Discovering the Development of Self-regulation through Play:

An Exploratory Case Study among Grade R South African Learners

A minor dissertation submitted in partial fulfilment of the requirements for the award of the degree of Master's in the Psychology of Education

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Declaration:
This work has not been previously submitted as a whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation within this dissertation from the work or works of other people has been carefully attributed with attendant accurate citations and references made.

Signature: Signed by candidate Date: **February 14, 2025**

Der Mensch spielt nur, wo er in voller Bedeutung des Wortes Mensch ist, und er is nur ganz Mensch, wo er spielt – Schiller (1795/1967)

[Man only plays when he is in the fullest sense of the word a human being, and he is only fully a human being when he plays.]

Abstract

This dissertation explores the emergence of self-regulation (SR) in early childhood development (ECD) among a group of Grade R Foundation Phase learners in a Quintile 5 school, in Cape Town. As described within Cultural-Historical Activity Theory (CHAT), this study sought to understand the role of sociodramatic play, the leading activity of children between the ages of three to six – this study focusing solely on Grade R, ages five to six – in developing SR as a higher mental function (HMF). Additionally, the influence of educator pedagogical approaches for advancing play practices is analysed, as SR is essential in determining school-readiness.

The last major intervention in South Africa attending to self-regulation (Harrison & Muthivhi, 2013) is from over a decade ago which underscores this study's relevancy. Within this ethnographic case study, three vignettes exploring in-class activities to dynamic outdoor play are presented with accompanying CHAT analyses. Each analysis draws extensively upon the research of Fleer (2010, 2019, 2023a, 2023b) and Bodrova and Leong (2007, 2003b, 2015; Leong & Bodrova, 2012). Through Germeroth et al. (2019), a CHAT-informed framework, the Mature Play Observation Tool (MPOT), gives shape to each of these analyses.

Findings from this study identify how play is often applied merely as a "prop" in contrast to being the foundation for a fully-fledged play pedagogy (Fleer, 2021; Bodrova & Leong, 2007). Insights from the Grade R class teacher illustrate a pervasive belief that children should "self-direct" their play as their own isolated activity, while CHAT research calls for educators to engage in the dramatic process of play (Kravtsova, 2014; Vygotsky, 2004). This dissertation identifies sources of political pressure between "institutional practices" (Hedegaard, 2012). Recommendations are made for enriching ECD play programmes (Zaporozhets, 1986).

Keywords: self-regulation, Cultural-Historical Activity Theory, sociodramatic play, pedagogy, early childhood development, MPOT, Conceptual PlayWorlds

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List of Acronyms and Abbreviations

SR	Self-regulation
CHAT	Cultural-Historical Activity Theory
ECD	Early childhood development
MPOT	Mature Play Observation Tool
HMF	Higher Mental Function
EF	Executive Function
ZPD	Zone of Proximal Development
MKO	More Knowledgeable Other
WCED	Western Cape Education Department
UCT	University of Cape Town
RSA	Republic of South Africa
4th IR	4th Industrial Revolution

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Chapter 1: Aims and Rationale

Developing on the basis of the individual assimilation of social forms of consciousness and behavior, once the personality emerges it frees the individual from immediate subordination to the influences of the environment that surrounds him, allowing him not only to adapt to it, but to transform the environment and him/herself – (Bozhovich 2009).

1.1 Introduction and Aims

It cannot be overstated that the ubiquitous relevance for school-going children to eventually take ownership of their academic pursuits – educational goals and future ambitions – is paramount. In the context of South Africa's contentious history scarred by colonialism and the apartheid regime, our education system is still in crisis (Legotlo, 2014; Hardman & Teschmacher, 2019; Mamdani, 1996; Christie & Collins, 1982). Moreover, the predicaments of the twenty-first century place pressure on teaching and learning, and one wonders with a certain measure of apprehension as to which issue education must tackle next and how: Is it an educator's priority to address the problems of global warming? And what about the polemics in and around information and communication technologies (ICTs) for in-class teaching and for empowering learners at home contemplating futures that are very much undecided; to learn "what is not yet there" (cf. Engeström, 2016)? How should learners and teachers grapple with the demands of the 4th industrial revolution (4th IR), and the "blurring of boundaries between technology, biology and the digital and physical", as well as a marginalising capacity inscribed within Western epistemologies (Hardman, 2021; Bangeni & Kapp, 2005; Kallaway, 1984)? Given these issues which demand specialized and urgent attention, some have gone on to suggest that we are living in the "end times" (Žižek, 2010).

It is in considering these ethical and political, technological, environmental and historical conflicts both global and specific to South Africa, and more particularly as inscribed within our South African educational system, that I draw upon Chinua Achebe's (1994) use of the African proverb to ground my dissertation: *Until the lions have their own historians, the history of the hunt will always glorify the hunter.* Far too often it is the children (i.e. the lions) whose voices are marginalised in education (McTavish, Streelasky & Coles, 2012; Moll, Amanti, Neff & Gonzalez, 1992). This study undertakes to discover play's place in the psychological developments within a group of South African children and "glorify" less the corruption and

distraction of adults (i.e. hunters). Through a cultural-historical theory of human activity (CHAT) and its associated developmental psychology notions rooted in Vygotsky's (1978; 1962) and Neo-Vygotskian perspectives (Elkonin, 1978; Karpov, 2005) of child development, this study is an in-depth theoretically grounded case study drawing upon ethnographic methodologies focused on the leading *transitional* activity of childhood development which, from the cultural-historical framework, is play (Fleer & Hedegaard, 2010, 2019; Fleer, Fragkiadaki & Rai, 2020). It through a CHAT-informed perspective that self-regulation (SR), as a scientific concept, is seen as (a) pivotal in the cultural construction of higher mental functions (HMF); and in (b) how it might begin to extend a key "indicator of school readiness" which is, by implication, the beginning to an approach for addressing some of the prevalent critical issues listed above (Bodrova & Leong, 2003b, p.163; 2006; Harrison & Muthivhi, 2013; Morris, Hardman, & Jacklin, 2016). Yet, the "lions" cannot be observed without the help of the "hunter" and the dialectical relationship of child-adult relations are at the heart of this study.

The objective of this research is not to suppose that children exist without the impinging realities of twenty-first century conflicts, nor view their development as biologically predetermined along some linear stage-by-stage developmental design. Rather, through the dialectical-materialist stance proffered by CHAT, this study is propelled by the belief that it is possible to understand what it might mean to be a child developing a capacity to self-regulate one's learning, ambitions, and social experiences through their play activities and become ready to govern one's mind and behaviour appropriate for learning and developing personal academic success and a cultural sense of citizenship. Crucially, the primary site of this wholistic development (Hedegaard 2011; Chaiklin 2011) – to capture a slice of life in a moment of time through this research – is children's play and those ways in which it has been more extensively studied pointing to how this relationship empowers an understanding of a learner's readiness for school (Fleer & Hedegaard, 2010; Bodrova & Leong, 2007). Through play, it is possible to more fully understand what SR looks like and through CHAT literature contemplate what is needed in the process of self-regulation's development.

1.2 Rationale

1.2.1 Personal and Professional Sources

The rationale for this study branches out of both professional and personal sources of experience: as a high school teacher concerned with adolescent abilities to govern their own decision-making processes and switch their attention between academic and non-academic activities, my curiosity grew around *the origin* of their abilities to self-regulate and whether or not sufficient attention was being given to what I then termed an essential skill: self-regulation. Additionally, while exploring CHAT literature and having become a father of a baby and witnessing his early development, I began to notice the literature come alive in my family life. For example, as discussed by Karpov and Haywood (1998), a deep impression was left after my toddler learnt during one braai (barbeque) to not touch the flame or the grill when I told him it was "hot". When the activity was repeated a few weeks later, he, avoiding the grill and flame, informed me with accompanying gestures mimicking my own, that it was "hot, hot!" and thus regulated his awareness by guiding my awareness of this hot situation simultaneously illustrating the very process outlined by the researchers mentioned, the process of the formation of SR.

1.2.2 The Educational Landscape

Vygotsky (1978) understood clearly that human thought, as Foucault (2002) put it, "bears the stamp of our age and our geography" (p.xvi); that "children grow into the intellectual life of those around them" (in Daniels, 2012, pp.71-72). In this way education has never been free of political influence. Deliberately or unintentionally, its impact shaping individuals has consistently mirrored and reinforced the social order and political agenda of prevailing ruling parties (Daniels, 2012). It is within such realisations of social life's tests and trials that the development of executive functions (EF), creativity, the ability to reason, consciously control one's emotions that the acquisition of SR as a "metacognitive mediational means" (Karpov & Haywood, 1998; Zeidner, Mathews, Roberts & MacCann, 2003), is an essential educational tool for learning, as well as a critical *capacity* for social cohesion which has its genesis in children's make-believe or imaginary play (Bodrova, Germeroth, & Leong, 2013; Vygotsky, 1967). Furthermore, "how we define [developmental] process[es] influences the measures we

use to assess them and how we interpret our research results" (Schunk, 2008, p.464). Thus, it is the interdependent nature of dialectical relationships "between the self and the social" through "constant interaction with the environment," (i.e. culture and history inseparably connected) that one is encouraged to explore the significance of self-regulation (SR) as an executive function (EF), or as Vygotsky (1978) saw it, the generator of "voluntary attention" and "reflective consciousness" – a higher cognitive/mental function (HMF) by which other psychological abilities are governed in a collaborative process of development (Oppong, Shore, & Muis; 2019; Grouzet, Sokol, & Müller, 2013; Fox & Riconscente, 2008). Urgency for improving educational outcomes by developing these HMFs is underscored by numerous international reports in Mathematics and Science (cf. Mullis, Martin, Foy, Kelly, & Fishbein, 2020) and play for ECD (cf. Roos, & Victor, 2018). This is further supported by research conducted by *Thrive by Five* teams in a South African context (cf. Tredoux, Dawes, Mattes, Schenk, Giese, Leach, & Horler, 2024).

For Vygotsky (1978), HMF "originate as relations between human individuals" (p.57). Vygotsky sought to demonstrate how "the internalisation of socially rooted and historically developed activities is the distinguishing feature of human psychology," which is commonly phrased as his general genetic law of development:

> Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first between people (*interpsychological*), and then *inside* the child (*intrapsychological*). This applies to voluntary attention, to logical memory, and the formation of concepts (Vygotsky, 1978, p57; emphasis in original).

It is in this way that Neo-Vygotskians view play or sociodramatic play as a pivotal leading activity of childhood development among three-to-six year-olds: through play, HMF appear first socially and then internally (Hedegaard, 2002; Fleer, 2020). Sociodramatic play is discussed in greater depth in Chapter 2, this study's literature review, and in Chapter 3 alongside the theoretical framework for this dissertation.

1.3 Research Questions

a) i. How do children, aged five to six, play in this Grade R setting?
   ii. How is play viewed/structured by educators on this site?

b) What is accomplished in play that demonstrates SR as categorised by the mature-play observation tool (MPOT)?

c) Are there other activities or social situations / institutional practices which should be given greater attention in order to discern the significance of play for developing SR?

In answering these questions, I present findings uncovering some of those ways in which Foundation Phase children in a Grade R group (5-6 year-olds), in an all-boys' school, are taught, play and – as analysed through cultural-historical theory (Chapters 6, 7 and 8) – begin to exhibit features of budding SR as a HMF.

1.4 Summary

Achebe's (1994) proverbial-reference regarding hunters and lions describes the focus of this study: how *children* develop SR through play. Owing to the nature of play that has been researched most widely in promoting SR development (Fleer & Hedegaard, 2010; Bodrova & Leong, 2015; Karpov, 2005) it is understandable that there is surely someone else key to this analogy of the hunt more benign than the image of the hunter: the storyteller. This dissertation presents an educator who is concerned with telling a story of childhood development with her group of students. Concerning the hunters, influences like the political pressure between institutional practices are identified in Chapter 7, pressures which do not really resolve the apprehension addressed as twenty-first century predicaments.

Articulated by Leont'ev (1981), "cognitive change happens within a collective context" where individual actions are "directed at goals" and this "functioning activity [is] driven by the object," which object is translated more suitably in English as a "learning problem" (in Hardman, 2008, p.71). Therefore, it is make-believe play that fosters "the learning of symbolic and emotional thinking, spoken language, […] the beginning of literacy" through the development of SR (Germeroth et al., 2019, p.184) that is the focus of my dissertation, which draws upon ethnographic methodologies to document early-childhood activity. Through a CHAT framework I analyse play and SR among a group of Foundation Phase learners in order to discover the scope of affordances that assist or hinder cognitive change. This is because SR's presence in *and for* learning-teaching objectives has such vitally significant educational

outcomes relevant in our South African educational system. It is emphasised often throughout this dissertation that sociodramatic play features as *the* essential situation in which SR emerges in a child's cognitive change and development (Fleer, 2011).

1.5 Chapter Outlines

The following chapter outlines briefly describe the substance of this study.

Chapter 2: Literature Review/ Conceptual Context

In this chapter I trace the relevance for my study regarding SR in ECD, its pertinence in educational objectives concerned with school-readiness, and provide motivations for employing a CHAT-informed understanding of play as the leading activity for the development of SR among Grade Rs aged five to six.

Chapter 3: Theoretical Framework

Cultural-historical activity theory is discussed as the fundamental framework for making meaning of notions such as higher mental functions (HMF) like SR. In this way SR is analysed in this study as a cultural-historical concept. The dialectical nature of sociodramatic play and SR development is illustrated, as well as the essential role a CHAT-informed tool, the mature play observation tool, MPOT, offers in analysing gathered data. An understanding of CHAT-oriented play programmes such as Conceptual Play Worlds, is provided for further analysis of what might be occurring in the sampled Grade R site with this class of twenty-five five-to-six-year-old boys.

Chapter 4: Research Questions and Objective

To address the gap in recent South African research on the relevance of SR for understanding school-readiness, this chapter identifies four primary questions at the heart of this study. Each question is guided by CHAT perspectives on sociodramtic play and build on what play activities are observable, to exploring how the Grade R educator views SR and play within her own pedagogy, and ultimately what recommendations might be suggested for ways forward in imagining and implementing interpretations obtained by my study on SR development in ECD.

Chapter 5: Methodology

Chapter 5 explains the affordances of ethnomethodological approaches utilised in data gathering. Limitations for this case study are presented, as well as ethical and consent-driven concerns to eliminate possibilities of causing harm.

Chapter 6: Counting Cookies

During early-morning tasks within educator Ariadne's classroom, an analysis of Oscar's activity is interpreted for understanding how play features in this Grade R site. Play that benefits an acquisition of academic concepts (such as numeracy) is uncovered, as well as interpretations suggesting to the need to comprehend interwoven institutional practices when dealing with HMF formations. Chapter 6 introduces the cultural-historical notion of motives.

Chapter 7: Post-observation interview

Ariadne generously provides her ideological views on SR and play. Contradictions between educators, parents/caregivers and government policies are elaborated in detail. Nuance is offered to the concept of SR which Ariadne identifies as a principle of democracy, gratitude and even responsibility. Her view of play as "self-directed" is raised and pondered.

Chapter 8: Play Must Develop: Two Vignettes – An Ammonite Museum and Sandpit Discoveries

Two vignettes position positive play experiences inside and outside of the classroom space. MPOT aids a critical analysis and encouraging interpretation of the research question, "What is accomplished in play that points to SR?"

Chapter 9: Conclusion

In this chapter, I report my principal findings, as well as the implications of this study and extend recommendations for robust and widespread play-based ECD programmes. An appeal is made for longitudinal research that overcomes this study's limitations, with intention placed behind its necessity to prepare the rising generation of South Africans in a competitive global education market for school learning.

Chapter 2: Literature Review / Conceptual Context

… play also creates the zone of proximal development of the child. In play a child is always above his average age, above his daily behaviour; in play it is as though he were a head taller than himself. – Vygotsky (1967)

2.1 Introduction

In this chapter a "conceptual map" is provided through literature concerned with the development of executive functions (ER), in particular SR, from the lens of cultural-historical theory. For Maxwell (1996) the term "literature review" is seen as a sometimes "dangerously misleading term" owing to how it may lead to "a narrow focus on literature, ignoring other conceptual resources" important for one's research, and ranges beyond a review that is merely a chronological description of works in a given field which neglects weightier and more critical understandings of intersecting problems, contradictions or mixed method discussions (pp.26-27). Yet this "conceptual map" is a literature review that points to relationships *between* studies and gaps in this field of developmental psychology research, especially from a South African perspective. Peer-reviewed research and threads of theory from the field of developmental psychology considered significant in how they speak to the social development of SR, illustrate predicaments facing childhood education in South Africa, and expose a glaring gap in recent research – roughly ten-years – between this and last major studies on self-regulation in South Africa, are provided (cf. Harrison & Muthivhi, 2013; Joseph, Ramani, Tlowane and Mashatole, 2014). This literature review underscores the importance of considering play and SR from a CHAT framework through which my research questions are refined and recontextualised in Chapter 4, making various claims for the methodological approach of this study (Chapter 5).

2.2 Why the need for self-regulation?

In recent research, SR has been documented as an indicator of school success, more so than "IQ tests or math and reading skills, at the time a child enters Kindergarten" (Olson, 2017, p.1; Lonigan, Allan, & Phillips, 2017; Sulik, Daneri, Pintar-Breen, & Blair, 2015). For Florez (2011) SR includes being able to direct one's attention voluntarily, "follow directions, control impulsivity and [demonstrate persistence] in seeking solutions to problems" (in Olson, 2017, p.1). The ability to adjust one's behaviour and emotional responses to unfavourable outcomes

is a significant feature of SR (Boekaerts, Pintrich, & Zeidner, 2005; in Olson, 2017; Calkin & Howse, 2004).

A marginal focus on SR as inscribed within language acquisition studies, and language as a tool is posited alongside James, Piaget, and Vygotsky without a thorough consideration of the distinctive methodological insights the latter psychologist provided for its emergence in childhood leading activities, i.e. sociodramatic play (Fox & Riconscente, 2008). Providing for a stronger pedagogical understanding of the richness and relevance SR offers for understanding early childhood development, a cultural-historical view of the holistic social situation of development needs to be made by teachers (Maggioni & Parkinson, 2008; Schunk, 2008). However, confusion as to what is implied by some researchers as interchangeable and the loose framing of the terms "metacognition", "self-regulation" and "self-regulated learning" has dominated some academic discussions (Dinsmore, Alexander, & Loughlin, 2008); others have misunderstood the difference between Vygotsky's (1978) notion of mediation and Wood, Bruner and Ross's (1976) use of the term "scaffolding" (Oppong, Shore, & Muis, 2019) as pertaining to the issues surrounding the *acquisition* of HMF such as SR, and its place in pedagogical best practice (cf. Hardman, 2008).

Terms such as "goal-directed" and "controlled feedback" (Carver & Scheier, 2011) and the "control of one's own behaviour – actions, thoughts, or emotions" (Bandura, 1986, 1991; Zimmerman, 1986), are helpful clues which supply impetus for grappling with the multi-faceted concept of SR, as well as the broader educational objectives outlined as "autonomy, agency, and self-determined goal setting for healthy psycho-social functioning and academic achievement" (Deci & Ryan, 2000; Ryan & Deci, 2000; in Grouzet, Sokol, & Müller, 2013, p.1). Of course, what this concept means in the lived or "situated" (Hedegaard, 1998) play-grounded experiences of educators and learners – storytellers and lions in Grade R – adds colour to how theory and practice might speak to each other in research. Although extensive reflections on SR within an array of education instructional areas are proffered – mathematics classrooms (Mevarech, Verschaffel, & De Corte, 2017), reading and writing strategies (Thiede & de Bruin, 2017; Graham, Harris, MacArthur, & Santangelo, 2017), ICT-rich environments (Poitras & Lajoie, 2013) – it is the literature that uncovers this dynamic notion within

conceptual context framed by CHAT that SR becomes accessible as a category of *and* for ECD and extends the scope of my dissertation.

2.3 CHAT literature that speaks to sociodramatic play and self-regulation

Throughout Vygotsky's (1962, 1978, 1997, 2004) works which include, *Thought and Language*, and the seminal *Mind in Society,* plentiful references are made to the notion of SR – its cultural-historical origins, its social formation, its development through sociodramatic play – and emphasise the constant attention Vygotsky gave it as an impossible HMF to ignore. Fundamentally, Vygotsky was concerned with how the "transformation of elementary psychological processes into complex ones" transpires (1978, p.7); where "prior to mastering his own behaviour, the child begins to grow to master his surroundings with the help of speech" (p.25); and how through "good learning" the dramatic process of development advances, whereby "a child first becomes able to subordinate her behaviour to rules in group play and […] later voluntary self-regulation of behaviour arise as an internal function" (p.90). For most Neo-Vygotskian theorists, one of the most influential being Elkonin (1978), a colleague of Vygotsky, and others drawing on Elkonin's legacy, researchers such as Karpov (2003b; 2005), Bodrova and Leong (2007, 2003, 2015) and Fleer (2011, 2019), each researcher has addressed the essential place of SR as conceived in **play** for school-readiness.

Play is a "transitional stage" for budding HMF (Vygotsky, 1967, p.8; in Bodrova & Leong, 2015, p.375; Fleer & Hedegaard, 2010): Referred to as make-believe play or sociodramatic play, play is the activity in which a child's imagination is developed (Fleer & Hedegaard, 2010), and a shift in spontaneous conceptualisations of the world, employed in orienting children towards school-based scientific concepts may be realised (Karpov, 2005). Play provides for the maturing of "abstract thinking and of conscious and voluntary behaviours" (Germeroth, Bodrova, Day-Hess, Barker, Samara, Clements & Layzer, 2019, p.211). In this way, SR is seen to *begin* the process of transforming the understandings of children, bringing them into a novel relationship with the world which thus makes imaginative play the "highest level of preschool [i.e. before the first grade] development" (Vygotsky, 1967, p.18; Morris et al., 2016; Fleer, 2011). Clearly play is not an isolated activity for filling time at school.

For Vygotsky, the three salient features of mature play included: (i) "children create an imaginary situation" often because of deferred or delayed gratification; if I cannot get what I want now, the child "reasons", then I will process emotions drawing upon my own inner resources (Vygotsky, 1967); (ii) "take on or act out roles" – like playing out doctor-patient situation, or parent-child relationships, for example; and (iii) "follow a set of rules determined by these specific roles" seen when a child might say something that a particular action can only be carried out by the police officer (like locking the jail door) or the captain of the ship if giving orders to the crew in a storm (Bodrova et al., 2013, p.113). Objects have meaning because of the rules implied; "the imaginary situation will always contain rules. In play the child is free. But this is an illusory freedom" (Vygotsky, 1967, p.10). This freedom is "illusory" because we are all constrained to a greater or lesser degree by our society's cultural-historical expectations and ideologies. In play the development of "symbolic-thought" commences, and "egocentric speech becomes internalised and turns into inner (non-vocal) speech, which later becomes a tool for self-regulation" portraying how a clear "shift in children's interests from the world of social objects to the world of human relations" begins to arise (Karpov, 2003c, p.145; Elkonin, 1978). However, it must be noted that this shift "takes place only if adults help children discover human relations that are hidden below actions with social objects" during the sociodramatic play seen as the leading activity of three-to-six year-olds (Karpov, 2005, pp.145-46).

For Fleer (2015), the "intersubjectivity" made possible by sociodramatic play, and those ways in which teachers position themselves within or outside of play, is critical to the developmental outcomes that may be associated with play, such as academic conceptual teaching (p.1812). Fleer (2011) defines leading activities as "framed in relation to how societies organise the institutions of family, preschool and school" to process as participants what is discovered in their cultural communities (p.225). In this way the "motive of sociodramatic play is [often] 'to act like an adult'" (Elkonin, 1978; in Karpov, 2003c, p.146); and in order to become like adults, children discover the need to study at school and play less (Karpov, 2003b). The historical and cultural rules of social life are thus manifest beneath the roles children take on in make-believe play and therein learn "to suppress their impulsivity and follow rules, that is, develop the ability to self-regulate" through self-awareness (Karpov, 2003c, p.147; Fleer 2011). Scientific concepts (discussed in chapter 4.1) once "acquired and internalized […] mediate children's

thinking and problem solving" which is why, Vygotsky saw "instruction in scientific concepts [playing] a decisive role in the child's mental development," because of their role in the development of reflective consciousness and the "mastery of higher levels of thinking" (Vygotsky, 1978, p.220; in Karpov, 2003c, p.148; Gredler, 2009, p.11; Goldberg, 2009). This theme has been advanced by the seminal work of Fleer (2015; Fleer & Hedegaard, 2010) and it is upon her work that this study draws extensively (cf. Fleer et al. 2020).

