fantasy corner an environment in which children can easily mediate one another and provide feedback that allows for positive social skills to develop.

Vygotsky (1978) would agree that social interaction does indeed promote the development of social skills but he would argue that it is the mediation between the child and his/her peers that allows for effective social skills to emerge. Karpov (2005) would take this further by saying that the child also requires mediation from the educator both within fantasy play and its extension into general class activities. This he feels would enable the child to practice their social skills in a variety of contexts. This research would hope to demonstrate that it is a combination of Vygotsky's theory of peer mediation and the more conscious mediation by the researcher within the classroom and role play areas that results in the facilitation of self-regulation.

Connolly and Doyle do not agree with Bodrova and Leong's (2007) suggestion that educators should provide mediation but rather that they should allow for the learner to freely explore whatever fantasy should arise. Connolly and Doyle's (1984) research demonstrates that learners who are frequently actively involved in fantasy play appear to develop more effective social skills. Connolly and Doyle (1984) suggest that fantasy play may further consolidate and refine self-regulation. It could however be argued that too much mediation on the part of an educator or peer, could effectively destroy the freedom of role play and may even result in the child choosing to play elsewhere in the classroom (Bodrova & Leong, 2007).

Karpov (2005) would not however agree with Connolly and Doyle when they say that the fantasy play area lacks goals and that this freedom is what promotes new learning. He would argue that human activity consists of a set of steps which are directed towards a goal rather than a motive and whilst the motive may energize us, it is our actions that assist us towards our goal (Karpov, 2005). He puts forward the notion that this goal directedness requires planning and self-regulation. Bodrova and Leong (2007) would argue that it is the role of the educator to help the learner to define their goals and also to actively achieve them through mediation within a social setting.

It is whilst engaging in a social setting that the child defines their goals and establishes a 'leading activity'. Leont'ev (1978) developed the concept of activity theory which encompasses the idea that any activity answers a specific need and that this activity will continue until that need is satisfied (Karpov, 2005). At preschool level according to Vygotsky, the leading activity would be to explore the adult world and understand how we relate to it (1978). If a child is pretending to be a 'mother' then she would behave in the manner in which she imagines a mother should behave. Actions then become determined not by tools but by ideas which become the leading activity (Vygotsky, 1978). Vygotsky (1978) suggested that children are never totally free to play as they must adopt the often self-imposed rules of the game they are playing which will spontaneously lead to a level of self-regulation. The rules may be hidden and the child may have to interpret the rules with the assistance of a mediator. They may have to curb initial impulses and accept regulation from their peers or educator. The educator can however facilitate activities within the fantasy play area and create

conditions that are conducive for the latter to happen (Bodrova & Leong, 2005). This according to Karpov (2005), is what helps the child to develop self-regulation.

Bodrova and Leong (2007) advocate the educator mediate in order to improve the development of literacy and cognitive skills but, they do not see the educator playing alongside the learner as a direct member of the group. The reason they give is that the learner would then be inhibited within their natural level of play because they would be aware of the educator's presence. They do however see the benefit of guidance and that the educator should encourage more competent and socially mature children to mentor those less able. Mediation would therefore be given by the educator and by peers that are considered by the educator to be more mature and therefore able to guide their friends. In this research I investigate the extent to which mediation in the fantasy corner assists with the acquisition of self-regulation by the preschooler as suggested by Bodrova and Leong (2007).

Perels et al. (2009) did a study in which they examined how the introduction of a programme to promote self-regulation enabled the preschooler to set goals; plan tasks and problem solve. In this study 35 preschool teachers over a period of five weeks, were consciously trained in skills around self-regulation and understanding their own behaviour. They were then required to take these skills into the classroom and employ them over the five week period. A sample group of preschoolers were interviewed before and after the five week period using a control group and an experimental group. It was anticipated that there would be a profound improvement in self-regulation both on the part of the preschooler and the trained educator.

Results did indeed confirm the expectation but it was felt that a programme of this nature should be run for a longer period of time; be part of the everyday classroom and included in teacher training. Whilst the emphasis of this study was not specifically labeled mediation, the essential structure was typical of the mediation-scaffolding relationship as proposed by Vygotsky (1978) and Bruner (1997). In this case study the researcher was both consciously mediating the learners when considered relevant therefore providing scaffolding and withdrawing when learners had grasped a concept, in order to encourage independent thinking and internalization of new learning.

This research differed from Perels et al.'s. (2009) in that it was a case study that took place within a school that already had teachers trained in self-regulation (using these skills on a daily basis) and the mediation was specific within a fantasy play area and then extended into classroom activities. The researcher would however, help learners to define their goals, problem solve when conflict arises, understand emotions through game playing, storytelling and care circles\* (Macfadden, 2010), and promote consistent boundaries.

Perels et al.'s (2009) study certainly showed that it is more than possible to help preschoolers to master skills like goal setting, reflection and planning but its short duration could mean that those skills may not be fully internalised through lack of practise. As the school in which this research occurred, already had daily emotional competency (EC) activities such as

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“care circles”. it was hoped that self-regulation could be practiced and internalised.

The fantasy corner as a rich learning environment is key to this research. Connolly and Doyle’s (1984) study of the fantasy corner and its benefits for the social development of the preschooler suggested that overall social activity in the fantasy play modes was more sustained, positive and group orientated than it was in the literal mode. It also showed that the fantasy mode enhances the occurrences of positive behaviour therefore establishing a solid framework for the development of appropriate social skills. It is clear that the fantasy corner is an important place for preschoolers to acquire fundamental social skills and consequently, self regulation.

The natural learning environment of the fantasy corner can, according to Karpov (2005) be taken further into the general classroom and therefore feed the learner’s motivation to learn and enhance their potential for achieving self-regulation. His research explores the concept of the child’s motivation to learn which is triggered by their interest in what they are learning. This motivation would be key to their success in their academic career and is part of their ability to self-regulate. The researcher’s experience has been that preschoolers have a natural desire to learn but are particularly stimulated by fantasy play and the extension of this fantasy into classroom based creative tasks. This would suggest that the fantasy play area would be an ideal situation for learning to take place but the acquisition of self-regulation can be further promoted by using fantasy themes as a launch pad for curriculum based learning within the general classroom. In this way learners would

sustain their motivation to learn and develop positive self-regulatory skills that will carry them through their educational career.

Connolly and Doyle agree with Bodrova and Leong (2007) when they argue that mere exposure to opportunities for fantasy play is not sufficient for the acquisition of self-regulation and that this area of learning could enable “potential skill acquisition” (Connolly & Doyle, 1984, p.805). They suggest that “certain forms of interaction” be encouraged and that continued investigation into the efficacy of this context for learning is necessary (1984, p.805). They do not elaborate on what those forms of interaction should be but they acknowledge that there is a certain amount of mediation between peers and that the teacher has a role to play as a mediator but this is not the crux of their analysis. It would however be the crux of this particular research because this case study aims to establish whether conscious mediation can facilitate self-regulation within the social context of role play and the general classroom environment. This type of research would have the potential for assisting educators to determine ways in which they can effectively mediate and promote self-regulation.

Perels et al.’s. (2009) study is more useful in providing clues as to what the forms of interaction could be. They showed that by consciously teaching self-regulation the child learns to plan, problem solve and transfer their skills across all situations. In their study problem solving began with focusing on pre-action in which goal setting and planning occurs; action in which they carry out a specific task with scaffolding taking place; and then reflection on the task which enabled the preschoolers to assess if their actions were appropriate or not.

Bodrova and Leong (2007) can help us to understand how to put in place Perels et al.'s (2009) mediation methodology. They define nine points essential to developing healthy fantasy play which will encourage self-regulation (see p. 63). Their study is particularly useful to this research as it provides practical ideas for the mediator and the thinking behind those ideas. A key area that Bodrova and Leong (2007) stress is that of helping to develop language through the use of fairy tales which provide exciting themes with a recognizable structure that children can relate to.

Perels et al. (2009) took into account self-dialogue and its role in modifying behaviour with the teacher providing appropriate dialogue when the preschooler was unsure. The mastery of language as an important psychological tool necessary for developing mental processes will be examined to some extent in this thesis.

The new meaning embodied in words bring the game to life. This is possible only because the word itself at this period of development contains the child's experience of acting with the object.

(Karpov 2005, p.135)

Fox and Lentini (2006) provide useful practical guidelines for educators to help learners develop their social and emotional capacities. Some of the points they raise include: reminding learners to apologise, remembering to take turns, expressing empathy with others "feelings", learning how to recognize anger in oneself and others, learning how to calm down and understanding appropriate ways to express anger. They strongly advocate

consciously teaching positive communication skills as a means of diffusing or preventing problem behaviour (Fox & Lentini, 2007, p.38).

Fox and Lentini (2006) consider it essential for the educator to provide opportunities for the learner to practice their newly acquired skills in problem solving and that the educator must frequently remind the learner of the appropriate dialogue in any given situation, for instance asking to have a turn with a particular toy. They suggest that the learner becomes fluent in a particular skill and can easily use it. By helping the child to use appropriate dialogue to resolve conflict and to explore their emotions, the researcher hopes to mediate self-regulation and the development of life skills that can be transferred across all learning situations.

The advice of Connolly and Doyle (1984) when they urge researchers to study preschoolers in their natural learning environment, as opposed to a laboratory training environment, is what this research project hopes to achieve. They argue that this is key to developing an understanding of how children obtain effective social skills like sharing, considering the feelings of their peers and solving problems as they arise. This type of study also assists educators in their quest for promoting self-regulation in their learners. This case study will however not only be confined to the fantasy realm as it will be following the advice of Karpov (2005) when he advocates extending the themes into the general kindergarten classroom activities and tasks.

Karpov (2005) suggests that the fantasy play should not just be a free area for self-discovery but that more effective learning takes place if the fantasy is linked to other learning in the classroom. An example of this would be to

set up a theme of *Jack and the Beanstalk* within which the children can explore fear, joy, socially accepted norms and group play. The researcher provides learning experiences such as growing beans, data capture around the progress of the beans, role play around the story, building the fantasy corner with the actual learners and making relevant art pieces (Fox & Lentini, 2006). These additional learning opportunities according to Karpov, would provide a foundation within which the child can learn self regulation and develop the motivation to learn (Karpov 2005). For example by caring for their own bean, they are developing a sense of responsibility. Tricia Edgar, a prominent preschool educator, says that by “putting kids into another organism’s shoes”, we connect them to that animal or plant (2007, p.19). This would therefore provide the motivation to care for the bean and by caring for the bean, they are learning responsibility and hence an aspect of self regulation.

Sandmel, Brindle, Harris, Lane and Graham (2009) researched ‘problem’ children in the 6 to 9 age group and in a school which has an existing behavioural management programme. The aim of this research was to see if individual conscious mediation on the part of the researcher would assist children with self-regulation difficulties specific to writing tasks; to mastering goal setting; planning and displaying motivation in learning. Each child was carefully chosen on the recommendation of their teacher. They were then taken out of the conventional classroom environment and required to follow a particular formula for improving writing skills.

The concept that was suggested involved using a system called TREE. Each letter prompts a particular stage of organizing writing, for instance T stands

for Topic and the learner is encouraged to ‘tell what you believe’. This is followed by R which stands for Reason and the learner is required to state ‘why do I believe this and will my readers believe this. In this way the learner is being given specific steps in order to plan their task (Sandmel et al., 2009).

Prior to actively engaging in a task, they had to set both a behavioural and motivational goal (Sandmel et al., 2009). If this was achieved, there would be a reward slip issued. The conclusion of this research was that whilst successful to varying degrees, they felt it would be better to use these techniques for all the children. It was found that it was beneficial that the school already had a behavioural programme and that what works for one child may not work for another, so the programme would need to be run over a longer period of time (Sandmel et al., 2009).

Sandmel et al.’s. (2009) research did not focus specifically on preschoolers and it also did not look at mediation within a general classroom context and fantasy area. It did however illustrate the benefits of a school that has an existing EC programme and that if the teacher mediates learning the child is able to focus on a goal and through problem-solving and organizational skills, can achieve their goal. Sandmel et al. (2009) also showed that having an existing programme (as is the case for this research project) can provide a positive foundation for new learning because children are more aware of their emotions and have had opportunities to practice regulated behaviour.

Bodrova and Leong’s nine points (see p. 62-63 for further discussion of these points) for successful mediation in fantasy play highlight the benefits

of goal setting and planning ‘Instruction in self-regulation in early years deserves the same if not more attention as instruction in academic subjects’ (Bodova & Leong, 2005, p.57). Perel et al.’s (2009) conscious mediation yielded positive results and confirmed that self-regulation is key to success in education. Bodrova and Leong (2005) support this notion as they feel that the ability to exhibit and enact specific responses (namely self regulation) is a skill used not just in social interactions but in thinking, making it an essential skill for learning. Jahronmi and Stifter’s (2008) study of preschoolers within a laboratory context, supports the theory that self regulation may consist of different interrelated types including emotional, behavioural and cognitive. Children who displayed poorer emotional regulation as evidenced by greater negative affect and the use of aggressive strategies, performed with less success on executive function and behavioural control tasks, while the latter two types of self regulation were positively related (Jahronmi & Stifter 2008). This would suggest that how the child controls their behaviour; i.e., their self-control directly effects their ability to perform academically. Being an impulsive learner is frequently problematic in the preschool classroom and it would therefore be essential for learners to acquire self-regulation and for educators to put in place methods that can help them to achieve this as effectively as possible. Current research has therefore demonstrated that self-regulation is important to the success of the learner in the school environment and that it is through mediated social interaction within the context of fantasy play, that learners have the potential to develop new skills. The presence of an existing behavioural management programme can be beneficial particularly if educators have been trained in methods which help them to guide the

emotional competencies of their learners. The extent to which conscious mediation can facilitate self-regulation is examined in this case study.

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## **4 RESEARCH DESIGN AND METHODOLOGY**

To achieve the aims and objectives of this study, various methods were employed to realize an in-depth understanding of mediation and its capacity to facilitate self-regulation.

### **4.1 Research design**

Research was conducted through the use of qualitative methods to gain relevant information but specifically making use of the concept of a case study. Babbie and Mouton (2010) describe qualitative research as a generic research approach in social research according to which research takes its departure point as being that of the insider examining social action. This approach allows for the emphasis of the respondents' experiences, it takes into account people's interpretation of events, it is manageable and it focuses on processes rather than outcomes (Babbie & Mouton, 2010). It is however limited by its subjective nature which can be problematic when suggesting generalizations.

This case study grounded in qualitative research, relied on participant observation, questionnaires, reflexive journaling, structured interviews and analysis of videos and documents (Denzin & Lincoln, 2005). The interpretative techniques revolved around observer impressions and analysis of collected data specifically looking at use of language which describes learner emotions and displays aspects of self-regulation, for example emotional competencies, organization of thinking ,problem solving and goal setting.

Babbie and Mouton (2010) consider qualitative research to be particularly appropriate when studying attitudes and behaviours best understood within their natural setting which in this case was a preschool classroom in which learners are beginning to learn to regulate their behaviour. An element of quantitative research was used when scoring interview data and observation data. This was deemed necessary in order to demonstrate evidence of any shift between the pre and post conditions (Cohen, Manion & Morrison 2007).

Qualitative research has a number of features that are important to this research project namely:

- The primary aim is in-depth descriptions and understanding of actions and events.
- Understanding social action in terms of its specific context is more important than attempting to generalize to some theoretical population.
- The research process is often inductive in its approach resulting in the generation of new hypotheses and theories.
- The qualitative researcher is seen as the ‘main instrument’ in the research process.
- Ways to enhance objectivity, validity and reliability within studies in the interpretive paradigm include: triangulation, the writing of field notes and establishing trustworthiness between the researcher and the learner as well as between the researcher and the parents of the learners.

- Three main methods of qualitative data collection are distinguished: interviews, observation and the use of film footage.

(Adapted from Babbie & Mouton, 2010, p.309-310.)

Observation, interviews, questionnaires, journaling and filming were the means of gathering data for this qualitative research project because learners were too young to ‘write’ tests but were considered old enough to verbalize their emotions effectively.

The researcher made use of all the nine points suggested by Bodrova and Leong (2007, p.146) namely:

- Make sure children have sufficient time for play.
- Provide ideas for themes that extend children’s experiences and enrich the play.
- Choose appropriate props and toys.
- Help children plan their play.
- Monitor the progress of play.
- Coach individuals who may need help.
- Suggest or model how themes can be woven together.
- Model appropriate ways to solve disputes.
- Encourage children to mentor each other in play.

#### ***4.1.1 Sample***

This exploratory case study took place within one preschool classroom of twenty-five learners at a school with an existing behaviour management

programme. The existing EC (emotional competence) programme, involved helping learners to recognize their emotions through labeling them, using “Care Circles” in which the learners rate their feelings on a scale of one to four (with one being the lowest end of the scale and meaning negative emotions); designing art activities which enable learners to focus on their feelings and using literature and puppet shows to explore feelings in different contexts. The researcher aimed to build on the foundation of knowledge of emotions within the case study demographic and promote self-regulation.

The learners in this case study were already familiar with some of the principles of developing EC in that they were able to state how they felt during their early morning ring, had been exposed to some mediation around conflict resolution and being given the correct dialogue to ask for what they needed and they had some discussions about appropriate behaviour. They had also been exposed to a reward system in the classroom whereby they obtained “fish” in a large bowl whenever they behaved appropriately. When they have obtained 100 fish the class chose to have a “pajama party” at school.

It is pertinent to note that the case study took place in a single sex girls’ school. Learners were in what is termed “Grade-R” which in a typical South African school is the year preceding Grade 1. It is intended to be the year in which learners are prepared for the more formalized environment of schooling from Grade 1 to twelve. Learners in this case study were from a typical middle class background with a smaller percentage of learners being less privileged. Some of the learners came from a military background with

the majority being of mixed heritage. There was a small group of second language learners who did not wish to speak their home language and were encouraged by parents to speak only English. The learners were given extra English lessons during school time. Some of the learners came from Zimbabwe and their standard of English was generally good.

#### ***4.1.2 Case study***

The defining characteristic of a case study, is its emphasis on “an individual unit” (Babbie & Mouton, 2010, p.281) which in this instance was a preschool classroom situated in a suburb of Cape Town, South Africa.

A case study has been chosen as the method for research because it is the ideal tool for examining real people involved in a real life situation and testing out a particular theory (Cohen et al. 2007). The theory in this case revolves around Karpov’s notion of how preschoolers acquire self-regulation. The case study allows for intensive investigation whilst examining multiple variables and permitting the unit of study to interact in a context of mediation (Babbie & Mouton, 2010). As the preschool classroom is a complex environment in which multiple relationships are occurring, the case study provides the researcher with the opportunity to observe a society in a microcosm and to “allow for events and situations to speak for themselves” (Cohen et al. 2007).

#### ***4.1.3 Conceptual framework***

The conceptual framework of a study is important to the understanding and validity of a piece of work. It enables the student to clarify the purpose of

the study and define key concepts (Babbie & Mouton, 2010). The purpose of this study was to examine how effective mediation is when addressing the facilitation of self-regulation for preschoolers. The conceptual framework will therefore include definitions of what mediation and self-regulation are according to Vygotsky, Neo-vygostkians and Piaget. It will examine the theory behind how children learn the importance of language in this process and the significance of play. The conceptual framework will therefore afford the opportunity to explore the different theories and perspectives relevant to this case study.

## **4.2 Test procedures**

### ***4.2.1 Pre-mediation***

Research included a two-week period of filming prior to setting up the fantasy theme and mediation. This was labeled the “Pre-mediation” stage of research. The researcher consciously avoided mediating in order to try and establish a baseline of behaviour. This stage included an individual interview<sup>3</sup> with all twenty-five participants, together with learners being assigned a score on an observation grid for each week in the pre-mediation stage. Interviews were conducted based on one reading of the story of *Jack and the Beanstalk* with which most learners were already familiar. Learners were interviewed and filmed in a quiet room free from distraction by other learners. Learners were observed by the researcher and their behaviour noted on their individual grids. They were assigned a weekly score out of five for organizational skills, problem-solving and emotional skills.

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<sup>3</sup> See Appendix 2 on p. 170-182 for transcript of pre-mediation interview.

#### **4.2.2 Mediation**

Two weeks of active mediation within the fantasy corner and general classroom activities followed the pre-mediation stage of research. The following tasks took place during the mediation stage of research:

- Learners constructed the fantasy play area to resemble the theme of *Jack and the Beanstalk*. Recycled materials were used<sup>4</sup>.
- A large beanstalk was painted by learners as a combined class activity. Once the beanstalk was dry, learners were able to measure its size by counting the number of learners lined up along the beanstalk's length.
- Learners made individual large leaves using a method of wax resist paint and cutting out the leaves once they were dry.
- Learners worked in groups to make large clouds using cotton wool and cloud shaped paper.

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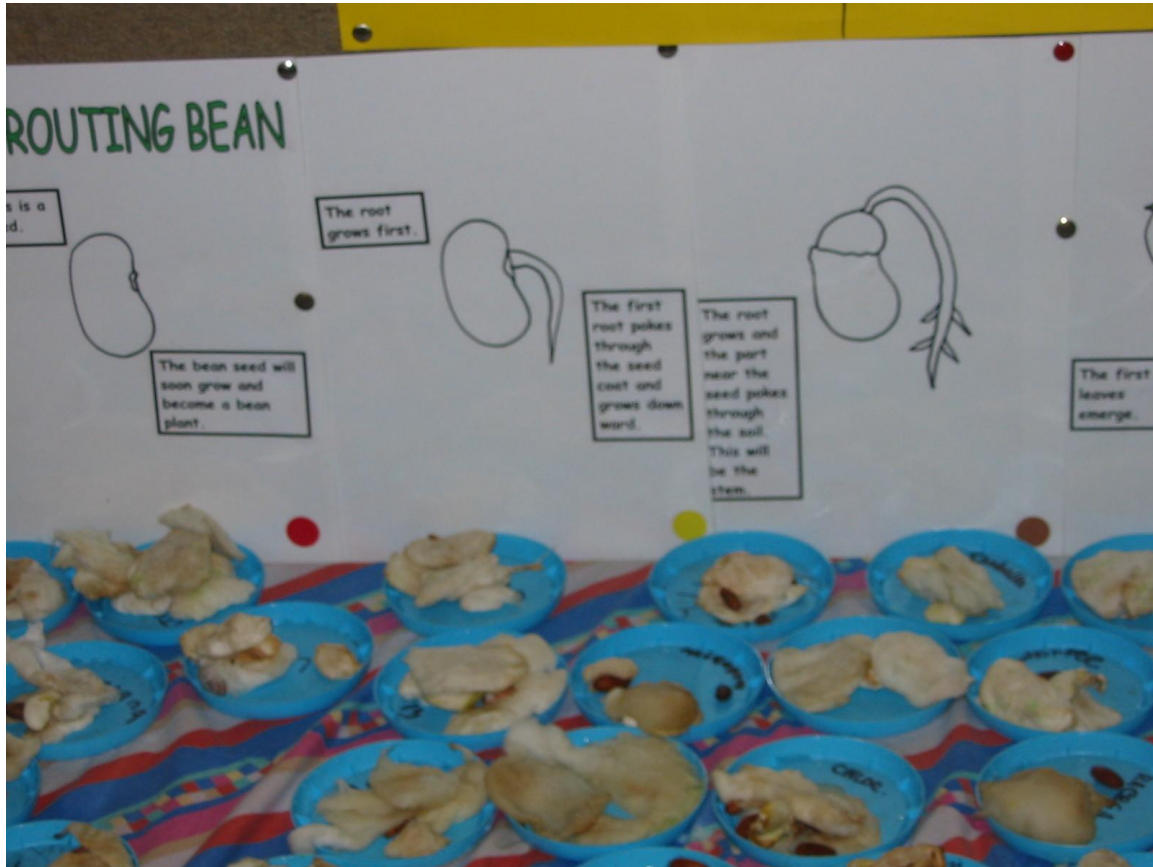
<sup>4</sup> See Appendix 4 on p. 185 for ideas of how to construct a fantasy play area in under- resourced schools.



**Photo 1:** Construction of fantasy corner made up of learner's creative tasks.

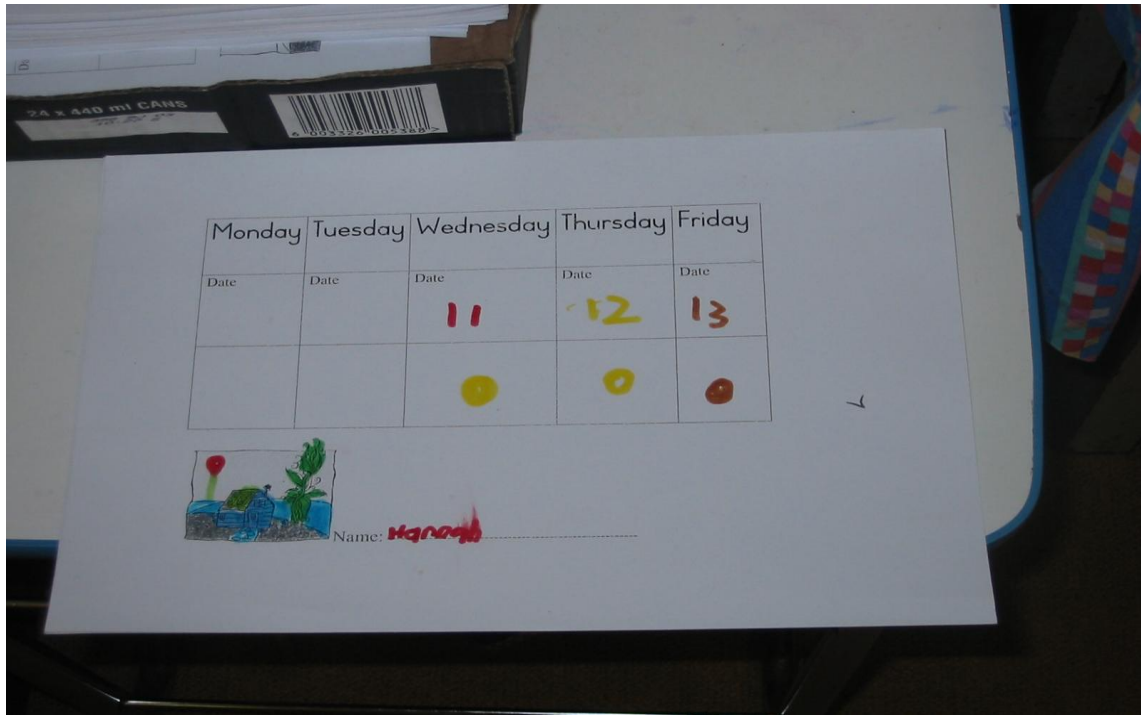
- Role play around the story of *Jack and the Beanstalk* took place each morning after ring time. -All learners participated in this game and percussion instruments were used to enhance listening skills and language development, for example a drum was used when learners recited the giants verse. The story was broken up into chapters and acted out over a period of a week. During the role play the emotions and behaviour of the characters in the story were carefully examined, for instance was it appropriate for Jack to steal from the giant and how did Jack feel when his mom sent him to bed with no supper.
- Learners grew beans by germinating them on an individual platter under damp cotton wool. The stages of the beans growth were

discussed and illustrated at the table where the beans were watered and observed on a daily basis.



**Photo 2:** Germinating beans and diagrammatic posters for data capture.

- Learners captured data round the growth of their beans using a colour coded dot attached to the illustrations at the observation table. Each learner made use of a weekly table on which they had to record the date and a dot which showed the stage of development of their beans. Learners were encouraged to discuss what stage and coloured dot would be appropriate. As this task ran for three weeks, learners had ample opportunity to practice their data capture skills.



**Photo 3:** Learner table showing attempts at data capture

- Different versions of the fairy tale of *Jack and the Beanstalk* were read to the learners and the differences were discussed together with the behaviour and emotions of the different characters.
- Learners made their own illustrations of the story of *Jack and the Beanstalk* framing their pictures with a pattern of beans. The concept of a pattern was discussed at length.



**Photo 4:** Learners used mixed media to create their pictures of Jack and the Beanstalk.

- Learners made their own books to illustrate the growth of the bean. They were encouraged to sequence the progress of the bean appropriately and discuss why they chose a particular sequence.
- Learners made a large paper mosaic giant which was then placed in the fantasy corner. Learners had to work co-operatively and over a week to complete this art activity. It was designed to allow for perseverance and to help build on the understanding of size.



**Photo 5:** Large paper mosaic giant placed in fantasy corner.

- Learners planted their germinated beans in the school vegetable patch. They labeled their own beans in order that they could watch the beans progress.

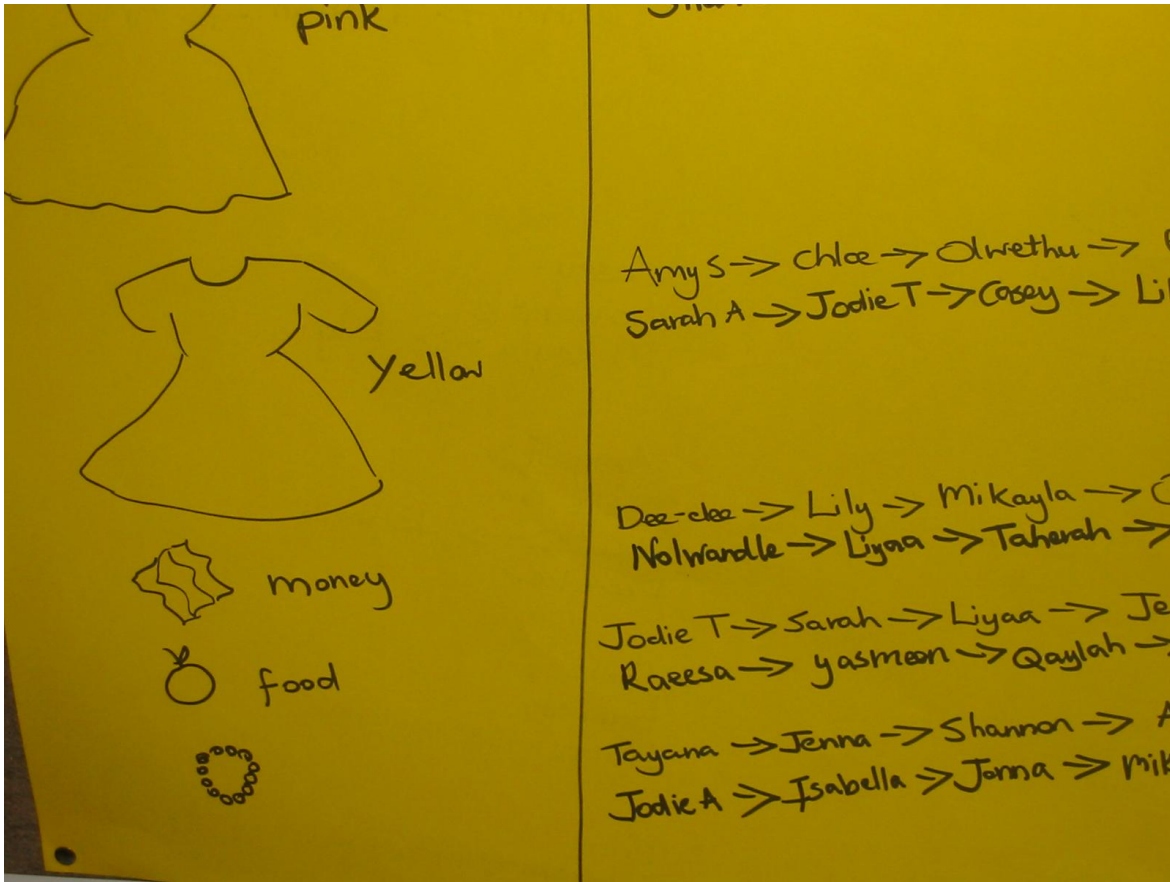


**Photo 6:** Learners planting germinating beans.

- Learners had 40 minutes each morning to play in the *Jack and the Beanstalk* dress up corner. At the beginning of each day learners discussed who would take turns with the most popular or desirable play items<sup>5</sup>. These were illustrated by means of an icon on a large chart to facilitate “reading”. The icon was followed by three to four names of learners who would have the opportunity to play with the designated items. Over the course of a week the researcher ensured that every learner had, had an opportunity with all the popular items.

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<sup>5</sup> See Appendix 4 on p. 185 for more ideas on how to create an icon chart in under-resourced schools.



**Photo 7:** Poster showing icons and names of learners.

- A sharing tree was placed on the notice board and learners were informed that if they were observed sharing appropriately, they would get their name placed on a leaf of the sharing tree. At the end of the two week period, the learner with the most leaves would receive a reward.



**Photo 8:** Sharing tree with class rules and icon chart in the back ground.

- The researcher provided appropriate dialogue for learners who struggled to resolve conflict, for instance “When you have finished your turn, please may I have a turn.”<sup>6</sup>
- The researcher broke tasks down into easy stages which were then reaffirmed by the learners. This was done before any activity was started. Learners were encouraged to suggest a way of doing a particular task and to explain why an approach was approved, for instance putting one’s name at the back of a piece of art work before starting to paint as turning it over after the fact, would result in the spoiling of the creation.

<sup>6</sup> See Appendix 4 on p. 185 for more ideas of use of appropriate dialogue in mediation

- Learners were verbally praised when they remembered their manners or waited a turn without making a fuss.
- Class rules were placed on mini posters above the sharing tree and learners were reminded of the rules, for instance using an “inside” voice or packing away when we have finished playing.

#### ***4.2.3 Post-mediation***

After the Research programme has been implemented, another week of observational filming took place and each of the twenty-five learners were interviewed<sup>7</sup> again using the same questionnaire and circumstances namely a quiet space free from distractions. They were assigned a score on a scale of 1-5 for organizational skills, emotional competency and problem-solving skills. This score was determined over a week of behaviour. The researcher did not consciously mediate but rather provided gentle reminders when deemed necessary. The purpose for this was to see if any of the newly acquired self-regulatory skills had been internalised.

#### ***4.2.4 Interview questions***

The test was a modification of Perels et al.’s (2009) puppet questionnaire which asked the child to explain how they would go about learning to ride a bike. The purpose of this question was to see if the learner was able to organize their thinking in a logical manner. The learners were asked to explain how they would make a sandwich and also how they would make their own bed. The purpose behind this was to see if they were able to transfer their organizational skills to their home environment. They were asked questions based on the story of *Jack and the Beanstalk* to ascertain if

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<sup>7</sup> See Appendix 2 on p. 170-182 for transcript of post-mediation interview.

they had shifted their understanding of the emotions in the story and achieved more in-depth knowledge. Questions around problem solving were asked in order to see if learners were able to solve a problem and if their skill in this area had shifted between the pre-mediation and post-mediation stages of research. This was to help the researcher to determine if the learners had gained any new insights in their understanding of emotions; learnt more effectively as suggested by Karpov (2005) and could plan a particular task or problem solve and therefore facilitate self-regulation.

#### ***4.2.5 Journals***

The researcher kept a weekly journal of events in the classroom to allow for additional observations and evidence of events that may affect the research. This helped the researcher to reflect on the progress of the research and to keep a record of any concerns that may arise during the research process. Babbie and Mouton (2010) consider “extensive field notes” to be a useful method of enhancing validity and reliability as they enable the researcher to contradict or enhance original theoretical ideas and can allow for necessary adjustments in research design as the project progresses. Some adjustments that arose from the journal notes were around changing recording of interviews from simple audio recordings to filmed recordings and adjusting the daily routine to accommodate additional “play” time in order for the benefits of mediation in play, to be fully realized. This meant that educators in the whole school had to be informed that learners in the preschool would not be attending certain activities that were part of their weekly programme, for example computers or library lessons.

### **4.3 Data collection**

The purpose of the case study was to carry out mediation of self-regulation as a means of intervention to improve learners' self-regulatory processes which is crucial for their successful learning in the school environment. By attempting to measure and observe a pre and post-mediation condition the researcher was presenting a study of comparison.

It was felt that as this was a qualitative case study, and therefore essentially not meant to be about numerical measurement complicated statistics would not be necessary, although some rudimentary scoring was used to facilitate an understanding of any shift in self-regulation. A numerical rating scale was used (see Table 2, p. 86) as it was relatively easy to construct and yields number that could be directly used in statistical analysis (Kerlinger, 1984). A verbal description was attached to each number in order to increase validity and facilitate application of the rating scale. The researcher was aware of the potential difficulties pertaining to the 'halo effect,' for instance bias around general impression of a learner or allowing characteristics in one aspect of self-regulation to influence another (Kerlinger, 1984).

Language expressed by participants and observation of learners, would be the primary means of gauging behaviour. In line with Vygotsky's theory that language is key to how we shape our thinking, the researcher needed to assist the learners by providing appropriate problem-solving dialogue, language for goal setting and planning. These tools were part of the research

project, in addition to using literature as a further launch pad for stimulating creative fantasy play and improving opportunities for self-regulation.

Learners were observed in their general classroom setting whilst engaged in class activities, playing in the fantasy corner and during their individual interviews. The observations were filmed over a six week period and covered the pre-mediation, mediation and post-mediation stages of research. During the pre-mediation and post-mediation stages of research, learners were assigned individual scores on an observation grid (see Tables 2 & 3, p. 86 & 89) whilst being observed in the areas of problem-solving, organizational skills and emotional skills. The observation scores were assigned from a week's worth of observation whilst scores were also allocated from interviews given in the pre-mediation and post-mediation conditions. Each question in the interviews had their own score (see Tables 1 & 2, p. 86) and also dealt with the three areas of self-regulation namely problem-solving, organizational skills and emotional skills.

#### ***4.3.1 Validity and reliability***

The nature of the age group, namely 5 to 7 years, makes it difficult to collect data as learners are unable to write down their feelings at preschool age and are often unable to verbalize what they are experiencing. This means that a number of methods needed to be employed in order to provide triangulation, reliability and validity.

According to Babbie and Mouton (2010) triangulation is generally considered to be one of the best ways in which the researcher can enhance

validity and reliability in qualitative research. Triangulation is essential in this qualitative case study as it is a means of checking results from a variety of sources thereby increasing the potential for yielding valid results (Cohen et al., 2007). It reduces the potential for the emergence of bias which may arise out of using only one method of data capture (Denzin, 2006). According to Cohen et al. (2007) ‘Triangulation may be defined as the use of two or more methods of data collection in the study of some aspect of human behaviour’ and enables the researcher to attempt to explain or “map out” the complexities of human behaviour (Cohen et al., 2007, p.141).

In this case study the researcher made use of ‘methodological triangulation’ which employs more than one method to gather data such as interviews, observations, questionnaires and film documentation (Denzin, 2006). The interviews provided the researcher with data that demonstrated a potential shift between the pre and post-mediation conditions with the shift being expressed verbally by means of carefully posed questions. Observation is a common means of assessing preschoolers (WCED, 2006) and the researcher has had many years of experience in this regard and therefore is familiar with what aspects are important to note, for instance inability to share or plan a task; verbal expressions of frustration and students functioning on the periphery of a play group. The researcher was therefore well equipped to make informed observations.

Kerlinger considers observation to be potentially problematic because “when an interpretative burden is put on the observer, validity may suffer” owing to the individual observers bias (Kerlinger, 1984, p.488). He does however feel that much of this can be overcome when the variables being measured

by the observer are sufficiently embedded in theoretical groundwork. This is indeed the case for this thesis (see Chapter 2, p. 31) and will be discussed further in Chapter 6 (see p.124).

Observations were noted both on an observation grid assigned to each individual in the case study and learners were filmed on a daily basis over a six week period covering all stages of the research. The filming allowed the researcher to revisit daily events and notice additional details that may have been missed during the teaching day.

Furthermore the researcher kept a journal which allowed for reflection and general field notes which facilitated additional recall of observations in the classroom and in the school as a context for research. This meant that the researcher would be able to determine if any general factors taking place in the school, for example a *Readathon* week or the long break for the Federation of International Football Association (FIFA) World Cup, might affect the research data.

Methodological triangulation is most frequently used in case studies in education as it allows for the use of either the same method on different occasions or different methods on the same object of study (Cohen et al., 2007). In this case study observation was the predominant tool that was used but it was also interspersed with use of interviews, journals and active engaging with the learners. In the preschool classroom the researcher has to be able to adjust their methods of research in order to accommodate the unpredictability of the preschool learner, for instance some of the interview questions had to be reworded in order to assist the learner to understand

what was being asked. For this particular research, methodological triangulation enabled the researcher to understand the individual learner and the group of learners within a classroom setting.

Reliability in qualitative research according to Cohen et al. (2007) has its meaning more in the notion of ‘dependability’ and ‘trustworthiness’. This means that there needs to be accuracy and comprehensive understanding in the way in which data is collected in order that it should reflect the “true” nature of the case study. According to Kerlinger (1984) filming and tapes can help to achieve a high level of reliability together with allowing other parties to assist with the observation process. By analyzing and filming daily, the researcher was able to determine minor shifts in self-regulation. Filming directly reflected what was actually happening and learners needed to be comfortable with the process. This was established by habituating the learners to the presence of the camera prior to the research period. Teacher assistants did some of the filming in order to provide an objective third party to help illustrate what was happening in the case study.

Interview questions needed to be carefully constructed to avoid bias and were screened by supervisors prior to the research period beginning. Questions were chosen to reflect understanding around problem solving, in-depth understanding of emotions and the ability to organize thinking (see Table 1 p. 86.).

#### ***4.3.2 Observation***

The observation of the learners during fantasy play and whilst engaging in general classroom activities linked to the fantasy theme was key to the

gathering of data. This type of observation is described by Kerlinger (1984) as “event sampling” and involves the observation of classroom interactions between teacher and learners. It also allows for natural lifelike situations and continuity of behaviour.

The researcher moved between “participant observation” and ‘non-participant observation’ as the research required intervention through mediation on the part of the researcher as well as observing how learners mediated each other and demonstrated levels of self-regulation (Cohen et al., 2007, p.122-123). The researcher did not however ‘play’ alongside the learners as this would inhibit free play (Bodrova & Leong, 2007). The researcher was a participant in the sense that she taught the learners that made up the case study and as such would have an effect on what was being observed (Babbie & Mouton, 2010). The researcher was also aiming to mediate and consciously bring about change by providing appropriate dialogue, guiding problem solving and equipping learners with the tools for organizing their tasks and thinking.

The researcher observed role play in the fantasy corner without intervention for a period of two weeks prior to starting active mediation. This helped establish a baseline of behaviour. Once the mediation period began the researcher was actively assisting the learners to resolve conflict, set goals around tools for play, guiding the construction of the fantasy area, helping to resolve problems through suggestions and providing dialogue. The researcher also allowed for conscious role play when the story of *Jack and the Beanstalk* was dramatized. Rules of the game were clearly defined and all of the learners participated. In this way the researcher was directing role

play but also allowing for individual interpretation. Learners were observed whilst engaging in creative activities and data capture linked to the growing of their beans. The researcher filmed this work as well as actively suggesting the breaking down of a task when planning/organization was seen to be a problem. Learners were encouraged to demonstrate appropriate self-regulation around sharing, helping one another and working co-operatively. This was mediated when deemed necessary with the researcher moving in a fluid manner between participant and non-participant.

#### ***4.3.3 Recordings of interviews***

Recording of interviews with the learners explaining what they are learning. Babbie & Mouton (2010) describe a number of different types of interview namely “basic, depth’ and ‘focus group”. This research project made use of the ‘basic method’ which is an open interview allowing the subjects to speak for themselves (Cohen et al., 2007). “We need to recognize that the interview is a shared, negotiated and dynamic social moment” (Cohen et al., 2007). These interviews<sup>8</sup> would fall into the “less formal” category in that although there was a set of questions asked, because the age group that was being sampled had difficulties with the language of the questions, it was necessary in some cases, to rephrase a question in order to receive an answer<sup>9</sup> (Cohen et al., 2007, p.291). They caution the researcher to take cognizance of the role of the power the interviewer holds when conducting an interview. This could entail their ability to influence the interviewee, make them feel uncomfortable, judged or even feel unable to trust the

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<sup>8</sup> See Appendix 2 on p. 170-182 for transcripts showing language issues.