Bodrova et al., (2013) identified in Elkonin (1978) and his students like Z.V. Manuilenko (1975) a fact demonstrating the capacity to self-regulate: that in play children can *sustain* a role like keeping sentry far longer than were they invited to simply "stand still without providing them any play task" which denotes an "ability to persist" (p.114).[i] These provisions, and who is doing this providing, is a key component *for* a robust understanding of how play leads development.

For Elkonin (1978), he saw advanced play, or "mature play" (Bodrova et al., 2013, p118) as that which was significantly supported by adult input; transforming play from something unstructured to activity opening the zone of proximal development (ZPD) of children, as play is *allowed* to expand and develop. Germeroth et al., (2019) have provided a tool for evaluating such play – the Mature Play Observation Tool (MPOT) – to encourage the efficacy of the salient collaborative features of advanced play to which CHAT speaks so convincingly. MPOT is a CHAT-inspired tool. This tool assists defining the various elements at work in play and points out features paving the way for mental function maturation when exhibited in play. Through the MPOT, assessing the relationship between make-believe play and SR is made possible because "it takes social context into account"; meaning what's happening on the ground as related to particular cultures and histories (Bodrova et al., 2013, p.120). The features of the MPOT gives consideration to both the child and teacher's perspectives in play situations – not just "the hunter"; and when mature play is present SR is seen as emerging (2019, pp.194-201; see also Karpov 2005, pp.151-170). Thus there is a clear dialectical relationship which is the heart of developing self-regulation (and other HMF) and for evaluating the quality of play, from a cultural-historical theory of early childhood development.

2.4 Play and Self-regulation in RSA

Studies within South Africa regarding play – its significance as a transitional stage for social and mental development – appear to be few and far between. Regarding play in the classroom, it is noted that teachers allow learners to play "[in their classrooms] only after their assigned work had been completed" (Phajane, 2019, p.2; Wood & Bennett, 1998). The paucity of literature engaging extensively with the problem of play and the formation of SR from a CHAT-oriented methodology is signalled by searches utilising ERIC, Google Scholar and UCT's PRIMO search engines (cf. Russ & Dillon, 2011). In one of the last studies in South Africa, over ten years ago, SR is seen to start "with the child exploring their inner potential to imitate adult actions", as "achieved through social interaction" (Harrison & Muthivhi, 2013, p.81; Karpov, 2003a; Olson, 2017). Harrison & Muthivhi's (2013) study drew upon the dramatic features of story narrative encouraged by Lindqvist (1996; 2003). Their study should be praised for demonstrating how SR can be obtained as an EF with emergent literacy practices. Yet their activities did seem somewhat isolated from the possibilities of SR development being couched within a robust play pedagogy as an approach to holistic ECD (Fleer, Fragkiadaki & Rai, 2021). Joseph, Ramani, Tlowane and Mashatole (2014) offer a cultural constructivist and CHAT-oriented account of play (through the game Masekitlana) among South African Pedi children to better understand locally-relevant forms of psychotherapy and seeing youth as "cultural preservers of the heritage of children's play" in strengthening community (p.36). Ongoing research in this area of play needs further investigation. As it appears, there is an opportunity which remains for understanding Harrison & Muthivhi's (2013) intervention and Joseph et al.'s (2014) ethnographic observations by implementing a certain type of play-based programme which comprehends the value of SR alongside how to determine SR's place in the broader school-readiness discussion within our South African education system that is already in dialogue with ideas concerned with best local practices for engaging with rising generations. In facing the fact that SR is essential for academic-attainment abilities, this gap in the literature calls for further investigation of children's play (e.g. Winne & Hadwin, 1998).

2.5 Summary

Through reviewing extant studies attending to the problem and possibilities of SR and play in early childhood development, it becomes apparent that there is a gap in the literature focused on this EF. This gap is illustrated in the conceptual map, below (**Figure 1**).

Regarding the relevance of a study focused on the problem of SR for school-readiness, the last major intervention conducted in South Africa is over ten years old. This chapter's contextual mapping traces the need for a dissertation which investigates play and SR's relationship in a South African context. Literature discussed above draws uncompromisingly upon cultural-historical theory in order to fully explore the developmental relationships between SR and sociodramatic play. CHAT is identified as the principle theory for this study and is presented in detail in Chapter 3.

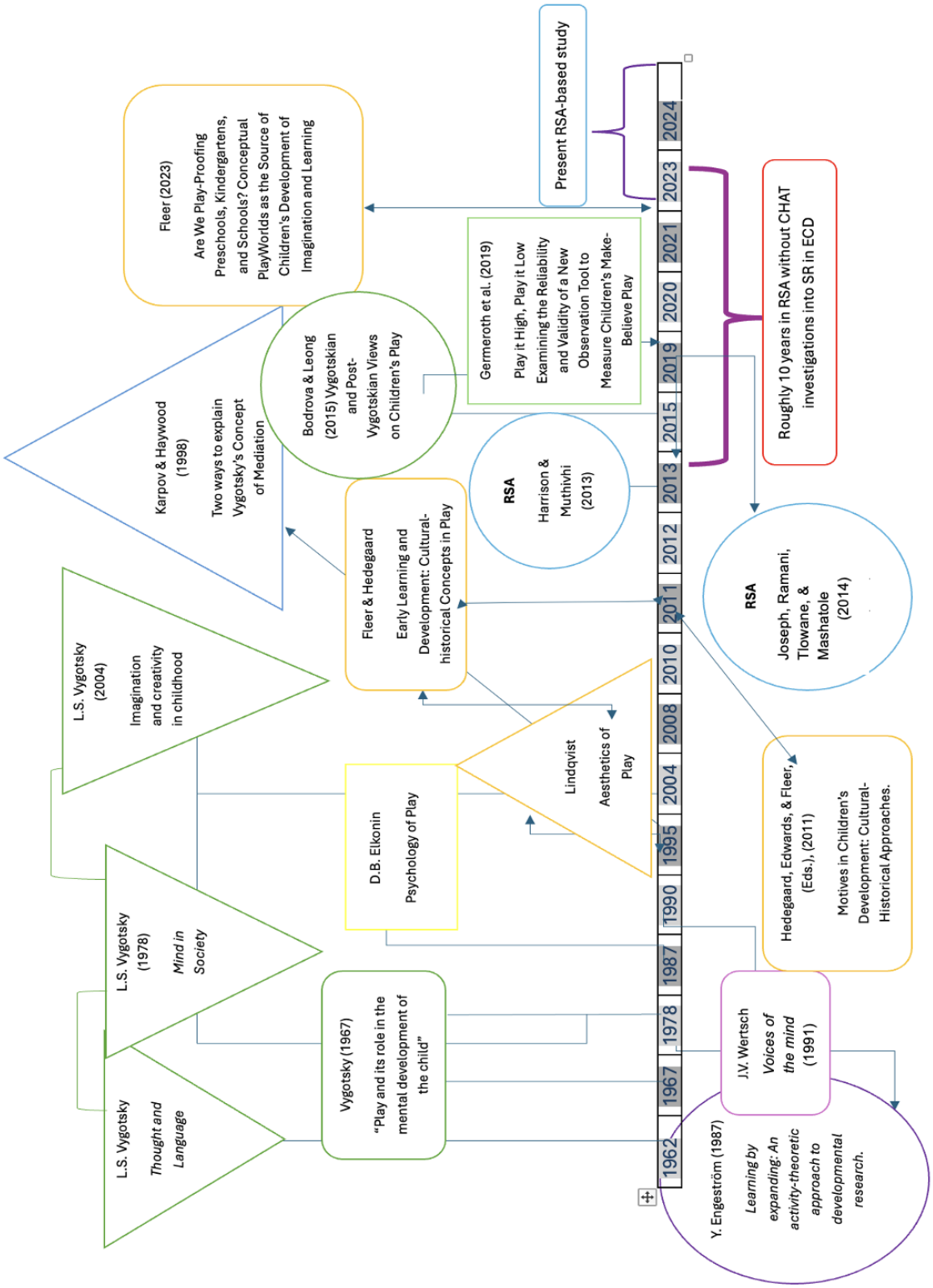

Figure 1: CHAT-inspired conceptual map that finds the gap in RSA play research

Chapter 3: Theoretical Framework

3.1 Introduction

In this chapter I provide the core concepts of (3.2) cultural-historical activity theory, CHAT, that pertain to understanding the way in which (3.3) play is observed and explored for features of self-regulation among a sample of twenty-five children in Grade R. This theoretical framework informs the structure of my research questions (Chapter 4) and guides the methodological approaches applied throughout my study (Chapter 5). Moreover, in Chapters 6–8, this framework, and Chapter 2's literature review, propel my analyses of children- and teacher-activity both inside and outside of the classroom space.

3.2 Cultural-Historical Activity Theory

> *To understand the structure and dynamics of different forms of learning, whether incidental or conscious, we have to study them as parts or aspects of concrete historical activities with specifiable subjects, objects, and instruments, within specifiable contexts.* – Engeström (1987)

Vygotsky's (1978) "cultural historical theory" of learning and development is often categorised as cultural constructivism (see Hardman, 2019). "Vygotsky's thesis" (first generation activity theory) is centred in "the notion that the individual's interaction with objects in the world is mediated by cultural artefacts: signs, symbols and practical tools" and that these "artefacts carry with them a history of use and are themselves altered, shaped and transformed when used in activities" (Hardman, 2008, pp.68-69; see also Säljo, 2010). Information communication technologies (ICTs), for example, are seen as cultural artefacts. Language is likewise viewed as a semiotic mediational means and a product of human culture and historical development, a cultural artefact. As phrased by Michael Cole (1996) in his seminal work, *Cultural Psychology*, the process of mediation, as tools mediate learning for development, may be viewed as the emergence of "a new structural relation in which the cultural (mediated) and natural (unmediated) routes operate synergistically; through active attempts to appropriate their surroundings to their own goals, *people incorporate auxiliary means*, including, significant to my study, other people, *into their actions*, giving rise to the distinctive triadic relationship of subject-medium (cultural artefacts; tools; signs)-object, as illustrated in **Figure 2**, below (p.119; emphasis added).

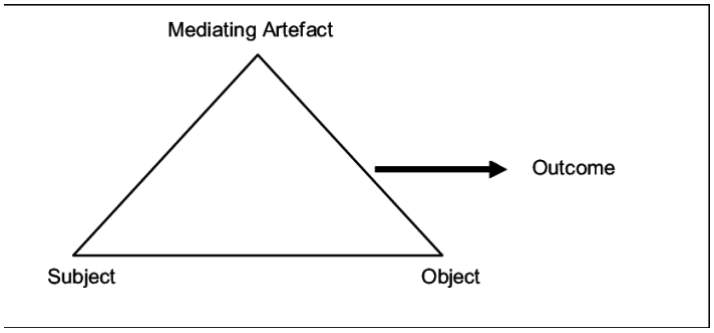

Figure 2: Vygotsky's model of mediation (adapted Russell, 2002, p.70)

Marx Wartofsky's (1979) interpretations of a cultural artefact hierarchy, posited for understanding how Vygotsky (1978) saw mediated activity as "fundamentally chang[ing] all psychological operations," is insightful, since Vygotsky wrote that through

> the use of artificial means, the transition to mediated activity, fundamentally changes all psychological operations just as the use of tools limitlessly broadens the range of activities within which the new psychological functions may operate. In this context, we can use the term higher psychological function, or higher behaviour as referring to the combination of tool and sign in psychological activity (p. 55).

By tracing Wartofsky's propositions in Engeström's (1987) *Learning by Expanding*; Cole's (1996) *Cultural Psychology*; and Harry Daniels's (2012) concern with the "essence of a Vygotskian pedagogy" as both "dialectic and dialogic", it becomes far clearer to understand Vygotsky's (1978) descriptions of HMF development: "What children can do with the assistance of others might be [...] more indicative of their mental development than what they can do alone" (p.35). This suggests that there is a zone of development established by (1) what a child can do unassisted; (2) can do or perform with assistance; and (3) even with helpful demonstrations or guidance or modelling of solutions by a more knowledgeable other (MKO), even with this assistance, they cannot *yet* accomplish certain goals. Theory regarding MKO involvement in and the structuring of sociodramatic play fits precisely within this perspective. Moreover, these three areas of cognitive development delineate what is meant by the zone of proximal development (ZPD):

> [The ZPD] is the distance between the *actual development* level as determined by independent problem solving and the level of *potential development* as determined through problem solving under adult guidance or in collaboration with more competent peers. (Vygotsky, 1978, p.86; emphasis added).

Thus there are cognitive functions (HMF) that can *only* be developed through interaction with others, which interactions are in essence socially formed over time (interwoven culture and history), and ground a conceptualisation of the mind as a social construct; not merely some internal organ of nervous connections (i.e. the brain). In many ways our minds are made up of the voices and experiences had as members of various societies – another helpful way to view mediated action (Wertsch, 1991). Children develop, therefore, in society, in communities, through episodes of collaborating with MKOs; and "it is through immersion [and participation] in [cultural] practices that children" learn and develop (Vianna & Stetsenko, 2006, p.87; Karpov, 2003c; 2005). Vianna and Stetsenko (2006) provide three ineluctable characteristics central to grappling with this dialectic of history and culture. I summarise their insights below (**Table 1**), noting key components in Vygotsky's developmental theory reiterating what is involved in and for mediation in the ZPD:

Table 1: Dialectical features of CHAT (Vianna & Stetsenko, 2006)

Culture	"… a living flow of practices" unfolding throughout history manifest in cultural artefacts/ cultural tools like language or, for example, information communication technologies (ICTs).
History and Agency	The child is not a "solitary actor" immersed in intergenerational practices of expertise and efficiency; the dialectical element is that we cannot simply refer to the present or any other category of history without suggesting, acknowledging, inferring its relationship to the past or future simultaneously.
Society	"Local communities [are not] separate entities with clear borders" but in flux and motion and interrelated with each other – rippling in and out from one another as a Whole.

These *interdependent* features of culture and history illustrate that humanity (comprised of children and adults – hunters, lions, storytellers) can be better "understood as the never-ending, ongoing, continuous processes of collaborative transformative practices of people in the amalgamation of society, culture and history at the interface of past, present and future" (Vianna

& Stetsenko, 2006, p.90). For Vygotsky, "*nature* was there to be used and transformed by *culture* […] to suit the ends" of humanity (Bruner, 1997, p.69).

Hardman (2021) refers to the "site" wherein mediation transpires – the zone of proximal development – as a "jointly constructed", a "unique social space" and opened in sociodramatic play (pp. 4-5). Importantly, the ZPD becomes not merely a way of referring to an ongoing process of mental developments; rather it "furnishes psychologists and educators with a tool through which the internal course of development can be understood" which indicates that children are "capable of doing much more in collective activity or under the guidance of adults" or more knowledgeable (m)others (pp.38-9; cf. Bodrova & Leong, 2003a). With this understanding of the ZPD, it becomes a tool for navigating and assessing mediation during play activities (or play's absence).

Engeström (1987) notes that Vygotsky distinguished "between two interrelated types of mediating instruments in human activity: tools and signs." The latter instruments "belonged to the broader category of 'psychological tools'" (p.48). Like traffic circles (cf. Phillips, 2015), for example, these tools operate externally: "It is a means whereby activity is aimed at mastering, and triumphing over, nature" (p.48). Psychological tools have "a different character [because they] are directed toward the mastery or control of behavioural processes – someone else's or one's own [such as] language, [...] mnemonic techniques, [...] writing, [...] maps etc. (p.48).

Karpov and Haywood's (1998) suggest that for Vygotsky there are two distinct types of mediation whereby "all specifically human psychological processes (so-called higher mental processes) are mediated by psychological tools" (p.27). These two types of mediation are seen as metacognitive and cognitive mediation. Manifestations of metacognitive tools include the "acquisition of semiotic tools of self-regulation: self-planning, self-monitoring, self-checking and self-evaluating" sometimes termed "executive processes" (EF) (Karpov & Haywood, 1998, p.27). Fox and Riconscente (2008) trace the notions of metacognition and self-regulation through William James, Jean Piaget and Lev Vygotsky respectively, in order to provide clearer definitions of these terms often applied interchangeably (cf. Dinsmore, Alexander, & Loughlin, 2008). The formation of SR as a process of internalisation is illustrated in how a child learns a sign suggesting appropriate behaviour, applies it on others to "influence their behaviour" and

then “only later does it become a means of influencing oneself” by using “inner speech” (Vygotsky, 1981, p.159; in Karpov & Haywood, 1998, p.28). The attainment of SR illuminates how

> the specifically human capacity for language enables children to provide auxiliary tools. In the solution of difficult tasks, to overcome impulsive action, to plan a solution to a problem prior to its execution, and to master their own behaviour (Vygotsky, 1978, p.28; in Karpov & Haywood, 1998, p.28).

These theoretical understandings of SR propose features of mediated developments of HMF understood in relationship to cultural-historical views of sociodramatic play during early childhood (Fleer, 2019). Cognitive mediation is also the acquisition of scientific knowledge or theoretical concepts and it contrasts to spontaneous or everyday knowledge. The salient features of these types of knowledge, conceptualised as “cognitive mediation” by Karpov and Haywood (1998), are summarised in **Table 2**. Accordingly, “where a student benefits greatly from assistance, we can say that [they have] an expansive ZPD. […] The ZPD is opened in dialogue between [MKO] and the student” (Hardman, 2011, p.33). An example of this expansiveness is when a child seeks to share a drawing they have made or something they have constructed out of toy blocks with a friend, parent or teacher, because then they are inviting a *collaborative comprehension* of the meaning of their actions. In fact, “a dialogic perspective [of development] argues that education more generally takes place within dialogic human relationships in which students [and teachers] learn to *see things from at least two perspectives at once*, their point of view and that of the [other]” (Wegerif, 2008, pp.352-53; Veresov, 2004; Kravtsova, 2014; my emphasis). Therefore, the ZPD is “jointly constructed” and a “social space […] a dialogical space where both teacher and the taught move toward new understandings of culturally embedded concepts” (Hardman, 2021, p.5).

While being dialectically entwined, features of scientific concepts include the ways in which they “restructure and raise spontaneous (everyday) concepts to a higher level” of consciousness, as in the difference between understanding a bird from a child’s perspective and the notion of a bird through an ornithologist’s gaze on Aves (birds) (Karpov, 2003c, p.66). Moreover, the student’s everyday “life-knowledge” is transformed by scientific concepts because they begin to “mediate […] problem solving,” pertinent in children’s play – from spontaneous to a scientifically informed activity, – and develop in students the capacity for

"reflective consciousness" which is, as a result, thinking that is "more independent of their personal experience" having begun to expand a capacity for "formal-logical thought" (p.66). Wells (1994) term for this is "decontextualised" thinking. By contrast, "spontaneous concepts are the result of generalization[s] of everyday personal experience in the absence of systemic instruction" (i.e. school-based instruction) (Karpov, 2003c, p.65). Crucially, "spontaneous concepts play an important role in children's learning as a foundation for the acquisition of scientific concepts" (Karpov, 2003c, p.65). And consequently, when "compared to spontaneous concepts" Vygotsky argued that "scientific concepts have four features which the former lack: (i) generality, (ii) systematic organisation, (iii) conscious awareness and (iv) voluntary control" (Wells, 1994, p.1). Discovering these latter features (iii & iv) in play-activities suggests indications of the emergence of SR. Morris et al. (2016) expand upon these features by listing Vygotsky's observations, summarised as follows: (a) scientific concepts are "systematically interrelated with hierarchical academic knowledge systems"; (b) scientific concept "formation[s] require higher order thinking [...] involving abstraction [and] systemisation"; (c) scientific concepts are "couched in academic language"; and (d) these concepts are "generally acquired through schooling" (p.140). Wells (1994) painstakingly links scientific conceptualisations of everyday concepts and scientific or academic knowledge with terms conceived by Halliday (1993), Bruner (1986), and Vygotsky (1978) respectively, and tabulated by me, below, in **Table 2**:

Table 2: A visualisation of categories of concepts

Theorist	**Spontaneous knowledge/concepts**	**Theoretical knowledge/concepts**
Vygotsky (1978)	everyday	scientific
Bruner (1986)	narrative	paradigmatic
Halliday (1993)	dynamic	synoptic

For children, their early period of cognitive development, prior to becoming school-going learners, involves the transition towards understanding "culturally embedded concepts" as a

process understood significantly through their dominant or leading activity which is play (Elkonin, 1978; Bodrova & Leong, 2003a; Karpov, 2003). Hedegaard (2011) has argued for each of these elements to be understood from a "wholeness approach" that attends to children's activities across "institutional practices" like home, school and after-school settings (p.11).

3.3 Sociodramatic Play and MPOT

As discussed in Chapter 2, the relationship between play and the development of SR cannot be overstated. The literature conveying this relation in ECD is indisputable. However, a pivotal question for my study arose: *How would I analyse Grade R activities in order to understand if play was taking place necessary for discerning manifestations of self-regulation?* Within CHAT literature a tool emerged that answers this question, namely the Mature Play Observation Tool (MPOT) (see Section 2.3).

MPOT becomes critical for my study in how it meets limitations in "extant play studies" and their lack of definitive and holistic attention to specific features of "children's mature make-believe play" (Germeroth et al. 2019, p.187). MPOT likewise extends (1) a "robust observational instrument […] to measure better the effects of intervention on mature play and the extent to which high-quality play may produce social, self-regulatory, and academic benefits in children"; and (2) MPOT enables researchers to determine "how the quality of play might be improved in early childhood classrooms" (p.187). To this end, MPOT categorises the characteristics of mature and immature make-believe play from a CHAT perspective (see **Table 3**). These characteristics must be attended to in *analytical correspondence* with Germeroth et al.'s (2019) descriptions of "Adult and Child MPOT Dimensions" (**Table 4**).

"Level 4 anchors" in **Table 4** denote the highest or most mature examples of qualitive make-believe play. Simply put, these tables focus my scrutiny of Grade R activities and play as they provide concrete *what-to-look-fors* as a during- and post-observation lens – a tool to mediate one's understanding of the dialectical relationships between sociodramatic play and SR among this study's sample of twenty-five students.

Tables 3 and **4** give shape to the analytical process for my gathered data (see Chapters 6 and 8). These tables, correspond *directly* to CHAT-oriented theory and synthesise years of cultural-historical research in developmental psychology.

Table 3: MPOT features (adapted from Germeroth et al., 2019, p.195).

Characteristics	*Mature*	*Immature*
Props Bodrova & Leong, 2007; Elkonin, 1978	➢ Create props to fulfil the need of a play role ➢ Use speech or symbolic gestures in their place of props, to fit their roles ➢ Solve disputes/disagreements by inventing props rather than fighting over them ➢ Teacher-created props are accepted and used, as long as there are child-created ones as well ➢ Re-created props are also (re)used	➢ Use props only realistically and cannot invent new ones ➢ Play actions using props imitate isolated everyday actions (e.g., feeding the doll) ➢ Children fight/argue over props and roles ➢ Teacher-made props are predominant
Metaplay Bodrova & Leong, 2007; Elkonin, 1978	➢ Children use language to choose, to define, and to negotiate roles without being prompted ➢ Children discuss and create a pretend scenario and act out a scene developed in that scenario ➢ Children have extended conversations about their play	➢ Children don't or can't describe what they will do before beginning the action *or* anytime throughout play
Play Interactions Bodrova & Leong, 2007; Elkonin, 1978	➢ Children engage in cooperative play ➢ Children engage in associative play	➢ Children engage in parallel play ➢ Children play alone

Role Playing Bodrova & Leong, 2007; Karpov & Haywood, 1998; Elkonin, 1978	➢ Children use sequenced actions in a longer play scenario ➢ Most children follow play scenario rules, applying them to themselves and others ➢ Other-regulation precedes SR ➢ Children may play several roles at once	➢ Play is primitive ➢ Play is based on one role or a single prop ➢ Pretend actions are repetitive and stereotypical ➢ Play episodes are short ➢ Children maintain a role for 5-10 minutes before moving on to another non-play activity
Role Speech Bodrova & Leong, 2007; Elkonin, 1978	➢ Children use theme-related words associated with their roles ➢ Some children use gestures to communicate due to language barriers ➢ Children extend or improvise new scenarios through role speech ➢ Some children may adjust language and actions to indicate a new role	➢ Children use theme-related words associated with their roles ➢ Some children use gestures to communicate due to language barriers ➢ Children extend or improvise new scenarios through role speech ➢ Some children may adjust language and actions to indicate a new role

Table 4: Mature make-believe play level 4 anchors (adapted from Germeroth et al. 2019, p.203)

Child Dimensions	*Level 4 Anchors*
1.1. Child-Created Props The extent to which props are created to support children's play roles. Excludes props created as part of a group's activities in which each child constructs the same prop (e.g., an autumn tree or pirate hat)	• More than 5 child-created props to fit children's play roles. • Re-created props, newly created props, and play without props (indicated by word or gesture) are used by all children. • Children create props as needed or use speech or gestures in their place. • Props are not teacher organised.
1.2. Child Meta-Play [ii] Children talk about how and what they will be playing. Talk about roles, rules, and props that are needed. Meta-play can occur during play planning, as well as during play itself.[iii]	• Children engage in dialogues greater than 15 minutes about what the play scenario will be, and how the scenario will unfold. • Children engage in extended discussions about their roles, actions, and the use of props prior to starting their play, as well as when the play scenario is about to be changed.
1.3. Play Interactions The extent to which children interact with each other during play.	• Children must have specific roles and a "script" (predetermined sequences). • Children must act out a planned scenario together in sequence with a clear goal. • Children generally follow predetermined rules of the roles and those rules govern the steps or sequences of their behaviours.
1.4. Children's Role Playing	• Children are able to sustain play for longer than 15 minutes.

The extent to which children maintain their roles and associated rules during mature play.	• More than two actions in play scenario are sequenced. • Most children follow play scenario rules. Rules are followed – including children applying the rules to selves, apply rules to others, and general awareness of rules. At this level there are fewer occurrences of regulation because rules are not broken. • Optional: children play several roles at once.
1.5. Child Role Speech and Communication During Play	• Children extend or improvise new scenario through role speech, they take on suggestions of other children and incorporate the unexpected into play. • Optional: children adjust their language and actions to indicate a new role (e.g., changing vocal register to sound like a baby v mom).
Adult Dimensions	*Level 4 Anchors*
2.1. Centre Management The extent to which the teacher uses a management system to support children's regulated play	• A system for making centre choices is used daily (e.g., necklaces, clips, etc. like when learners indicate that they have gone to the toilet by taking a necklace and then others wait for their return before going themselves). • More than two visual mediators such as concept maps, role cards, or pictures to support play are displayed and accessible.
2.2. Make-Believe Play Time	• One hour uninterrupted play time occurs every day.

The amount of time for uninterrupted play.	
2.3. Teacher Intervention The extent to which the teacher or assistant intervenes during play.	• Teacher intervenes in play and models play roles. • Teacher intervention includes language expressions. • Teacher stays in play scenario briefly and purposefully. • Teacher uses multiple strategies for intervening, such as using visual mediators or children to intervene in play scenarios. • No teacher intervention because the play is already functioning at high levels and teacher intervention is not needed.

3.4 CHAT-informed Conceptual PlayWorlds

An additional method for understanding how the "situatedness" of play reveals wholistic personality development is by employing Fleer et al.'s (2020) research approach termed Conceptual PlayWorlds (analysed through her longitudinal study Conceptual or Scientific PlayLabs; cf. Fleer, 2019). These playworld/labs draw upon Lindqvist's (1996) findings that through storytelling activities imaginative collaborations empower children to solve certain problems and attain to particular HMF, like imagination and SR. Through play, one may also discover ways in which learners are situated within a period of (cultural-historical) transition; implying where one might potentially profit from "understanding how [a given] leading activity changes into another leading activity" (Fleer & Hedegaard, 2010, p.168-69). Put simply, "the [child's] *changing* relations to their social world […] generate a new kind of self-awareness or consciousness" through periods of relative stability and crisis (Fleer & Hedegaard, 2010, p.172; my emphasis). The Grade R experience may be viewed as such: a period of crisis providing propelling changes in self-awareness, where learning stimulates and *leads* the development of HMF crucial for school-readiness. Fundamentally, "the child achieves the transition through the support of others" (Kravtsova, 2005; in Fleer & Hedegaard, 2010, p.172).

The structure of a Conceptual PlayWorld is demonstrated in **Figure 3**. Among other prominent features, relevant to the CHAT framework for my study, is the pivotal positioning of educators without whom this learning-leading-development experience could not transpire:

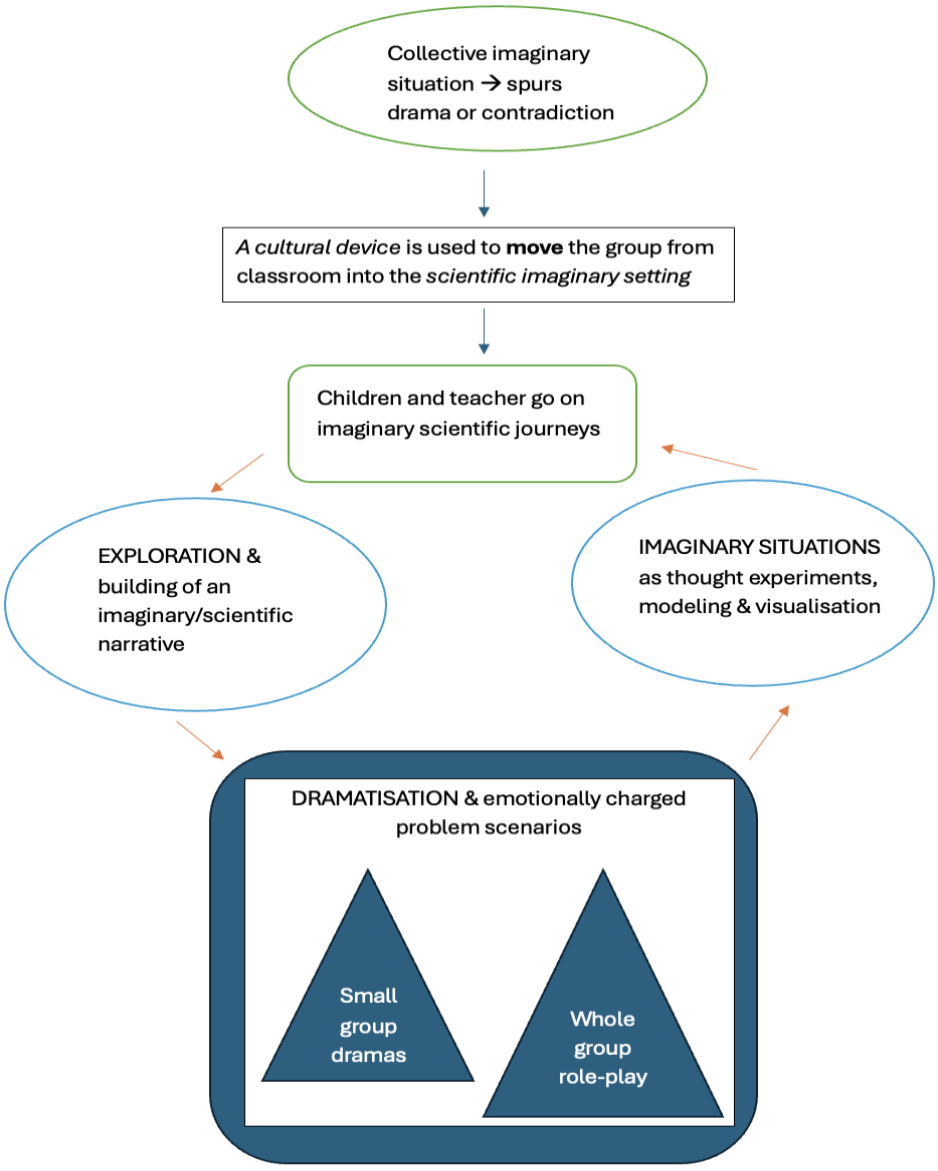

Figure 3: Conceptual PlayWorld model for play-based pedagogy (adapted from Fleer, 2019, p.1275)

Conceptual PlayWorlds and MPOT offer CHAT-grounded tools for both how to structure play, and ensure that play-based programmes inform educator pedagogies since sociodramatic play is the leading activity of three-to-six year-olds. They likewise furnish analytical tools that guide my analysis of Grade R activities in this study while suggesting signposts that might encourage

educators in assessing the quality of play permitted/invited with their children. Ultimately, the early-childhood programme applied by educators will inform the sorts of stories hunters might tell of the lions at play or if unable to play. It is my belief that the robust conceptualisation of PlayWolrds programmes *empowers* "lions" to tell their own stories, stories about what play means for their development in the narrative of their development. One other CHAT-oriented play-based programme that it would be remiss of me not to mention is the *Tools of Mind* programme, designed by Bodrova and Leong (2001/2007), and while their programme is not addressed in detail in this study, their research findings and insights offer patterns for pedagogy rooted in sociodramatic play.

3.5 Summary

This chapter has placed CHAT at the forefront for grappling with SR and play's dialectical relationship. Through Vygotsky and Neo-Vygotskian researchers, mature make-believe play or sociodramatic play has been identified as the activity for discovering emerging HMF in early childhood programmes. Moreover, MPOT has been introduced as the lens by which ECD activities in this Grade R site will be analysed in order to assess the relationship between make-believe play and SR. Recommended CHAT-inspired play-based programmes such as Conceptual PlayWorlds have been lauded for their robust design in allowing children to play, nurture budding imaginations, grasp the significance of scientific or school-based concepts alongside spontaneous every-day concepts all in developing HMFs.

Chapter 4: Research Questions and Objective

...from a Vygotskian point of view, make-believe play is most critical for supporting cognitive and social-emotional development ... Make-believe play offers a unique opportunity for all children to operate in ways that push their individual developmental edge when practiced at a mature level (Elkonin, 1977, 1978) – Germeroth et al. (2019).

4.1 Introduction: A contest of questions

Since play is the leading activity of children between the ages three-to-six (Elkonin 1978; Karpov, 2005), and because from a Neo-Vygotskian perspective of child development "children are not free in play" in the way that "every child is supposed to act in accordance with […] her role even if this role is not very attractive to the child," it is critical to understand "how the rules" which are cultural in nature and socially acquired, are "hidden under the role" and taken on by the child during their activities (Karpov, 2003c, p.147). It is in this way, through "the course of play and mutual control, children learn to supress their impulsivity and follow rules, that is, develop the ability to self-regulate their behaviour" (Karpov, 2003c, p.147). Germeroth et al. (2019) have noted that "during mature make-believe play, children create imaginary situations, take on explicit roles (using the language and rules of the roles), and use objects symbolically" (p.211). Thus, it is essential to ask initially: "Who is learning in play?"; "When might it be said that learning and development take place?"; "What do those playing demonstrate that points towards SR?"; and "How do they learn and begin to express SR or self-awareness to mediate their activities?" Furthermore, one asks how might these questions be positively measured? This latter question is addressed through my study's methodological reliance upon MPOT (see Chapter 3). From Bodrova et al., (2013), the central question for my study is a concern with "how do we know if a child in fact functions at a higher level [i.e. emergent HMF] when engaged in play?" (p.112).

Therefore, this study is positioned to comprehend the significance of play's relation to self-regulation by discovering in what ways Vygotsky's "optimal zone of proximal development (ZPD) [implies] a specific kind of play"; and to determine "which characteristics of play [might] prove most beneficial for child development" in a South African context, as far as I am able to observe (Bodrova et al., 2013, p.112). It is the specific type of play that is referred to as "advanced play" (Elkonin, 1989) or "mature make-believe play" that this dissertation

endeavours to understand in greater depth (Germeroth, Bodrova, Day-Hess, Barker, Sarama, Clements, Layzer, 2019).

4.2 Research Questions

The above objectives and range of contesting questions may be summarised into the broad question at the heart of my dissertation: ***How does SR emerge through play within an early childhood development programme as seen through the lens of CHAT with a group of Grade R, Foundation Phase, South African learners in Cape Town?*** Moreover, this study goes about providing a few answers to the following interdependent questions:

A. **i.** How do children play in this Grade R setting?
ii. How is play structured/viewed by educators on this site?
B. What is accomplished in play that demonstrates SR as categorised by MPOT?
C. Are there other activities or social situations which should be given greater attention in order to discern the significance of play for developing SR?

Questions **A(i-ii)** set out to track what children are doing in particular and to note how play features in their Grade R setting, as well as to look more closely at the involvement and ideologies of their educators. By giving attention to these questions, I was enabled to explore through MPOT's analytical affordances question **B** provided to make sense of activities suggesting sociodramtic play and identify SR features suggested by this Grade R sample of (25) learners. Moreover, by framing this question as "what is accomplished" gives room for what appears, or does not appear, in the activities of these Grade R children and their relationship to play and budding SR. Question **C** includes the incentive to investigate critically observed data that may aid further research on my dissertation's topic, especially where my methodological limitations become clearly insufficient to proffer more meaningful insights into the development of SR.

4.3 Summary

CHAT scholars and theorists have identified that play is "the leading activity of preschool" children, meaning children getting ready for school (Bodrova & Leong, 2015, p.378). What activities are encouraged or allowed of Grade R preschool children is the place where my

study's investigations begin. The involvement of educators has been included into this discussion because it is their ideological preferences that shape "the story of the hunt" in ECD. Ultimately, what children and teachers are doing in terms of mature sociodramatic play and how SR relates to these activities and how SR emerges in/through these activities is the core focus of this dissertation. It is understood that there may be areas of disagreement or development which this dissertation cannot explore and might need greater attention for the formation and internalisation of SR. In order to accomplish these objectives, the research methodology for this study is presented in Chapter 5.

Chapter 5: Research Methodology

5.1 Introduction: An Ethnomethodological Case Study

This chapter outlines how the data in Chapters 6–8 was captured and which approaches were applied in analysing gathered data. Those ways in which this dissertation's research questions (Chapter 4) called for research methods adapted from a CHAT-framework are discussed. Methods elected as most relevant for this study are supplied in dialogue with various constraints or limitations and ethical requirements, giving my dissertation its unique direction and range for discovery. The research participants and the context of the Grade R site are presented.

5.2 Why CHAT? Why an Ethnomethodology?

5.2.1 CHAT as a methodology

CHAT can be effectively employed as both "a method and a methodology" (Lee, 2011, p. 404; see also Hardman, 2008), to organise the "collaborative relations" (Avis, 2009) of "social facts" (Bowen, 2009). While inspired by interventions concerned with promoting SR (Karpov, 2005; Karpov & Haywood, 1998), SR's place in early childhood development (Bodrova & Leong, 2001/2007, 2013, 2015), and its part in the socially-situated measures pertaining to educational indicators regarding school-readiness (Harrison, 2013), it was formally proposed that the strengths extended by an ethnomethodological approach would allow for an exploration *into what is actually happening on the ground – how do children play?* – among this Grade R group in Cape Town. Moreover, the framework proffered by CHAT (Chapters 2 & 3) offers a unique perspective on sociodramatic play seen to be productive for answering how children play and how educators view play at this site; especially, as this study is not an intervention, these preliminary questions needed *exploration*. Thus, reliance upon an ethnomethodological approach provides healthy "respect to the natural social processes of conceptualization and shared meaning" (Babbie, 2016, p.151).

5.2.2 Epistemology and Ethnography: Thick description

As stated by Geertz (1973), and as I came to see it, ethnographies permit "thick description" for rich analysis beyond simple "guesswork" (Eriksen, 2004, pp.51,75). Evidence of a Cape Town-based study which draws upon features of ethnomethodology is found in the work of anthropologist Fiona Ross (2009) who writes how "There is a powerful […] myth […] that fieldwork is conducted alone [ignoring the fact that] all *knowledge is produced in relation to others* – those with whom we work, those with whom we share our ideas, those against whose ideas we set our own findings" (p.12; emphasis added). In these ways the researcher becomes an "insider" viewing the various dynamic perspectives of members within a given community or group and by this ensures that observations might remain "open-ended" (Babbie & Mouton, 2010; Bruner, 1993; Booth & Williams, 2003). Yet, this study is not an ethnography in the way that I am not a thorough "participant-observer" and was always positioned in ways that allowed me to detach myself from moment to moment, from activity to activity (cf. Delamont, 2007). Moreover, case studies provide for comparative insights where theory and social reality may be linked or diverge (Babbie, 2016). For Harrison (2011), her exploratory case study of how teachers employed CHAT-oriented mediational practices to discover budding EF relied on documentation techniques that included video recording, questionnaires and structured interviews, reflexive journaling, and participant observations (cf. Denzin & Lincoln, 2005). These technical features allowed for *thick description* requisite for understanding both when and how, and where and why SR emerges *through* play. My study, however, was limited to handwritten fieldnotes, and one audio-recorded interview (see **Appendix J**, "Post-observation Interview"). The in-depth potential of a qualitative study was decided upon because of its potential to explore fluid inter-personal relationships of learners and teachers where a quantitative survey, among other quantitative techniques, would, for example, (a) be difficult to complete among Grade R learners, without stereotypical generalisations, and would (b) offer limited insights into the dynamics of situated sociodramatic play.

By contrast, ethnographic case studies "allow for events and situations to speak for themselves" (Cohen, Manion, & Morrison, 2007). Therefore, the cadence of this research favours the structural characteristics of a case study while rooted in an ethnomethodological approach and attitude. This meant data gathering endeavours could "open up" to the possibilities noted in

Yin's (2009) view of case studies, wherein case studies "[…] investigate a contemporary phenomenon in depth within its real-life context... [by using multiple concepts and voices when grappling] with […] situation[s] in which there will be many more variables of interest than data points" (p.18). A case study is propelled by the notions of "prior development[s] of theoretical propositions [for] guid[ing] data collection and analysis" (Yin, 2009, p.18).

5.3 Approaching the Research Context

5.3.1 Selecting the site: Convenience sampling

In deciding on the site for this project, numerous possibilities were proposed – some that would have required the careful scrutiny of an intervention in opening up too large a project, such as when it was thought to provide a comparison between economically "privileged" RSA schools and schools in RSA communities wherein less economic support is evident. Consideration was given to how different playgroups might illustrate features of emergent SR in different ways because customs and cultures influence sociodramatic play. While waiting for the ethical approval of the Western Cape Education Department (WCED) regarding a potential government site, it was advised that approaching a private school would help me begin this project, yet many snags were encountered, like difficulties in arranging convenient times to observe learners at that school and not being afforded the possibility of pre-observation communications with the educators concerned. Instead it was ultimately decided to go to a site where I already had friendly relations with Ariadne and her colleagues when the WCED corresponded their permission for me to conduct this research (**Appendix A**). The Grade R site of my study was therefore chosen primarily because it was most hospitable and even the most enthusiastic towards my research objectives, in a Quintile 5 school, in Cape Town. Moreover, time constraints propelled me to not be overly "picky" about places available: I wished to observe learners for whom play was their leading activity and discover how play-theories from CHAT exhibited the development of SR. Thus a blend of practical necessities and convenient local advantages helped me settle upon my eventual Grade R site (Emerson, 2021).

5.3.2 Navigating limitations ethically

When considering the dynamic nature of the children in this Grade R group alongside the ethical consent acquired through the influence of their teacher, Ariadne, and direct

communication with the parents and guardians of these Grade R learners, the possibility of video-recording was soon put to rest: *How would I be able to ensure that peers and friends on the playground from other classes would not be filmed without care-giver permissions? How might video recording methods not impact the naturalistic setting of the classroom and avoid becoming a distraction, my presence being foreign enough for these young learners?* The importance of triangulating research sustains the credibility of the subject area, and video-recording is a highly attractive technique to ensure accurate triangulation of data as it transpires (Noble & Heale, 2019). Additionally, if one or two parents were willing for filming to take place, but others were uncomfortable with the use of this recording technology, despite a willingness to support my observations, then further complications would have arisen, even as much as the feeling of being watched by "Big Brother" (Sparrman, 2005, pp. 243-46). Therefore, *would it be possible to film a group of learners who have written consent and provided learner assent, playing in a classroom away from other learners? Would this allow for natural play scenarios?* To eliminate unpredictable dilemmas, my study did not make use of any video-recorded material and thereby preserved the ethical commitment undergirding this research: to do no harm *and* to not disrupt established routines and regular activities of the children and teachers willing to be involved. Below is the size of the sample of students and teachers, with the ages and qualifications of the teachers who participated:

Table 5: Participant Information Table

Class size	**Ages**	**Teacher**	**Assistant Teacher**
25 boys	5-6 (Grade R)	Age: 59 Experience: 35 years Qualifications: Higher Diploma in Education in Pre-Primary	Age: 41 Experience: 12 years Qualifications: No Senior Certificate (Matric / Grade 12)

Data was collected from unstructured "real-time" field-note observations on the playground and in the classroom of one teacher, Ariadne. She willingly agreed to an audio-recorded post-observation meeting, held a week following observations, at her convenience. Purposeful sampling was used to meet the aims of this study seeking to note the emergence of SR through play by selecting only one class of learners and one main teacher (cf. Hoepfl, 1997; Merriam, 2002). This entailed giving attention to and being "led-in-observation" when simply tracking what was happening on a given morning both inside and out of the classroom. Ultimately it

was any activity which might illustrate the features of mature or advanced play that became prime "targets" of my fieldnotes. In Chapter 6 I uncover how sometimes Ariadne would "lead my gaze" through a particular comment or her lingering attention to a task or group of learners. For example, also in Chapter 6, with the learner Oscar, she mentioned how her view of his age might inform a view of his developmental needs; in Chapter 8, vignette 2, the group of boys who built the ammonite museum were also identified by age classifications. These sorts of inclusions often steered my attention and raised questions around educator beliefs in chronological stages of development.

In Chapter 8, another limitation of my methodological approach arose in that the brief period of observations available for my study cannot answer what "force for change" in attention or leading activity, motivated a certain learner (Jacob) to approach me to read to him; where and when his budding learning motive was sparked cannot be fully comprehended because of methodological constraints – my fieldnotes were written *during* observational experiences.

It appeared favourable, when considering the features of MPOT, that in this well-resourced Grade R environment children had numerous books and toys and play-objects at their disposal. This suggested an opportune space for learners to explore, move, run about and play individually or in groups (see **Figure 4**). There was, among other features of the playground, (a) a large sandpit next to a "construction table" where boxes of building blocks of various brands, like mini Plus-Plus, were brought each morning either by a learner or by an assistant teacher; (b) Jungle-gyms and a Wendy house mark the boarder of the open playground; (c) a "forbidden" portion of the playground separated by a tar road used by senior grades during the junior school's aftercare programme containing a much larger jungle-gym. Assistant teachers supervise the majority of early-morning activities while parents bring their children to school. However, during my observation period, construction was taking place at site (a) which meant that site (c) was made available for the children to play in (the sandpit at c features in Chapter 8). At (d) children enter the school's classrooms after early morning line up:

Figure 4: Image of Grade R playground area taken from Google Earth.

5.4 Structure of Study

Research in the humanities necessitates human interaction without which most studies could not proceed (cf. Clifford & Marcus, 1986). In order to acquire a sense of the site, a three-day early-morning period was granted by request to the school's headmaster by which I was able to begin deciding on areas from which I could profitably "set up watch" (according to my limited pre-observation period beliefs). Following these introductory three days, one school week (September 18–22) of observation from (i) 07:45 – 08:30 and then (ii) 08:30 – 09:30 was selected for maximum observations (see observation schedule).