<sup>9</sup> See Appendix 2 p. 170-182 for transcripts demonstrating difficulties of interviewing preschoolers.

process. They recommend a number of points in order to facilitate an effective interview particularly with children. These are as follows:

- establish trust;
- maintain a level of informality;
- pitch questions correctly;
- watch non-verbal cues;
- avoid being seen as an authority;
- allow for the participant to take some time in answering a question;
- know your participants in order to conduct the interview appropriately;
- be sensitive and empathic, employing active listening.

(Adapted from Cohen et al. 2007)

The above mentioned points were noted and all attempts were made to achieve them. Knowledge of the learners was already present in that the researcher is also the educator. She was therefore sensitive to the temperaments of the respective participants. Interviews took place in an enclosed part of the classroom where learners would be free from distraction but were familiar with the area and therefore felt reasonably relaxed.

**Table 1:** Interview questions. Questions were scored on a rating scale of 1-5

Area of self-regulation	Question
<b>Organizational skills</b>	How would you learn to ride a bicycle?
	How would you make a sandwich for your lunchbox?
	How would you go about eating an enormous bowl of porridge when you are small like Jack?
	How do you make your bed in the morning?
	How can Jack plant the 'magic beans' in the garden?
<b>Understanding of emotions</b>	In the story <i>Jack and the beanstalk</i> how do you think Jack feels when his mother sends him to bed without any supper?
	How does Jack's mother feel when he brings home the hen that lays the golden eggs and why?
	What do you think of the Giant's wife when she gives Jack some food and hides him away from the giant?
	What do you do when you are scared and why?
	How do you feel when Mom/Dad gets cross with you and why?
<b>Problem solving</b>	What would you do if you were offered 'magic beans' in place of your only cow that gives you food and why?
	Was Jack wrong to steal from the giant and why?
	Do you think that Jack should keep going back to steal from the giant and why?
	Where should Jack hide in order to avoid the giant and why?
	How can Jack escape from the Giant's castle when the golden harp keeps making a noise and singing?

**Table 2:** Scale used for rating questions in the pre- and post-mediation conditions.

Score 1	Score 2	Score 3	Score 4	Score 5
Unable to demonstrate understanding of emotion/solve a problem/organise a task.	Beginning to understand emotions with a basic label/ recognises a problem but can't solve it/ has some steps to organizing a task.	Can describe emotions but not necessarily accurate to situation/ solve part of the problem/ organise part of the task.	Can describe emotions but not explain why/ can solve most of the problem / can organise the task most of the way towards completion.	Can easily label the emotion and describe why they feel this way/can solve problem easily and logically/can organise task appropriately and effectively.

#### ***4.3.4 Select transcripts of interviews***

A selection of transcripts of interviews was taken from film footage of learners in the pre and post research period. These were used to support the findings and discussion chapters when particular shifts in the pre and post-mediation conditions, needed to be illustrated.

The benefit of a transcript is that it is readable by anyone wishing to explore this research project and does not require the technology to view a film. Sections of the transcripts can also be used for additional research papers. According to Cohen et al. (2007) there are disadvantages attached to using transcripts in that they are decontextualized, somewhat abstracted from the time in which they were filmed and from the live situation in which they occurred. Cohen et al. (2007, p.367) refer to them as being “frozen”. They do not argue against using transcripts but rather suggest a number of possible additions that should be noted when writing up the transcriptions. These involve the following:

- noting the tone of the speaker;
- noting the inflection in a voice;
- noting pauses or silences;
- noting interruptions;
- noting the mood of the speaker;
- how fast does the speaker talk;
- is there any indecipherable speech;
- where possible use filming as this allows for the researcher to refer back to subtleties of expression and body language.

(Adapted from Cohen et al., 2007, p.368)

The researcher primarily used film footage to analyze the data as this allowed for evidence of body language, tone and expression. Substantial footage was taken and can be used for future research. For the purposes of this thesis, limited but relevant short transcripts were used.

#### ***4.3.5 Video recording***

Video recording of the children took place during fantasy play and some of the extension activities in the classroom. It was also used when interviewing each of the twenty-five participants. This was a useful tool which allowed for detailed analysis both during this research project and when transcribing the interviews (Cohen et al., 2007). In order to habituate the learners to the presence of the camera, filming began in the second term. Learners were informed as to the purpose of the filming. They were initially a little self-conscious but quickly adapted particularly as the camera being used was small and hand-held. This meant that it was relatively unobtrusive.

#### ***4.3.6 Observational grid***

An observational grid test was taken on all twenty-five of the learners both in the pre and in the post research period (see Table 3 p. 89). This test was used to establish a base line of cognitive ability linked to emotional skills, organizational skills and problem solving and was repeated in order to establish if there had been any observable shift in the learner's ability to self-regulate. A five point scale was used to rate (see Tables 2, 3 & 4 p. 86-89) the three criteria for self-regulation and was applied and scored per week for three weeks prior to the research period. Scores were taken per week to establish a rate of change. This exercise was repeated after the period of

mediation had been applied. It is understood that there would be some fluid overlap between the criteria used to determine behaviour in the three areas of study, but for the purposes of this thesis and to facilitate a relatively simple scoring system, it was deemed acceptable to work within the designated parameters.

**Table 3:** Grid used for observation of learners during the pre-mediation and post-mediation stages of research.

Name	Date	Problem-solving skills	Emotional Skills	Organizational skills	Cumulative score
<b>Score description</b>	1 Very poor	2 Below average	3 Moderate	4 Good	5 Excellent

**Table 4:** Criteria for application of scores 1-5 in Problem solving.

<b>Problem-solving skills</b>
1: Unable to recognize that there is a problem and has no idea how to resolve conflict. Is very agitated/frustrated often resulting in aggressive or inappropriate behaviour.
2. Beginning to recognize there is a problem and needs to ask for help.
3. Asks for assistance but struggles to put instructions into practice and frequently needs to practice.
4. Knows what is required to resolve conflict but asks for confirmation of problem-solving techniques.
5. Is able to resolve conflict without any assistance and may even help peers to resolve conflict.

**Table 5:** Criteria for application of scores 1-5 for Emotional skills.

<b>Emotional Skills</b>
1. Reacts without thinking which frequently results in conflict with peers or Educator.
2. Is able to control impulses some of the time but this is infrequent and loses control when excited.
3. Can control impulses most of the time and is aware that they need to manage their behaviour but still needs to practice this management. They still ask for mediation from the Educator.
4. Can control impulses regularly with very occasional lapses but is able to recognize inappropriate behaviour and correct the problem without assistance.
5. Has mature impulse control and is able to assist peers.

**Table 6:** Criteria for application of scores 1-5 for Organizational skills.

<b>Organizational skills</b>
1. Frequently struggles to manage possession, remember message books and plan tasks. Feels helpless unless assisted by Educator / parent/ peers. Time management is poor resulting in incomplete/ poorly executed work.
2. Can infrequently remember message book, put possessions away when reminded and plan simple tasks without assistance but performance is erratic and needs to practice planning, time management and goal setting.
3. Generally able to remember daily routine with occasional prompting from Educator/ parent and can plan most tasks but does need assistance with more complex activities.
4. Able to set a goal for an activity, achieve it through logical planning and infrequently requires help from Educator. Generally careful with possessions and able to manage time successfully.
5. Able to execute a complex task, remembers daily routine without prompting, careful with possessions, good goal setting and able to assist peers and manage time appropriately.

#### **4.4 Data analysis**

The data that the researcher was trying to obtain was a demonstration of more regulated behaviour and less impulsivity, the ability to understand and independently solve a problem and to organize and plan a task thereby enabling the learner to succeed in the activity in which they are engaged. This was determined by looking for the following:

- Verbal expression of an understanding of more regulated behaviour which should be expressed during the interview process which was recorded in order to provide concrete evidence for analysis. The analysis would assess verbal planning, sequential steps in thinking and cognitive understanding of the task at hand. It also looked for verbal expression of an understanding of emotions linked to the story of *Jack and the Beanstalk*.
- Verbal expression during role play periods that the participants knew what to say when they encountered a problem, for instance “Please may I have a turn when you have finished your turn”/ “Please can you help me tie this apron” followed by a “thank you”.
- An ability the learner to ask for assistance either from the learner’s peers or from the researcher but that this method was not over used and there was evidence of the learner endeavoring to resolve their own problems.
- Acknowledgement of class rules and game playing rules. This should be evident in class activities as well as in the role playing environment, for instance respecting the toys, packing up when asked, using ‘inside voices’ when in the classroom.
- Was there a contrast between the pre-mediation film footage of role play and the post-mediation footage? The researcher would be looking to see if the participants had continued to resolve conflict, share appropriately, plan tasks and problem solve.
- Evidence of learning that allowed the child to move from the abstract to a more concrete understanding of self regulation, with the assistance of mediation. How much did the teacher need to intervene in order to

promote this type of learning and what exactly did the teacher need to do to promote self-regulation?

- If the extension of the theme into the rest of the classroom, promoted further learning around self-regulation, for example they linked the care of the bean to caring for each other and perhaps how the giant's wife cared for Jack by feeding him. In this way the learners showed evidence of caring for something or someone outside of themselves. Participants were able to plan a task and succeeded without too much mediation from the researcher or peers.
- Is there a contrast in depth of understanding expressed between the first set of interviews and the post-mediation set in that the participant is better able to comprehend emotions; plan a task, for instance planting a bean/making a sandwich/making a bed; showed some problem-solving skills and is less impulsive in their response to the questions asked.
- The participants' data capture sheets linked to the growing of their beans would show if they are able to organize information and plan a task. Was there a change over the three weeks that the learners performed the data capture task, i.e. did practicing the task improve their ability to perform it.
- Film footage was carefully examined to see what tools the learners were using when involved in play and did these tools suggest a ZPD which enabled the learners to develop more advanced social skills, for instance playing at being a teacher, mother, or member of the work force.
- Film footage was carefully examined for evidence of improved listening skills, impulse control during structured lessons and absorption of

information linked to the theme that showed some understanding of emotions.

The same 5-point scale criteria used for the observation grid, was applied to each interview question and each question was assigned a score (see Tables 1, 2 & 4, p. 86-89). These scores were then converted into a percentage. Interview data was statistically analyzed using a non-parametric Chi-squared *t*-test (Everitt, 1977) which was applied to determine the extent of the efficacy of mediation on self-regulation for preschool learners. The collected data was analysed using a statistical computer program written by R. Development Core team (2009). A non-parametric test was chosen because it allowed for a comparison between a pre and post condition which this thesis was endeavoring to analyze (Kerlinger, 1984). It is also considered an appropriate test when a small sample has been taken which in this case applies to a case study performed on one specific class of twenty-five learners (Kerlinger, 1984). Furthermore a *t*-test allows for an accurate answer to the question of the significance of the difference between two means in this case the pre and post-mediation conditions of self-regulation (Plutchik, 1968).

#### **4.5 Limitations of study**

The small nature of the sample group together with this being a case study limit the potential for generalizations gleaned from the data gathered. The purpose of this research was not however to simply generalize but rather to provide evidence that a shift can occur when an educator consciously

mediates to facilitate self-regulation. Its purpose was also to help educators to understand the importance of facilitating self-regulation and to provide some tools to assist them in this regard.

As this research took place in a busy school environment, there were some problems around finding sufficient time to allow for extensive role play, interviews and observing of learners and gathering of data. The researcher did endeavour to work around these challenges by re-organising the timetable and informing other educators when lessons needed to be shifted to accommodate the gathering of data. Furthermore the case study comprised respondents who were in the preschool age group (5-7 years) and consequently they had certain limitations around understanding questions and tasks, together with expressing themselves (see Appendix 2 p. 170-182). This was particularly true for second language learners with Afrikaans or Xhosa as their home language. The researcher did however take this into account and tried as much as possible to either rephrase a question or to redirect the learner without influencing their answer. Finally the case study demographic was taken from the researcher's own class and as observation was the primary means of gathering data, the subjectivity of the researcher and her potential for bias must be taken into consideration. The use of film footage (where possible filmed by teacher assistants) was an attempt to counteract some of this bias because it allowed the researcher to revisit events and potentially see them in an alternative way.

## **4.6 Ethical considerations**

In terms of the ethical<sup>10</sup> considerations pertaining to this study, the researcher ensured that permission was obtained from both the parents and school in order to conduct this research. Respondents were informed that their educator was engaged in research and when asked why they were being filmed, they were told that it was for the purposes of their educator's studies. Confidentiality was maintained throughout and although photos are included in this thesis, no names were used in the report. All attempts were made to habituate learners to the camera and to structure the interview process and questions in such a way as to allow for comfort and ease of data capture.

The main objective of the following chapter will be to address the Findings when the data was analyzed to determine if any significant shift was achieved as a result of conscious mediation on the part of the researcher.

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<sup>10</sup> See Appendix 1 p. 168-170 for details of ethics.

## **5 FINDINGS**

The question of self-regulation being facilitated by mediation on behalf of the kindergarten educator was the basis for the case study in this thesis. The findings in this chapter demonstrate significant shifts between the pre-mediation and post-mediation stages of research.

### **5.1 Demographic**

**Table 7:** Case study demographic

<b>Number of children in class</b>	<b>Gender</b>	<b>Age of learners</b>	<b>Home language of learners</b>
25	female	<ul style="list-style-type: none"><li>• 15 learners six years old during the study.</li><li>• 9 learners five years old during the study.</li><li>• 1 learner seven years old</li></ul>	<ul style="list-style-type: none"><li>• 1 Zulu-speaking</li><li>• 1 Sotho-speaking</li><li>• 1 Xhosa-speaking</li><li>• 2 Afrikaans-speaking</li><li>• 20 English-speaking</li></ul>

Table 7 describes the case study demographic. It should be noted that the case study took place in a single sex South African girls school with a multi-cultural demographic. The age of the learners and their language ability is of significance. Learners at preschool age demonstrate potentially different Zones of proximal development which will affect their ability to be mediated. Furthermore the multi-cultural demographic of this case study presented differential backgrounds which could inhibit the effects of mediation.

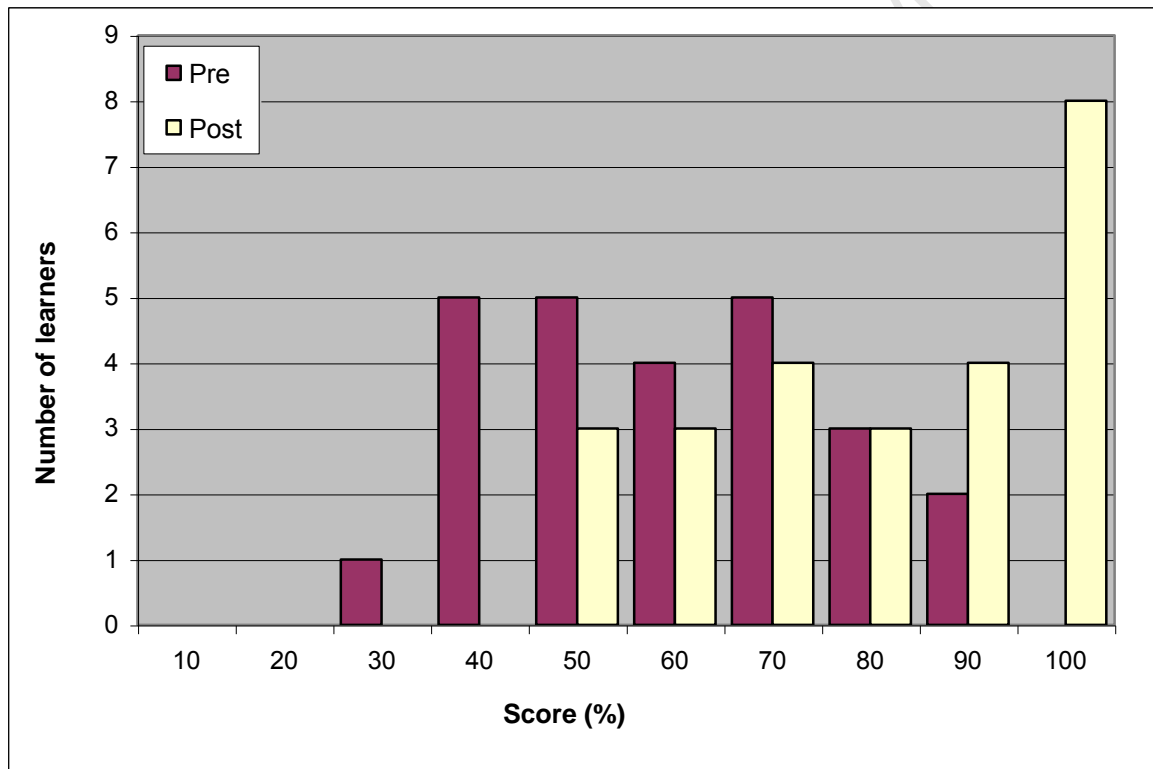
## 5.2 Qualitative data from interviews

Each learner was interviewed during the pre-mediation stage of research and then again in the post-mediation phase of research. Table 8 (see p. 98) shows the general trends from the data gathered in the categories of organizational skills, problem-solving skills and emotional understanding (see methodology p. 61-78). These three areas were chosen to demonstrate a shift in self-regulation. A non-parametric Chi-Squared test (Everitt, 1977) was applied to the data to determine the level of significance between the pre and post conditions. All three areas showed a marked shift with emotional and organizational skills showing a probability around the 0.001 level and problem solving slightly less significant but still note worthy, around the 0.05 level of probability. In the mean, median and mode, all three self-regulatory skills demonstrate a considerable shift between the pre and post conditions.

**Table 8:** Statistical analysis of self-regulation data. Key: \*=P<0.05; \*\*=P<0.01; \*\*\*=P<0.001

	Emotional skills		Problem-solving skills		Organizational skills	
	Pre-mediation	Post-mediation	Pre-mediation	Post-mediation	Pre-mediation	Post-mediation
<b>Mean</b>	58.2	75.1	59.5	74.7	55.5	76.4
<b>Median</b>	60	80	60	76	56	80
<b>Mode</b>	40	88	60	76	64	92
<b>Chi-square</b>	17.6		8.6		13.8	
<b>Degrees of freedom</b>	3		3		3	
<b>P value</b>	0.0005***		0.0348*		0.0032**	

### 5.3 Organizational skills



**Figure 1:** Organizational skills data from interviews.

The graph above shows the data gathered in the pre-mediation and post-mediation stages of research and focuses on the data gathered from individual interviews in the case study. The shift between the pre-mediation and post-mediation results should be noted. In the pre-mediation stage of

research there is a fairly even spread of learners between the 40-70% percentile whilst in the post-mediation stage of research there is a large portion of the learners in the 100% percentile and a good spread between the 50-90% percentile. Around the 80% percentile there is no apparent shift which suggests that some learners may not have benefited from mediation. This could be attributed to their already displaying positive organizational skills in the pre-mediation condition and consequently not showing an obvious shift. The dialogue extracts below demonstrate the contrast in a learner who struggled with organizational skills in the pre-mediation condition but appeared to benefit from mediation and the extension of the theme of *Jack and the Beanstalk* into general class activities as proposed by Karpov (2005).

**Extract 1:** Example showing a shift in organizational skills.

**Pre-mediation Interview**

**Teacher:** Can you tell me how would you go about making yourself a sandwich for your snack box?

**Learner:** Um, What do I put on my sandwich?

**Teacher:** Yes, how would you make yourself a sandwich?

**Learner:** I would put syrup.....and then I'd put.....actually I'd put melted cheese.

**Teacher:** On what? What are you putting it on?

**Learner:** Do you know that flat thing that goes up and then you press it down and then you leave it alone?

**Teacher:** Are you talking about a snackwich maker?

**Learner:** Yes.

**Teacher:** O.K. So how would you make yourself a snackwich?

**Learner:** Hmm..., that's how I'd do it.

**Teacher:** You'd just put syrup on something?

**Learner:** Yes.

**Teacher:** O.K.

**Extract 2:** Example showing a shift in organizational skills

**Post-mediation Interview**

**Teacher:** Tell me, pretend teacher is very stupid and I don't know how to make a sandwich, explain to me how would I make myself a sandwich?

**Learner:** You first, you first get the bread. Then you put butter. Then you put what you want. Then you put it on. Then you get another slice of bread. Then you put it on and then if you want to cut it then you can.

The contrast in length of dialogue between the two interviews, together with the confusion in understanding the question in the pre-mediation interview, suggests a shift in understanding on the part of the learner during the post-mediation interview. The post-mediation text demonstrates a more logical sequence of thought and understanding of the question being asked. At no stage were learners instructed on how to make a sandwich nor did they actually perform this task in class time. The purpose of this question was to determine if organizational skills that had been put in place with general school tasks, were being carried over into domestic activities. It was also seen as an opportunity to determine if learners could organize their thinking around a simple task.

As illustrated in Table 9 (see p. 101) during general class activities in the pre-mediation stage of research, some learners struggled to complete tasks within the given time (Task 1), others appeared to have difficulties following the instructions and needed those instructions to be repeated (Task 3). Some learners needed validation (e.g. wanting praise for everything they were doing) and confirmation (e.g. showing their teacher their work after each step of a task) that they were following the correct sequence in tasks whilst others simply did their own version of a task and deviated completely (Task 2). Even with an example to follow and reminders given about names on

work and how to organize a task, some learners continued to struggle with this skill (Tasks 2,3,4 of Table 9). The examples cited below demonstrates some of the problems that presented during the pre-mediation condition.