Table 6: Observation Schedule and Times

Observation Schedule	Times
Arrival and unstructured supervised play	(i) 07:45 – 08:30
Transition to in-class activities	(ii) 08:30 – 09:30

i. The 07:45 – 08:30 portion of the morning was generally seen by teachers and assistant teachers as "unstructured" time – time for play and settling down at school. This time provided a "settling period" for transitions from home and familial attachments, to the contrasting (sometimes daunting) environment of school. Learners were given the opportunity to build their own designs at the "construction table" or engage in other activities – play soccer; be in the sandpit etc. – of their own volition. I then followed learners in Ariadne's class from the playground into their classroom. This permitted a more enriched understanding for my fragmentary sense of certain personalities and behaviours among the boys and teacher(s) seen briefly on the playground, in the hope that this might present data for a *thick description* of the presence of make-believe play, that could foster my discovery of emergent capacities relating to the HMF of SR. Simply put, because of the emphasis placed on educator involvement in allowing play to develop (Fleer, 2021; Bodrova & Leong, 2015; Germeroth et al., 2019), it was

realised that the playground activities were largely "self-directed" by the learners (see sections 7.3.2 and 8.4).

ii. The second phase, 08:30 – 09:30 was allocated for classroom observations which addressed research questions dealing with potential teacher/learner-learner involvement in play; cultural rules, traditions and norms; and the potential significance of "post-task" activities for developing SR.

This two-phased approach for immersion and data gathering thus delineated opportunities for thick and rich descriptions of learner activities and play. Moreover, since it is argued that the involvement of teachers invites some of the greater development of SR as a HMF (cf. Fleer, & Hedegaard, 2010; Fleer, 2020), entering the classroom space was of crucial significance for this study; my precursory three days of undocumented observations suggested that interaction between learners and educators on the playground were kept at a minimum. Were this study to have remained at the level of playground activities, phase (i) only, it is my belief that insufficient data would have been acquired to reveal anything particularly meaningful about the development of SR and what was occurring at this Grade R site alongside ideas of educator involvement in learner activities.

While these approaches for a qualitative case study are simple, it is ultimately the analytical scrutiny of recorded data in conjunction with peer-reviewed CHAT research that contributes to my dissertation's understanding of how SR arises as a HMF for Grade R children, and what play might look like locally, compared with already-documented CHAT research. Play as categorised by the features and dynamic dimensions outlined in MPOT (see **Tables 3** & **4**) guided my reflexive note-taking sessions. Provision for a post-observation interview was made in order to invite the class's teacher, Ariadne, to relay how she felt about and viewed the purposes of play and its relationship to SR's development. This interview was planned for as open-ended and semi-structured. Primarily, motivation for the interview to be situated *after* the observation period was because I wished to avoid any bias and "noisy" beliefs or interpretations of the learners that if having heard Ariadne's views before the observation period I might have been swayed in attending to or pushed away from certain learners or activities (cf. Kahneman, Sibony & Sunstein, 2021). Additionally, I could attend to noting MPOT features of play and

various aspects of SR observed or not observed, especially Ariadne's educator ideologies around play and SR, without any educator-prejudice if the interview took place *after* my "neutral" observations (if neutral observations are ever really possible). The motivation for this interview was to enrich a broader view of the cognitive-social development of different learners of whom locally-situated educators are more keenly aware because of daily interactions with said learners (see **Appendix I** for interview questions). Teacher-beliefs around play *for* HMF was the essential drive undergirding each segment of my interview of Ariadne. A transcription key is provided with each of the various features identified during these five days of observations.

5.5 Ethics

While this project certainly did not encounter ethical dilemmas such as the Baby Theresa case (Rachels & Rachels, 2012), the fundamental principles of (1) minimising harm; (2) respecting autonomy; (3) protecting privacy; (4) offering reciprocity; and (5) treating people equitably, were not overlooked (Hammersley and Traianou, 2012). In order to place these principles or "ethical imperatives" within my study, it is necessary to describe how each ethical imperative was anticipated with the attitude of "prepare and prevent [rather than] repair and repent" (Benson, 1987) holding central sway in all of my above detailed methodological considerations and approaches.

To ensure that harm was minimised and privacy respected and protected, the school site is not mentioned by name or in such a way that it becomes in any way obvious. Ensuring that informed consent was provided, an information presentation was extended to all the parents/guardians. This measure was not needed but its availability remained intact throughout the study; not only to protect the learners, but also the teachers, assistant teachers, and the public reputation of this Grade R and school institution.

Consent forms (**Appendix G**) were distributed through the help of Ariadne for her Grade R class alone reducing the sample size of learners to something more manageable – one class of twenty-five learners; initial plans for observing multiple classes was discouraged as data sets would be too large to profitably analyse for this thesis. It was realised that playground interactions would require avoiding learners not in her class, facilitated by her assistant teacher,

because I did not really know who was in Ariadne's class. It was felt that the learners should also be given an opportunity to sign their assent to my observations, with the possibility of their assent to be to withdrawn at any time during the study. The learners made an attempt to "sign" their assent forms with Ariadne's guidance.

Regarding the reciprocity which was requested, the school's counselling team and Ariadne will receive feedback and portions of the final dissertation as a means for them to explore and understand ways to improve best practice.

Application to the Western Cape Education Department (WCED), UCT's School of Education Ethics Committee, and the Grade R school's governing body (SGB), headmaster and counselling team for ethical clearance were all granted and are included as **Appendices A – E**. It is in these ways ethical imperatives (1-5) were met (Hammersley and Traianou, 2012) and all parties concerned, including myself, overcame potential research dilemmas with transparency and collegiality.

5.6 Summary

The data for this dissertation was captured by drawing upon ethnomethodological practices, the use of unstructured fieldnotes in particular. (Ross, 2010). No video-recording was made and only a single audio-recording was taken by the consent of Ariadne. This recording is in the sole possession of myself as student-researcher. Furthermore, while this dissertation aims to provide "thick description" of children and teacher activities, it did not subscribe to notions of complete participant-observer obligations. All ethical clearances – from UCT, the WCED and the school's SGB and headmaster – were obtained in advance of the commencement of this study and are available as appendices. Each of these methodological considerations and CHAT-informed tools, MPOT in particular (Germeroth et al., 2019), provided confidence in answering my research questions conveyed in Chapter 4.

Chapter 6: Learning and Development at Play in the Classroom

6.1 Introduction: *Vignette 1*

… Then go and play… – Ariadne

In this chapter, data from my observations is presented and the following questions are analysed: How do children play in this Grade R setting (in the classroom)? How is play structured or viewed by the educator? What is accomplished in play that demonstrates SR as characterised by MPOT? To discuss this, I outline what transpired at one of the workstations prepared by Ariadne, the class teacher. I note the activity of one learner Oscar who struggled to complete a learning-task, and go on to contemplate possibilities for play that seemed to have gone missing in the accomplishment of this task from a CHAT-informed play-perspective. Salient features of play for the development of SR are identified through a thorough MPOT analysis of this vignette.

6.1.1 Setting the scene:

Directly after the morning's in-class ring-time session which included singing and numeracy activities, learners broke out to attend to different work or task stations. A station was organised around learners accomplishing a given task (e.g. station 2, below). Each boy gathered at the station previously assigned by their teacher's reference to a colour-coded block corresponding to a specific group of learners in the class. For example, Ariadne informed me that the orange group was comprised of learners who required a little more "hands on" attention from her or her assistant, including boys who received medical support for conditions like attention-deficit/hyperactivity disorder (ADHD); the blue group were learners within a similar age-bracket of younger learners, i.e. learners born in the last months of 2017. The six stations were (1) a "design six cookies from playdough" station; (2) a drawing and writing weather dial station; (3) building blocks station; (4) a four of a kind card game station; (5) a "make a construction with two wheels" station; and (6) a memory card games station. The stations were spread out around the classroom. Each station's activities were seen to be complete when Ariadne had examined the cookie-design table after roughly ten to fifteen minutes. Boys were then permitted to play freely with peers and friends or individually with other classroom resources as desired. A few of the learners sometimes chose to remain at their designated station

and extend their activity and curiosity with given resources. The colour coordinated groups were rotated from station to station throughout the week.

Vignette 1 gives attention to the cookie design station and explores both the absence and presence of MKO involvements indicating the possibilities of expanding ZPDs; some of the more salient features of mature make-believe play; and notes various voices that mediate academic learning intertwined with emerging HMF. Primarily, focus is given to indicators of budding SR. This vignette draws upon observations of two different learner-groups across two days of observation, namely Monday and Tuesday. Each station was couched in academic objectives – Ariadne made these goals explicit over the course of a given task. This vignette grapples with the observation that what educators perceive as play and what a play-oriented pedagogy might look like in practice may be at odds with each other.

6.2 Cookie-designs

From the outset, boys were provided clearly communicated expectations from Ariadne: “I am interested to see what designs come through! For example, once Ivan is done, he places his cookies here and can then go and play.” While this station was conceived as a place where learners could play with and manipulate the playdough according to their own desires with one basic requirement – make six cookies – the emphasis on cookie completion and that they could then go and play highlights how differently the teacher and the learners would view this activity. Was it a time for play or for academic work?

At the table with Monday’s group, learners were often concerned with producing an accurate shape, mainly the circle, for their cookies. I was interested to see what tools were provided at the table; it was evident that there were enough for each boy. There were a few rollers – the tools were mostly made of plastic and brightly coloured; the yellow roller was used to flatten balls of playdough into different shapes – and caps from bottles and two larger metal peanut butter bottle lids were accessible to all for cutting desired playdough shapes. Turns with the rollers were taken. No squabbles (verbal or physical) over their given tools were noted.

While the boys were working, Ariadne made rounds of each workstation. At the cookie design table she would repeat instructions, guiding the boys to think with emphasised awareness about one of the critical details for the task: *How many more do you need?* This question reinforced

her expectation that each learner were to construct six cookies. Two learners were visibly listening and said the correct number (six) out loud; the other four were so busy with actions pertaining to their task that they did not respond. One of the four was struggling to cut the cookies using a plastic knife, and Ariadne gently offered her support: *May I show you something?* A demonstration ensued in which those paying attention to Ariadne saw how to make circles by cutting out a shape using either a cap or a lid. Ariadne then drew their attention to numeracy with a question that "cut out" a mathematical moment from the task: *If you have four [cookies], how many more do you need?* This was how Ariadne recruited and maintained attention to the task's details, as well as extend her support.

At the cookie design station on Tuesday, it was the orange group's turn to tackle this task with the yellow ochre playdough provided and to design six cookies. As the group engaged with their task, Ariadne alerted me to one learner, Oscar, who I was informed was born later than most in his year but also required medical support in order for him to regulate his energy and attention especially while at school. Ariadne informed me that his fine motor skills needed more development as a factor for why he would be spending another year in Grade R – to consolidate many of the core concepts taught during Grade R.[iv]

Watching Oscar, after receiving Ariadne's private comments, I noticed how he did not try to use any of the cookie cutters – lids or caps – nor did he try to use skewers and rollers on the table; he was content to simply use his hands. In this way, he was not so much concerned with "cutting out" a shape as he was in manipulating a shape through trial and error. During this moment of observation, one of Oscar's peers working at the table showed me a cookie which he had designed with a smiley face. I remarked that it looked a lot like a Jolly Jammer biscuit. Overhearing this, Oscar became very excited by the idea of Jolly Jammers and energetically engaged with his cookies, indicating that he knew what a Jolly Jammer looked like: he now had an image of what he could attempt with the playdough, his gusto indicating a shift in understanding the task. Oscar's enthusiasm did not however, suddenly transform his activities with the cookies into neatness or any systematic approach to the task, but he did begin to use the skewer as a tool to scrape little mouths and eyes resembling the smiley faces on Jolly Jammers into each of his cookies.

It was pointed out by Ariadne that Oscar produced more little balls than the six required and each cookie was hand-pressed *not* onto the "completion board" but rather firmly into the table without any clean edge; to lift them from the table would be to destroy the designs on the cookie. Again Ariadne asked similar questions to the preceding day: *How many cookies did I ask you to make? How many more do you still need?* And slowly Oscar looked around at his friends' creations and saw and counted their cookies, as simultaneously a few of his peers shouted the correct number in reply to Ariadne. Oscar made some adjustments but realised that part of his work would need to be scrapped and he began again by rolling a few misshapen cookies into a big ball. While his peers filtered off to other classroom activities at the completion of their task, Oscar remained behind to complete his six cookies. He did not seem fazed by this fact.

6.3 Analysis of Vignette 1

For Vygotsky (1978) the essence of the human capacity for higher mental development is summarised as the ZPD: "what a child can do with assistance today[,] she will be able to do by herself tomorrow" (p.87). Learners at the cookie designs table were engaged in an activity that might have opened up for play through which learner ZPDs might have been more engaged. If couched in sociodramatic play, Oscar would have been able to collaborate with his peers far more openly instead of remaining positioned as an individual. He did begin to grasp how Ariadne's assistance applied to the situation and noticed the designs of his peers to guide him. Owing to the pressure of an academic outcome – to ensure that the boys make cookies of a certain number in a specific way seen as a Mathematics and comprehension task – the salient features of play that *leads* the development of EF (i.e. the leading activity of play) was obscured (see **Appendix K**). Ariadne's leading numeracy questions often drew more attention to these overarching outcomes in contrast to possibilities for imaginative play, as she supported her learners in their individual efforts to accomplish the demands of the task; she also assisted the learners to go beyond their actual development by assisting them in providing part of the solution through a demonstration of "how to do it". Although Ariadne's question: *"How many more do you need?"* is a simple one, – when considered from the perspective of a learner, it requires deeper contemplation: (a) "How many do we need in total?"; and (b) "How many more do I need *if* I have four already?" The word "more" likewise suggests the concept of addition

in Mathematics and guides learners toward the correct answer and object of the task. Her semiotic use of language as a tool – *May I show you something?* – mediated learner-attention by actively guiding them to regulate their awareness of what was expected by their teacher through her use of language. Critically, while this may be excellently mediated teaching, it is not sociodramatic play, from a CHAT-informed, MPOT-guided perspective. This dynamic instruction is visualised in **Figure 5** below:

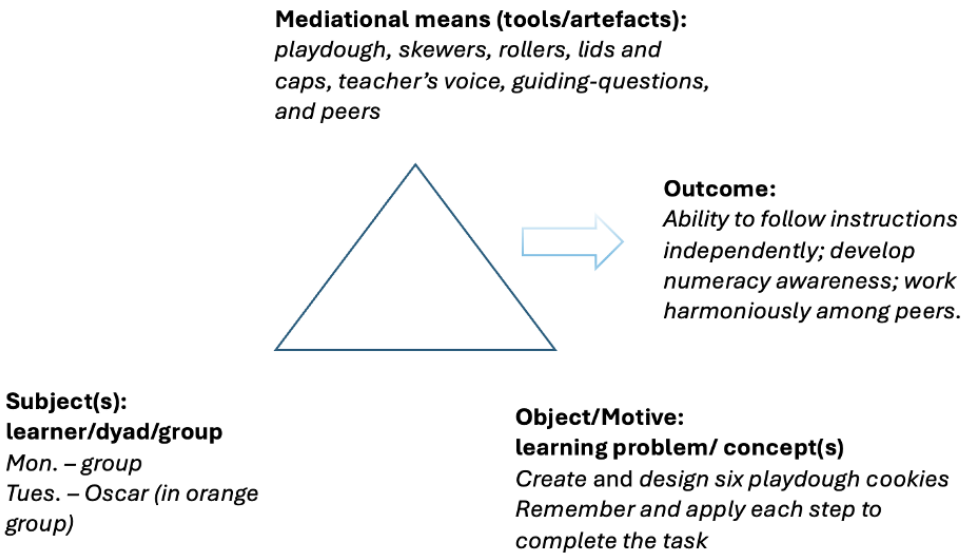

Figure 5: Ariadne's mediation at the cookie station

In **Figure 5**, it should be noted that what was observed was mainly Ariadne's input as educator, illustrating (inter)actions very different from play. Of primary importance for this study, the features of sociodramatic play (see **Appendix K**,) were blurred because of an absent invitation, a missed opportunity from the teacher to *stage* play (Fleer, 2011; Lindqvist, 2003). While the task may be viewed from the teacher's academically-oriented "in-the-thick-of-the-hunt" perspective as an art or construction activity, as well as a numeracy task, for learners (young lions), this became a "might-have-been" moment of play: the learners were ultimately unable to freely design their own cookies while taking on roles that could have expanded the cookie construction moment into a dramatic situation like becoming bakers and customers whereby the collaboration of their peers could have been invited, otherwise drawing upon their own social experiences (Rubtsova & Daniels, 2016; Fleer, 2021). Engeström (2022) has pointed out

that learning "should be understood as a creative process[;] as something […] in which people go beyond what they can do now which opens up possibilities for development and radical transformations". In this case, vignette 1 illustrates how Oscar did not robustly get to "go beyond" his own abilities.

In CHAT, play is seen as "rule-based play" because "there is no such thing as play without rules and the child's particular attitude toward them" (Vygotsky, 2016, p.9). However, the academic rules were so strict or rigid within the cookie designing task that a capacity to imagine alternative scenarios and sequences made possible by advanced play (through role-play etc.), as well as Oscar's meta-awareness underpinning the fact of budding EFs, all remained unengaged. Without rules like sharing and working cooperatively among peers, and the associated repetition of instructions reiterating numeracy awareness, play could not take place and yet tacitly (unintentionally?) the message was that the academic lesson was more important than playing – as if there were a hierarchy in which time for play was only permissible at some or other distant bottom tier of priority. Play is not the primary objective of many ECD programmes for a number of different reasons such as poverty (SES) or institutional curriculum demands on teaching time and content (Milteer & Ginsberg, 2012; Elango, Garcia, Heckman & Hojman, 2015) yet play *for* this task might have extended a possibility for learners to follow instructions with "voluntary awareness" and persevere through to the completion of the task as an act of inverting the meaning of the objects according to the needs of the child (Veresov, 2004; see **Figure 5**). Essentially, the dialectical relationship made possible in make-believe drama involved within play (to afford developing SR) was absent, from a CHAT standpoint.

A critical example of this absence of SR in vignette 1 was when Ariadne used language (a mediating tool in CHAT) "from outside" the task to regulate learner-attention(s), but did not *immerse* herself in the task as a play-participant, nor did her encouragement foster direct peer support from learners around Oscar. This underscores the valuable nature of role-playing for sustaining interest in given tasks; not just for creating tasks to meet an academic outcome (Germeroth et al. 2019). Without the element of Ariadne's support offering participation by taking on a role (like a customer coming into a baker's shop) and potentially "breaking character" to sustain the sociodramatic affordances of mature play, Oscar's ability to regulate himself – exert "conscious control of thought and action in the service of goals" – occurred

slowly (Moreno, Shwayder & Friedman, 2017, p.143). Critically, as identified by Vygotsky (1971), it is the social "dramatic conditions" of play which improves the quality of play (Fleer, 2021, p.357).

It is in this way that Kravtsova's (2014) notion of "double subjectivity" or "dual positioning" was not clearly at work, a "premise […] adopted as the central dimension of play pedagogy" (Fleer, 2015, p.1802; Rubtsova & Daniels, 2016, p.196). Oscar was not enabled in extending the object of the task with the *mediation* that a "dramatic situation" and the call for imaginative responses proffer through play that leads SR attainment (Fleer, 2021, p.354). Ariadne did not immerse herself in Oscar's world, or co-construct a world together as is encouraged in a play pedagogy programme like Conceptual PlayWorlds. Ariadne remained mostly external to, subtracted from, Oscar's efforts much like temporary scaffolding around a building that is removed eventually. Getting the task done with precision and completed correctly, according to an academic script, appeared to be more necessary for Ariadne than allowing play to transpire. In "mature" play "correct answers" might not be as important as the process of imaginative collaborations that envelope learning-discoveries made *towards* the answer. For Vygotsky (1971), as far as the dramatic nature of play is concerned, "the substance of a drama is struggle" and it is the "process" of grappling, this *struggle in play* that internalises the formation of EFs such as SR (in Fleer, 2021, pp.354-55). Because of the necessary "deliberation, […] attention-switching [and] goal-directed behaviour [that] inhibit[s] impulsiveness" in sociodramatic play – all pivotal features of SR – we are able to understand that "for play to act as a source of development [of SR], play itself must develop" (Moreno et al., 2017, p.144; Fleer, 2021, p.355). In Oscar's case, the task did not develop into play and therefore cannot be seen as the main source of SR development in this vignette, as analysed through a CHAT lens.

This period of instruction *can* be interpreted as facilitating access to learner ZPDs in how they were able to follow instructions (i.e. rules). Oscar's actual development required the support of a MKO which came primarily in the form of his teacher, Ariadne. Together with her guided support, her numeracy questions, the voices of his peers responding to her questions, and the time and space made available for him to work steadily through to the completion of his cookies, all these aspects allowed him to rise above his own abilities and transcend potential

feelings of confusion and inadequacy. In play, however, he *might have* taken on a new role, construct his own props, collaborated with his peers, as described by MPOT. Oscar *was* offered a clearer picture of how to imagine the solution of his task through Ariadne and the voices around him. Thus there was a blurring of play possibilities and a difference within educator ideological orientations towards play at variance from play as a pedagogy (see Chapter 7).

For Vygotsky (1978) "the specifically human capacity for language enables children to provide […] auxiliary tools in the solution of difficult tasks, to overcome impulsive action" (p.28) like systematically organising one's playdough into the correct number of balls or cookie shapes; using the tools to create cookies that could be transported to the presentation board and be recognised as complete cookies. Vygotsky goes on to explain further how language as a tool in learner ZPDs is also positioned to facilitate how they self-regulate as they "plan a solution to a problem *before* its execution, and [may] master their own behavior" (p.28; emphasis added). As evidenced in vignette 1, Ariadne's questions did support the regulation of learner attention – *How many more do you need?* – but Oscar did not demonstrate the executive mental functions of pre-planning his designs – he simply went about making many small balls of playdough which he squished flat by hand onto the table, ignoring available tools – and worked slowly and spontaneously by "trial and error". It is suggested therefore, that through an ability to self-regulate, learners are eventually enabled to more timeously tackle given tasks, an EF critical for school-preparedness (Harrison, 2011).

Oscar's situation exhibited features of Vygotsky's (1978) theorisation of developmental ages. Oscar was unable to complete the tasks expected to be performed independently of a six year old, nearly at the end of the Grade R year. Without the voices of myself as participant-researcher, the models of his peers, the encouragement and reminders of his teacher, Oscar demonstrated how his "mental age", as Vygotsky would call it, appeared to be lower than that of his group. He *could* accomplish more with social collaboration pointing towards expansive *potential*, while diagnostically might suggest that Oscar displayed "a more constricted ZPD" (Hardman, 2011, p.33). It must be understood that Oscar *did* complete the task eventually. Oscar was *able* to think through the problem and visualise the requirements as a final product but it took more time than one who had internalised a greater degree of SR and was thereby

able to independently fulfil the task. Oscar portrayed distance or proximity between his actual ability and his potential ability that requires time to mature.

Clearly, the ZPD is therefore a "social concept" (Hardman 2011, p.33): that "for the ZPD to 'open', a learner must be interacting with someone (or in some instances, something, like a book) that represents a higher order of knowledge, one that the learner has not yet attained" (p.33) Thus, Oscar's ZPD could not be "individually determined" (Hardman, 2011, p.33). Furthermore, Oscar stayed true to the activity which signifies an emerging ability to persevere; it would have been more alarming if he had abandoned the task as a whole, thrown a tantrum, frustrated the entire process of the task and interrupted the activities of his peers. A tantrum would be expected of a mentally younger learner (cf. Bodrova et al., 2013). Through Daniels (2012) we should view the ZPD in play as the "mediational medium" realised "only in its relationship to, and difference from, other voices that it must address and answer" (Daniels, 2012, pp.72, 76). This applies to Oscar and his peers. Oscar was addressed by Ariadne and his answers, while not always verbal, simply sustained his engagement with the educational instructions with corresponding actions for producing the six cookies. Because of the lack of play, a conflict of motives between Ariadne and Oscar was at work and difficult to work out. For Ariadne, the institution of school places demands upon her which she could not apparently afford to give up (see Chapter 7).

Additionally, from a dialogical point of view, we may see from Ariadne and Oscar, inscribed within the "Vygotskian notion of *internalisation* is the idea of a requisite struggle – the challenge that ensues in the difficult process of appropriating someone else's words for one's own purposes and the corresponding struggle among the interior voices [vying] for ascendancy in consciousness" (Farmer, 1995, p.307; emphasis added). True learning is, as CHAT attests, challenging and marked by struggle. The critical struggle in vignette 1 was the inversion demonstrated in **Figures 6** and **7** – the former a representation of what play makes possible; the latter a suggestion of Oscar's interrupted inversion: Oscar was unable to playfully invert the object (playdough) into six cookies, like a child might invert the object of a stick or a wooden broom into the meaning of a horse (Vygotsky, 1966). To highlight the gap between what Oscar was *permitted* to begin to do by himself (internalisation), we might even say that

Ariadne's insistence on the numeracy and design aspect of the task prohibited or *delayed* the possibilities of the socio-dramatic inversions made possible by play.

Figure 6: Meaning/Object inversions undergirding sociodramatic play (in Fleer, 2011)

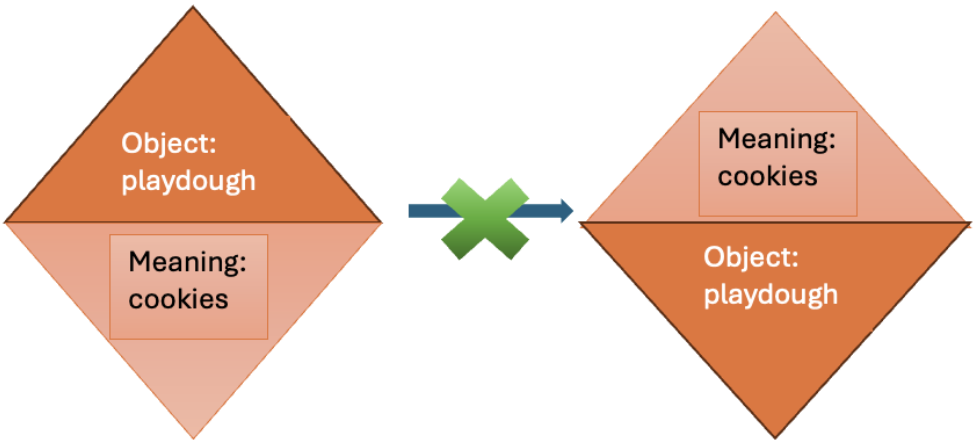

Figure 7: Delayed or interrupted play development in Oscar's case (adapted from Fleer, 2011)

In this way we are able to see play as positioned in this Grade R setting as something child-led and placed *after* attending to institutional academic demands, especially in South Africa (Wood & Bennett, 1998). The potential of play-based programmes cannot be overlooked. Bodrova et al. (2023) have articulated how "many kindergarten classrooms have activity centres that do not necessarily *allow* for sociodramatic or constructive play. Instead [these] centres are where children practice academic skills" (p.3, my emphasis; cf. Bassok, Latham & Rorem, 2016). When considering Ariadne's pedagogy and Oscar's struggles, play-based programmes are crucial: Through play, also viewed as "metaplay" (Trawick-Smith, 1998; Moreno et al. 2017), "children practice […] the movement of stepping in and out of reality" and by "making conscious the distinction between imagination and reality in play, children are conceptually primed to work with real objects and imagined (or abstract) ideas which represent reality" (Fleer, 2011, p.230). This is one way of seeing how "imagination becomes the bridge between

play as a leading activity in preschool to *learning as the leading activity in school* (Fleer, 2011, p.231; emphasis in original). It may be summarised that short-circuiting the allowance for sociodramtic play in a Grade R centre by prioritising academic objectives does not stimulate EFs and obfuscates the development of SR.

Ultimately, Oscar's situation is not unique and is fraught with implications for a CHAT-informed dialogical approach to "effective" learning and teaching (Daniels, 2012, p.71). CHAT research sustains Vygotsky's (1997b) stance that "we [should] ask how does the group create higher mental functions in one child or another" versus "the usual question [of] how does one child or another behave in the group" (p.107, as cited by Fleer, 2020, p.3).When Oscar was enabled through the voices of his peers and the Jolly Jammer suggestion to switch-attention to the goal of the task, we are able to see Oscar in essence *beginning* to self-regulate his rudimentary and voluntary awareness of educator expectations (rules and instructions). He tacitly maintained expectations of playing among peers (social expectations like not grabbing, sharing tools etc.) throughout this task, and commenced in activity that would mould a capacity to be goal-oriented by which he might grow "into the intellectual life of those around him" (Vygotsky, 1978, p.88). In **Appendix K**, an analytical application of MPOT as a *play-checklist* is provided and summarised below in connection with vignette 1, the cookie design.

Using MPOT as a play-checklist allows me to measure the fundamental question of my dissertation: **What is accomplished in play that demonstrates SR as categorised by MPOT?** Outlined in Chapter 4, MPOT aids in identifying mature or advanced play and "the extent to which high-quality play may produce social, self-regulatory, and academic benefits in children" (Germeroth et al. 2019, p.187). MPOT also empowers researchers to determine "how the *quality* of play might be improved in early childhood classrooms" (p.187; emphasis added). I add that MPOT exposes areas in the teaching schedule where educators should consider aligning instructional expertise (i.e. their ability to convey curriculum-based concepts) in a play-centric pedagogy. **Table 5**, the play-checklist combines both **Tables 3** and **4** (section 3.3). Significantly, because play was interrupted by Ariadne's helpful yet necessary educator instructions in the cookie design task, these MPOT indicators comment on what *might have allowed* for the type of play that spurs on SR development. In this way Oscar's play remained

at an immature level or undeveloped. These findings indicate how developing SR might remain dormant or lack executive properties when they are not put into effect by being contextualised.

Through MPOT (**Appendix K**), Oscar's activities and Ariadne's influence are summarised side by side: props were teacher-constructed and never developed beyond the object of the cookie design task. Oscar's play remained at an immature level illustrated by his inability to plan in advance of completing the task, an ability critical to mature play and a sign of SR. While extended sequences of play are seen to be periods of play's development profitable for expanding the quality of play – character roles are elaborated, rules are negotiated, emotional connection with the inverted meaning of play-objects is generated – Oscar did remain at his task for more than fifteen minutes but he was working as an individual attempting to complete a task. The role of speech and the interactions afforded Oscar were limited to numeracy reminders (embedded academic objectives), and he was not asked to share his thoughts and feelings while designing. The ability to reflect is seen to be an anchor for SR in how the words of MKOs are then used with peers or in return and then internalised as voluntary awareness (cf. Karpov & Haywood, 1998; Karpov, 2005). Ariadne's influence was one directional: she monitored in-class activities but did not immerse herself as a play-partner. She did model how to roll the ball before it could be manipulated into a cookie (i.e. squished or rolled) and after this interaction Oscar imitated her. Thus, play for Oscar remained at an immature level for the above reasons (expanded in **Appendix K**).

The idea that the learners were not "free" to create their own designs is simultaneously enriched and questioned by an understanding of play as pivotal *for* the development of HMF, and how as HMF, self-regulation, begins to "bud" (Vygotsky, 1978, p.86). We may also observe the emergence of a child's *personality* (the self) through the decisions made to complete a given task; autonomy and volition as the essence of agency were not entirely catered for in this task (Chaiklin, 2003). It is fundamental to highlight that these developments must ultimately be seen through the lens of a "wholeness approach" (**Figure 8**) as advocated by Hedegaard (2011): such a focus embraces "children's activities in activity settings located in institutional practices that have a history embodied in traditions […] framed by societal conditions" (p.11). These notions become more pertinent as my dissertation grapples with predicaments between school

practice and home practice identified in the post-observation interview with Ariadne (Chapter 7).[v]

Hedegaard's (2011) conceptualisation of *institutional practices* synthesises Vygotsky's and Leontiev's concepts of the collective and of social action making possible an understanding of how developing HMFs arise in periods of transition, transitions which are seen in terms of "the [child's] changing relations to their social world [… even while these relations] generate a new kind of self-awareness or consciousness", or self-regulation, through periods of relative stability and crisis, illustrated in **Figure 8** (Hedegaard, 2011). In the Grade R experience "the child achieves the transition through the support of others" like in the example of Oscar (Kravtsova, 2005; in Fleer & Hedegaard 2010, p.172).

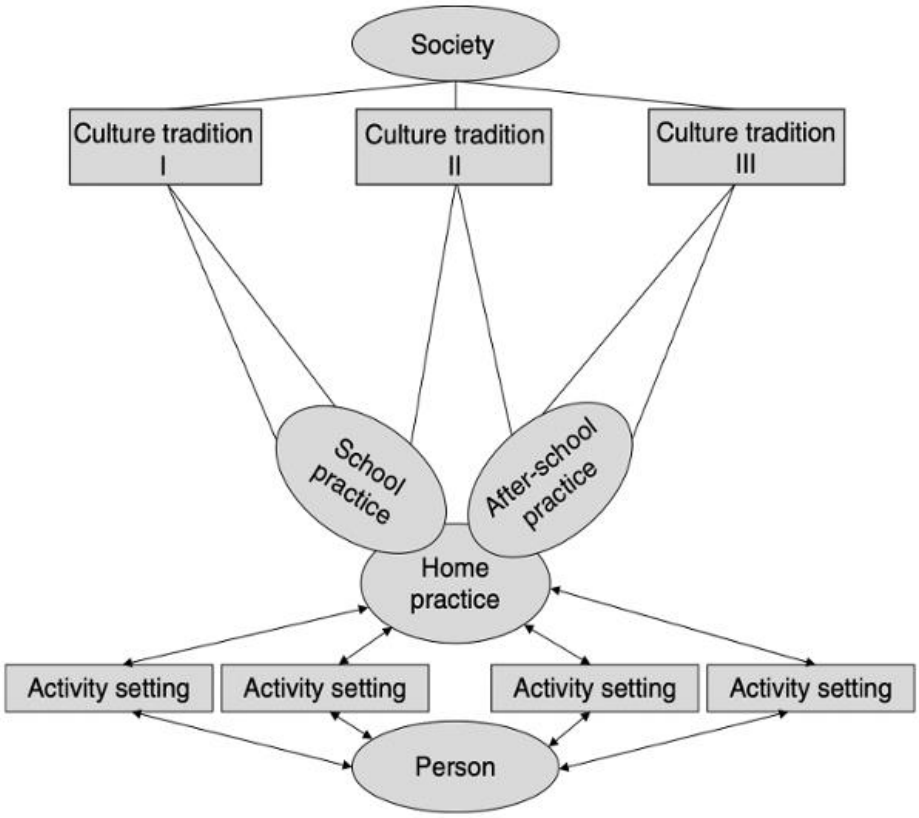

Figure 8: Hedegaard's (2011) model of learning and development in institutional practices foregrounding motive-formation (p.11)

These views of motives and personality are linked to self-consciousness, an expansion of awareness made possible by the development of SR and the imagination as "a cultural-historical construct" (Fleer & Hedegaard, 2010, p.133; Venger, Slobodchikov & Elkonin, 1990). "In other words, there is […] only the struggle of motives" navigated by children at play (Kravtsova & Kravtsov, 2011, p.32; Hedegaard, 2007). The struggle of motives between Oscar and Ariadne indicates how the attainment of SR might also be delayed. Moreover, support for institutional transitions appeared one-sided; only an academic design to the task seemed permissible. The numeracy concepts woven into the cookie task "enable[d] a particular mental action to occur" moving learners from spontaneous engagements with playdough to more abstract ideas around numeracy (Fleer & Hedegaard, 2010, p.82). Imagination, as in the case of recalling ideas around Jolly Jammers, did not arise *ex nihilo*; it arose from learner experiences as the bonding of motives (external) and internalised experience into a growing imagination (Fleer, 2010). It might even be said that providing a model for what bakers are supposed to do and how they work would have been more beneficial to Oscar and others in actualising the task more systematically (i.e. in Conceptual PlayWorlds; Fleer, 2023a). This is supported by MPOT in how "centre management" could redesign the space in which a task is played with. This might look like setting up images of a baker, providing chef hats, bringing in a toy oven or allowing learners to move to an area where baking exchanges can happen. In Oscar's case, his search for a method to make the cookies cognitively "welded" with the Jolly Jammer suggestion became a moment of critical illumination allowing him within his own ZPD to turn the abstract idea of six cookies, the mediating voices around him, and his (unconscious) motives into "concrete imagination". This is perhaps what the poet W.C. Williams's saw as "No ideas but in things" – an effort to highlight the significance of our relations within the concrete world around us through our struggles to grapple with abstract concepts within the dialectical movement of ascending from the abstract to the concrete (cf. Ilyenkov, 2008).

6.4 Summary

In this chapter I have analysed a vignette in which sociodramatic play did not occur and yet would have been, from a CHAT framework, a more beneficial approach to a learning-task required of a group of learners in Ariadne's Grade R classroom. From the perspective of these learners, the lions in this account, and Oscar in particular, each was not fully afforded an

opportunity to play with the concepts required of them by their teacher. From a teacher-perspective, the cookie vignette outlines an educator's academic expectations couched in "playfulness" but not in mature play despite the positive demonstrations of a high degree of mediated instruction. Furthermore, by means of MPOT, I have been able to point to the relevance of adopting play pedagogies for the development of SR and have identified areas of concern in which HMFs are delayed when play is left unutilised or at the level of a prop.

Vignette 1 illustrates a limitation in this Grade R setting for make-believe play where play should foster "the learning of symbolic and emotional thinking, spoken language, [and] the beginning of literacy" (Germeroth et al., 2019, p.184). Additionally, I have demonstrated how "play also creates the zone of proximal development of the child. In play a child is always above his average age, above his daily behaviour; in play it is as though he were a head taller than himself" (Vygotsky, 1967, p16); and Oscar is one example of a learner who may eventually be able to stand a head taller than himself through the possible play-based mediation of MKOs. It was encouraging to observe that in his completion of the task, his own playfulness fostered a willingness to persevere – a feature of SR and EFs that will never become obsolete. Without the support of MKOs or "play mentors" (Leong & Bodrova, 2012) within play opening up Oscar's ZPD, HMF (i.e. self-regulation) "that have not matured yet but are in the process of maturation" will remain dormant (Vygotsky, 1978, p.86). This vignette and CHAT-informed analysis of Oscar and Ariadne's interactions at the cookie design station is an essential starting place for a dialectical analysis of instruction *and* play, the nature of the ZPD in play when navigating conflicts of interest (between learners and educators). Additionally, how developing EFs like SR may go missing when translating educator beliefs for academic tasks *sans* affordances of mature play is noted. This predicament, alongside the aforementioned institutional practices (**Figure 8**) is explored in Chapter 7 of this dissertation.

This chapter answers *in part* the question of how children play in this Grade R setting. It has also contemplated what is left unaccomplished without a specific kind of make-believe play leading the development of SR, as categorised by MPOT.[vi] In Chapter 7, Ariadne's educator beliefs are discussed in detail.

Chapter 7: Post-observation Interview

From the very first days of the child's development his activities acquire a meaning of their own in a system of social behaviour and, being directed towards a definite purpose, are refracted through the prism of the child's environment. – Vygotsky (1987, p.30).

7.1 Preamble

This chapter serves to bridge Chapters 6 and 8. The content of Chapter 7 pays attention to what I shall refer to as Ariadne's educator ideologies. For the purposes of this dissertation, Chapter 7 (re)emphaises my research questions while tracing two pivotal aspects pertaining to how children play in this selected Grade R site from an educator's perspective. This interview provides an impression of how Ariadne as an educator positions herself with regards to the development of SR in her learners. As **a bridging chapter**, it is brief and direct. The extended transcript of the post-observation interview is available as **Appendix J**. Chapter 7 connects what I have phrased as a "missed opportunity" – as viewed through CHAT's sociodramatic play framework (see Chapter 6) – and Ariadne's belief in "self-directed play" analysed in Chapter 8 wherein Ariadne's views are compared and contrasted through CHAT by means of two examples of play which do not feature strong teacher involvement, i.e. where children "self-direct" their own play activities. Without Chapter 7 it is difficult to discern the story of these Grade R "lions", because much of what takes place in this Grade R setting is directed by Ariadne.

7.2 Introduction

Throughout my five days of observation in Ariadne's Grade R classroom, I gained a broader sense of how instruction and play functioned in her pedagogy. I observed her charismatic interactions with her children, how they regarded her generally, and noted their bubbling excitement in all discussions touching on the topic of advancing to Grade One, or "big school". This interview, provided in full as **Addendum J**, captures in Ariadne's words, more of her ideological beliefs on play and the significance of SR as a teacher (now 35 years in the profession). The accompanying analysis comments on the following research questions:

I. How is self-regulation conceived by educators in this Grade R site?

II. How is play structured/viewed by educators at this school or for this class?

This chapter is structured in the following way: seven extracts from the interview-transcript are provided, each preceding the analytical discussions which give attention to the issues of SR and play and Ariadne's educator perspectives. This bridging chapter is provided for the purpose of *getting to see* what is believed by Ariadne about play and SR which influences her Grade R's HMF development. Each extract is numbered #1-7 (highlighted in blue on the transcript) in the order of analysis (**Appendix J**).

This interview, to hear Ariadne's "story" of "the hunt", took place at the end of her school day a week following my observations.

7.3. Framing the educational situation

I commence analysis of the post-observations interview with extracts #1a and #1b. At this part of the interview, it was felt that Ariadne had provided a look into the broader context in which she works. In (#1a) some of the difficulties in teaching her learners were raised. Later in the interview (#1b), Ariadne identified how she seeks parental support.

#1a

I'll tell where the trouble comes in. It comes in when you don't have buy-in from the parent. So, we are consciously trying to work in the best interests of the child but if the parent doesn't trust that that's, that's your aim, um, they can get defensive as parents and they think you're targeting your child and, and that's where it becomes very very difficult.

#1b

I believe that communication is vital. I don't like emails when children are experiencing challenges. I don't like to call them problems. When there are barriers to learning, that's very different to behavioural issues. Um, and it's essential that the communication is open and honest and um I think it's difficult when parents are not in a partnership with you in the interests of their child, when they think you are reporting things they think you're making it up, or it's all hearsay and how do you know it's true? [...]

it is so important to keep recording what is happening. And I've chosen to not necessarily report everything to um, to some parents because it's just not actually I'm sure not nice to be the parent on the receiving end of the constant negativity but that unfortunately comes with the territory of the child that is simply just not able to manage their impulsivity, and sadly, it's not the route we like to go, and sadly the further on we go up the education line, they're probably going to need to go onto some kind of intervention medication to help them manage their impulsivity. But, you know, at this age, it really does need to be a last resort and when it's affecting their functioning and affecting them socially…

7.3.1 Analysis of #1a & #1b – the situated context

To begin with a larger view of the wholistic development towards which some of Ariadne's educator-insights (and frustrations) speak – the family dynamics and parent-influence for children to prolong the themes provided at school – Hedegaard (2011), illustrated in **Figure 8**, has spoken to how institutions, not just one place or setting like a school or a home, but rather activity *across* these institutional practices should be seen as contributing to learning and development:

> People learn when their activities change their social relations in a practice and thereby give them possibilities for new activities. Development occurs when a person's learning takes place across institutional practices and changes the person's relation qualitatively across all the practices in which the person participates. This is what Vygotsky meant when he wrote: 'The social situation of development specific to each age determines strictly regularly *the whole picture of the child's life* or his social existence' (p.12; emphasis added).

In extract #1, Ariadne discussed a concern which arises between home practices and school practices.[vii] This "trouble" is a critical starting point for realising a crisis interwoven within the mental development of Grade Rs; and from a CHAT perspective this crisis is viewed as necessary, even vital, for social and cognitive development. As previously mentioned (in section 3.4) the Grade R experience may be viewed as a period of crisis providing impetus for propelling fundamental changes in self-awareness wherein learning stimulates and *leads* the development of HMF during the leading or predominant activity (i.e. play) of children (cf. Fleer, 2021, pp.354-55). While contradictions between teachers and parents *between* institutional practices raise a range of concerns, the fact remains that, as Elkonin (1989) saw it, "crises and changes in the child's motive orientation can be initiated by the child entering a new practice or acquiring a new competence" (in Hedegaard, 2011, p.17), suggesting how

learning and development do often transpire *in spite of* best practice. Yet, in spite of these concerns, it is pertinent to discover what does actually take place in terms of play and the development of SR in Ariadne's Grade R setting.

7.4 Notions of Self-regulation

In extract #2, Ariadne responded to the question "how would you define self-regulation?" by listing among other common features, impulse control and conflict resolution and notes the place of mixed emotions. She provided examples of what this might look like in her classroom indicating that SR is "transportable" and should be applied in many contexts other than play.

> *... for me self-regulation is about managing impulsivity, and it's about understanding your emotions, and knowing how to behave in an appropriate way even although you might be frustrated or angry, um, or hurt emotionally by what somebody has said. It's about being able to actually manage your impulses and resolve your emotion in a, in an appropriate way.*

> *... it's about upskilling these boys, um, with um, strategies so when there's a game that's about to begin, I encourage them to not say, "I'm starting!" but to rather say to the group, "Please may I start?" um and then to upskill the boys that if somebody says that first, then you honour it and say, "Sure! Please may I go second?" whatever it is. So, it's about giving these boys the skills to be a more likeable person, I suppose, in a social situation. Also at the end of any game that they play, that they actually turn around to the people that they played with and say, "Thanks for the game!"; not "I won!" or whatever the story is, rather be thankful for the game that you, the fact that you've had people to play with.*

Ariadne went on to identify her belief in the value of teaching accountability with an approach to discipline she refers to as "democratic" (#3) which could be grouped within a broad definition of SR. From her experience, accountability is seen as a (personal) sense of responsibility encouraged by democratic conflict resolution strategies whereby an ability to empathise arises in social interactions among peers. The discussion also turned around making consequences for poor responses (impulsive or otherwise) "the right size" or suitable for the problem at hand.

The other thing is […] I find they need to be taught accountability. […] you actually have to teach *accountability. So in other words, be accountable for the actions that you take or the choices that you make, and so my whole discipline approach is a very democratic approach, where the child is encouraged to make the right choices for themself.*

It's not extrinsic, it's intrinsic that you make those choices because you don't want to miss out, or you don't want to have the instrument removed that you're about to [use to] partake in a band or um that they very very quickly cotton on to the fact that it becomes their choice.[…] if you follow through *with the consequence you've said, they very quickly realise "Oh, this is what it's about!" So, yah, giving them the choices and consequences and explaining the consequences* beforehand *and then if they push the boundary, then you say, "Unfortunately you made that choice …" and then yah, you can empathise with them later, and um, yah, console them later and just say, "I'm sure you're feeling with the choice that you made, but I'm* quite sure *that it's not going to happen again" and they get it. It's astounding… from a young age.*

In extract #4 an example of a previous learner with asperges who was formerly in Ariadne's class is mentioned. She reflected on how his peers allowed him escape into an imaginative space and process there his sensory overload in order to compose himself before having to return to the class-group. Ariadne articulated the need for teaching respect alongside the development of SR as learners are all at various levels of need and maturity:

I welcome the boys into my class that um have special needs, or need to be managed differently; […] I had an asperges boy last year, that he needed a special place to go to do his self-regulation. And I, I just used to be so proud of the way he used to remove himself. […] He would make it very clear that he was feeling angry or upset and then I would just encourage him to take himself off, and he sometimes would take ten minutes, sometimes he would take forty minutes but it was just remarkable how he responded so beautifully to the little "caves" I used to setup for him in the classroom. And the rest of the boys just respected that…

It is evident that for Ariadne SR is clearly about a certain kind of control or self-governing management of one's emotions and the behaviour of her learners. Emotions should not be overlooked and are integrally connected to SR by Bandura (1986; 1991) and discussed by Fleer (2016). It is about "upskilling" the children in her teacher-care, that they might become accountable for their choices and extend socially cohesive responses during their activities with peers, when at work or at play. These beliefs echo the cultural-historical literature focused on ECD (Bodrova & Leong, 2007; Moreno, Shwayder & Friedman, 2017; Fragkiadaki, Fleer &

Rai, 2021; Bodrova, Leong & Yudina, 2023). For Moreno et al. (2017) SR framed as EF "encompasses higher-order mental processes necessary for the conscious control of thought and action *in the service of goals*" (p.143; emphasis in original). Moreno et al. (2017) proffer the helpful metaphor for EF as the mind's "air traffic control system" because it is seen to include "planning and attention-switching" in order to "support goal-directed behaviour and inhibit impulsiveness" (p.144).