**Table 9:** Pre-mediation Organizational skills

Examples of tasks/incidents	Learner response
<p>1. Learners were asked to make a box construction of a circus train and place the animals they had drawn on the box.</p>	<p>1. Many learners placed their animals upside down, put trees inside the carriage with the tops sticking out of the carriage, forgot to make a pair of animals as instructed or made two different animals. Many learners struggled with time management and were not able to complete the task in the time allocated.</p>
<p>2. Learners participated in a Pritt competition and had to place their names at the back of the work before constructing their collage. The collage consisted of many elements but an example was provided and the elements were discussed in detail.</p>	<p>2. Some learners forgot to place their name on their work at the beginning of the exercise and had to be reminded. Other learners wrote their names on the front despite being asked not to do so. Some learners did not follow the example and simply did their own picture using the materials provided. Some learners used too much glue and too many of a particular resource whilst others did not use enough of the glue or materials provided. Learners struggled to complete the task in the time given and some chose to pick glue off their fingers instead of doing the set task.</p>
<p>3. Learners were asked to make a pair of paper mittens using pastels to construct a pattern and a colour ink wash over the design. The concept of a 'pair' was discussed as was the idea of pattern which had been revisited on many occasions.</p>	<p>3. Some learners did not make a matching pair either in terms of their pattern or in terms of their colour wash. Some learners tried to put their names on wet ink and others forgot. Some learners wanted to do the colour wash before the pastel.</p>
<p>4. Learners were asked to cut out coloured paper shapes to construct a clown face. They were also told to add some hair using some recycled orange paper.</p>	<p>4. Learners forgot to put their names on their work. Some learners put too much glue on their work and then placed their work on top of another child's work on the drying rack which resulted in work sticking together. Some learners forgot the final step of putting on the hair and others took too long and did not complete the task.</p>

Table 9 described difficulties with organizational skills that were observed during activity time at the pre-mediation stage of research. Task (1) shows the learners not following instructions around making a 'pair' of animals for their carriages, whilst Task (4) shows learners forgetting to add the final stage of hair to their clowns. This could imply problems in understanding a task, which could be language related, age related or difficulties in retaining all the steps that were given because of an immature concentration span. In Task (3) some learners struggled to organize their logical thinking and wanted to put ink on the paper before drawing their patterns. This suggests difficulties around organizing or planning a task.

Learners were reminded on a daily basis since the beginning of the year, to place their names on their work and should therefore be familiar with this as a basic step in any creative activity. Tasks (2), (3), and (4) of the above mentioned table all demonstrate that this fundamental organizational skill is not yet internalised. All learners were given basic instructions and examples for class activities at the beginning of each lesson but as all of the above examples demonstrate, learners were struggling to follow the instructions, plan their tasks and remember all the steps given. Time management on the part of the learners, together with the use of logical steps in managing a task, are clearly absent in the above tabled examples, for instance Task (4) where learners took too long over their task and were unable to finish in the designated time and task (3) where learners endeavored to put their names on wet work. At the time of observation the learners had been in preschool for six months.

Table 10 below describes some of the shifts that took place in the post-mediation condition. The learners appeared to be better able to work independently following the mediation period, such as Task (4) where learners organized their own game and executed the game without conflict or intervention from the researcher. This is particularly commendable as the game concerned was potentially violent and could have led to conflict.

**Table 10:** Post-mediation Organizational skills.

Examples of tasks/incidents	Learner response
<p>1. Learners were instructed on how to make a cow mask out of cardboard and water colour paints. The colours were discussed and the steps of the task described. The steps were revisited and carefully unpacked before the task was begun. Learners had to verbally state what the necessary steps involved.</p>	<p>1. Learners were happy to work independently and appeared to enjoy discussing the colours they were using and why they were appropriate for the animal concerned. All learners remembered to place their names at the back of the mask before painting and to place their completed work on the drying rack separate from a peers art.</p>
<p>2. As a class learners were given the opportunity to play the traditional game of 'Farmers in the dell'. In this game each child is provided with a mask of either a family member or farm animal. A song is sung and each character is called into the centre of the circle. The game ends with all the learners tapping the head of the person who is the 'cheese'.</p>	<p>2. Learners listened carefully to the rules and instructions of the game. One learner said 'If we want to have fun we must respect the rules and listen nicely'. This answer was unsolicited by the researcher. When asked to exchange masks learners were able to do so without conflict, remembered their manners and were gentle when tapping the person who was the 'cheese'. Learners proceeded to play the game without the researchers help during outside play time.</p>
<p>3. During role play learners frequently pretend to be the class teacher and teach the alphabet or read stories to a group of learners.</p>	<p>3. The learner quickly organized a group of peers to be her students and calmly instructed them on the task they would be performing. They happily co-operated with the rules of the game and she decided to grade their writing of their ABC but chose to give them all an 'A' so that no one would be offended.</p>
<p>4. During role play, learners have access to various props in the fantasy play corner. Amongst these were some fans, a remote control and a pretend hair dryer. Learners have forty minutes per day to</p>	<p>4. A group of learners decided to pretend that they had super powers and used the fans, remote and hair dryer to perform a dance-like battle. This game extended over a week and at no time did</p>

play in this area but they must follow class rules which involve sharing, respect for one another and safety in the classroom.	any learner break the rules of the game or of the classroom. Learners were free to move in and out of the game and it was generally well organized.
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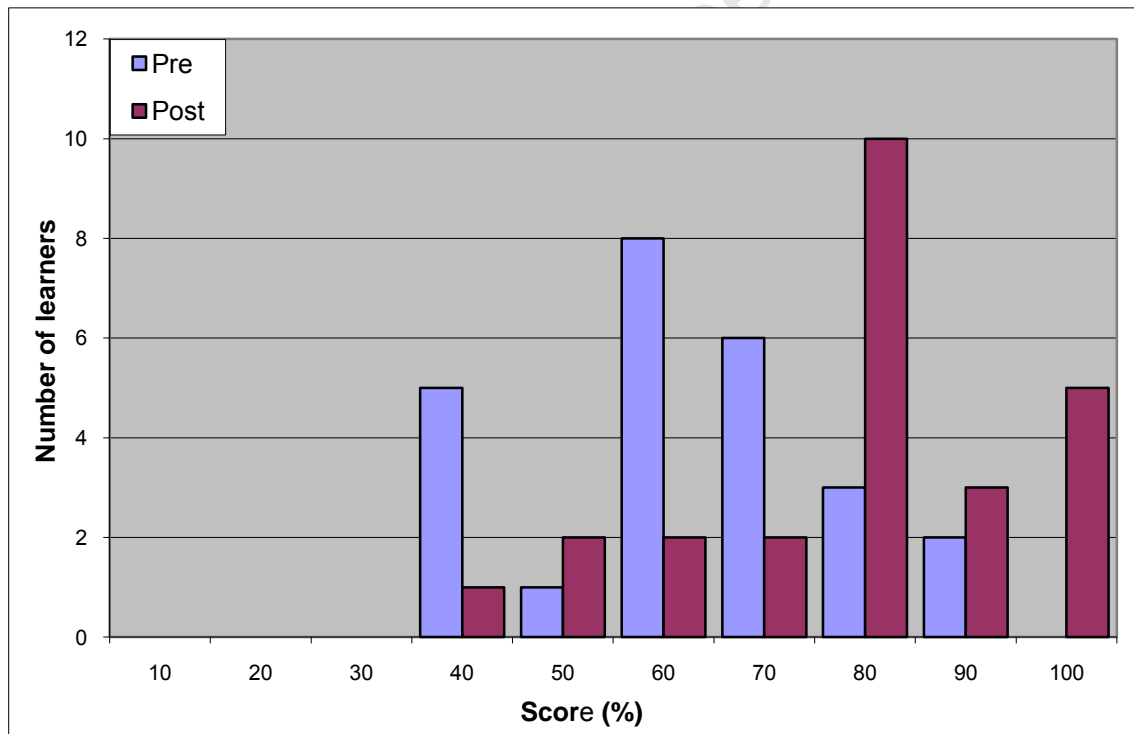
Learners were also keen to practice the new tools they had acquired and enjoyed validation when they had consciously chosen to share and include friends in a game. Validation was given verbally and by means of marbles in a reward jar. When a particular level of marbles was met then the whole class would receive a reward. In this way learners were working for the benefit of their class community. In Table 10 (see p. 103), Task (3) in which a learner role plays the part of the teacher it is especially interesting as she is modeling a teacher who validates all her learners and is aware of her learner's emotions as seen by her grading all her pupils with an "A" in order to avoid hurt feelings.

Learner impulse control was more manageable and they appeared to think before acting. This could be seen both in Task (2) of Table 10 with the 'Farmers in the dell game' and Task (4) of Table 10 with the 'fan dance game'. The verbalization of appropriate behaviour by the learners themselves should be noted. This can be seen in Task (2) of Table 10 where learners were able to verbalize the rules (without prompting from the researcher) prior to starting the game and went on to play the game successfully.

#### **5.4 Problem-solving skills**

The following graph below (see figure 2 p. 105) shows the results obtained during the pre-mediation and post-mediation interviews. The marked

discrepancy between the pre-mediation and post-mediation results was considerable. In the pre-mediation stage the majority of learners are around the 60% percentile which suggests evidence of reasonable abilities to problem solve but the equally relatively high number of learners in the 40% percentile implies that there was reason to be concerned that a fairly high number of learners still needed support in this learning area. In the post-mediation stage there is a marked increase in learners around the 80% percentile but an equally significant decrease in the 40% percentile demonstrating that mediation was effective. The text extracts below illustrate the shift in problem-solving skills between the pre-mediation and post-mediation conditions.



**Figure 2:** Problem-solving skills interview data

**Extract 3:** Example showing shift in problem-solving skills.

**Pre-mediation Interview**

**Teacher:** Where do you think Jack could hide to get away from the Giant?

**Learner:** When the giants coming to get him.... In the oven thingy.

**Extract 4:** Example showing shift in problem-solving skills.

**Post-mediation Interview**

**Teacher:** Where do you think would be a good place for Jack to hide to get away from the giant?

**Learner:** I think it would be in the oven and the bath tub.

**Teacher:** In the bath tub! Why the bath tub?

**Learner:** So then, so then because, you know the giant ....the giant won't be bathing.

**Teacher:** Oh is he just dirty? Does he never bath?

**Learner:** Yes he's just dirty. He doesn't brush his teeth, he has bad manners.

**Teacher:** O.K....that's a good idea.

The pre-mediation response (extract 3) is taken from the learner's knowledge of the basic story of *Jack and the Beanstalk* in which the character of Jack is placed in the oven when the giant arrives home. The learner response is brief and taken directly from the example of the story she heard. This suggests that little or no thinking went into her answer and consequently no effort was made to solve the problem. The originality of thought should be noted in the post-mediation answer (extract 4) together with the length of the response. The learner has sourced their answer from a combination of the role play ideas that took place in the classroom and her own adaptation of the concept of the giant as being ill-mannered, to her understanding of a good place to hide. This suggests that she has thought carefully about her answer and is working to solve the problem posed. Furthermore she is providing a creative and appropriate solution to the question.

Table 11 below provides examples of learners’ problem-solving skills during the pre-mediation condition. It focuses particularly on incidents in which learners were involved in role play and consequently encountered common problems around sharing and bullying.

**Table 11:** Pre-mediation problem-solving skills.

Examples of tasks/incidents	Learner response
1. During the forty minute role play slot, Learners have access to a variety of dress up items. Some of the items are more popular than others in particular a yellow dress and handbags filled with pretend money. One learner asked another learner for a turn with the latter items. She asked repeatedly taking into account the fact that the learner had been given a long time with the respective items.	1. The learner being asked to relinquish the play items refused to respond and sat at the piano ignoring the request. The learner asking for the play items became frustrated and an argument ensued. The researcher had to mediate in order to resolve the conflict.
2. During outside play a learner complained that another learner had pulled her uniform and laughed at her.	2. The learner who complained to the researcher was able to say that she felt ‘sad’ when her friend was unkind but she was unable to decide how to solve the problem.
3. During the forty minute role play slot, a learner complained that one of her friends had grabbed a bag and run away with it. She said that the friend and informed her that it no longer belonged to her and it was now hers to keep. The complainant did not know how to resolve the conflict.	3. The complainant told the researcher of the incident but then walked away from the researcher before she could be given any assistance. The learner was then seen to be playing with someone else.
4. A learner complained that another learner had taken her doll without asking.	4. The learner was able to tell the researcher what the peer should have said in order to obtain the doll. She made her peer first say “when you have finished your turn, please may I have a turn”, before handing over the doll.

It should be noted that there is some evidence of problem-solving tools during the pre-mediation stage of research as seen in Task (2) of Table 11 when the learner concerned is able to identify that she has a problem and

knows how she feels. Learners have knowledge of the appropriate dialogue when wishing to obtain a popular playtime item as seen in Task (4) of Table 11 for example “When you have finished your turn, please may I have a turn”. The majority of the problems that were observed were around sharing. In the pre-mediation stage of research the researcher consciously avoided mediating learners in order to establish a baseline of problem-solving ability. There were however, a few occasions where it was necessary to mediate when a situation became problematic. This can be seen in Task (1) in Table 11 above when a learner continued to ignore a request for a dress and handbag. The ability by learners to label their emotions as seen in Task (2) of Table 11 is evidence that the existing behavioural EC (emotional competency) programme has had some effect.

Table 12 below illustrates the post-mediation condition and apparent shift in understanding between the pre-mediation and post-mediation problem-solving skills. This table focuses on both role play incidents and a creative activity task.

**Table 12:** Post-mediation problem-solving skills.

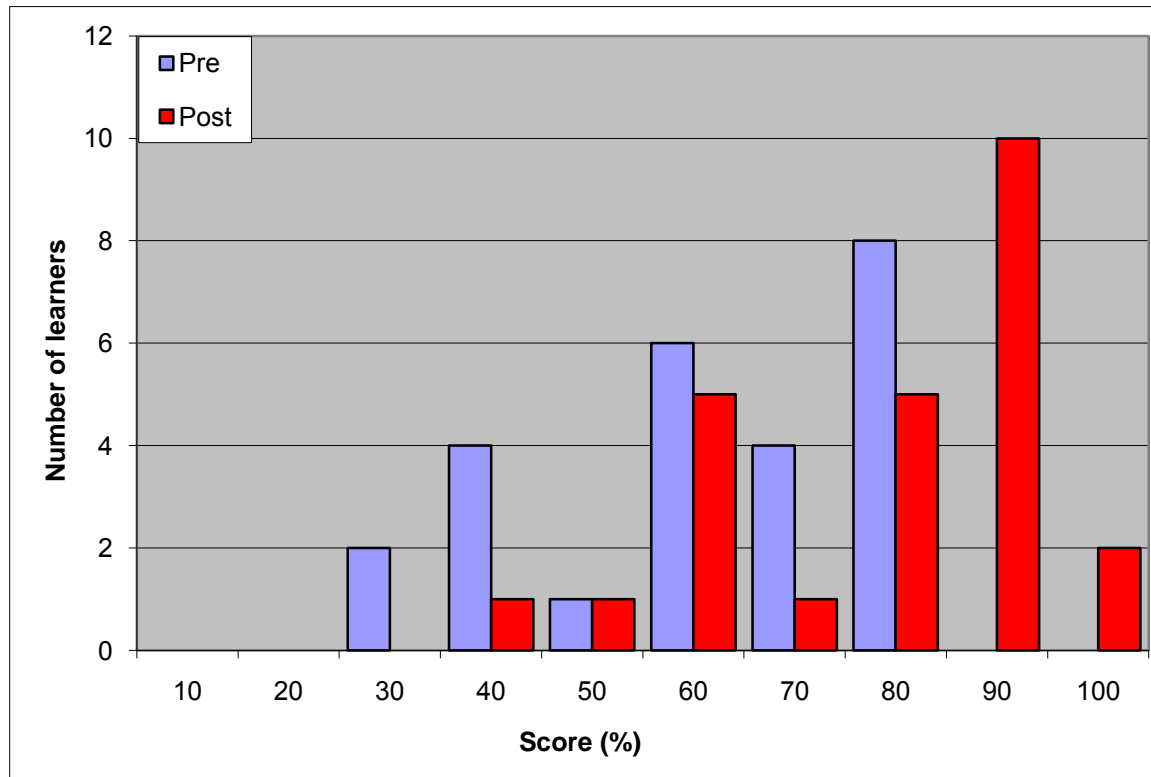
Examples of tasks/incidents	Learner response
1. Learners were instructed to build a 'fairy garden' using box lids, collage materials and fairies the learners had drawn. These were placed on ice-cream sticks and then embedded in the sand. This task required learners to master a number of instructions and to plan carefully. They were also encouraged to share their resources they had brought from home.	Learners were proud to be sharing and frequently went out of their way to share including providing boxes for learners who had forgotten to bring a box. One learner realized that the fairy she had drawn was too big and came and told the researcher that she would be cutting it down to size. There was limited reiteration of instructions as learners generally worked independently with positive results.
2. Learners were inspired by the story of Rapunzel who had to 'let down her long hair' for the witch to climb up into the tower. During outside play one of the learners used an old duvet cover to represent her hair and was hanging this item over a high wall. Another learner was attempting to climb up the fabric. Both learners were informed that this was potentially dangerous and were asked to re-evaluate the game.	The learners responded by moving to a flight of stairs which facilitated safe climbing and allowed the game to continue. This solution was devised without intervention from the researcher.
3. A learner who previously was frequently dominating games and was aggressive during play, chose to play with the pretend money in the role play corner. This was identified as a popular game and resource.	The learner, whilst still leading the game, allowed for 'give and take' and was happy to share the pretend money with other learners. She did this without prompting and appeared to enjoy the positive response she received.

Learners were able to resolve conflict without mediation from the researcher as seen in Task (1) of Table 12 when the learner realized her mistake and corrected it without requiring assistance. They were also able to solve problems independently when engaged in play as seen in Task (2) of Table 12 when learners were told that their game was potentially dangerous and needed to be changed<sup>11</sup>. The researcher did not provide the solution but allowed the learners to have the space to determine their own solution. They showed that they were entirely capable of doing this. Whilst validation was still necessary, for example learners asked for approval when they thought

<sup>11</sup> See Appendix 3 on p. 182-185 for transcript of Rapunzel incident.

they had regulated their behaviour, it was limited to incidents where learners had clearly taken the appropriate problem-solving steps and succeeded as seen in Task (3) of Table 12.

## 5.5 Emotional skills



**Figure 3:** Emotional skills interview data.

The graph in Figure 3 above illustrates the data gathered in the pre-mediation and post-mediation stages of the individual interviews. In the pre-mediation stage of research there are some learners in the 30-40% percentile and very few in the 50% percentile. The same number of learners scored in the 50% percentile for both the pre-mediation and post-mediation stages of research. This could suggest that these learners did not benefit from mediation because they are too young to internalise and regulate their emotions or there may be differential background issues. In the post-

mediation stage of research fewer learners scored in the 70-80% percentile. In the pre-mediation stage of research there is a fairly high number of learners scoring in the 80% percentile suggesting that the majority of the sample demographic have a fairly good grasp of their emotions as a result of their exposure to the EC programme. In the post-mediation stage of research most learners scored in the 90% percentile. This suggests a marked shift in depth of understanding built on the apparently good foundation shown in the pre-mediation condition.

The text extracts below illustrate a shift in emotional skills as demonstrated by one learner's understanding of 'Jack'.

**Extract 5:** Example showing a shift in emotional skills.

**Pre-mediation Interview**

**Teacher:** How do you think Jack felt when his mommy sent him to bed with no supper?

**Learner:** Ummm.....ummmm.....he gets into bed.

**Teacher:** He gets into bed...how did he feel though?

**Learner:** Sad.

**Teacher:** Why would he feel sad do you think?

**Learner:** Because he will be hungry.( said quickly and somewhat flippantly)

**Extract 6:** Example showing a shift in emotional skills

**Post-mediation Interview**

**Teacher:** How do you think Jack felt when mommy sent him to bed with no supper?

**Learner:** Umm..Sad.

**Teacher:** Would he feel anything else do you think?

**Learner:** Cross.

**Teacher:** Why would he be cross do you think?

**Learner:** Because his mommy never gave him tea and, and food and such.  
(learner took a moment to consider before answering and seemed confident in her response)

The misunderstanding of the question in the pre-mediation interview should be noted. The researcher needed to redirect before getting an answer linked to emotions. Film footage shows the learner being somewhat “flippant” in her response and appearing to give an answer gleaned from the familiar version of *Jack and the Beanstalk*. The more complex description of emotions in the post-mediation interview is relevant. The learner has returned to their original answer of “sad” but has also described another appropriate emotion for this context. The explanation is a little more detailed than in the pre-mediation stage. The film footage also demonstrates that the learner took more time to consider the question when answering during the post-mediation interview. This suggests a greater depth of understanding of emotions.

The following Table 13 indicates the pre-mediation condition pertaining to emotional skills. Tasks (1), (2) and (3) focus on emotional competencies during role play incidents whilst Task (4) illustrates an example of a learner response during a typical EC daily activity.

**Table 13:** Pre-mediation Emotional skills.

Examples of tasks/incidents	Learner response
1. Two learners were playing at the Barbie house when another learner wished to join them and be part of their game. The more dominant learner who was already part of the game refused to allow the new learner to participate.	1. The learner who was being excluded from the game began to whine and agitate. The dominant learner ignored her and continued to play. The whining learner started to play alongside the dominant learner but expressed very clearly that it was 'unfair'. She attempted to control the game but the dominant learner confidently continued to ignore her.
2. One learner used the props of two hardboard swords to dance around the classroom exclaiming that she was 'fighting'.	2. The learner was asked why she was dancing around and 'fighting'. She exclaimed that she was keeping us safe from the baddies. She displayed a confident pose and indulged in this game for a good few minutes.
3. One learner wishes to play a princess game and is told that she must ask another learner as it is not their game. The learner leaves the play area and comes back a few minutes later complaining that she is sad.	3. The learner describes her friends as being 'rude' to her because they will not play with her. She is sulking and struggling to resolve the problem but does understand that she is upset and why.
4. During morning ring, learners use a 'feelings fan' to show how they are feeling today. Each learner has the opportunity to name their emotion and explain why they feel a particular way.	4. Most learners were able to express more than one emotion and label it. The majority of learners were also able to describe why they felt a particular way and their reasons were valid.