Regarding the learner with asperges (#4), this situation appeared to me a fecund moment for opening a potential Conceptual PlayWorlds experience. Since make-believe caves were already a strategy for allowing this child to escape and "catch up" with his self, adding other learners into the scenario while conveying the concepts of respect for one's peers (and other possible emotional-awareness topics) did not seem a difficult way to use sociodramatic play for a more inclusive learning moment. This is illustrated in **Figure 3** (section 3.4).

The metaphor of an air traffic system is a helpful one where Ariadne was concerned with her learners acquiring necessaries skills not just to "get off the ground" (i.e. be ready for Grade 1 and the crisis of new motives in the next school grades) but also to be able to manage their emotions when difficulties may emerge (to fly!). Extract #4 provides an example of the skill of "attention-switching" where her learner with asperges was able to feel safe and other learners could continue with class uninterrupted. The imaginative (re)solution of foreseeable classroom-conflicts demonstrates how it is the ability of a MKO who helps children, at first, regulate themselves until they can self-regulate (Karpov & Haywood, 1998). Extract #2 concluded with reference to the skill or attitude of gratitude, which in terms of SR, indicates *a higher realisation of social activities and relations* applicable for mitigating competitive and potentially contentious issues such as when emotions might flare over the outcome of a game. The relationship between gratitude and SR is a fascinating theme and not reflected on fully in this dissertation (see Zimbardo & Boyd, 2008). SR as framed in Ariadne's beliefs gives perspective to the nature of HMF as a *higher* perspective – grappling with the scope of a challenging situation – and essential attribute (cultural-custom) for productive socialisation, fostering a particular type of social cohesion. Moreno et al. (2017) do, however, make this pertinent claim, suitable for my more cautiously balancing these claims: "[…] awareness of children's EF does not automatically translate into EF supportive practice" (p.145). The air

traffic system is only *relevant* if it enables aeroplanes to get to their destination, just as the HMF of SR as an EF is only relevant for accomplishing transformations of learners wholistically – a system that stays relevant and intact beyond one maiden flight out of Grade R (cf. Chaiklin & Hedegaard, 2013). Additionally, development only transpires if it occurs within learner ZPDs (Vygotsky, 1978; Fleer 2021).

In extract #3, Ariadne suggests that her approach to discipline is "democratic", a term that might fruitfully be linked to future discussions on the development of SR. Other CHAT scholars have spoken to the multivoicedness within and between activity systems or institutional practices (Engeström, 1987; 2001; Hedegaard, 2011). We should understand that collaboration made possible by play is always in negotiation along "democratic" lines: whose voices (pre)dominate and for what reasons, in what sense? For Vygotsky (1987) the physical presence of teachers is not the only way that learning takes place within the ZPD of a given child or children. There is the "possibility of virtual collaboration" without MKOs such as parents and teachers being in the same venue:

> When the school child solves a problem at home on the basis of a model that he has been shown in class, he *continues* to act in *collaboration*, though at the moment the teacher is not standing near him. From a psychological perspective, the solution of the second problem is similar to this solution of a problem at home. It is a solution accomplished with the teacher's help. This help – this aspect of collaboration – is invisibly present. It is contained in what looks from the outside like the child's independent solution of the problem (p.216; in Daniels, 2012, p.74; emphasis added).

This is one way to see the development of EF like SR actually occurring in spite of contradictions between ECD stakeholders (sometimes the Achebian "the hunters"?) like teachers and parents, as raised by Ariadne (see section 7.2.1). Daniels's (2012) analyses speaks to the fact that what accompanies the emergence of SR and by implication the development of other HMF is a capacity to navigate and *voluntarily select* from voices and tools proffered by said stakeholders according to motives and activities surrounding and made possible to the child, especially where, for my purposes, sociodramatic play is concerned.[viii]

The ecclesiastical prophet-leader Joseph Smith Jnr. is quoted as having said when asked how he lead so many people so successfully in early days of The Church of Jesus Christ of Latter-day Saints (1830-1844): "I teach them correct principles and they govern themselves." In many

ways it is this perspective that encapsulates, I believe, what the development of SR inscribed with the properties of democracy entails: learners are/might be supplied correct principles or conceptual understandings (abstract concepts) which are culturally and historically defined and, for 3-6 year-olds, *through play as their leading activity*, they may learn to *govern* themselves which in turn crystalises eventually through time-determined internalisations as the dynamic features of SR. Critical to my reading of the development of SR is how, as Ariadne phrased it, children are provided the opportunity to exercise *agency* in play situations and acquire the essence of SR democratically. Drawing upon Agamben's (2012) reading of democracy, Smith's notion of leadership, and by implication the affordances proffered by a CHAT perspective on play, significant emphasis is placed on both ideas of "constitution" and "government" (p.2). Through play the ability to self-govern or apply "executive power" (Agamben, 2012, p.3) buds best within the ZPD and is extended to other academic activities, especially those pertaining to school readiness. It is this idea of "voices" in a democracy that makes democracy's relation within EFs a compelling way to view the development of SR, because to have agency is to have a voice; developing HMFs is to have a conscious, conscientious, self-governing voice. In this way one is able to discern more steadily the emergence of a personality, the "self" that regulates or governs their behaviour and begins to adapt and transform their environment (Chaiklin & Hedegaard, 2013).

Thus for Ariadne, SR is ideologically the conscious management of emotions and impulse control made possible by a broadened perspective (in the process of expansion) when voluntarily attending to respectful, grateful, responsible experiences with daily situations of crisis: Don't push Jimmy down the slide. Or, from observational-data gathered, "Take off your shoes before entering the classroom," a learner shouts at a peer!

7.5 Navigating Play

When asked how Ariadne applies play in her pedagogy (extract #5), she said that concepts like numeracy and literacy are "infused" into the play. Ariadne reflected quite openly on how she finds it difficult to separate play from the instruction and give an estimation of what percentage of time is dedicated to play.

[…] the numeracy and the literacy is often infused in the games that they're playing. It's all infused in there. So when they [the government say] you've got to do forty-three minutes of literacy, it's terribly difficult to do that because even the songs in your music or the game that you're playing when they're clapping the syllables of the song, that's literacy!

Later, when asked about what "good play" might look like, Ariadne stated that she views "self-directed play" as most beneficial for learners, but this also means that there must be sufficient tools to enable this "self-directed" play (see extract #6).

That's self-directed. Very much self-directed. Um, I think what is, we are so fortunate, er, here at [the school] is that we're a very well-resourced school. So, if you've got enough resources, you can just by providing the correct um, play-things, if I can put it like that, you don't even have to facilitate the play; they direct it themselves. […] there needs to be sufficient stuff for there to be that creativity and innovation and it's most exciting to be on the other end as a teacher and just observe and facilitate where you need to in conflict situations or sharing, whatever it might be. But, it's about them self-directing what goes on. They make the rules. And it's astounding the games they create which you would never have thought could be possible!

At the conclusion to our discussion (extract #7), Ariadne reflected on play and the emerging personality of the children she has worked with over her thirty-five year career as "far more well-rounded and more adjusted".

[…] children that have been allowed to play and to learn through play the research shows it that the children that have been allowed to learn through play have far more success in life and as human beings in every facet of their life they are far more well-rounded and more adjusted rather than the child that has been taught in a way that they've been forced to remember and regurgitate information and content.

As highlighted in extracts #5-7, Ariadne's educator use of play is one to support her learners fulfil numeracy and literacy academic requirements. As I observed her use of the morning ring-time activity, playfulness oriented towards class management – i.e. how to recruit all her learner's attention and get them stimulated for in-class learning – was a central feature of her pedagogy. But the boys merely remained boys in the sense that no-one changed their roles, imagined a new social scenario (such as become a palaeontologist while singing their class dinosaur song about to dig up and dust off some fossils and then count them or solve a dramatic problem) or constructed sequences of thematic development around a classroom or literature theme.[ix] Ariadne identified some games played in her classroom, and it prompts one to consider

differences between games and play. For CHAT researchers, notions around play are distinct from the nature of a game; games may form part of play but "mature play" is more expansive and demanding than the isolated nature of games (Elkonin, 1987, 2005; Veresov, 2004; Rubtsova & Daniels, 2016). Moreover, Ariadne articulated the need to have sufficient resources enabling what she termed "self-directed play". As I combed through research data, it became clearer to see what she meant by this: For example, when I arrived, Monday, September 18, I was greeted by assistant teachers watching the children as they arrived at school and began to play with their peers. Two large wooden frames with rope tied through the holes at three levels allowed the boys to take long cardboard tubes (probably about a metre in length) and race toy cars down onto the asphalt or into other half-cut tubes (or into other cars). The ropes helped the learners to change the angle and the slope for their cars. In this way, the children chose what and how they wanted to play and as an educator Ariadne (or the assistant teachers) would simply stand back and watch children playing to merely monitor their play but not to aid or advance it. Thus, this type of play was directed by the children, enabled by teacher provisions of resources to play with and monitored by assistant teachers who only intervened if there was conflict between the children.

Because Ariadne's belief that child's play should be "self-directed" it is important to illustrate what this looked like and what it potentially offers these children in terms of SR development. Chapter 8 provides two vignettes of dynamic "self-directed" play. It is important to discover what children do on their own as well and how this relates to the emergence of SR as seen through MPOT.

7.6 What else is at play?

Ariadne's understanding of play appears fixed in an attitude of "learning before play" as opposed to the possibility of *play leading learning* which ultimately stimulates the development of HMF in the "well-rounded" socially "adjusted" child (extract #7). It is precisely the fact that in play learners do not need to "regurgitate" information that is afforded by a play pedagogy: in play pedagogies like Conceptual PlayWorlds, the imaginative solution of challenges in teacher-led experiences *within* a dramatic narrative builds upon principles and concepts which are academic and abstract in essence while *allowing* the learners to apply their social experiences and expectations to the affordances of a drama at the very heart of

"considering a possible change from play as a leading activity to learning" (Fleer, 2021, p.355). This is what is meant by sociodramatic play. "For play to act as a source of development, play itself must develop" (Fleer, 2021, p.355). In this educator-guided structuring of play, no learner need to regurgitate information but is empowered to imaginatively rework information acquired in the classroom in collaboration with their experiences between other social settings or institutional practices (i.e. home and after school activities) inscribed within the motives manifest by learners with whom they collaborate in play (cf. Hedegaard, 2012).[x]

7.7 Summary

To view Ariadne's approach to the development of SR with her learners as *the educator is merely a manager of impulsivity and an instructor of academic information* would be disingenuous. So much more was taking place during those five days of observation in terms of mediated instruction and teacher-learner and learner-learner interaction than this dissertation can fully appreciate. But, where play is concerned, play for the development of SR, I did not see sufficient evidence to support my argument that play is pivotally positioned in this Grade R site for the advancement of SR in these children. And yet, methodologically, I *only* witnessed an hour and three-quarters of activity over five days in one classroom with one educator. Ariadne is concerned about play. She is concerned about her learners developing. She *does* want them to excel and believes in the affordance of play for SR. Therefore, what more can be done for willing educators like Ariadne? CHAT's perspectives on HMF and SR development are crucial. A question that will be discussed at the conclusion of this dissertation is *how* to help educators in Ariadne's position to *transform* their pedagogical practices for children in Grade R settings.

A challenge and a warning is provided here to summarise the predicament of education, play and the attainment of SR, as bound up with my post-observation interview. They are extended in terms of Ariadne's relationship between play and institutional demands (i.e. school-learning preparations; see extract #1) and in communication with her views on "self-directed play" (extract #6). Firstly, "truly mature play" is seen to be "self-initiated" (Bodrova & Leong, 2015, p.386). It is these advanced forms of play, the forms that advance developing HMFs, which are only "evident when children create imaginary situations where they change [or invert] the meaning of actions and objects and *give them a new sense inside the imaginary situation*"

(Fleer, 2021, p.355; emphasis added). Secondly, it is *for* the construction of more (quality vs quantity, too!) "imaginary situations" that Ariadne's views on play within her pedagogy appears to be missing. Zaporozhets (1986) warned that children must still be free to play; and it should not be turned into "one more teacher-directed activity" (Bodrova & Leong, 2015, p.386). It is impingent upon educators to realise that "in this day and age we have to lead children in their leading activity" (Bodrova & Leong, 2015, p.386). *Play cannot simply be a prop if educators endeavour to develop SR in their learners. Play must be applied as a pedagogy.* Teachers must interrogate attitudes facing towards play with the object of developing HMFs within their learners (Boler & Zembylas, 2003; Zeidner, Boekaerts & Pintrich, 2000). Lastly, with these hopes to balance the above mentioned challenges, I hold up Zaporozhets's (1986) almost prophetic warning as crucially relevant in dealing with the competitive capitalistic landscape of education in the twenty-first century, the "hunters". Before providing two vignettes of what self-directed play looked like in this Grade R setting, in Chapter 8, I provide Zaporozhets's (1986) perspective in full since it comments critically on a pattern in education detrimental to the development of SR:

> Optimal educational opportunities for a young child to reach his or her potential and to develop in a harmonious fashion are not created by accelerated ultra-early instruction aimed at shortening the childhood period — that would prematurely turn a toddler into a preschooler and a preschooler into a first grader. What is needed is just the opposite — expansion and enrichment of the content in the activities that are uniquely 'preschool': from play to painting to interactions with peers and adults" (p.88).

Chapter 8: Allowing Development – *Play Must Develop!*

8.1. Introduction

Imagination is what keeps […] children engaged with […] the problem under investigation – Fleer (2021)

This chapter describes and analyses two episodes of play. Chapter 6 provided an analysis of a "missed" opportunity for play, in conjunction with an understanding of institutional pressures that appear to predominate educator decisions around learning activities. The post-observation interview (Chapter 7) confirmed the theme of institutional pressures and also assisted in uncovering some of Ariadne's educator beliefs that *could* sustain a play-pedagogy, in particular her belief in play's potential for the holistic development of children. Chapter 7, as previously explained, bridges Chapter 6 and Chapter 8 in how educators are seen as essentially at the centre of ECD programmes and in how pivotal their approaches to ECD really are because educator ideologies delineate much of the Grade R experience (Fleer, 2021; 2023a; 2023b). Chapter 8 is thus positioned to provide and analyse play activities through MPOT, a CHAT-informed lens contrasting mature and immature play. MPOT helps establish if play is (i) present, (ii) granted sufficient time to develop, and (iii) identifies salient features of advanced play, play in advance of the development of HMF such as SR, this dissertation's focus. Chapter 8 opens with echoes from Chapter 7 concerning what "self-directed play" might look like. These echoes are placed in dialogue with the CHAT-inscribed notion of "self-initiated" play (Bodrova & Leong, 2015, p.386). This chapter demonstrates play as the leading activity of young children and *where* it is leading in terms of the development of SR and expectations around school-readiness.

The first vignette (section 8.2) grows out of interactions with Jacob in the classroom, a learner who brought me a book that opened more than an exploratory look at fossils, but also an opportunity for me to observe the development of an imaginary museum-construction among his peers. The second vignette (section 8.4) features play at an outdoor sandpit during the early morning arrival period where collaboration and many verbal (re)negotiations between learners exhibited possible ways to understand how during play children expand capabilities for directing one another's attentions voluntarily, navigate social rules, control impulsivity, and potentially transform budding SR and imagination. It is my belief that these vignettes illustrate,

an essence of Ariadne's belief in "self-directed play" (see Chapter 7), a notion that is not in opposition to CHAT views on play but clearly posits the possibility for enriching her pedagogy, in particular, through affordances of more involved teachers (i.e. scripting, double subjectivity, role-play etc.); or the incorporation of an intentional play-programme, like Conceptual PlayWorlds (Fleer et al., 2021; Fleer, Veresov & Walker, 2017; Utami, Fleer & Li, 2023; Fleer, 2023a) for stimulating advanced play's potential for the internalisation of HMFs. The two vignettes in this chapter are labelled "2" and "3" respectively, in consideration of Chapter 6's vignette with Oscar labelled "vignette 1".

8.2 *Vignette 2* – An Ammonite Museum

"[Play is] a dynamic meeting between a child's inner life (emotion and thoughts) and its external world" – Lindqvist (2003, p.71)

On day four of observations, while I was moving between the various task stations in Ariadne's classroom, Jacob approached me with a book. It was a book on fossils available on a display shelf, as part of a featured theme in ring-time songs: dinosaurs. Jacob had completed his morning activities with an assigned task and now asked me to read to him. As with most things particular to dinosaurs and associated with different periods of the Mesozoic Era, many scientific terms used in this field offer pronunciation challenges. This was no different for Jacob (in Grade R) and for me as his requested reader. Jacob wanted me to read and explain to him the meaning of various terms and especially "the big words". Ariadne came by and saw our interactions and picked up on Jacob's interest in fossils. She engaged with our efforts to pronounce words associated with ammonoids and fossils in general, such as cephalopods, planispirals, asteroceras, the Cretaceous etc. and her arrival and engagement provided an interruption to the reading activity – "Come and see what I've got in my cupboard, Jacob," – Jacob and I were invited to a wooden cupboard on the other side of the classroom with fossils in it. When Ariadne extended this invitation for Jacob to take a look at her fossils, he inquired with excitement in his eyes and in the tone of his voice, "From dinosaurs?" Shaking her head, Ariadne informed us that they were just collections from "beach walks" that she said she had taken in the past with her partner. We navigated our way through the play of other learners, learners with building blocks and some playing card games on the floor, to her the cupboards in which Ariadne had a couple of plastic containers with objects from her beach walks.

Contained inside labelled plastic boxes (like ice cream tubs) were seaweed, coral, stones and one box was filled with the main attraction: bird-bones and a few fossils. Jacob was enthralled as discerned by his pause and hesitation and quiet registering of Ariadne's collection in front of him. He slowly lifted and scrutinised a few of the bones and then the fossils. He was left to explore the fossils as I spoke more to Ariadne regarding her collections. I then continued on my rounds in the classroom inspecting activities in which the children were engaged. When it was time for me to leave the Grade Rs, about ten to fifteen minutes later, Ariadne pointed out how a group of four learners ("all born at the end of the year … the youngest in the class… amazing how they find each other…") were playing together with fossils from the boxes. They had built what they with Jacob were referring to as a "museum" around a fossil at the centre of the blocks forming a rough hexagonal-like wall around it. Jacob held the book on fossils and dinosaurs and stood above the four boys playing on the floor. He was watching and providing direction from time to time as they built their museum around the fossil from the plastic containers. One of the boys poured bright sparkling, semi-transparent marble-like green stones, brought from elsewhere in the classroom, around the little ammonite and while I was slowly leaving, overheard how they were busy discussing how to build a road – "No, it (a long flat wooden building block) must go this way (to the main entrance)" – around their museum, as well as a bridge over the ammonite museum. It was a pity for me to leave them in their intensely focused collaborative play (and without being able to take any pictures; see section 5.3).

8.3 Analysis of Vignette 2

Vignette 2 has three sections to its development: (a) Jacob's potential learning motive, (b) Ariadne's educator involvement and resources, and (c) the dramatic development of (i) the fossil as a resource or prop for play and (ii) self-initiated collaborations among peers with construction toys. These sections contribute to suggestions for a pedagogy that embraces each element of the vignette (a-c) in a unity made possible by the pedagogy-enriching cultural-historical programme, Conceptual PlayWorlds (Fleer, 2023a).

In the first section of vignette 2, Jacob demonstrated an interest in being read to by me. I can be seen as a MKO, an "other" who could read and who might help him read. For Jacob to approach me as someone who could read to him by using a book – a tool that mediates learning – it was clear that he was searching for something, demonstrating that particular start to most

learning: curiosity. Fleer (2023b) has described how "motivated conditions for learning" are built upon "the premise that curiosity and wondering emerge from materials [along with] the need for adults to notice children's wonderings" (p.324; Cheeseman, 2019; Cheeseman, McDonough & Golemac, 2017). Although the temptation to speculate about what Jacob's choice suggests for his own development, the ethnographic-observational methods of my study only allow for mentioning my professional (and personal) delight that is experienced when encountering learners who want to acquire knowledge. I can only comment on fieldnotes taken merely articulating: Jacob came to me with a book and asked me to read to him about dinosaurs and fossils. Thus, Jacob's interest suggests the possibility of a learning motive in embryonic form. It is learning that is "the leading activity of the school child" (Fleer, 2021, p.354).[1] As observed by Fleer (2021) and Kravtsova and Kravtsov (2011), how play, as the predominant or leading activity of pre-school eventually develops into learning as the leading activity is a question needing more research (cf. Karpov, 2003). Jacob's example posits a clue in this direction. Worthy of further attention is the relationship between emergent EF and transitioning leading activities. What is significant in seeking to understand the development of SR, is that for Jacob, he *chose* to approach someone he deemed a MKO to assist or support his curiosity, summarised as voluntary awareness. He also *chose* a tool, the book (inscribed with the properties of history and culture) which symbolises on a basic level: a means to access a desire. This formulation of how tools operate from a CHAT perspective is discussed by Engeström (1987) in great depth. What desire Jacob sought to access is only partially disclosed by the tool he allowed to mediate this moment with a MKO. It is significant that the use of a particular tool lays out the structure of an individual's ZPD at a given time. It is this suggestion of the ZPD's structure that proposes a motive-change usually found in dialectical relation to a social crisis (Hedegaard, 2011; Kravtsova, 2014; Chaiklin, 2011).

[1] It is helpful to remember that these observations for further study were conducted at almost the end of the Grade R year, in September 2023. Jacob and his peers were, as noted in my fieldnotes, encouraged to imagine being in the "big school" regularly by Ariadne.

My “real-time” unstructured fieldnotes do not account for how the fossil landed up with Jacob’s peers during their free-play after completing their morning tasks. Jacob’s interest was literally framed by his peers in a “museum” exhibiting the significance of imaginary situations for the back and forth between abstract concepts and concrete objectives (cf. Ilyenkov, 2008). This type of movement made possible by being grounded in the creation of “imaginary situations” was noted by Vygotsky (1966) as a “move beyond [learner] perceptual field[s]” by which the significance of an object is changed (Fleer, 2023b, p.308). This inversion illustrates children combining and adapting experiences of social life (rules, roles, adult mannerisms, ideas, customs, history) when allowed to play. Fleer (2023b) further identifies how “the object acts as a *pivot* for new action in play. [That] a new level of consciousness emerges in play” when object-oriented relationships steadily “get replaced by words” indicating desires and expectations for the play situation (p.308; emphasis added). Thus, “the social environment is the source for the appearance of all specific human properties of the personality gradually acquired by the child or the source of social development of the child” (Vygotsky, 1998, p.203). In play, distinct personalities are illuminated, framed by the fact that “the content of play is everyday life” (Fleer, 2021, p.355). Teachers are (should be) positioned to provide for children “ideal forms of imaginary play as part of their pedagogical practice” in order to stimulate forms of mature play which facilitate advancing the development of HMFs such as SR (Fleer, 2023b, p.308). Ariadne did not get involved in the play of these learners although her provisions of play resources must not be overlooked. Fleer (2023b; 2019) and others (Fass, Wu & Geiger, 2017; Pyle, DeLuca & Danniels, 2017; Gray, 2011) have questioned whether crèches and early childhood centres are in fact being “play-proofed”.

MPOT categorises the fossil as a prop for imaginative play interactions. The interplay of this teacher “sponsored” prop (the fossil) and the classroom’s blocks and stones managed by the children was organised into the construction of the museum *encapsulating* their combined play – a transition from parallel play to collaborative play – as represented by the museum: their abstract ideas around where you might discover a fossil (thematically suggested as from a dinosaur) were made concrete by the invention of a museum – a suitable social space for learning about the ancient world (history, customs, culture). How wonderful it might have become if this dinosaur theme was role-played dramatically by teacher and learners in entering and exiting a fictional museum based on a given book (like the one used by Jacob?) wherein

specific conceptual problems were explored (Lindqvist, 1996; 2003; Ferholt, Rainio & Lecusay, 2023). Academic content is easily embedded within a PlayWorlds programme; this would have transformed the museum building into a shared project capable of enriching the formation of imagination and critical thinking skills and EF such as SR (Nilsson, Ferholt, & Lecusay, 2018).

Jacob's voluntary choice to approach me illustrates emergent SR because it is one thing to be aware of possibility – a nearby MKO who can respond to a need, like reading; it is quite another to *act on* a desire and let it become a "concrete decision". SR therefore involves conscious decision making: when a child regulates their impulsive wishes, they have made a decision (Bodrova & Leong, 2005). Expressed so clearly by Hardman (2011) as put in relation to Jacob's learning-motive seen here: how and when a learner "benefits greatly from assistance, we can say that [they have] an expansive ZPD. [And] the ZPD is opened in dialogue between [MKO]" and the learner (p.33).

The development of a fossil-museum theme *through* imaginative play proposes that Jacob's role can be determined as a "play-leader" among his peers, a kind of "play mentor" (Bodrova & Leong, 2005; Leong & Bodrova, 2012). The imaginative-collaborative construction of a place suitable for a fossil made from blocks and transparent stones denotes play that *nourishes* the development of SR, and according to MPOT, vignette 2 conveys the following characteristics of mature play (Germeroth et al., 2019):

(a) "Children use sequenced actions in a longer play scenario" seen in how Jacob examined the fossil, that it then came into the hands of his peers and that the boys then built around it what they termed a museum.[2] Play could have simply been focused on the basic structure of the museum yet the boys went on to constructed a road to and around the museum, decorating the surrounding area, their behaviour emphasising the importance of getting to a place by the norms with which they are familiar in their day to day experiences, all

[2] Technically, one can argue that it is culture (as a tool) that is manipulated to (re/co)construct culture (Vygotsky, 2004)! Every edifice in society has a cultural-historical genesis.

contributing to an understanding of the social in sociodramatic play. (Children from different global locations and cultures might not have had experiences with museums or travel by road which would presuppose different sociodramatic play scenarios.)

(b) "Other-regulation precedes self-regulation" – this was seen in how Jacob directed his peers *while* they played and in how his peers *asserted* their views of how the road should be built (cf. Karpov & Haywood, 1998). Their *coordination of intentions* underscores the value in allowing play scenarios to develop because nothing can be learnt if it does not bear a capacity develop. In play the essential detail of drama posits conflict(s) which manifest as "tension [between] the reproduction of reality and production of something new that is imagined and created in play" (Fleer, 2021, p. 355).

(c) The "children [could] engage in cooperative [and] associative play" as opposed to merely playing in "parallel" or egocentrically by themselves; where rules were imposed (spontaneously) in the directions they suggested for how things should be done, and the boys continued to build unimpeded by distracting emotions or emotional reactions potentially disrupting play, they were thus working *together* towards a specific goal. SR makes working together – collaboration – a productive possibility, amplified by play situations. I interpret the boys' use (as a tool) of specific play-sustaining words, as signposts to play that expands social awareness while simultaneously suggesting how in advanced play – play that is allowed to develop – a feature of SR includes a social sensitivity to the dynamics of the play situation; in immature play – play that does not lead the development of SR – "children don't or can't describe what they will do before beginning the action *or* anytime throughout the play" (Germeroth et al., 2019, p.195; emphasis in original). Inspired by the belief that SR's roots are made visible in play is, as this data suggests to me, a socially cohesive descriptive quality; actors in society can collaborate more proficiently if they are able to describe features of approaches to given problems and/or solutions, thus attesting to the value of attending to the development of SR in ECD programmes.

(d) Vygotsky (1978) held that "the specific capacity for language enables children to provide auxiliary tools in the solution of difficult tasks, to overcome impulsive action, to plan a solution to a problem prior to its execution, and to master their own behaviour" (p.28). The boys in vignette 2 used "language to choose, to define, and to negotiate roles without being prompted [which allowed for] extended conversations about their play" which is noted in Jacob's role as "director of the design" for the museum and other boys discussing the *how*

to aspects of setting up the blocks, using the space around the fossil, the layout for building imaginary roads and completing the museum's decorations – each learner's voice mattered in making the museum theirs. Play promotes inclusivity. If SR is operative then impulsivity is self-governed, which proposes that dialectically SR and mature make-believe play promise the development of inclusive or, as mentioned previously, behaviour and customs aimed at sustaining social cohesion. The decorative touches to the museum connote the quality and sense of pride learners can expand on when play develops in terms of time limits. Moreover, the MPOT notion of metaplay is outlined by the inversion of the objects of play (fossil, toy blocks, small stones) into social and personally meaningful associations significant for these given learners, even if they were not obvious to me; in the imaginative production (Vygotsky, 2004) of a museum, the little ammonite fossil became a springboard for the dramatic negotiations and development of this play-made-possible inversion, summarised previously in **Figure 6**.

(e) Finally, "props [were created] to fulfill the need of a play role" thereby sustaining interactions around the fossil because the fossil was a prop for their play yet they did not "only realistically" use the fossil, imaginatively inverting realistic meanings into how the blocks and stones could take on new (fantastical) meanings (Germeroth et al., 2019, p.195).

While it would *not* be possible in my study to trace the historical moments wherein Jacob acquired a culturally-informed understanding of how – his manners, his expressions – to direct the construction around the ammonite fossil, nor for this matter the ways in which his peers negotiated the use of the building blocks, the genesis of these behaviours should not be ignored. Conveyed in Elkonin's (1978) monograph *The Psychology of Play*, the actions of children should be viewed as a "synopses" of adult actions, relations, customs, and it is these "social interactions" which allow for the exercise of imitation as a particular developing HMF (Harrison & Muthivhi, 2013; Bodrova & Leong, 2015). Bruner (1977) has called this phenomenon "adult watching" (in Harrison & Muthivhi, 2013, p.81). Adult watching can be clearly listed as a predominant force moulding behaviours exhibited in the emergent illustrations of SR as was witnessed among Jacob and his peers. Through the analysis of Bodrova and Leong (2015), Elkonin also theorises that a key feature of how SR emerges and matures (i.e. internalisation) through advanced play – play that leads development is play that

opens learner ZPDs – is the concept of mental "decentring" (p.379). This type of decentring is described as

> The ability to see from other people's perspectives […] critical for coordinating multiple roles and negotiating play scenarios. [… In] play children learn to look at objects "through the eyes" of their play partners […]. Think of a child playing with a patient whose temperature is being "taken" with a pencil: to act according to his role, this child needs to put himself in the shoes of the child playing the nurse, for whom the pencil is a pretend thermometer (pp.379-380).

These qualities are seen as foundational for the development of "reflective thinking" another marker of the presence of SR in Ariadne's learners when at play (Bodrova & Leong, 2015, p.380). When looking up the etymology of the word "synopsis" I was delighted to discover that its Greek origins imply "together seeing" because it is in this way that we might perceive Jacob and his peers as not only being able to play together cooperatively, but also *seeing* their roles as following a particular conception of what construction looks like, indicative of developing SR. SR is therefore a way of seeing more and thus an EF (Moreno et al., 2017). It must be noted that more advanced forms of play which exhibit SR would have learners extensively pre-planning their roles and the rules for their play, a quality of SR that can be labelled as *foreseeing* (Germeroth et al., 2019). From what I observed in the classroom during free-time play, I would include the characteristic of a "social sensitivity" to the concept SR. It is through such sensitivity, I believe, that children become aware of the needs and wishes of others, as seen with Jacob, and his peers with the blocks, which is a type of empathy (Yan, Hong, Liu & Su, 2020). The relationships between children, and the encouragement to empathise are probably more difficult to understand abstractly if isolated from the *interactive drama* and role-playing dynamics of mature imaginative play which mature EFs. Therefore, I propose that play fosters empathy, an indication of blossoming SR.

In order to segue into the final vignette of my dissertation, I quote Bodrova and Leong (2005) to synthesise CHAT's perspective of play as a synoptic ("together seeing") activity of cultural and situation-suitable behaviours *essential* for the development of SR, a quote that encapsulates the ammonite museum and frames my observations of play in the vignette 3:

> [Self-regulation is] 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 [socially] appropriate (p.55; in Harrison & Muthivhi, 2013, p.81; emphasis added).

8.4 *Vignette 3* – Play and Self-regulation in the Sandpit

Through play children share in a form of self-regulation because they must not only regulate other children, as they monitor their play partners' actions, but they must also self-regulate if they wish the play to continue. – Fleer, Veresov and Walker (2017, p.4)

During my final day of observations outside of the classroom, I chose to restrict myself to one activity in morning which I hoped would present itself as a fecund moment of play. I believed in slowing down, focusing on a single situation of play, I would be able to capture more of the dialogue between children, something methodological limitations reduced to handwritten notes alone; audio recording techniques would have been highly beneficial for this purpose (see section 5.3). Eventually, while making my rounds as the children arrived at school, I was drawn to learner-interactions at the sandpit. It had been raining in the early morning (before 7a.m.) and the Grade R sandpit was slightly damp. This did not, however, deter a group of boys from taking off the rest of the covers (those not already blow off by the wind) and when I arrived I found some of them throwing sand at each other. I tried to capture the verbal turns taken as they played, endeavouring to provide a more comprehensive picture of their play. In the vignette that follows, the numbers after each boy's name (1-19) are used to reference specific turns referenced in my analysis (section 8.5).

8.4.1 Vignette 3: Dialogues at the Sandpit

As I approached the sandpit area I heard the following:

Adam (1): "No! Don't do it! I will tell on!" This was one of the first expressions I wrote down while moving towards the sandpit area. The boys were making what they were calling a train track – single line grooves in the sand – while pushing toy trains made of wooden blocks along these grooves. Someone had been throwing sand and Adam did not wish to engage in that sort

of play as he expressed vocally. When I was closer to the sandpit, the discussion had already turned (or returned) towards using water in the sandpit.

Luxolo (2): “What if it floods?” Luxolo was concerned with the bucket of water about to be poured onto the shallow grooves/ruts made for the trains by Adam.

Adam (3): “There’s water coming down stream!” Adam did not stop to respond to Luxolo; he went ahead and began to pour the water over their imaginary train tracks.

Luxolo (4): “I make a perfect door!” In reply to Adam’s use of the water Luxolo improvised a door out of a nearby sandpit toy. (Fieldnotes do not specify which toy was used.)

Kim (5): “Guys, this looks like poo.” Kim had scooped up some of the wet sand and had then made this remark holding it out to his peers. The other two boys looked up briefly in turns but were evidently too involved with the “door” that stopped the “flood”. They did not comment on Kim’s statement quickly looking back at their efforts with the water, the train and the door.

Adam (6): “That was a great idea, Lux!” Luxolo’s “invention” of a door was praised by Adam in how effectively it checked the water in its progress along the train track. Kim saw that he was not being acknowledged by reflecting on the wet sand as “poo” and then suggested,

Kim (7): “Guys, do we need pipes?” As Kim said this, he stood up and watched what Adam and Luxolo were doing, and went on to propose by exclaiming (8): “Now we need to smooth it… Guys, you’re the greatest!” Adam and Luxolo had begun to dig holes for the toy trains to pass between. In turn 9, Luxolo begins to refer to these holes or pits as the start of “tunnels” which grew as each pit became somewhat wider and deeper. Kim took this as a cue for him to join in suggesting that he sensed something about how he could participate in the construction of these tunnels.

Luxolo (9): “We can make a tunnel …” Luxolo began to make the holes connect below the surface of the sand.

Adam (10): “We don’t need this to use…” A plastic spade was discarded as the boys used their hands to dig into the damp sand. As Adam and Luxolo dug, pushing the sand out to the side or underneath their legs (imitating what dogs do when digging), Kim called out (11): “Let’s go

down to another land!" At this point the boys were not speaking to each other as directly as they were when using the train tracks, the water and door. Their attentions were fixed on making the holes connect without breaking through the surface over their tunnel.

Adam exclaimed (12): "OMG!" when they could see light at both ends of their tunnel.

Kim (13): "But here it's far out from, from …" They were all so absorbed in their play that explanation of where "it's far out from" was interrupted with the physical activity of participating in digging and securing the strength of their pits by pouring more water into one pit on one side of their tunnel which moved between the two pits creating a smoother tunnel.

During this reinforcing part of the tunnel-play, a new boy, Dave, approached.

Dave (14): "You're not supposed to be putting water in the sandpit! I'm going to tell on!" This was exclaimed while Dave stood outside the sandpit.

Luxolo responded to Dave by saying (15): "Don't be a tattletale!" After Luxolo had said this, Dave climbed into the sandpit without contradicting Luxolo and began to play with sand and the water in the buckets close to the tunnel formed by Luxolo, Adam and Kim. Kim was now fully immersed in the smoothing of the tunnel. From inside the sandpit, Dave muttered to himself (16): "We're going to get into trouble…" and yet he continued with his hole, digging deeper. Dave then proposed a plan to retain the water in their holes because the new problem was now not to do with the trains – since they could easily pass through the tunnel – but rather, they wanted to keep the water from seeping through the sand. Dave suggested that they could fit the buckets into the bottom of a given hole at either end of the tunnel. These buckets were inserted and filled with sandy water.[3] While this was taking place, another boy (no name), came along to the sandpit and said that he wanted to play in the sandpit later during breaktime. Mahir

[3] I noted that no assistant teachers came to check on these activities at the sandpit and thought it might have been because of my presence there as an adult. Three of them were watching the rough play transpire at the soccer field portion of the playground.

stopped walking alone on the playground hearing this discussion and made the following comment while getting involved with the wet sand inside the sandpit:

Mahir (17): “It wouldn’t dry if it gets too much water!”

Play continued and the initial group of three – Adam, Luxolo and Kim – had now expanded to five with the addition of Dave and Mahir. They played with the sand and water, and began to include the toy trains once more moving them between the holes on either side of the tunnel. This sequence of play had lasted for close to twenty minutes. Dave had become the main construction designer at the tunnel. At one point Kim apologised to Dave for having sloshed mud onto him, reporting (18): “I just dropped it … (a new bucket of sand and water) … because it’s heavy!” Kim added this explanation after having received a questioning look from Dave. Water had splashed onto most of the boys busy digging their holes. The others did not seem preoccupied by Kim’s mistake (or his apology).

As the morning summons to class sounded across the playground and other learners engaged in numerous morning activities began rushing off to their various teachers, Dave was still absorbed in securing a bucket into a hole and remarked to himself (19): “I make a secret hole,” wherein he buried his bucket with water in it, filling it with more sand, and placing it securely inside one of the holes dug earlier. He covered the bucket with additional sand before rushing off to his class that was still busy lining up.

8.5 Analysis of Vignette 3

Vignette 3 begins with an example which resonates with a basic definition of SR entailing how children seek to govern or direct the behaviour of others around them in order to allow play to “continue” (Fleer et al., 2017, p.4; Karpov & Haywood, 1998; Karpov, 2005). Like Dave (14), telling on or reporting the conduct of a peer is one of the regular strategies for informing others about undesirable actions: “I do not like what you are doing,” or “ I do not agree with you and want you to change your mind.” In Adam’s case (1) it worked and permitted him continue playing, which then evolved into the sequence that is the heart of vignette 3. On the other hand, Dave’s (14) use of the peer-regulatory strategy did not have the same effect as Adam’s insistence. Dave was rebuffed by Luxolo (15) who appeared undaunted by Dave’s threat that could have ended the collective sandpit play. Instead, it was surprising that when Luxolo told

Dave that he should not be a "tattletale" Dave's attention was redirected or *regulated* in such a way that he chose to climb into the sandpit and participate in the construction of tunnels. It could be further suggested that Dave's intention was simply to be included in the train and tunnel waterplay; by an appeal to *his* beliefs around educator expectations and authority over activities in the sandpit, he was able to recruit notice and become included. Dave (16) was concerned with the repercussions of his play and did not want to *get* into "trouble" and yet he had already "got" inside the sandpit.

These two moments that start play for two different boys, Adam and Dave, indicate how SR or "voluntary action" illustrates "relations between inter and intrapsychological functioning (Fleer et al., 2017, p.3). Simply put, play *gets* you things, whether it be more time to play or a friend or closer to realising what you want in a relationship. And it is through play that learners get to make sense of each other – a budding of social comprehension around what people may or may not like about each other (cf. Phillips, 2016). Furthermore, while I had not captured how the other learners responded to Adam – except that he managed to get his way; SR as a way of managing oneself by managing others, – Dave did not get his way because it seemed as if a stronger *impulse* to play in the sandpit or with the water (or any other number of reasons like playing with whoever else was in the sandpit), suggesting that Dave was more impulsive and still, not merely in comparison to Adam but as seen as an individual through this sequence of events, more easily swayed by the voices of his peers or motives unique to suggestions of his own (tacit) cultural-history. If Luxolo's (15) rebuff was placed into a hierarchy of rules, illustrated between turns 14–16 of things on a scale of "not allowed to" and "not being a tattletale" that predominated Dave's decisions, then not desiring to be a tattletale outweighed being in trouble with the teachers. It is curious that often social cohesion is rooted in not being something as opposed to an assertion of oneself. Since Adam and company were not in trouble, Dave did not mind playing in spite of being *aware* that he might get into trouble by getting into the sandpit. Dave was willing to transgress a personal sense of rules in order to be involved with the attention-grabbing play. SR's relationship to managing peer-play dynamics in the context of rules or social expectations conveys part of the idea around how giving into peer pressure represents weaker or more immature forms of SR, and while I will not go into any depth with this next suggestion, the possibility of drawing upon Engeström's (2001; 1987) notions of integrated nodes of "rules", "division of labour", and "community" within activity

systems could be particularly useful in tracing Dave's play at the sandpit. For this study, however, MPOT is the principal analytical tool.

In Dave's case, he gains access to play by approaching the group with the rules of what he believes they are and are not "supposed" to be doing. This recruits attention. The fact that his belief in his mentioning of expected rules around the sandpit and water (something that very well may have been forbidden to these children) would have him report misconduct is a statement that clearly alarms Luxolo. Luxolo's challenge (15), "Don't be a tattletale," is a phrase I witnessed Ariadne use in one of her discussions with some boys in the classroom by which she underlined how socially "repulsive" it can be. But curiously it is a double-edged sword since Luxolo he does not say to Dave that he should not report the activities at the sandpit; rather Luxolo warns that Dave would be doing something disliked by the teachers and boys alike, simultaneously inviting Dave to either stand around as witness or become a play participant (i.e. make a decision: "Then next move is yours, Dave. But choose wisely…"). For Dave (16), this becomes a moment of both literal and social "transgression" in that he crosses the border of the sandpit and enters into the play *with* his egocentrically muttered regrets: "*We're* going to get into trouble…" (emphasis added). Use of the collective pronoun "we" signifies Dave's submission to Luxolo's peer influence. It is also placeholder for future distancing from blame because Dave would be in a position possible to claim: "I told them so", an excuse or deferral of accountability should a teacher prohibit their ongoing play. It would have been marvellous to have a video record of the facial expressions of Luxolo's previous playmates, Adam and Kim, at this point but they remained silent during this brief and yet complex exchange.

Although Adam (1) and Dave (14) mark two different entry points for play at the sandpit, the very nature of this play, in that it was allowed to develop (Fleer, 2021), was critical for observing characteristics of SR. In order for HMF to develop, play must develop. It is the social interactions with others in a given environment which shape "social practices [whereby] EF develop" because, Fleer et al. (2017) theorise, "EF are developed through cultural activities" (Fleer et al., 2017, pp.2-3). SR is not biologically determined; it is socially determined.

For Luxolo and Adam (2–4, 6), a few imaginary situations were at work: Firstly, the fact that Luxolo was concerned with the "flood" of water that Adam was going to pour onto their freshly formed train tracks and that Adam did not even acknowledge Luxolo's question but continued to pour the water spontaneously invites an interpretation that Adam "wanted" some form of dramatic tension to sustain their play together. Luxolo had to improvise a door (5) out of a toy. The creation of props to *sustain* the play activity is a mature form of play (see MPOT), a feature of imagination-made-possible because of play: Luxolo could well have terminated his play with Adam in frustration or anger because he might not have felt heard or have been upset that the tracks made for the train were now ruined by the water. As suggested by MPOT, the construction of props is an indication a feature of emergent SR in that props proffer *a link* between inventing solutions for potentially problematic moments in play (like when a friend goes ahead with their plans for the play and does not meet you at your level of play) and HMF formation. Furthermore, vignette 3 conveys the importance of SR in *sustaining* play. Props may be used not only to allow imaginative explorations of a problem, but literally and figuratively "prop up" or support the development of voluntary action giving a type of anchor to volatile emotions (Germeroth et al., 2019). Instead of being negatively reactionary, Luxolo portrayed ability to compromise his wishes in a complementary fashion by using a toy as an imaginative prop – inverting the meaning of the toy into a door which meant more than stopping water which also allowed play to progress (see **Table 6**, Section 8.6). Adam (6) appeared to be "in character" (the character of nature personified or even a natural disaster, symbolising disruptive and unexpected events) when pouring the water onto the train tracks and thereby sustained the dramatic tension of their play. Adam then chose to "break character" as a peer-participant (i.e. double subjectivity) to praise Luxolo for his door. This role-switching signals SR as movements between spontaneous and impulsive play, as well as considerate and sympathetic play, see **Figure 9**.

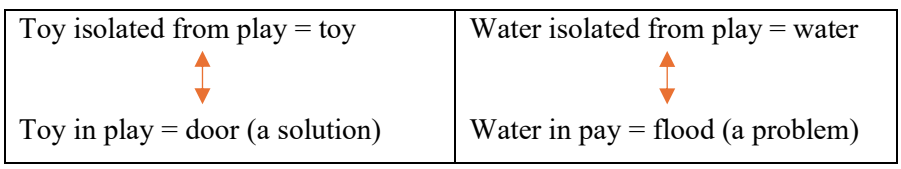

Figure 9: Meaning-inversion made possible by make-believe play in Vignette 3

I cite the following insights of Bodrova and Leong (2003b) who relate, in part, the emotional aspect I began to notice in this episode between Luxolo and Adam:

> … the integration of emotions and cognition [is] one of the developmental accomplishments of preschool [children]… In younger children, emotions follow actions, presenting children with positive or negative feedback about the action and its results. In preschoolers, emotions start appearing before the action, providing a special kind of anticipation of the possible consequences of this action. When children develop this emotional anticipation, *they become able to imagine what will happen if they do a certain thing, how it will make them feel, and how it will make other people feel*. As a result, the cognitive actions of perception, imagination, thinking and reflection acquire an emotional component - cognition becomes emotional. On the other hand, emotions no longer appear as a *reaction after the fact but acquire planning and regulatory functions – emotions themselves become thoughtful[ness]* (p.162; my emphasis).

For Luxolo, his thoughtfulness as opposed to reacting adversely to the situation created by Adam's spontaneous (or unannounced / unanticipated role playing) behaviour, hinted at self-regulatory capacity – a "reflective consciousness" (Karpov, 2003c, p.66) – that without the conditions of play might not have been as visible. SR thus crucially demarcates the border of socially becoming behaviour, as play provided time to evolve, allows for learner ZPDs be made manifest, suggesting the distance between individual, MKO collaborative and not-yet-possible-even-with-support abilities (Bodrova & Leong, 2015). In this way Veresov's (2004) perspective on "personal sense" given to the objects in play provides an essential "individual subjective view", illustrated in **Figure 10** (p.11). Veresov's (2004) eloquent arguments on Vygotsky's concept of the ZPD cannot be discussed in greater detail here; but adapted for the perspective and sense given to the play of Adam and Luxolo, Veresov writes, "Within the child's personal perception, and therefore within the context of child's activity, the [water and toy] (physical object field) is, at the same time, a [flood and door] (field of personal sense). In play the child approaches the object through the 'glasses' of sense" (p.11).