The general classroom emotions were happy with the occasional altercation. Most learners were already able to express their feelings (as seen in Tasks (1), (3) and (4) of Table 13) but did not always know how to manage a conflict situation as seen in Tasks (1) and (3) in the above Table. Those learners resorted to whining. Most learners were happy to tell the researcher about their problem and this was often sufficient for them to feel better and shift to another game. The use of swords, a somewhat aggressive action, was controlled at all times by strict rules determined by the learners in the game. The learners involved in this type of game often spoke about fighting something bigger than themselves, addressed their fears and took on super

powers. Task (4) of Table 13 demonstrates an understanding that emotions can be complex and that more than one emotion can be experienced simultaneously. The ease with which learners were able to rate their feelings and provide reasons for these emotions could be attributed to the existing EC programme which allowed learners to practice noticing and labeling their feelings.

Table 14 below illustrates a level of independence on the part of learners when exploring their emotions and regulating their behaviour. The examples given focus both on structured EC tasks and role play incidents.

**Table 14:** Post-mediation Emotional skills

Examples of tasks/incidents	Learner response
1. One learner picked up a drum and began to beat it whilst reciting the verse from Jack and the Beanstalk.	Learners responded by running and hiding from the giant whilst screaming in fear. Some learners joined in with other percussion instruments and recited the verse with vigor. This was repeated several times.
2. During a theme on fairies one learner hurt another learner whilst playing outside. The injured party was quick to report the incident and the researcher asked to mediate.	The learner who had hurt another learner was able to explain what had transpired and had already apologized (using the appropriate dialogue) to the injured party. The injured party was easily appeased and the two learners went off to play together without further incident.
3. Learners were asked to show a 'cross' giant face during a music and movement class. They were also asked to explain why the giant might be cross.	All the learners were able to show appropriate faces and performed the task easily. They were also able to explain why the giant was cross.
4. During a morning ring learners were asked to show on their fingers how they were feeling. They used a scale of 1-4 with 4 being the happiest.	Learners were able to show their feelings and explain why they were a particular numbers. The reasons given were appropriate to the number being shown. Some learners were more than one number usually signifying both a positive and a negative emotion.

During the post-mediation stage of research, learners were more aware of their emotions and keen to say positive things to one another. They also appeared to take greater pride in their work. They were easily able to express what they were feeling as seen in Task (4) of Table 14 and to give a reason for their feelings as seen in Task (2) of the aforementioned Table. There was a lot less whining and more independence with plenty of peer mediation. The ease with which Task (2) of Table 14 was resolved and the use of appropriate dialogue, should be noted. The game of beating the drum and being the giant (as seen in Task (1) of Table 14) continued for a number of weeks after the research period and seemed to replace the swords as a means of exploring “fear”.

## **5.6 Observational grids and interview ratings**

Observation of self-regulation around problem solving, organizational skills and emotional skills were rated on a five-point scale (see Tables 2 & 4 in Chapter 4 p. 86-89). Learners were observed during role play and general class activities. The observations were filmed during the pre-mediation and post-mediation stages of research. The ratings were applied in the pre-mediation and post-mediation stages. The same scale was applied to the interview data gathered on film in the pre-mediation and post-mediation stages of research.

**Table 15:** Scores for observation grid.

	<b>Problem Solving score (1-5)</b>	<b>Impulse Control score (1-5)</b>	<b>Task Management Score (1-5)</b>	<b>Significance</b>
<b>Pre-mediation</b>	<ul style="list-style-type: none"> <li>• 10 scored 2</li> <li>• 10 scored 3</li> <li>• 2 scored 1</li> <li>• 3 scored 4</li> </ul>	<ul style="list-style-type: none"> <li>• 8 scored 2</li> <li>• 10 scored 3</li> <li>• 7 scored 4</li> <li>• none scored 1</li> </ul>	<ul style="list-style-type: none"> <li>• 7 scored 2</li> <li>• 9 scored 3</li> <li>• 8 scored 4</li> <li>• 1 scored 1</li> </ul>	Some evidence of task management and impulse control prior to mediation.
<b>Post-mediation</b>	<ul style="list-style-type: none"> <li>• 2 scored 2</li> <li>• 13 scored 3</li> <li>• 10 scored 4</li> <li>• none scored 1</li> </ul>	<ul style="list-style-type: none"> <li>• 1 scored 2</li> <li>• 10 scored 3</li> <li>• 14 scored 4</li> <li>• none scored 1</li> </ul>	<ul style="list-style-type: none"> <li>• 1 scored 2</li> <li>• 8 scored 3</li> <li>• 16 scored 4</li> <li>• none scored 1</li> </ul>	Marked improvement after mediation suggesting mediation helps self-regulation.

**Table 16:** Scores for interviews.

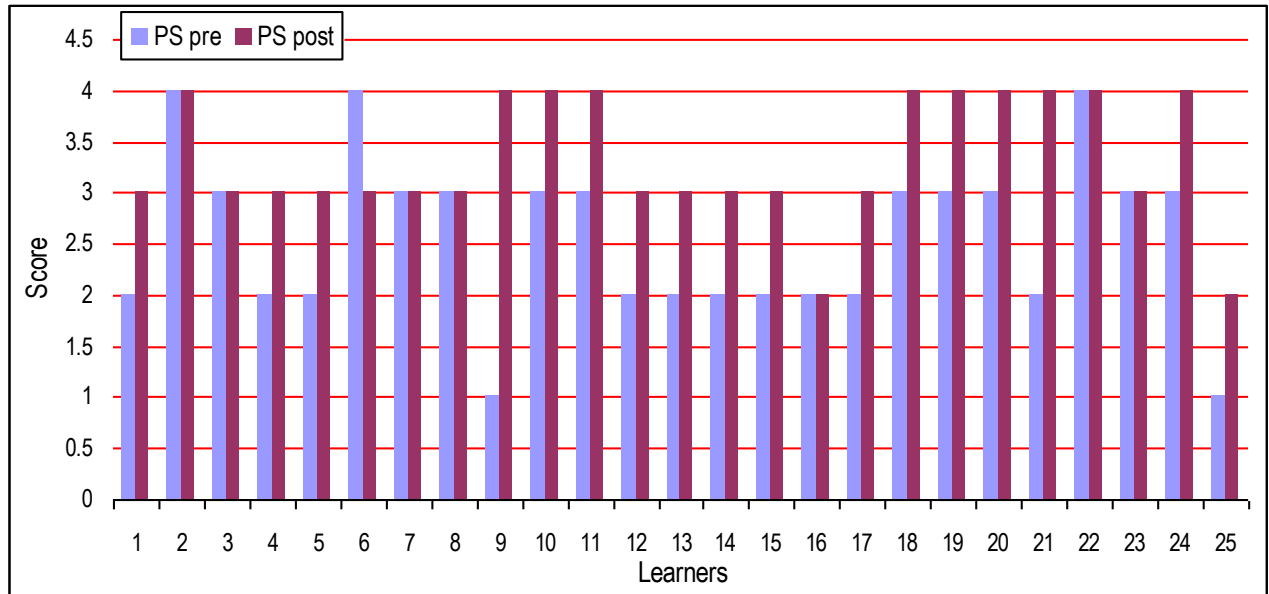
	<b>Problem Solving average score</b>	<b>Understanding Emotions average score</b>	<b>Task Management average score</b>	<b>Significance</b>
<b>Pre-mediation</b>	<ul style="list-style-type: none"> <li>• 6 scored &lt;50%</li> <li>• 14 scored 50-70%</li> <li>• 5 scored 70-85%</li> </ul>	<ul style="list-style-type: none"> <li>• 7 scored &lt;50%</li> <li>• 10 scored 50-70%</li> <li>• 8 scored 70-80%</li> </ul>	<ul style="list-style-type: none"> <li>• 11 scored &lt;50%</li> <li>• 9 scored 50-70%</li> <li>• 5 scored 70-88%</li> </ul>	Some evidence of task management, impulse control and problem solving prior to mediation. Could be result of E.Q. programme.
<b>Post-mediation</b>	<ul style="list-style-type: none"> <li>• 3 scored &lt;50%</li> <li>• 4 scored 50-70%</li> <li>• 18 scored 70-99%</li> </ul>	<ul style="list-style-type: none"> <li>• 2 scored &lt;50%</li> <li>• 6 scored 50-70%</li> <li>• 17 scored 70-99%</li> </ul>	<ul style="list-style-type: none"> <li>• 3 scored &lt;50%</li> <li>• 7 scored 50-70%</li> <li>• 15 scored 70-99%</li> </ul>	Marked improvement in self regulation suggesting mediation helps self-regulation.

**Table 17:** Evaluative episode examples.

	<b>Nature of episode</b>	<b>Person mediating</b>	<b>Sample of dialogue</b>	<b>Significance</b>
<b>Pre-mediation</b>	Learner refuses to share a dress and moves away to avoid sharing.	Educator consciously does not mediate but learners attempt to resolve problem.	'You've had the dress a long time. Can I have a turn?'	This shows some evidence of problem solving skills but learners were not successful without mediation from educator.
<b>During mediation</b>	Learner refuses to share a drum but is encouraged to do so and obliges	Educator consciously mediates and gives appropriate dialogue and reward.	'What must you say if you want a turn?' 'When you have finished your turn, please may I have a turn.'	When given the appropriate dialogue and problem solving skills, learners can regulate behaviour.
<b>Post-mediation</b>	Learner prepared to share and does so without being asked.	Learners solving the problem by themselves.	'I gave her a turn with the pink dress without being asked.'	This shows that the regulatory tools given have been internalised and learners are able to regulate their behaviour.

The high number of learners struggling with emotional skills, organizational skills and problem solving was considerable in the pre-mediation stage. The learner in the problem-solving evaluative episode during the pre-mediation stage uses avoidance tactics to escape sharing the dress with their peer. It should be noted that without mediation from the researcher, the learners do attempt to mediate one another. They were however, not successful in their attempt. The marked improvement after the period of mediation is significant. The pride attached to succeeding in problem solving was evident. Learners demonstrated a keen desire to “get it right” and for this to be noted by the researcher. Having the appropriate dialogue to solve a problem appeared to facilitate an ease of self-regulation. The learners

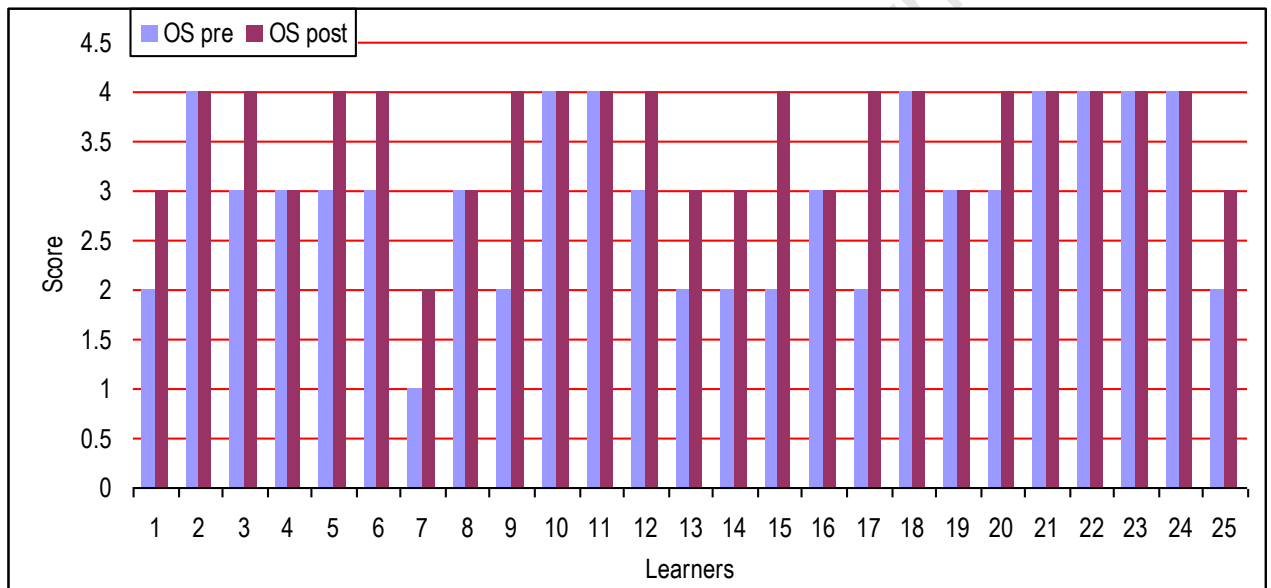
quickly grasped the language that was given and implemented it appropriately.



**Figure 4:** Problem-solving skills data from observation grid.

The graph above shows the scores given in the pre-mediation and post-mediation conditions for problem-solving skills. It is relevant that 17 of the 25 learners displayed a significant improvement in their post-mediation condition whilst 7 remained the same. Of the 7 who remained the same 5 were scoring between 3-4 on the observation scale. This is still considered a good score. One learner scored less in the post-mediation condition than she had score in the pre-mediation condition. This could be attributed to the learner having been ill for one of the weeks during the post-mediation stage of research and consequently not performing at her normal level of behaviour.

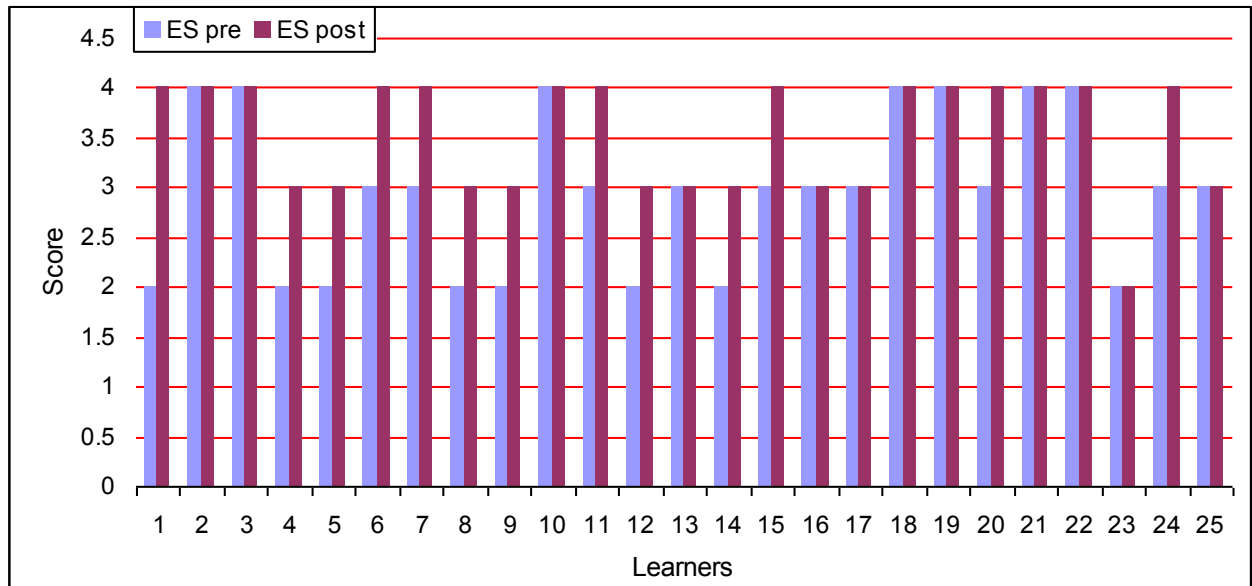
Figure 5 below shows the scores on a scale of 1-5 given during the pre-mediation and post-mediation conditions relating to organizational skills. Out of 25 learners, 13 showed a significant improvement during the post-mediation condition whilst 12 learners remained the same as they were in the pre-mediation condition. The latter could be attributed to these learners already having generally good organizational skills and therefore not showing an obvious shift resulting from mediation.



**Figure 5:** Organizational skills data from observation grid.

The following graph (see Figure 6 p. 120) shows the score given in the pre-mediation and post-mediation condition relating to emotional skills. It should be noted that 13 of the 25 learners demonstrated a significant shift in the post-mediation condition whilst 12 learners remained the same as they were in the pre-mediation condition. The latter could be attributed to the effects of an existing emotional competency programme which allowed learners to practice understanding their emotions and labeling them

appropriately. The 12 learners who remained the same in the pre and post-mediation conditions would appear to have a good foundation in this self-regulatory skill.



**Figure 6:** Emotional skills data from observation grid.

## 5.7 Journal entries/field notes

Field notes in the pre-mediation journal noted the following points of interest:

- It was difficult to find time to film the base line footage as there were a number of interruptions during the morning, for instance a weekly lesson in phonics; a computer class and interruption from a staff member coming to collect finances.
- In order to provide an appropriate amount of time for role play (Bodrova & Leong, 2005 recommend forty minutes per day) the researcher had to sacrifice time designated for other activities. The

deferred activities would then need to take place at an alternative time which complicated timetabling.

- The presence of a student teacher in the class meant that the researcher had to allow time for the student teacher to perform her practical lessons. This resulted in less time for research work. It had the advantage of providing an extra pair of hands to help with the filming process.
- In the pre-mediation baseline filming it was noted that whilst the learners were pleased to be back after a five week break, resulting from the FIFA World cup, they were restless and struggling to resume their daily routine.
- One of the learners mothers had given birth during the holiday and it was noted that this particular learner was continuously acting out the birth and care of a new baby. This was performed with great drama and revisited over a couple of weeks.
- Learners were also noted to frequently verbalize the process of a game with the rules being clearly established and one learner being particular dominant.

Field notes in the mediation journal noted the following:

- A *Readathon* week both hampered and helped the research project. It was problematic in that it resulted in a morning of filming being lost as the learners had to spend that time in the hall but it stimulated role play as the learners were excited by the fairytales they had heard. This resulted in their playing *Rapunzel*<sup>12</sup> outside and using an old

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<sup>12</sup> See Appendix 3 on p. 182-185 for transcript of *Rapunzel* event.

- blanket to represent Rapunzel's long hair. This provided the researcher with some fascinating footage showing a learner problem solving and demonstrating a shift in her ability to self-regulate
- Practising data capture over a few weeks appeared to improve the learner's skills and they worked more independently towards the latter half of the second week of data capture.
  - Learners appeared to enjoy the structure of the Icon chart which determined who would use a popular item.
  - Learners seemed very keen to share and to show this to their educator.
  - Learners were seen to be less inclined to dominate one another.

Field notes in the post-mediation journal noted the following:

- Learners were keen to continue with the icon chart as they seemed to feel this solved the problem around who should play with something and when.
- Some learners seemed to enjoy modeling the behaviour of the researcher and when they did so it was around story-telling and reading. They were generally very kind to one another when performing this role and seemed to have a heightened awareness of everyone's emotions – almost empathic.
- It was noted that some learners had not seen much shift in their planning abilities whilst others seemed to have made a dramatic shift.
- New friendships were formed during this time and it was felt this could be a result of the maturing process.
- Learners seemed better able to work independently.

The above notes taken from journal entries serve the purpose of providing a context for the period of research and also demonstrate some reflection on the part of the researcher. For example observations around problems in finding time for filming or noting the interruptions that make teaching so challenging in a busy school. The journal also provides additional information around what learners were doing during the time of research. This supports the film footage and statistical data and helps to give a more complex and hopefully complete picture.

This chapter has illustrated the findings revealed in the data captured for this case study. It has shown a significant shift between the pre-mediation and post-mediation conditions but also demonstrated that there was evidence of a reasonable foundation of competency in all three areas of self-regulation. These points will be discussed further in the following chapter.

## **6 DISCUSSION**

In this chapter I am going to pick out those findings which link self-regulation to mediation. I will also be examining how the literature supports or negates my findings. Finally I will be looking at the problems around performing this type of research and briefly addressing the subject of bias.

### **6.1 Pre-mediation research**

The pre-mediation stage of research served the purpose of providing the researcher with a baseline of data demonstrating the level of skills present in the case study demographic. Learners clearly already had some skills in the three areas chosen to define self-regulation namely emotional skills, organizational skills and problem-solving skills. This could be attributed to their having spent six months (at the time of research beginning) in preschool and consequently absorbing some level of skills. Vygotsky's cultural-historical theory argues that the human mind is the product of human history (phylogeny) and the person's individual history (ontogeny) (Karpov, 2005). Each individual mind is also the product of their unique personal experiences (Vygotsky, 1998). This would mean that each learner participating in this case study would bring to the classroom a combination of their phylogeny and ontogeny (Bodrova & Leong, 2007) together with some level of self-regulation. What needed to be established was the extent to which the educators role as mediator together with the extension of themes into class activities, would improve learners acquisition of self-regulation.

### ***6.1.1. Emotional skills***

The data gathered in the pre-mediation stage of research illustrates a fairly high level of emotional competency skills (see Figures 3 & 6 on p. 106 & 116). This was expected as the school in which the case study took place, had an existing behavioural management programme. Sandmel et al. (2009) also showed the benefits of an existing behavioural management programme when trying to help learners to regulate their behaviour, as it enabled them to understand their emotions and those of their peers. Learners in this case study had been exposed to a number of useful tools in order to manage their emotions, for instance labeling feelings; noticing feelings; being encouraged to respect and care for their peers and understanding emotions through group discussions and literature. These tools had been practiced on a daily basis during morning ring and also incorporated into some creative art activities. On a Friday morning learners were involved in discussion which focused on “good deed” that had taken place during the week. These good deeds were highlighted by the learner’s parents and written in their message books. The researcher would then read each deed and discussion around appropriate behaviour, situational dialogue and awareness of other people’s feelings, would take place. Learners had had six months in which to practice these skills but this had also been interrupted by a five week break (see journal entries on p. 120) as a result of South Africa hosting the FIFA world cup. Consequently learners may have forgotten some of the skills and would potentially have benefited from the mediation period in which the skills were reinforced.

In the pre-mediation condition (see Extract 5 & 6 p. 111), the example given shows the learner simply reaffirming the basic story of *Jack and the Beanstalk* but not demonstrating any in-depth understanding of Jack's emotions. In addition she is struggling to understand the question that is being asked. This could be linked to her age (she was just five at the time of questioning and therefore still in the pre-operational stage of development) or the fact that she was a second language learner. English was therefore not her home language and she may have had difficulty understanding what was being asked. Cohen et al. (2007) point out that it is particularly difficult to interview preschoolers because of the challenges attached to their age (see Appendix (2, p. 170-182) for more detailed example of this point). As suggested by Piaget's (2001) stages of learning and Vygotsky's (1978) theory of the importance of language in learning, for effective learning to take place, the preschooler would need to comprehend what is being asked, understand the emotions at play and then internalise the new information. Evidence implied that this was not happening sufficiently in the pre-mediation stage of research. The case study aimed to prove that by involving the learners in regular role play and dramatization of the story of *Jack and the Beanstalk*, exposing them to a number of versions of this story and extending the theme into the general classroom activities would allow for a deeper understanding of emotions and consequently facilitation of self-regulation.

The examples given in Table 13 (see p. 113) show learners who are struggling to co-operate with one another (Task(1)) in the aforementioned Table) but are aware of their own emotions (Task (3) of Table 13). This is seen both in the evidence of labeling a situation as 'unfair' (Task (1) of

Table 13), describing a friend as “rude” (Task (3) of Table 13) and explaining individual feelings using the feelings fan (Task (4) of Table 13). What is evident is the need for mediation to facilitate the process of self-regulation as suggested by Karpov (2005), particularly in the area of co-operative play. He argues that the adult plays a significant role in the child’s ability to develop self-regulation because they present an attitude towards learning, model appropriate dialogue and motivate new learning through the provision of a stimulating classroom environment. Bodrova and Leong (2007) support Karpov’s (2005) idea that the educator plays a key role in helping the learner to self-regulate by monitoring the play situation and providing appropriate dialogue where deemed necessary. The educator also models the correct behaviour and helps learners to understand their peers’ emotions. According to Bodrova and Leong (2007) Vygotsky’s contribution was to see the possibility of sharing higher mental processes because children learn or acquire a new mental process by sharing or using them when interacting with their teacher or peers. In this way the educator is enabling the learner to begin to regulate their behaviour. Some of this type of mediation did take place in the pre-mediation stage of research as it was part of the existing emotional competency programme but it was still at a relatively low key level and most learners were essentially left to play in the fantasy area without intervention.

The graph collating the data on the individual observational grids (Figure 6 see p. 120) showed a fairly high level of emotional competency across the case study demographic. This could be attributed to the effects of the EC programme which had been part of the respondent’s daily routine for six months. The task examples cited in Table 13 however show some

difficulties in understanding emotions and sharing. It could be said therefore that in the pre-mediation condition that generally learners are demonstrating a reasonable level of emotional competency but struggling to be more sensitive towards their peers and to resolve conflict. This would indicate that there was indeed a need for more conscious intervention on the part of the educator and the potential for learners to benefit from being given specific tools to help regulate their behaviour. Jahronmi and Stifter's (2008) study implied that being an impulsive learner prevents learners from functioning successfully in the classroom and Bodrova and Leong (2005) argue that without self-regulation the learner would struggle to succeed in the school environment. It is therefore essential for educators to assist learners to develop the necessary tools to regulate their behaviour and in so doing allow them to be sufficiently open to new learning.

### ***6.1.2 Problem-solving skills***

Analysis of the interview data examining problem-solving skills showed the majority of learners being around the 60% percentile (Figure 2 see p. 105) suggesting a relatively high level of ability to problem solve. As was the case with emotional competency, learners had been exposed to some tools for problem solving over the six month period in which they had been attending preschool. In this time they had already been taught the fundamentals around sharing, basic manners and asking for help from their educator. They had been exposed to fairly regular class discussions (grounded in literature) around solving problems in stories or domestic situations, for instance asking learners how a puppet may resolve a problem during a puppet show or discussing how we can remember what to bring to school on a particular day. Resolving conflict in a social setting largely took

place by means of a learner coming to an educator, complaining and the educator specifying what the learner should do. This did not allow the learner to develop their own solutions and potentially made them too dependent on “tattle-tailing”. Providing situational dialogue, constructing a ‘sharing tree’ and allowing for opportunities for learners to practice using appropriate dialogue and their desire to share, were all strategies that were adopted to develop tools for self-regulation.

Extract 3 (see p. 106) demonstrates a fairly flippant answer to the question around where Jack could hide from the giant for example “When the giants coming to get him....In the oven thingy.” The learner does not appear to have given it much thought and has simply answered with the expected response from the familiar version of *Jack and the Beanstalk*. Fox and Lentini (2008) recommend using familiar literature to enable learners to develop their language and become excited by new learning. The simple reading of the story of *Jack and the Beanstalk* had not at the point of the pre-mediation condition stimulated new learning or motivated the learner as proposed by Karpov (2005). He explains that it is essential to develop themes in a way that will allow learners to get excited by new ideas and be motivated to learn. This motivation would help learners to regulate their behaviour.

Problems solving skills as described in Table 11 (see p. 107) showed a variety of competencies. In Task (1) of Table 11, the learner wishing to obtain an item of dressing up clothing knew that she needed to ask for the item and did not simply resort to impulsive snatching. She did not however know how to resolve the problem of her peer ignoring her request.

Ultimately the researcher had to intervene in order to motivate the unresponsive learner to share appropriately: neither party demonstrating sufficient tools to resolve their conflict and consequently the situation deteriorated. In Task (2) of Table 11 the learner is clearly able to explain what she is feeling when she stated that she felt “sad”, but does not know how to prevent her peer from teasing her. Having the appropriate dialogue as suggested by Karpov (2005) would have allowed the learner to defend herself and resolve the conflict. Task (3) of Table 11 showed a learner beginning to resolve conflict in that she knew she needed to report the incident and that it may be a solution to simply not play with someone who played inappropriately but the use of suitable dialogue as suggested above, would again have assisted the learner to maintain her self-worth and solve her problem. Task (4) of Table 11 (see p. 107) clearly demonstrates that a learner does know the appropriate dialogue and is simply coming to the researcher for confirmation that she is using the correct tool. This particular learner was exceptionally mature for her age and was not afraid to voice her opinion when she felt she had been treated in an unjust manner by her peers. At the beginning of the year she did not however have the language to resolve conflict and had adopted a habit of whining. The little bit of mediation that she had received in the six months of schooling, had been quickly mastered and internalised. It was interesting to see how she was mediating her peers as suggested by Vygotsky (1978) when he explains the socio-cultural dynamic of learning in which more competent peers help those who are less able to master new skills. Bodrova and Leong’s (2007) nine points for effective mediation (see p. 63) also propose this as a means of facilitating self-regulation. A more mature learner is providing appropriate dialogue for example ‘When you have finished your turn, please

may I have a turn', and consequently mediating a less competent learner. In this way the less competent learner is learning to regulate their behaviour through the mediation of language and their more capable peer. Vygotsky's theory (1978) that language is key to how children learn, together with the importance of social interaction with the learner's peer group, is illustrated in the aforementioned example.

The observation grids (Figure 4 see p. 118) showed learners performing around a fairly average 3-point mark for problem solving. This suggests that the six months spent in preschool prior to the beginning of the research period, had created a foundation of skills. There were two learners around the 1-point mark. One of them came from a very deprived background and consequently may not have been exposed to suitable modeling of problem-solving skills or sophisticated language development in their home environment. She was a second language learner. Furthermore she was one of five children and there was some evidence of physical abuse being employed as a means of discipline. A.R. Luria (1979), a prominent soviet psychologist describes how people growing up under different cultural circumstances can develop different intellectual capacities. His study of farmers in Uzbekistan required rural farmers to explain categories of tools with particular attention being paid to the "odd one out". Many of the participants placed a hammer, saw, log and hatchet in the same category because in their experience these were all items used for work (Luria, 1979). In South Africa where there is a legacy of apartheid which resulted in many families being deprived of a good education and living, learners today are still paying the price (Kallaway, 1984). The school in which the case study took place, had a multi-cultural demographic and many of the learners were

coming from homes where parents do not speak English, have a low level of formal education, have relatively poorly paid jobs and work long hours. This means that their children are not exposed to a stimulating environment and are often raised by grandparents or placed in inadequate daycare facilities from an early age. Vygotsky (1978) explains that the child is born into a social world and through interacting with that world, develops higher mental functions. If we accept Vygotsky's theory (Van der Veer & Valsiner, 1991) that physical manipulation of objects and social interaction are essential to the development of the child, then a learner who is coming from a deprived background would be potentially developmentally challenged and consequently not functioning at the same level as their peers. Karpov (2005) says that present and past social interactions influence cognitive construction which suggests that the educator would have a significant role to play in helping the learner to overcome the challenges of a deprived background.

The other learner who scored low was simply very young at the time of research and therefore would not have been able to internalise a high level of problem-solving skills. It is here that Piaget's (2001) stages of development guide the educator in their expectations of the capabilities of their learners.

### ***6.1.3 Organizational skills***

The pre-mediation condition for organizational skills (Figure 1 see p. 98) showed learners with a fairly even spread across the 40-70% percentile. This would imply that slightly more than half of the class is displaying some problems around regulating this aspect of their behaviour. One learner scored in the 30% percentile but as this particular learner had suffered some

brain damage as the result of an accident in early childhood, it would be expected that she may not function at the same level as her peers. Five learners scored in the 80-90% percentile. These learners were already six years of age at the time of research beginning and two of the learners came from homes where their mother was in the traditional Moslem housewife role. This meant that their mothers appeared to have more time to spend with their daughters and had them involved in a very regular daily routine. There was evidence that these two learners were being stimulated by availability of literature at home, were taken on outings to the Aquarium and engaged in constructive activities with their parents. Their parents were also well educated and valued their children's education. Within the framework of Vygotsky's theory (1978) in which mediation takes place through adult intervention, exposure to the tools of language and availability of stimulating objects, these two learners clearly had an advantage.

In the example given in Extract 1 (see p. 99) in which the learner is asked to explain how she would make a sandwich, it is evident that there is a lack of logical thought and a misunderstanding of what is being asked. Vygotsky (1998) believed that language is an actual mechanism for thinking and the process by which external experience is converted into internal understanding. The learner's language should therefore display her capacity to organize her thinking. Whilst English was the participant's first language, she did show problems with organizing her tasks and caring for her possessions. The researcher is seen to be attempting to redirect the learner but despite all attempts, the learner does not achieve a logical description of how to make a sandwich. This learner would therefore benefit from conscious mediation that allows her to acquire tools to assist her in breaking

down a task and organizing her thinking. The case study hoped to establish if the technique of defining steps for a task and collaborative planning within the classroom environment would facilitate self-regulation.

Table 9 (see p. 101) describes four classroom activities in which having organizational skills were the key to success. In each case learners were given samples to follow, some breaking down of steps took place and learners were reminded of the need to label their work. Struggling with management of time as seen in Tasks (1), (2) and (4) of Table 9 is evidence that learners are possibly not understanding what is required or are planning their activity inappropriately. There is also evidence of an inability to remember to put names on work, a lack of logical sequence of steps and following instructions correctly. This was seen in learners omitting to make a 'pair' of animals (Task (1) of Table 9); forgetting to place their names on their work (Tasks (2),(3), & (4) of Table 9); not designing matching patterns (Task (3) of the aforementioned Table) and placing artwork on top of another learner's art resulting in the two pieces sticking together. These are some examples of how the lack of organizational skills can prevent learners from regulating their behaviour and consequently reducing their ability to learn (Bodrova & Leong, 2005).

The observational grid (Figure 5 see p. 119) showed eight learners scoring at the 2-point and below level whilst eight learners scored at the higher 4-point level. The remaining nine learners were around the 3-point level. This suggests a fairly even spread in aptitude in organizational skills. The learners who scored around the 4-point level were already six years of age at the time of research and many of them had also been attending some form of

early education since the age of two. This would mean that they had experienced opportunities to practice organizational skills and therefore internalise this self-regulatory tool. The learners scoring in the 2-point level were a combination of younger students and learners coming from more deprived backgrounds. The child's specific social and cultural background is seen to influence their ability to orientate themselves in their learning activity (Muthivhi, 2009). Consequently a learner who is either too young to accommodate a particular level of organizational skills or is coming from a deprived under stimulated home background, would struggle to master planning or task management. They would however potentially benefit from conscious mediation as recommended by Karpov (2005).

The data collected in the pre-mediation phase of research suggested a reasonable level of self-regulation but with some gaps around sharing, using appropriate dialogue and planning tasks. As the learners had already spent some time in preschool when the research was conducted, there was some concern that there may not be sufficient evidence of a shift in self-regulation to prove or disprove Vygotsky and Karpov's theories. It was felt however that there was enough evidence of deficit in self-regulatory processes to try to establish if mediation at a conscious level would bring about a significant shift.

## **6.2 Mediation**

Karpov (2005) focuses on the need for the educator to create a stimulating learning environment which is extended into general classroom activities. The learners began by creating an enormous beanstalk which was then

measured and wound around the fantasy play area. The measuring of the beanstalk provided an opportunity to give some understanding of size and number whilst learning in an imaginative way. The learners were excited by the idea of seeing how many children would be required in order to measure such a large beanstalk. It also provided an opportunity to concretely count (considered important by Piaget in his developmental stages Western Cape Education Department (WCED) 2006) and to work collaboratively. Size was revisited both in the creation of individual leaves for the beanstalk and in the large paper mosaic giant. Collaborative work in the making of the mosaic giant, painting of the beanstalk and large cotton wool clouds, all required the learners to practice perseverance and self-control. These were aspects of their emotional competency work and considered necessary to facilitating self-regulation. Each learner was given the opportunity to germinate a bean and the progress of the bean was noted on a weekly table. When the bean was sufficiently developed, the learners were able to plant their beans in the school vegetable patch. Each bean was labeled with the student's name in order for them to plot the progress of their individual beans. There was plenty of discussion around the possibility of a bean growing to the size of the *magic* beans in the story of *Jack and the Beanstalk*. The learners thoroughly enjoyed these activities and there appeared to be a reduction in conflict which would support Karpov's (2005) theory that learners are motivated to learn when they are stimulated by their learning environment.

### ***6.2.1 Emotional skills***

Building on the existing emotional competency programme, the researcher used the story of *Jack and the Beanstalk* to allow learners to explore the

feelings of the characters in the story. As they were already familiar with the idea of labeling emotions and had begun to explore various versions of the story, they were able to discuss how a character may feel. Vygotsky's (1998) theory supports this idea in that he says that in the preschool years the child is able to draw from experience and therefore understands what it means to be "happy", "angry" or "good". Experiences acquire a meaning from which the learner can form a generalization which will provide a foundation for their internalizing self-regulatory processes (Vygotsky, 1998). By acting out the story of *Jack and the Beanstalk*, the learners were building on their experiences and developing a more in-depth understanding of the characters.

Verbal discussions allowed for evaluation of the moral dilemmas that the characters in the story of *Jack and the Beanstalk* presented. Many learners became very animated during the role play and were keen to contribute to class discussions. This supports Karpov's (2005) theory that a stimulating learning environment motivates new learning.

A "sharing tree" was set up in order to encourage appropriate behaviour with learners obtaining a leaf on the tree whenever they used the correct manner of asking for something or voluntarily shared with their peers. Learners were keen to practice their manners and to inform their educator that they were "getting it right". Over the three week mediation period the desire to tell their educator that they were 'getting it right' became less regular which may imply that they were beginning to internalise new learning and consequently did not need regular reassurance in order to feel validated. This supports Bruner's (1971) concept of scaffolding in which the learner

becomes progressively less dependent on the mediator as they master their new skills.

### ***6.2.2 Problem-solving skills***

During the mediation stage of research learners were given clearly defined rules as guide lines for their fantasy play as recommended by Bodrova and Leong (2005) in their nine points for successful fantasy play (see p. 63). At the beginning of each day the learners decided which children would have the opportunity to play with popular items and how they would share them. For example a pink party dress or the handbag full of money would be given to a group of learners who would then play for ten minutes before passing the items on to the next child on the list. This list was placed on the classroom wall with icons and names to enable the learners to identify the item and the learner who should follow. At this point in the year the learners were able to recognize their own names and those of their peers which meant the reading of the chart was relatively easy. Piaget (1973) promoted the idea of collaborative rule making either between educator and learner or between the learners themselves. The learners very quickly accepted this way of operating and even after the research period had ended, they wanted to continue with the system (see journal entries p. 122). The chart represented a form of external mediation and according to Bodrova and Leong (2007) the educator needs to determine when to use this tool and when to withdraw it. The desire to continue with the icon system implied that this tool was still necessary. There appeared to be a definite improvement in reducing potential conflict because learners knew at the onset whose turn it was with a particular item but they still needed the security of this type of mediation hence their desire to continue beyond the time span of the research project.

By using the aforementioned system of classroom management, the learners were able to practice sharing and in so doing could begin to internalise a new self-regulatory skill (Karpov, 2005).

When observing the learners in play, the researcher noticed how the learners had clearly defined rules in their games and how particular tools or props determined the character that the learner was adopting. This supports Vygotsky's (1933) theory that in play the learner is mediated by their peers who expect them to perform a role appropriately, by the words they use when enacting a role and by the props which guide the parameters of that role. "...as soon as the game is regulated by certain rules, a number of actual possibilities for action are ruled out" (Vygotsky, 1933, p.7). The learner who obtained the drum would automatically be assuming the role of the 'giant' whilst the learner using the apron was the giant's wife. When beating the drum the learners immediately began to recite the verse the giant shouted when looking for Jack. The learners knew that the rule of the game was that everyone participating should find a place to hide and only the learner with the drum could be the giant. Nobody deviated from this rule and it was repeated frequently. Elkonin (1974) describes how learners will only engage in forms of play that interest them and that they consider to be stimulating. The repetition of the giant game could indicate that the learners were enjoying this activity and practicing self-regulation by accepting the rules that had been put in place.

Bodrova and Leong (2007, p.18) describe language as a 'primary mental tool' because of its capacity to facilitate the acquisition of other tools which allow for the development of what Vygotsky (1997) describes as "higher

mental functions". Self-regulation would fall into this category and consequently language would be essential for facilitating this process.

Learners were assisted with the usage of appropriate dialogue when asking to use something or receiving something from a friend. Words as mediators are of primary importance to Vygotsky (1998) because they assist the child to regulate their behaviour. In this researcher's experience, they are of particular importance to preschoolers because they frequently struggle to find the appropriate situational dialogue when faced with conflict. Fox and Lentini (2006) argue that the educator should regularly remind learners of appropriate dialogue, whilst Karpov (2005) advocates the educator modeling appropriate dialogue. By understanding how to ask for something the child learns that she does not need to impulsively grab or create conflict, in order to obtain what she desires. When the child tests out the use of the appropriate dialogue, she realizes the socially accepted norms and begins to internalise new learning (Vygotsky, 1998). The pre-existing foundation of an emotional competency programme meant that learners were very quick to grasp the new dialogue and to understand how their behaviour was affecting their peers.

Acting out the story of *Jack and the Beanstalk* fed the learner's imagination and provided plenty of opportunities to discuss and examine the morals and emotions inherent in the story. Bodrova and Leong (2007) suggest that using a familiar fairy tale as a basis for learning enables learners to quickly grasp new concepts and enhances their language development. The learners were reciting the giants verse both during the role play period and also during creative activity time. It was exciting to see some of the second

language learners for whom English is challenging, being able to correctly recite a fairly lengthy verse. Bodrova and Leong (2007) explain that young children's behaviours are external and visible and that when they are beginning the process of internalization we can see the roots of higher mental functions in their actions, such as in this case study, their attempts to control memory by chanting the giant's verse.

The acting out of the story also provided plenty of opportunities to problem solve and for the learners to volunteer solutions. This set up the expectation that the learner was capable of finding their own solutions. This was seen in Extract 4 (see p. 106) where the learner describes an unusual but relevant place for Jack to hide from the giant. Both Piaget (2001) and Vygotsky's (1978) theories see the child as actively engaging in new learning within the community that is in this case, their classroom. This was certainly true as the learners participated in acting out the story of *Jack and the Beanstalk*, worked collaboratively on creating the fantasy play area and set the rules for fair play.

### **6.2.3 Organizational skills**

Perels et al.'s (2009) study showed the need for educators to be knowledgeable in how to guide learners in setting their goals, planning a task and solving problems. Their research suggested that the implementation of the aforementioned tools, together with consciously mediating learners enabled the development of self-regulation. In this case study, basic rules were placed on a chart on the wall with easy illustrations to assist understanding. Tasks were broken down into manageable steps and those steps were repeated in order to promote understanding of what was

required and to help learners with a short concentration span to remember what needed to be done. The repetition of itemized steps for a task was a further means of reinforcing the language of planning and organization. Vygotsky's (1998) theory of the importance of language usage in learning was therefore being put into practice. Plenty of opportunities were provided to allow learners to practice their new skills, for instance the daily capturing of their bean data and collective planning of creative tasks.

Sandmel et al.'s (2009) research on individual conscious mediation to promote self-regulation, demonstrated learners setting goals and planning writing activities by means of a specially devised TREE system. Each letter prompts a particular stage of organizing writing e.g. 'T' stands for 'Topic' and the learner must choose what they wish to write about. By providing specific steps to plan a task, learners were given tools to plan their writing which increased their potential for success and thereby helping them to remain motivated. In this thesis the learners were actively involved in breaking down each daily task into logical steps and setting goals for a given task. Unlike Sandmel et al.'s (2009) research which focused on individuals only, this case study included all learners in a class and focused on collective goals. Learners were encouraged to assist each other but whilst there was some evidence of this type of peer mediation, most learners appeared to work independently and to have clearly understood the task at hand.

## 6.3 Post-mediation

At the end of the mediation period learners were interviewed again and observation footage was analyzed. This allowed for comparative data to be obtained.

### 6.3.1 *Emotional skills*

In Figure 3 (see p. 110) the post-mediation data indicates a marked shift between the pre and post conditions. Ten learners scored at the 90% percentile and two close to 100%. The researcher had not anticipated such a marked improvement given that the learners had already been exposed to an existing behavioural management programme. Learners displayed heightened awareness of their emotions and the impact of their behaviour on their peers. The reduction in the number of learners scoring in the 60-80% percentile could be attributed to the increase in learners scoring in the 90-100% percentile. The learner who scored the same in the pre and post condition, namely 50% came from a deprived background and also was one of the younger learners in the class. This meant that she was possibly less capable of making a profound change over the short period of mediation. If we accept that learners develop at different rates we must take into account that not all learners would achieve the same result (Louw & Edwards, 1993).

In Extract 6 (see p. 111) the learner explains how Jack felt when he was sent to bed without any supper. The contrast between the pre and post condition shows a greater depth of understanding because the learner describes Jack having more than one emotion linked to his circumstances. Furthermore she

appeared confused by the question in the pre condition but was able to answer clearly and promptly during the post condition. This could be attributed to a number of factors. Firstly she was now thoroughly familiar with the story of *Jack and the Beanstalk* and would therefore be able to describe the characters emotions. Secondly she had experienced a number of opportunities to explore the emotions of the characters in the story particularly through the daily role play and class discussions. This together with her training in labeling emotions would have made it easier for her to understand and answer the question she was being asked. The learner in question had begun the year as behaviourally problematic due to her home circumstances. It was fascinating to see how positively she responded during the mediation period and how she continued to regulate her behaviour even after research had terminated.

Table 14 (see p. 114) illustrates four examples of post-mediation emotional competency. Learners are demonstrating a greater capacity to regulate their behaviour and less mediation is required from the researcher. This supports Connolly and Doyle's (1984) research which found that learners who were frequently engaged in fantasy play developed more effective social skills. The giant game as described in Task (1) was entirely controlled by the learners and there was no altercation or dispute linked to the drum or the assigning of characters. There appeared to be a natural flow of play with a learner picking up a prop and that act in itself creating the parameters for the game. This supports Vygotsky's (1978) notion that the tools the learners use (be it language or props) help define each character in the game and consequently regulate behaviour. It also speaks to Bodrova and Leong's (2005) suggestion that the educator can stimulate role play by providing

props which allow for imaginative play. In this case study the use of a simple drum together with an apron provided the tools for mediating a game around the theme and consequently set up a situation in which self-regulation could be facilitated.

In Task (2) of Table 14 the participants were merely wishing for confirmation that they had followed the appropriate procedure. They had in effect already resolved their conflict by the time the researcher was called to speak to the learners. This shows that the learners had begun to internalise their understanding of emotional competency and in so doing were regulating their own behaviour (Karpov, 2005).

Tasks (3) and (4) of Table 14 demonstrate that learners are able to link language to emotions and consequently should be able to understand or explain what they are feeling. This type of “noticing” of emotions was encouraged and seemed to have the desired effect of raising the learner’s awareness of their feelings and those of their peers. It reduced the level of impulsive behaviour because the learners were stopping to consider emotions before reacting. In this way they were being mediated by language to regulate their behaviour (Vygotsky, 1978).

Figure 6 (see p. 120) which describes the pre and post condition on the observational grid, shows thirteen of the twenty-five learners demonstrating a significant positive shift but twelve learners remained the same. Eight of the twelve learners who remained the same scored at the 4-point scale which implies that they already had a fairly high level of emotional competency. They would therefore not be expected to show a marked improvement. The

thirteen learners who demonstrated a significant shift support Karpov's (2005) theory that conscious mediation will promote self-regulation and consequently allow for effective learning to take place (Bodrova & Leong, 2005).

### ***6.3.2 Problem-solving skills***

The marked increase in learners in the 80% percentile in the post-mediation condition is evidence of the success of mediation in this area of self-regulation. According to Karpov (2005) when the educator becomes actively involved in mediating, the learners are given the tools to learn to regulate their behaviour. Language is key to developing problem-solving skills particularly at preschool level where learners are still developing a fundamental understanding of the meaning of words and often struggle to find the appropriate dialogue when faced with a situation of conflict. When the researcher provided the means to ask for an item together with a predetermined structure for taking turns, the learners began to understand how to solve the problem of sharing.

In addition the motivation provided by the 'sharing tree' raised the learner's awareness of how they were behaving. This type of conscious mediation is contrary to what Connolly and Doyle (1984) suggested where they imply that learners enjoy fantasy play because it is so unstructured. Vygotsky (1978) puts forward the notion that play is structured and Karpov (2005) advocates adding to that structure through conscious mediation. Karpov (2005) is saying that the motivation to learn is enhanced through conscious mediation whilst Connolly and Doyle (1984) are suggesting that the freedom of fantasy play is what motivates learners to adopt positive social skills.

There is an element of freedom in fantasy play in that the learners determine what game they wish to play but according to Elkonin (1974) they have a definite motivation and structure behind their games. This was certainly evident in the observations done during this case study as learners determined what they wished to play and had clearly defined rules in each game.

Extract 4 (see p. 106) is in marked contrast to the pre-mediation condition (Extract 3 see p. 106) in which a brief answer was given to the question of where Jack could hide from the giant. In the post-mediation condition the learner displays the accumulation of her knowledge obtained from the versions of the story of *Jack and the Beanstalk* together with her ability to think creatively and solve a problem independently. She suggests that Jack could be hidden in the bath because the giant is dirty and ill-mannered and would not think to use the bathroom and therefore this would be a safe place to hide. Her depth of understanding supports Bodrova and Leong's (2007) suggestion that by grounding learning in a familiar fairytale, learners are able to establish a greater understanding of new material.

Table 12 (see p. 109) describes three incidents of problem solving in the post-mediation condition. All three incidents show an independence in the learners capacity to problem solve. The learner who was able to cut her fairy to size, the group playing Rapunzel using the stairs as a means to climb up the "tower" and the learner who was too dominant, deciding to temper her behaviour and share. The pace at which learners absorbed the problem-solving skills was remarkable and suggests that conscious mediation is clearly effective even when employed over a brief period of time.

The observation grid comparing the pre and post conditions had seventeen of the twenty-five learners demonstrating a significant improvement in problem-solving skills. One learner made a dramatic improvement from the 1-point scale to the 4-point scale. This could be attributed to her benefiting from the stabilization of her home circumstances coinciding with being given the tools to manage her problems.

Another learner displayed a decrease in problem-solving skills in the post-mediation condition. This was as the result of her having a protracted illness, and consequently missing out on the majority of the mediation period. She did not therefore have the opportunity to benefit from conscious mediation.

The general improvement in problem-solving skills is evidence of the efficacy of conscious mediation particularly by means of appropriate dialogue and providing tools for sharing. This motivated learners to adopt the appropriate behaviour and in so doing self-regulate.

### ***6.3.3 Organizational skills***

The post-mediation condition illustrated in Figure 1 (see p. 98) shows a substantial improvement in organizational skills with eight learners achieving around the 100% mark and the remaining group evenly spread in the 50-90% mark. This profound shift in organizational skills is a clear indication of the power of Karpov's conscious mediation being extended into general classroom activities. The theme of *Jack and the Beanstalk* provided an exciting base for new learning and enabled the researcher to

devise activities which provided opportunities for learners to practice their organizational skills.

One of the most successful of these activities was the recording of the germination of the learner's beans which required learners to master a crude form of data capture on a basic weekly table. The initial attempts were broken down into easy steps and the learners needed plenty of support to record their data. As the days went by and learners became more confident in their abilities, the researcher was able to withdraw her support. This was a clear example of Bruner's (1997) extension of Vygotsky's (1978) idea of mediation in which the mediator provides profound support in the initial stages but this is slowly removed as the learner becomes more competent. Bruner (1997) referred to this concept as "scaffolding".

If we accept Vygotsky's (1978) theory that we organize our thinking through words then the contrast between the pre and post condition in dialogue Extract 1 and 2 (see p. 99-100) is significant. It demonstrates a lack of understanding being replaced by a quick grasp of what is being asked followed by an expression of a logical sequence of thought. The learner is now able to comfortably explain how to make a sandwich and is therefore organizing their thinking around a simple task.

In Task (1) of Table 10 (see p. 103) where learners were asked to construct an animal mask, learners display an ease of learning which is in direct contrast to the confusion displayed in the pre-mediation condition. Learners are now able to remember all the steps of a task; execute it effectively and were happy to work independently with limited mediation from the

researcher. Bodrova and Leong (2007) define self-regulation as meaning that the child can voluntarily perform with or without the assistance of an adult. This was evident in the post-mediation phase of research.

Task (2) of Table 10 (see p. 103), showed the efficacy of providing appropriate dialogue and how this can be absorbed by learners. When learners were asked to play a combined class game of “Farmers in the dell” using masks and actions, they knew the rules and worked co-operatively. The manner in which a learner confidently informed the class of the rules, is testament to Vygotsky’s (1978) theory that language and behaviour are intricately related. The learner was mediating the whole class when she stated “If we want to have fun we must respect the rules and listen nicely.” The learners then went on to successfully play the designated game both in class time and then subsequently during outside play without any help from their educator. In this way they were demonstrating self-regulation through mediation of language.

Bodrova and Leong (2007) explain that when preschool educators help children to develop self-regulatory skills, Vygotskians believe children will be able to learn cognitive skills and concepts effectively and be prepared for the leading activity that bridges the gap between preschool and the next stage of development. Task (3) (see Table 10 p. 103) when a learner assumed the role of “teacher” with her “pupils”, it was a clear example of Vygotsky’s ZPD (Van der Veer & Valsiner, 1991) because the learner was striving to enact the adult role of the ‘educator’ despite being a preschooler herself. She was therefore playing beyond her actual chronological age and in so doing according to Karpov (2005) beginning to understand the rules of

society. The leading activity was therefore the learners understanding of what school is like beyond the walls of her preschool classroom. This facilitates self-regulation when the learner internalises the role that the researcher was modeling. It was interesting to note how the learner chose to be 'fair' to her students and grade them all with an "A". This may have been an attempt to gain favour with her peers or simply that she perceived her educator as someone who was positive towards all her learners.

Task (4) (see Table 10 p. 103) in which the learners indulged in an extended game of exploring super powers, supports Connolly and Doyle's (1984) suggestion that overall social activity in the fantasy realm was more sustained, positive and group orientated than in the literal mode. There was a freedom of movement and invention in play as the learners moved in and out of the game. Rules were however an essential part of the game and were the reason why a potentially violent game could be played without incident. The learners appeared to instinctively understand the rules and were happy to respect them in order to be part of the game. This supports Vygotsky's (1978) argument that children create rules in play and it is not therefore an unstructured place of freedom as implied by Connolly and Doyle (1984). It is through the social interaction between the child and their peers that they learn to respect rules and control their behaviour. If the child deviates from the rules they are quickly reprimanded or excluded from the game. In this way learners were regulating one another and applying organizational skills.

Figure 5 (see p. 119) describes the data gathered on the observation grid in the pre and post conditions. Thirteen of the twenty-five learners indicated a significant shift in organizational skills with three learners making a shift of

more than two points. One of the learners was repeating the grade and was therefore seven at the time of research. This meant that her capacity to internalise organization skills would be greater as she had already entered Piaget's (2001) concrete operational stage. Another learner appeared to benefit from a more structured routine as she was not receiving this in her home environment. The remaining learner had come from an environment in which her mother performed most tasks for her. This had meant that she did not have the opportunity to discover what she was capable of until the time of research when she was required to be more independent. The twelve learners who remained the same in the pre and post conditions were already performing at a high level of competency. This meant that the potential for improvement was fairly limited.

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#### **6.4 Problems in this case study**

This case study aimed to prove that Karpov's (2005) theory of conscious mediation facilitated self-regulation at preschool level. The data collected in the pre and post-mediation conditions certainly proved that conscious mediation together with the extension of a familiar theme into classroom activities was beneficial. There was a significant shift across all three areas of self-regulation. It must be said however that the researcher brought to the project a certain amount of bias as the case study demographic was also the researcher's own class. This meant that the researcher had some preconceived ideas about her learners because she was already familiar with some of their capabilities. This could have affected her ability to be truly objective. Filming the learners did however provide concrete evidence which could be examined in a reasonably objective manner. Should a similar case study be conducted in the future it would be more desirable for an objective third party to film the learners and for another person to score the evidence. In this way bias could be reduced.

Another area in which bias may have crept in would be in how the questions were asked. Cohen et al., (2007) showed that how a question is redirected together with the problems of asking questions of children can make it difficult to obtain an unbiased answer as the researcher may be guilty of leading the participant. The researcher was however aware of all of the above pitfalls and endeavored to put in place some solutions (see Research Methods p. 88-90). In Appendix (2) (see p. 170-182) there is an example taken from the pre-mediation and post-mediation interviews, which

illustrates the challenge of helping a preschool learner to understand a question whilst retaining truthful answers.

The research should ideally begin when the first term commences and be continuous for at least six months. This would increase the potential for learners to consolidate new learning and establish the expectations for self-regulation at the beginning of the learning programme. By beginning the mediation programme in the third term, the researcher had to contend with a fairly high level of competency in all three self-regulatory areas. This may have affected the results because the contrast between the baseline and post-mediation results could have been higher if there had been an earlier beginning before the learners had been influenced by the regular mediation of an educator in a school with an EC programme. It would be equally relevant to look at continuing conscious mediation into the Grade 1 year and then assessing to see if self-regulatory skills have been consolidated.

It would be beneficial to gather data in different types of schools and schools which do not have an existing emotional competency programme. Boys' schools, co-ed schools, under privileged schools and privileged schools; could provide interesting contrasts to this case study. A control group that contains no aspects of conscious mediation could be contrasted with an experimental group. This study could also be extended across a range of teachers with different personalities and skills to see if this affects efficacy.

The effects of language could be examined with regards to the advantages or disadvantages experienced by second language learners engaging in such a project. This aspect was briefly discussed but is sufficiently important to

warrant an in-depth focus the scope of which lies outside of this thesis. In the aforementioned ways there would be the potential for conclusive evidence of conscious mediation facilitating self-regulation.

This research posed the question about conscious mediation of self-regulation in a kindergarten classroom. In this thesis organizational skills, emotional skills and problem solving skills were argued to form self-regulation. These three variables were examined at a baseline level during the pre-mediation stage of research and then again at the post-mediation phase. A qualitative case study was chosen in order to record twenty-five multi-cultural South African preschoolers within their classroom setting. Learners were interviewed using a predetermined set of questions which aimed to gather data demonstrating capacities in the three areas of self-regulation. Observations were noted and scored throughout the period of research. Conscious mediation included a number of strategies such as constructing a stimulating role play environment with a fairytale theme, providing appropriate dialogue for conflict resolution and assisting learners to plan their tasks, to name but a few. Data was gathered and recorded on film to allow the researcher to review observations and establish if shifts had occurred.

The framework of this case study was informed by Vygotsky's concepts of how children learn within a socio-cultural setting, with particular emphasis on their use of tools such as language and the importance of the props they choose during periods of role play which enhanced the potential for self-regulation. Vygotsky's notion, that "play" is in fact a structured environment that promotes the acquisition of self-regulation through the

mediation of a peer group or adult, was key to this thesis. Karpov's extension of Vygotsky's theories of mediation was the suggestion of the role of the educator as a conscious mediator both in the general classroom environment and particularly during periods of role play. His focus on how learners are motivated to learn formed an integral part of the conceptual framework of this thesis. Both Vygotsky and Karpov argued for the importance of "play" as a means for internalizing essential self-regulatory development.

Findings from the study illustrated that the educator does indeed have a role to play when assisting learners to acquire self-regulation. The significant shift that emerged between the pre-mediation and post-mediation conditions in all three areas of self-regulation confirmed that conscious mediation is a valuable means for promoting an essential aspect to learning. Furthermore the existence of an EC programme was found to provide a useful foundation for developing an awareness of emotions and the language necessary to regulate and express emotional competency.

This case study has added to our knowledge of the importance of conscious mediation of learners engaged in play as a means of developing self-regulatory processes. Karpov's suggestion of the extension of conscious mediation into the general classroom activities was seen to assist in motivating learners to internalise new concepts. At a time in education when the emphasis in South African schools, is frequently placed on academic performance and thereby reducing scheduled free play slots, this research has provided preschool educators with a clear indication of the

importance of maintaining periods of play in the daily routine of the school environment.

## 6.5 Conclusions

The following can be concluded from this case study:

1. Providing clearly defined practical steps helps learners to plan and organize their thinking and consequently their tasks.
2. Putting in place a system that practically facilitates problem solving (e.g. icons with the names of learners designated to a popular item) teaches learners how to independently problem solve and mediate less capable peers.
3. Providing appropriate dialogue when conflict arises is a useful tool particularly at preschool level because learners are struggling to express themselves effectively.
4. Providing plenty of opportunities to practice newly acquired skills, is key to internalizing new learning.
5. Using a familiar fairytale as a foundation for a theme is beneficial because it builds on an existing body of knowledge and can allow for cross-curricular work. Learners are using their imagination to explore concepts beyond their reality or chronological age but are able to do this in a “safe” manner. Furthermore familiar fairy tales are frequently retold in a variety of versions which enables learners to explore possibilities and this can assist with the development of problem-solving skills and understanding emotions. In this way learners are being mediated by language and are able to regulate their behaviour.

6. A Vygotskian framework promotes the development of deliberate memory, logical thinking and self-regulation through the retelling of stories and the creation of new ones. Children learn the concept of pattern in language and the importance of a logical sequence of events which is recognizable to the reader.
7. Fairytales are a useful tool for the development of language particularly for our second language learners as they enrich the learners vocabulary and provide opportunities to physically engage with new material, for example the learners pretending to be the giant and reciting a verse during fantasy play.
8. By establishing a stimulating classroom environment learners are motivated to engage with new material and consequently achieve equilibration which internalises new learning.
9. The presence of an emotional competency programme provided a foundation upon which conscious mediation could further facilitate self-regulation.
10. Conscious mediation raises the learner's awareness about appropriate behaviour and in so doing they strive to "get it right" which helps them to self-regulate.

The work of Karpov and Vygotsky provided an effective framework for the educator to guide and develop the self-regulatory processes inherent in the learners. In this case study the Vygotskian approach to teaching demonstrates the importance of play as the leading activity for preschool children at a time when according to Rubtsov & Yudina (2010) play is frequently neglected in favour of more academic activities. Karpov and Vygotsky remind educators of the importance of retaining play in our

curriculum but also to be actively engaged in consciously mediating new learning in order to equip learners with the tools to manage their behaviour and consequently benefit from their educational environment. This case study examined the mediation of self-regulation in a preschool classroom in South Africa. Learners were given situational dialogue to assist with problem solving and the development of emotional competency; opportunities were created to allow for a stimulating learning environment and extended periods of role play and tools for organizing tasks were practiced. A pre and post condition was examined through a process of observation, filming and interviews. Conscious mediation was at the heart of this research and yielded results that showed a significant shift in learner's self-regulatory skills.

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## **APPENDIX 1: Ethics**

Cohen *et al* (2007) point out that much educational research involves children who are inevitably not on the same terms with the researcher and that it is particularly important to keep this in mind at all stages of the research process. For the purposes of this research project the ethical issues were dealt with in the following manner:

- A letter was sent to each parent of the participants obtaining permission to film and interview their child and explaining the nature of the research.
- Permission was asked of the Principal of the school in which the case study was conducted.
- The Principal obtained permission from the education department.
- The participants were informed that they would be filmed and were told that their educator was doing the filming for study purposes.
- Each participant was informed that the interview was not part of their usual weekly assessments in order that they felt free to express themselves without an implied test.
- Participants were encouraged to ask questions about the research process including filming and the interview phase.
- Confidentiality is respected when information that is potentially harmful, is shared with the researcher (Babbie & Mouton 2010).

The researcher is also the class teacher and for this reason had established a relationship of trust between the participants and herself. Cohen *et al.* (2007) suggest that there are no rigid rules in the context of ethics and a research project. They imply that the researcher will have to formulate their

own situated ethics. As the preschool age group can have limits to what the learner can comprehend, the researcher must be aware of how the research project affects the participants (Cohen et al.2007). For this reason each participant was asked if they wish to be filmed and interviewed as well as being thanked when they had completed their participation. The researcher did discuss with parents whether they were happy to have photos included in this thesis and whether faces should be visible. All parents of the participants were agreeable to this but wished for names to be excluded from captions.

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## **APPENDIX 2: Transcripts of interviews**

### **Pre-mediation interview**

**Teacher:** Can you tell me your name first?

**Learner:** Name given

**Teacher:** Can you tell me how you would go about riding your bicycle?

**Learner:** Yes, but, um.....(big sigh)

**Teacher:** How do you ride your bicycle?

**Learner:** I got a bike and it's like wheels on it and you, you....ride it and then you peddle your legs.

**Teacher:** Anything else you do?

**Learner:** Umm...Ja...I, I, I, certain times, sometimes I let my doll ride with me on my bike. And sometimes when I go eat at suppertime I park it like a car.

**Teacher:** Oh very nice. That sounds to me like you are taking good care of your bicycle. Well done sweetheart.

**Learner:** (name of learner) do you remember I read you the story of *Jack and the Beanstalk*?

**Learner:** Uh huh.

**Teacher:** Alright, I want to ask you a couple of questions about that story.

**Learner:** Yes

**Teacher:** "Alright.

**Learner:** I got the movie.

**Teacher:** Have you? Oh fantastic, so you know the story well. That's lovely.

**Learner:** Uh huh.

**Teacher:** Now the first question I wanted to ask you (learners name) is, how do you think Jack felt when his mommy sent him to bed with no supper?

**Learner:** He felt sad and lonely.

**Teacher:** Sad and lonely....why would he feel like that do you think?

**Learner:** Because his mother was so cross at him.

**Teacher:** O.K....yes.

**Teacher:** And then um...what would you do if you were offered magic beans? Would you take the magic beans or would you take the cow to the market?

**Learner:** I'd take the cow to the market. (very emphatic)

**Teacher:** O.K. Why would you do that love.

**Learner:** Because the cow needs food.

**Teacher:** O.K. (hesitant) And how do you think Jack's mommy felt when he came home with the hen that can lay golden eggs?

**Learner:** She, she felt...almost happy.

**Teacher:** Almost happy....do you want to explain why 'almost happy'.

**Learner:** because first Jack needed to get the golden harp, then the gold of sand and then, then the giant came after him he chopped down the beanstalk and then his mommy was so proud of him and gave him a big hug and kiss.

**Teacher:** O.K. Do you think Jack was wrong to steal from the giant?

**Learner:** Er...I think he was meant not to steal from the giant.

**Teacher:** O.K. Why?

**Learner:** Because if you steal from people that means you, that means you are a prisoner.

**Teacher:** O.K. Do you think he should have kept going back to get stuff. Cause do you remember he got the bag of gold and he got the hen and he got the harp. Do you think it was right for him to keep going back to get stuff?

**Learner:** No (hesitant)

**Teacher:** No, why not?

**Learner:** Because it is too dangerous up the beanstalk....

**Teacher:** O.K.

**Learner:** And I know very well when the one night the duck ate the magic bean and then he turned into a human.

**Teacher:** Really! My goodness!

**Learner:** And then when the giant shouts at him then he lays out golden eggs.

**Teacher:** Amazing!

**Teacher:** O.K. (learner's name) can you tell me how you would go about making yourself a sandwich for your lunch box?

**Learner:** I .....

**Teacher:** What would you do to make the sandwich?

**Learner:** I would ...I love peanut butter. I would love margarine, peanut butter and jam.

**Teacher:** What must you do with all of that?

**Learner:** You must, you must put it on your bread, close your bread and then eat it. Then you come to school.

**Teacher:** (laughs) O.K. What did you think of the giant's wife when she was giving Jack food...and she was hiding him from the giant? What did you think about her?

**Learner:** She felt worried about him because, because his husband, her husband is big and the...urr...he said 'Fee, fie, foe, fum I smell the blood of

an English man, be he alive or be he dead I'll crush his bones to make my bread....and my daddy, my daddy and my mommy means to read me that story and when they say (raises the volume) 'FEE, FIE, FOE, FUM, I SMELL THE BLOOD OF AN ENGLISH MAN'. I say whoa stop that you making me scared I don't want to hear this anymore I'm going to sleep.

**Teacher:** (laughs) But what did you think about the giant's wife. What did you think of her?

**Learner:** Um..she felt worried about Jack...if he was going to get eattend (learner's own word) or ....(pause)

**Teacher:** Did you like her?

**Learner:** Yes she was very kind to Jack.

**Teacher:** Hmmm. That's true she was very kind to Jack. Alright. How do you think Jack could go about planting those magic beans in the garden? What must he do.

**Learner:** (excited breathing) Um...He must bury it and then one day when he woke up there was a magical beanstalk.

**Teacher:** O.K. where do you think Jack could hide from the giant?

**Learner:** Um...in, in...maybe in the bakery oven.

**Teacher:** In the bakery oven! O.K. Any other suggestions?

**Learner:** Yes (hesitant) there...Jack was hiding from...but um ...when the giant was sleeping I figured out why he was sleeping...because his wife was, his wife put sleeping gas in his food.

**Teacher:** (laughs)...(learner's name) What do you do if you feel scared?

**Learner:** I would hide. I'd call my mommy and then hide and I would scream and run and then when the giant say 'Fee, fie, foe, fum .' I shall not say anything.

**Teacher:** Keep quiet...o.k. Now let's say (learner's name) you are very, very, hungry and the giant's wife gives you an ENORMOUS (raised voice for emphasis) bowl of porridge, a really big bowl of porridge like she would give to the giant. How would you go about eating that big bowl of porridge?

**Learner:** I'd dive in it and then eat it.

**Teacher:** You'd dive in it!...O.K. And how do you feel if mommy and daddy gets cross with you?

**Learner:** I feel, I feel heartbroken.

**Teacher:** You feel heartbroken. Why lovey?

**Learner:** Because sometimes Jack's mother 'skell him out'<sup>13</sup>

**Teacher:** O.K. but how do you, why do you feel heartbroken if mommy and daddy gets cross with you?

**Learner:** Because....um....because sometimes when they have a little argument and they say thingies little tattletales....then I cry like my 'boeta' he also. He not a very good brother, I'm telling you he talks in my little brother's face.

**Teacher:** O.K. (pause) alright. Now let's say you wanted to get the golden harp. You are Jack and you wanted to take the golden harp but you don't want the giant to notice. The only problem is (learner's name) that this harp keeps singing. How are you going to get that golden harp away from the giant without his noticing?

**Learner:** I'm gonna, gonna, shut...the, the, the, the....golden harp mouth with cello tape and then take it in a sack and then down.

**Teacher:** O.K. and last question sweetheart, can you tell me how you would make your bed?

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<sup>13</sup> A mixture of Afrikaans and English and meaning that Jack's mother would scold him.

**Learner:** First I do.....the cover. First I do the covers and then put the pillows and the thingies and I would...then I would um...leave it like that and dust it and then while its clean

**Teacher:** O.K. (Learner's name) thank you very much for your help sweetheart.

**Learner:** It's a pleasure.

### **Post-mediation interview**

**Teacher:** Tell me your name first.

**Learner:** (Says name).

**Teacher:** Can you tell me how you would go about learning to ride your bicycle? What would you do to learn to ride it?

**Learner:** I only have a bike.

**Teacher:** O.K. how do you learn to ride it?

**Learner:** um....

**Teacher:** What must you do?

**Learner:** You must first sit on the seat. Then hold on the handles, then you peddle , then you ride with your feet and it starts moving. I ride my bike fast.

**Teacher:** Do you. Do you wear a crash helmet?

**Learner:** I don't crash.

**Teacher:** But you should put your helmet on to stay safe, hey my sweetheart. Alright, now in the story *Jack and the Beanstalk*, how do you think Jack feels when mommy sends him to bed with no supper?

**Learner:** I think he feels more worried and sad and broken hearted.

**Teacher:** Aah yes, it must have been difficult for him. What would you do (learner's name) if you had to choose between taking the magic beans or taking your cow to the market? Would you take the cow to the market or would you take the magic beans?

**Learner:** I would say o.k. I'll first go to the market then I'll take the magic beans.

**Teacher:** But you've got to choose you can't do both. Because remember the man who offers the magic beans wants the cow.

**Learner:** O.K. so I'll say I'll have the magic, beans you take the cow.

**Teacher:** So you'd choose the magic beans.

**Learner:** Uh huh.

**Teacher:** Why would you choose the magic beans?

**Learner:** Because it grows in a big beanstalk and I've been waiting for a long time to climb up a tree.

**Teacher:** O.K!

**Learner:** To see what the clouds look like up....

**Teacher:** at the top (laughs).

**Learner:** Ja, but teacher can I ask you a simple question? Um....

**Teacher:** Yes.

**Learner:** Why's it puppets hanging up there.

**Teacher:** Those are marionette puppets and we use them sometimes for very special puppet shows.

**Learner:** Oh.

**Teacher:** How do you think Jack's mother feels when he comes home with the hen that can make those golden eggs?

**Learner:** She feels *almost* impressed with Jack.

**Teacher:** Impressed with Jack....Why would she be impressed with Jack do you think?

**Learner:** Because they need to buy more clothes, more house then they ever can explore, more food that they can ever eat and more drinks that they can ever drink.

**Teacher:** So can they do that with those golden eggs?

**Learner:** Yup! (confident pose)

**Teacher:** O.K. So his mommy would feel what? Happy, or sad or what would you say?

**Learner:** I would say a bit happy – almost happy.

**Teacher:** O.K. that's interesting. Um do you think Jack was wrong to steal from the giant?

**Learner:** I think he was meant to be right from the giant.

**Teacher:** You think it was right to take from the giant? Why was it right to take from the giant?

**Learner:** I think it...because it was his daddy's golden coins and his daddy's hens.

**Teacher:** O.K. So from the story...the one version that we read where it was the dad's stuff that he was taking back. O.K. Alright um...do you think that Jack should keep going back and taking the things?

**Learner:** I think...I think not a lot of things because (pauses to think) just like I said now I hope Jack does steal but now I'm saying he can't steal because he can't take a lot of things because Jack say (gasps) why can't I decide to take all of them because at the end of the golden harp...right...um...Jack find himself in danger and I think when you have a big fuss over it and a fight then you get in danger.

**Teacher:** O.K. so you , maybe, are you saying he shouldn't keep going back because its possibly dangerous each time?

**Learner:** Mmmm.

**Teacher:** Alright umm...Tell me (learner's name) how would you go about making yourself a sandwich for your lunchbox? For your snack time.

Learner: Um...

**Teacher:** What must you do. Pretend I don't know how to make a sandwich. Tell me what I must do.

**Learner:** Um...for...I like peanut butter (raises voice).

**Teacher:** O.K. so how would you make your peanut butter sandwich? Explain it to me.

**Learner:** First I have to have peanut butter, then jam and then I put it there (lots of hand movements on the table) and then I eat it.

**Teacher:** So what are you putting it on my sweetheart?

**Learner:** Um...bread.

**Teacher:** What twenty slices of bread or just one slice of bread or what. Tell me.

**Learner:** Um...then you can cut it.

**Teacher:** So am I just putting it on just one slice of bread.

**Learner:** Yes.

**Teacher:** Have you ever made a sandwich at home love?

**Learner:** No, only my mummy does (says in small voice).

**Teacher:** Mummy do ...o.k. I think you must ask mummy if you can make your next snackbox hey?

**Learner:** Can I tell you something? (points to something on the shelf)

**Teacher:** It's to play with. Don't worry about that right now my sweetie. Umm...What did you think of the giant's wife when she was helping to

hide Jack and she was also giving him food and things. What did you think about her?

**Learner:** She was very kind.

**Teacher:** Was she kind?

**Learner:** Yes, because she said to Jack ‘you can’t keep stealing things’. And then Jack lied to the giant’s wife because he’s fibbing. When he, his parents taught him to be nice when he was little and now he’s naughty because now he doesn’t know the things that his parents taught him.

**Teacher:** O.K. Tell me how would you go about planting your magic beans in the garden?

**Learner:** Oh um....

**Teacher:** What must you do?

**Learner:** First I would dig a hole with a spade, then put the magic beans carefully and then dig them up so no one can see them. But I also got *Jack and the Beanstalk* movie...right. In the movie the goose eat the magic one beans and then he turns into a human. And then he says, he says ‘Fellas remember me’. And then he says ‘peanut butter and jelly sandwich, peanut butter and jelly sandwich, peanut butter and jelly sandwich.’ His name is ‘Greyson’ and he always says funny things.

**Teacher:** I think you’ll have to bring this movie so we can have a look at it sweetie.

**Learner:** It’s on a media play.

**Teacher:** Oh is it.

**Learner:** with all the movies on it and teacher can I tell you one thing?

**Teacher:** Yes

**Learner:** The goose dripped on his head.

**Teacher:** Oh really! Sounds like a funny goose to me.

**Learner:** (Laughs uproariously).

**Teacher:** Alright, let's go on with our questions sweetie. Where would you hide Jack so he could stay safe from the giant? Where would you put him?

**Learner:** I would say 'Go climb down the beanstalk, stay by your mommy and when the giant is gone you can come back in and have supper'.

**Teacher:** Oh O.K. So you don't...you wouldn't hide him in your kitchen whilst the giants there like the giant's wife did?

**Learner:** (shakes head to indicate No)

**Teacher:** No, you'd send him home. (Learner nods the affirmative). O.K.

Tell me what do you do when you feel scared (learner's name)?

**Learner:** I would shiver and hide under the duvet but last night when my daddy switched on the light...I, I, I, heard lot of noises and I remember on my movie Coraline drank the tea..right, and then the lady showed Coraline a few hands and she said 'I see a very curious hand!' Then I hide under the duvet.

**Teacher:** So if you scared you hide. You don't go to mommy or daddy?

**Learner:** (Shakes head to indicate "no".) I snuggle mommy and daddy and hide.

**Teacher:** O.K. ummm...How would you go about eating that enormous bowl of porridge?

**Learner:** Oh my word! I would dive into it!

**Teacher:** (Laughs) You'd dive into it....O.K. And how do you feel if mommy and daddys cross with you?

**Learner:** I feel sad and I feel lonely.

**Teacher:** Sad and lonely. O.K.

**Learner:** And when my daddy was AMAZED (emphatic) when I was dressed early and waiting in the kitchen for him.

**Teacher:** So he was proud of you for that. Good girl!

**Learner:** Then I feel....my heart just pump (hand action) and I feel HAPPY!

**Teacher:** That's wonderful. I tell me sweetie, how do you think Jack could get that harp that's singing all the time, away from the giant without the giant knowing?

**Learner:** I think I know. I'll shut the harps mouth with cello tape.

**Teacher:** Sticky tape it shut. O.K. And tell me quickly how do you make your bed in the morning?

**Learner:** First I tidy up it and then I take the cover out and then I put the cover back on and then I make it straight. Then I put the duvet on. Then I put the pillows. (lots of hand actions to demonstrate the process).

**Teacher:** Sounds excellent. Have you made your bed before?

**Learner:** No, because the duvet's big and I'm still little.

**Teacher:** Still little....maybe you can help mommy to make the bed next time.

**Learner:** My granny always comes and helps.

**Teacher:** Helps a bit at home...

**Learner:** Teacher....I got the story of *Rapunzel* and my mommy always reads it to me every night and I like reading.

**Teacher:** Is that your favourite story at the moment?

**Learner:** Er huh...and I like reading.

**Teacher:** It's very good that you like reading. That's why you are such a clever girl. (Learner's name) thank you very much my sweetheart.

**Learner:** O.K. it's a pleasure.

### **APPENDIX 3: Transcript of *Rapunzel* role play**

**Learner A:** Mommy, mommy do you want to come and watch the show of *Rapunzel*? I'm Rapunzel. (Learner throws duvet over high wall on balcony and invites friends to climb up her hair.)

Learner A & B attempt to pass the duvet back up to Rapunzel but it is too high to reach.

**Learner A:** My hairs gone, my hairs gone. (Learner laughs and reaches down for her duvet). I'm Rapunzel. (Learner turns to her friend standing next to her and informs her of her role in the game.)

**Learner C:** My hair, my hair. (Learner turns to look at Learner A who is now holding the duvet which represents the hair.)

**Learner A:** My hair, my hair. (Learner grabs duvet and throws it back down to the two learners standing below the balcony. Learner C walks away and accepts she is not Rapunzel because she does not have possession of the duvet.)

**Learner A:** Oh Rapunzel, *Rapunzel* letting down her hair. (Learner throws the duvet back down to her friends below the balcony. They immediately throw the duvet back to learner A.)

**Learner C:** Mama, Mama, Mama.....(Learner crawls along the floor pretending to be a baby and points up to Learner A. Learner B attempts to pick her up and brings her to the wall where the game is happening.)

**Learner A:** Use the stairs to climb up to me. O.K. I'm letting down my hair. (Learner throws her duvet back over the wall. (Learner C pulls on the duvet and tries to take it from Learner A)

**Learner C:** My hair....(makes panting and baby noises)

**Learner B:** A tent, a tent. Come we make a tent. (Learner pulls the duvet away from Learner A.)

**Learner A:** You must get on (says name of Learner C). (All three learners laugh as Learner C tries to climb the duvet whilst Learner A holds on at the top of the balcony.)

**Learner C:** My hair.....(Learner wrestles the duvet away from Learner A and B and runs away with it. Learner A gives chase.)

**Learner A:** Someone help me. Hold it there by (name of Learner B). (Learner A is pulling on the duvet trying to climb up it whilst Learner C is holding the top from the balcony. Learner A. calls on Learner D. to assist her after she has regained control of the duvet from Learner C.)

**Teacher:** (Name of Learner A) she can't really pull you up there that's dangerous.

**Learner A:** Look here. (Learner throws duvet out along the length of the stairs and Learner B holds onto the bottom whilst climbing up the stairs.)

**Learner D:** *Rapunzel*, '*Rapunze*' let down your golden hair.

**Learner A:** Now you try it. (Learner throws duvet back out down the staircase and invites Learner D to climb up the duvet).

**Learner D:** *Rapunzel*, *Rapunzel* let down your golden hair. (Learner D. roars with laughter as Learner A. throws the duvet down the stairs).

**Learner C:** Guys can I play?

**Learner A:** (Nods in the affirmative and throws the duvet down the stairs to Learner C).

**Learner C:** *Rapunzel*, *Rapunzel* let down for your golden hair. (Learner climbs up the duvet to the top of the staircase).

**Learner C:** '*Rapunzel*', *Rapunzel* let down for your golden hair. (Learner C recites this whilst standing at the top of the stairs holding one end of the

duvet and Learner A holds the other end. Together they throw the duvet down the stairs and laugh. They retrieve the duvet and climb back up the stairs. This continues for a few minutes with the same dialogue being repeated until the learners lose interest and play a different game.)

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#### **APPENDIX 4: Applications for classroom practice**

In this chapter I will be briefly examining practical ways in which educators can improve the acquisition of self regulation by their learners and suggest some easy ways for educators to achieve this particularly in schools with limited resources and high class numbers, a context which is familiar to South African classrooms.

Using recyclable materials to create a fantasy corner helps learners to enjoy an exciting learning environment and teaches them the benefits of recycling. This is particularly beneficial for under resourced schools where learners are frequently surrounded by litter and consequently a lack of respect for the environment. They often do not have the financial support to obtain expensive resources such as role play furniture or posters. Some suggestions would be as follows:

- a) Use cereal boxes as 'bricks' by stuffing them with newspaper and gluing them together with a flour and water paste. These bricks could be used to construct a house /castle/walls/barriers. They could be painted with a simple powder paint finish.
- b) A list of icons and names could be written on the back of an old calendar and easily referred to when learners are unsure of which participant should be using a popular item.
- c) A 'sharing tree' can be made by learners dipping their hands in paint and printing them on newspaper. The hands could then be cut out and each child's name written on the completed hands. The educator could draw a simple tree on brown paper and when a learner has shared or behaved

appropriately, they may pin one of their hands on the tree. This would provide a colourful but concrete image of communal sharing.

- d) Ask learners to collect and wash colourful plastic lids from juice bottles and milk cartons. These can be used for counting and sorting. They can be sorted in egg boxes or empty plastic muffin trays. The educator can write numbers in the base of the egg boxes or muffin trays and then the learners can sort the lids into the trays as a means of practising number recognition.
- e) Use blankets or fabric off cuts for learners to explore different characters in role play. These can be used as capes, dresses, tents or carpets, just to name a few ideas. This allows learners to determine for themselves what the characters should be but the presence of the 'cape' demarcates the role of the character and therefore the rules of the game.

When faced with a large class and limited teaching support it is beneficial to allow more competent learners to help less competent learners to master new learning. By explaining a task to another learner the more competent learner organizes their thinking and consolidates their learning. The less competent learner may feel more relaxed with a peer and consequently may feel free to ask them to repeat new information until such time as they feel they have mastered it. This technique could be employed in schools where a teacher does not have knowledge of an African language and therefore learners who are able to speak the same language can inform each other of the designated task using their home language.

Begin the day with a 'care circle' in which each learner uses their fingers to demonstrate how they feel. They may show anything from a single finger to

four fingers to explain their mood. A single finger means that the learner is feeling sad whilst four fingers mean something positive such as they are feeling 'happy'. Learners should be encouraged to explain their feelings and can be allowed more than one feeling simultaneously. In this way they are building the language of emotion and understanding that their peers also have similar feelings. By building an understanding of emotions and how we express them, learners are less impulsive and better able to regulate their behaviour.

Make use of a 'talking stick' when having a 'care circle' or group discussion. A 'talking stick' is an item that is passed from one child to the next and the child who is holding the stick is the one who is allowed to speak. In this way learners establish the ability to regulate their behaviour because they are required to wait for their turn. A talking stick can be made out of a long toilet roll and decorated with scrap or it can be a puppet or toy that is passed around.

Allow each learner to make a self-portrait drawing their head and shoulders only. It should fill an A4 page and the mouth should be done on a separate piece of paper. The mouth should be a semi-circle which will be attached separately. Learners should be able to turn the semi-circle up, down. Or lopsided to show how they are feeling. Educators should explain that this can be done at any point in the day. It provides the educator with a barometer of how a learner is feeling and it helps learners to remember to focus on their feelings and consequently regulate their behaviour. It is particularly useful for second language learners who may still be struggling

to express how they feel because they have not yet acquired sufficient descriptive vocabulary.

If learners are to benefit from the Vygotskian approach to teaching, the educator should provide as many tasks as possible that allow for collaborative work. It is in this type of shared experience that the child needs to communicate and consequently learns through social interaction. For example by constructing a large combined class mural each learner works in groups and adds to the picture. There is potential for discussion around how items should be created or added. There would also be comment on what each learner is doing. The mural could be a construction of a collage linked to a particular theme for example a seaside picture.

During outside play it is a good idea to set up water play and allow the learners to wash the dolls clothes and dolls. String up a washing line and let the learners peg the clothes on the line. This is also a good opportunity to help second language learners to learn the words for particular items of clothing. As the learners peg the clothes on the line they can say the words for each item. The song “This is the way we wash our clothes” can be used whilst performing this activity. The combination of song, new words and social commentary will stimulate new learning.

The educator can mediate play in a number of ways. These may include the following:

- a) Encourage learners to adopt a character by providing them with a particular tool for example giving them a handbag to represent the role of ‘mom’. In this way a learner who is struggling to become part of a game

has a way of defining their role and consequently is recognized as part of the chosen game.

- b) Suggest dialogue that a character may use within the fantasy of a game in order to develop the play scenario. For example “Fie, fi, foe, fum.....”(the verse used by the giant when he is looking for Jack) can be suggested for a learner who may wish to play the part of the giant. This technique enables learners who are struggling to communicate with their peers or maybe are second language learners and therefore have not yet developed a comprehensive vocabulary, to become involved in a game. It also helps to develop their language ability.
- c) Model appropriate ways to solve disputes to assist learners with poor social skills. Provide learners with dialogue that will enable them to resolve conflict. For example ‘When you have finished your turn, please may I have a turn’; ‘Please may I be the Princess/Mom/baby in this game and you can be (one of the aforementioned characters) in the next game’; ‘When you shout you make me feel.....’ or ‘What if you have a turn with this toy and I have a turn with that one and then we swop’. As learners see the appropriate dialogue working to resolve conflict, they will be eager to continue to make use of it.
- d) Encourage more capable learners to mediate their peers. The advantage of adopting this strategy is that the child is seen as an equal in the game whilst the educator remains on the periphery. This means that the role play scenario does not become a teacher directed event.