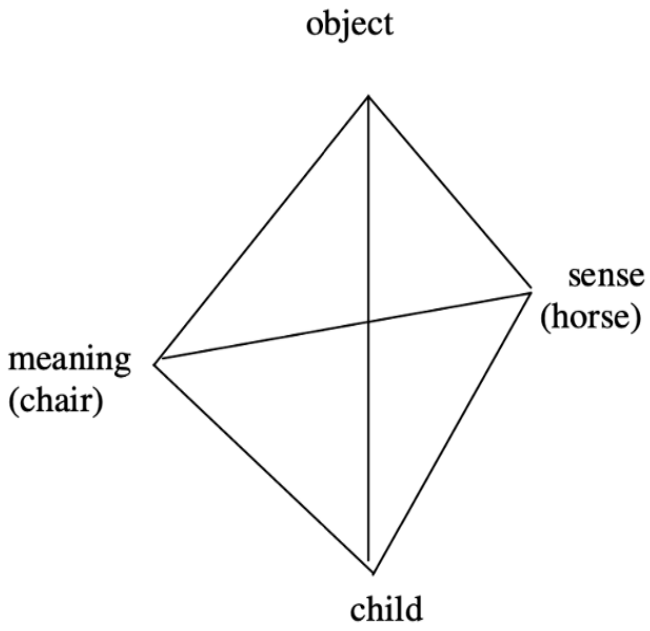

Figure 10: Sense-influenced inversions of object-meaning relationships in play (from Veresov, 2004, p.11).

In my attempts to understand transitions made by Kim (5, 7, 8, 11, 13 and even 18), I feel it is helpful to apply to Elkonin (1978) in framing Kim's (a) search for a way to *engage with* his peers, Adam and Luxolo, and (b) *be included in* their make-believe play and (c) then ensure that this moment of sociodramatic play *continued* and afforded him a sense of *belonging* within it: "[In] sociodramatic play the child's position towards the external world changes […] and the ability to coordinate his point of view with other possible points of view develops" (Elkonin, 1978, p.282). Kim's interactions during the sandpit play indicated a shift from immature play to a more self-regulated *adjustment* appropriate to the play of Luxolo and Adam. Emphatically, it is the dialectical nature of capacity to self-regulate or the nature of play that led his self-governance assisting Kim to change his point of view. Initially he imagined the wet sand as faeces (turn 5), but the others did not show interest in this make-believe idea; they were already busy building together. Adam's complement of Luxolo's idea was witnessed by Kim and between turns 5 and 7, Kim dramatically switches his attention, like in Moreno et al.'s (2017) use of the "air traffic control system" metaphor (p.144). It seemed that in that moment as if I were seeing a small indication of *perezhivanie* as the "unity of emotions and cognition" (Fleer, 2016, p.38) in how Kim's "understanding and awareness of the situation" was given "sense and meaning" (Vygotsky, 1994, p.343). Kim had to *enter* a type of play that was

probably "above his average age, above his daily behaviour," as explained by Vygotsky (1967, p.16). In essence, Kim had to stand "a head taller than himself […] to jump above the level of his normal [immature/spontaneous] behaviour" (in Bodrova & Leong, 2015, p.371). In this way, Adam and Luxolo also served as "play mentors" because their examples provided an opportunity for Kim's ZPD to appear, which is the way Vygotskians view play as "the source of development" (Bodrova & Leong, 2015, p.384; Leong & Bodrova, 2012; Veresov, 2004). Play "is learned cultural practice" (Fleer, 2015, p.1801). To reiterate, "for play to act as a source of development, play must develop" (Fleer, 2021, p.355). It can be further argued that should Luxolo and Adam's play have not been developing along collaborative lines, Kim's interactions would have remained immature (or simply egocentric). That Kim *could* and did shift his type of interactions, or the sense he gave to them, suggests the presence of an emerging ability to self-regulate. Turns 7 and 8 show how Kim brought his social knowledge, a sort of "play decorum", into play. His use of the question, "an auxiliary tool", indicates a growing awareness of the play at hand and how he could get involved. This social speech (vs. egocentric speech) pattern symbolises how "the solution of a difficult task" begins with the "master[y of] his surroundings with the help of speech" (Vygotsky, 1978, pp.28, 25).

I view Kim's complement of Adam and Luxolo as another feature of SR that I will refer to as "congruous volition" – an ability to imitate and carry out an agreeable or harmonious decision which benefits an individual desire, resolves an individual or collective need and furthers the possibility for collaborative cohesion. In so many ways, SR is a HMF that keeps on giving, a multifaceted EF enabling children's efforts to create enriching social experiences, an essential HMF for school-readiness: it is not an obsolete development that drops off when learner leading activities transition. Kim's interactions *remained* on a higher, more mature level even in his cohesive and congruous apology in turn 18.

Returning to my earlier analysis of the rules operating in these exchanges, Karpov and Haywood (1998), note how semiotic tools pivotally regulate the behaviour of others first where a parent might forbid an action with the word "no" and then "the child starts to say no aloud to himself or herself to overcome a temptation to do something inappropriate (so-called egocentric or private speech), sometimes even imitating the mother's voice" (p.27).[xi] Thus "a sign is always originally a means used for social purposes, a means for influencing others, and

only later becomes a means of influencing oneself" (Vygotsky, 1981, p.157). Signs structure sociodramtic play. Again, "telling on" gets a lot of work done in regulating the behaviours of others, especially in Grade R. Sophisticated modulations of these responses feature in school-aged children (Karpov, 2005).

The concluding moment of vignette 3 with Dave (19) displays his use of egocentric or private speech. These terms were employed by Vygotsky when describing "self-directed speech" (Bodrova & Leong, 2003b; Berk & Winsler, 1995; Winsler, Diaz & Montero, 1997). Dave was planning for future play at the sandpit (after being highly cautious when he first arrived! Play seems to help learners lose abstract inhibitions) and conveys how private speech "for self-regulation is an intermediate step toward the development of inner (nonvocal) speech, which later becomes the child's internalised tool for self-regulation" (Karpov & Haywood, 1998, p.28). Dave's concrete *preparation*s to exit the sandpit and to return to this play later, staged how future desired actions can be coordinated privately through emergent SR simultaneously delineating the temporal aspect of the ZPD created in play. Dave's "intentional behaviour" reiterates emergent SR signified by his personal reminders, keeping note, shaping his working memory (Bodrova & Leong, 2003b, pp.161-2; Vygotsky 1978). MPOT categorises the ability to plan *before* playing as a sign of SR. Dave illustrates transitions from inhibition to transgression to investment to a "treasured experience" he wished to unpack at a later point in his play narrative.

8.6 Summary

Owing to Ariadne's belief in good play as "very much self-directed" (Chapter 7), Chapter 8 presented two vignettes of children self-directing their own play both in the classroom and on the playground. As analysed using the MPOT CHAT-oriented framework, the following features of maturing make-believe play are conveyed in **Table 6** pointing to the possible development of SR. Moreover, vignettes 2 and 3 offer a broader picture of how children play at this Grade R site. Some categories of MPOT are repeated in **Table 6** as the table follows more of the chronological sequencing of each vignette.

Table 7: Play and Self-regulation in Vignettes 2 and 3

Summary of Play Suggesting Self-regulation			
Vignette 2 Ammonite Museum		**Vignette 3** In the Sandpit	
Props	Voluntary awareness of MKO affordances – provide props for learning and selection of someone to read to Jacob	*Metaplay*	Metaplay uses of language to regulate joint activity possibility – Adam denouncing throwing sand
	Creating a prop out of the fossil for imaginative play with peers	*Play interactions & props*	Drama sustaining imaginative interactions – the use of water and thus the shift in play-narrative
Play interactions	Transitions from parallel to collaborative play – a shift made possible by an ability to decentre egotistical reactions	*Role playing*	Flexibility – shifting from egocentric parallel-play to cooperative play within extant (though tacit) rules
Play interactions	Mental decentring allowing "together seeing" quality of self-regulation: collaboration with cohesion		ZPD opened during play – Kim's apparent mental age but latent SR exercised through application of play models (i.e. peers)
	The value of a play-leader	*Play interactions*	The benefits of self-selected play mentors – Adam and Luxolo "assist" Kim regulate his awareness of (quality) play possibilities
Role playing	Longer play scenarios and not based on a single prop – play allowed to develop	*Props*	Imaginative co-construction of props to resolve dramatic script elements
	Coordinating language to arrange props – building the road according to agreeable desires	*Role of speech*	Impulse control – weighing up rules and giving into the group (both positive and negative from a peer pressure perspective)
		Play interactions	Presence of congruous volition – imitation and harmonious decision making to resolve conflict and promote mature play
		Role of speech	Egocentric speech –providing for future play

Where Ariadne sees "good play" (Chapter 7) as self-directed, Chapter 8 sustains the fact that these children *are* playing and exhibiting various levels of SR at this Grade R site. Nevertheless, CHAT research indicates that "adults can enrich and develop children's play when they act as play partners [and] children *need* adult support in their play" (Fleer, 2015, p.1801; emphasis added). Fleer (2015) is emphatic in her rigorous analysis that "play should not be viewed as the private business of children" (p.1801). Hakkarainen and Bredikyte (2014) go one step further insisting that "children need more challenging forms of play" which can only be made possible by the interventions of a fully-fledged play pedagogy; it is "the joint play of adults and children [that] creates collective higher mental functions" as seen by a CHAT-informed conceptualisation of ECD (pp.153, 249). It is for these reasons that (a) the quality of play today is "less sophisticated and mature than previous generations"; and (b) "even more troubling [is that] early-childhood programs often fail to support higher levels of play in those children who may need extra support in developing self-regulation" (Bodrova & Leong, 2015, p.385).

What the vignettes of this chapter demonstrate so positively is Elkonin's (1978) stance that through mature make-believe play or advanced sociodramatic play "the child's ability to coordinate his point of view with other possible points of view [begins to] develop" (p.282). The ability or EF of SR like planning, or attention switching (to change mental gears), or exercise congruous volition are all so much in need in today's society and in school life, that ECD programmes really cannot afford neglecting the value of educator input and simply say children should "self-direct" their play during these tender years (Fleer, 2023b; Utami et al., 2023). Because "success in the twenty-first century" is seen to be cultivated by the impact of EFs "such as creativity, flexibility, self-control, and discipline mak[ing] it possible for us to mentally play with ideas, quickly and flexibly adapt to changed circumstances, take time to consider what to do next, resist temptation, to stay focused and meet novel unanticipated challenges", it is imperative that educators do not overlook the vital need for learners' play to develop in order to spur the development of SR (Diamond, 2013, p.155). Vignettes 2 and 3 with Jacob and with Adam, Luxolo, Kim and Dave respectively, illustrate the importance of SR arising from playing *with* ideas like fossils and museums, mental flexibility to adjust personal preferences for different types of play, pondering different approaches to a situation provided by play with water (and doors), navigating the personal sense and emotion inscribed within play, and ultimately the exercise self-control that lubricates productive social cohesion.

Chapter 9: Findings, Recommendations, Conclusions

One must seek to move back and forth between theoretical concepts and practical problems, where each movement is likely to require a researcher to transcend the limits of theoretical concepts while responding to the challenges of the practical situations" – Chaiklin and Hedegaard (2013, p.32).

9.1. Introduction

This dissertation has outlined how play is "a dynamic meeting between a child's inner life (emotions and thoughts) and its external world" (Lindqvist, 2003, p.71). I set out to trace how children play in a Grade R, Cape Town southern suburbs Quintile 5 all-boys' school and, drawing upon ethnomethodological approaches, observe those ways in which SR and sociodramatic play are dialectically related. I sought in this study to respond to a glaring gap within the literature with regards to the development of SR in early childhood programmes. The foundational importance of play from a cultural-historical perspective informed this study both in terms of its methods and methodology (Lee, 2011). Crucially, the Mature Play Observation Tool (MPOT) was identified as the tool by which play and SR could be discovered. My primary research questions addressed the importance of finding out what *is* happening in a well-resourced school and Grade R class in Cape Town. That play is the leading activity of three-to-six-year-olds and that it is *during* make-believe play learners are best able to develop SR as accounted for by Vygotsky and numerous CHAT scholars, this study was shaped by the following research questions:

A. **i.** How do children play in this Grade R setting?

ii. How is play structured/viewed by educators on this site?

B. What is accomplished in play that demonstrates SR as categorised by MPOT?

C. Are there other activities or social situations / institutional practices which should be given greater attention in order to discern the significance of play for developing SR?

9.2. Findings

CHAT scholars and researchers have identified play as "the leading activity of preschool" children, meaning that children getting ready for school in which learning is the leading activity depend on play for developing HMF, pivotal for school success, which developmental process should begin in early childhood programmes (Bodrova & Leong, 2015, p.378).

9.2.1. Research Question A: How do children play in this Grade R setting? How is play structured/viewed by educators on this site?

In my brief observation period, I found that children do play in this Grade R site mainly by their own prerogative. Children are provided many resources with which to play as individuals and in groups. These learners are provided space and time both inside and outside the classroom to engage in tasks and imaginative activities; however, not all tasks and activities are "created equal" as far as a CHAT analysis of sociodramatic play goes. Many in-class tasks incorporating playful elements did not fully align with the level of mature make-believe play as defined by CHAT scholars (cf. Fleer, 2023b; Bodrova & Leong, 2015; Germeroth et al., 2019; Elkonin 1978). Learners are afforded time to engage in "unstructured" activities *following* early morning ring-time and cognitively oriented tasks – tasks which were set up by and monitored by Ariadne and her teaching assistant – such as either continuing those tasks as desired (i.e. according to the learner's own rules or preferences), or to read, play with building blocks, draw etc. It was during this unstructured time that vignette 2 was witnessed with Jacob and the formation of the ammonite museum (see section 8.2). A clear picture is provided of how Ariadne, the class teacher, engaged with her students during their tasks (Chapter 6) and a description of her beliefs regarding teacher involvement – the importance in her view of letting her children "self-direct" their play – is discussed in Chapter 7. Play is designated therefore as a prop rather than a pedagogy, and rather than a programme for the social and cognitive development of children, play remains underutilised.

Outside of the classroom during the before-school period of the morning, learners likewise engage in a range of activities. Play is entirely "self-directed" during this portion of the morning and an example of fruitful play, play "allowed to develop" (Fleer, 2021; Germeroth et al., 2019), was an insightful turning point for this research offering clear signs of emergent MPOT-

characterised SR (see Chapter 8, vignette 3). My experience pointed to the fact that play was generally not something educators invested *themselves* in while they did make many provisions for their children to enjoy playful experiences and a socially cohesive environment. Learners understood that if there was conflict, they could report concerns to assistant teachers watching over early-morning activities; yet I never observed an assistant teacher or class teacher participating in play with the children during this time, during my brief observation window. Without the investment of educators in children's play, I ask if it is possible to truly conceive of the HMF of SR attaining the prominence of the cultural-historical concept advocated for in CHAT research.

9.2.2. Research Question B: What is accomplished in play that demonstrates SR as categorised by MPOT?

Play that leads the development of SR, as categorised by MPOT, as was most visible to me, is described in vignettes 2 and 3, respectively. The principal component of this play was that this play was *activity allowed to develop along pretended/imaginative lines that explored elements of a particular narrative*. MPOT as specified by Germeroth et al. (2019), understands that pre-planning play activities and the building of a script are significant in SR development; if SR is the "voluntary awareness" or "reflective consciousness" applied tool-like in a situation or before an action, then this feature of play is something culturally acquired and speaks to the need for teacher-involvement (in school contexts), but this is a feature my fieldnotes could only capture in a fragmentary fashion (see methodological limitations, Chapter 5, Section 5.3.2).

In vignette 1, the cookie designs task allowed me to note how Oscar's awareness was regulated by his teacher and by his peers' suggestions but his latent ability to self-regulate seemed dormant. In analysing Oscar's situation while attending to a numeracy task with his teacher, Ariadne, I noted high levels of mediation as outlined by Vygotsky's (1978) concept of the ZPD, and reflecting on Ariadne's educator-awareness of Oscar's individual abilities and her needed MKO support, my reliance on a "confirmation bias" was shaken (Kahneman, 2011; Kahneman, Sibony, Sunstein, 2021): Not all early morning tasks and activities in this Grade R class could be called play. *Yet*, observations of one task on one day cannot be regarded as a definitive reflection of emergent abilities although it does mark a footnote-like suggestion of the "parameters" of a child's ZPD. I felt that the robust features of a play pedagogy like Conceptual

PlayWorlds would have addressed Oscar's needs more expansively and allowed him to capture a story for the task furthering his grasp of that task in an imaginative experience. It became clearer to me, as seen through a CHAT lens, that more could have been accomplished *if* that task was conceived through the possibilities of play, such as shown in research around Conceptual PlayWorlds programmes (Fleer 2021). It was also seen that without play and the urgency to convey school-based concepts (e.g. numeracy concepts), the imaginative, make-believe element of a drama was missing; and it is "imagination [that] becomes the bridge between *play as a leading activity in preschool* to *learning as the leading activity in school* (Fleer, 2011, p.231; emphasis in original). In this way motives were investigated as an underlying condition for HMF development. Hedegaard's (2012) conceptualisations of motives *between* institutional practices became an important consideration grasped through the post-observation interview with Ariadne (Chapter 7), signaling a pedagogy concerns addressed more comprehensively under Research Question C.

Vignette 2 illustrated how props would feature in play leading SR developments, as well as the significance of role-playing as outlined as "level 4 anchors" within the MPOT framework (Germeroth et al., 2019). Not all props need to be "teacher organized", something which may related to an understanding of Ariadne's assertions for "self-directed" play discussed in Chapter 7 (Germeroth et al., 2019, p.203). Moreover, when play is seen to be "already functioning at a high level", no teacher involvement is needed for regulating that activity, such as in the case of Jacob and his ammonite-museum-constructing peers (Germeroth et al., 2019, p.203; Bodrova & Leong, 2015). Learners were able to regulate their behaviour and emotions to engage in cohesive ways, a fundamental of SR *in* development. Additionally, Jacob's interest in the book, as well as his slight aloofness from getting on the floor and playing, preferring to stand above play and direct it (book in hand), seemed to signal a transition from play as the leading activity, to learning as his leading activity.

Vignette 3 exhibited a similar opportunity for allowing sociodramtic play to develop into diverse sequences which involved different children-actors, in the sandpit. Their governing/regulating of each other and their attention to imagined scenarios at hand pointed to understandings already articulated through Karpov and Haywood (1998) – other regulation precedes SR (cf. Karpov, 2005; endnote iii). Touched upon during play in the sandpit, the

formation of SR as a process of internalisation was illustrated by the ways in which a child learns a sign that suggests culturally appropriate behaviour, applies it on or expects it of others to "influence their behaviour" and then "only later does it become a means of influencing oneself" especially observed in the use of private speech (Vygotsky, 1981, p.159; in Karpov & Haywood, 1998, p.28). Such was understood in part via Dave by his involvement in the sandpit (Chapter 8, section 8.4). The development of SR in vignette 3 illuminates

> the specifically human capacity for language enable[ing] children to provide auxiliary tools in the solution of difficult tasks, to overcome impulsive action, to plan a solution to a problem prior to its execution, and to master their own behaviour (Vygotsky, 1978, p.28; in Karpov & Haywood, 1998, p.28).

Thus, as analysed in Chapter 8, it became possible to see *sans* teacher-involvement – although rules *from* teachers featured "virtually" (cf. Daniels, 2012) – a few of play's salient "self-directed" characteristics in how (i) the "children create an imaginary situation" often because of deferred or delayed gratification (Vygotsky, 1967) ; (ii) "[took] on or act out roles"; and (iii) "follow[ed] a set of rules determined by these specific roles" (Bodrova et al., 2013, p.113). With Luxolo, Kim, Adam and Dave (vignette 3), it was possible to identify emergent SR in those ways in which they overcame "cognitive egocentrism" demonstrating a budding consciousness of one another in play (Karpov, 2003c, p.147). As Lindqvist (1996) has put it: "Consciousness is developed as an internalisation of social communication" (p.41).

9.2.3. Question C: Are there other activities or social situations / institutional practices which should be given greater attention in order to discern the significance of play for developing SR?

Conducting a post-observation interview with Ariadne (Chapter 7) provided critical understandings of institutional practices that pressurise or might be seen as interrupting potential educator-play intentions: because politically shaped curriculum demands carry within them a competitive element in order for Grade R learners to be ready for Grade 1 learning within the context of a global market, adapting teaching through a play programme might fall away as a priority. It is clear that Ariadne has had success in helping her learners acquire aspects of SR such as accountability, gratitude and respectfulness which can be related to a sense of impulse-control and volitional awareness (Karpov & Haywood, 1998). The cadence of Chapter

7 fell on the fact that Ariadne is a great teacher, but she employs play as a prop rather than as a programme. For Ariadne, play is something that should be "self-directed" where it is in CHAT that play is best propelled by the principle of "double subjectivity" (Kravtsova, 2014) whereby educators immerse themselves within play among their learners (Fleer, Fragkiadaki & Rai, 2021; Fleer, Veresov & Walker, 2017; Utami et al., 2023; Fleer, 2023a).

9.3. Implications of this study

Findings from this study contributing to the field of research regarding sociodramatic play and the development of SR include the following: Firstly, in vignette 2, with Jacob and the ammonite museum, SR is not just an elevated (as defined by the general genetic law of development) way of interacting with others, but also a way of *seeing* more and therefore an essential EF in the growing child. It has been noted that more advanced forms of play illustrating SR would have learners pre-planning their play-roles and the necessary rules for their play extensively, which quality of SR can be labelled as a *foreseeing* (Germeroth et al., 2019). Play is thus a synoptic activity ("seeing together") through which the process of foresight might emerge as play is allowed to advance; a concept fully embraced in a decolonial Ubuntu framework for CHAT in South Africa advocated by Hardman (2021; 2024) among others, envisioning new ways to redescribe collaboration within learner ZPDs in locally relevant language. Secondly, as analysed in vignette 3, the social cohesion lubricating the interactions of Grade Rs in the sandpit, even when there was difference of opinion around the scenario underway and later around educator expectations/rules, it would be curious to learn of how this feeling-mood (*perezhivanie*) "anchors", in the sense given this concept by Kahneman (2011, pp.119-128) and Kahneman, Sibony and Sunstein (2021), other learning experiences carried out in the classroom and as carried potentially beyond school into other institutional practices (Hedegaard, 2012). Thus, it was clear that these children were "self-directing" their own play ultimately inviting the more urgent question, "What might play have looked like with more educator involvement?" It must not be forgotten, as stated by Bodrova and Leong (2015), "in this day and age we have to lead children in their leading activity" (p.386).

9.4 Recommendations

The limitations of this study urge me to recommend longitudinal studies of the development of SR in ECD programmes. This dissertation only touches briefly upon ethnographically observed activities in a single Grade R setting. I hold that the salient features of SR would be better demonstrated by means of the Vygotskian experimental method (Veresov, 2004) or in a Conceptual PlayWorld intervention (Fleer, 2023a) alongside the analytical breadth of CHAT-inspired tools like MPOT over a range of different settings or institutional practices (Hedegaard, 2012). This dissertation serves as a *sample* of twenty-five students in a well-resourced school with an engaged educator; but such a sample, while located in South Africa, does not claim to be definitive of the range of experiences and cultural histories in our country's context, especially where ECD is concerned in our relatively young democracy.

Simply put, much remains to be done to investigate and describe "the lions" at play in the diversity of South African settings, and to encourage educators in becoming invested in the "story telling" that spurs interest in thoroughly play-based programmes like Conceptual Playworlds, otherwise projects like mine possess the potential to become dangerous "single stories" of the "academic hunt" generating answers too general for robust measures to improve education that nourishes the development of HMFs such as SR (cf. Adichie, 2009).

9.5. Concluding remarks

I return to the African proverb cited by Chinua Achebe in Chapter 1: *Until the lions have their own historians, the history of the hunt will always glorify the hunter*. The purpose of this quote was to place emphasis on discovering how it is that the children (lions) are learning and developing SR and to give voice to how we might better attend to their needs in our South African education system. It is my belief, as shaped by this ethnographically informed CHAT case study, that play cannot simply be a prop if educators endeavour to develop SR, and other vital HMF, in their learners. Play must be applied as a pedagogy. Part of our twenty-first century problem lies in the fact that while all educators must deal with the competitive capitalistic landscape of education in the 21st century, Zaporozhets (1986) has already provided a prophetic injunction that warns of how

> optimal educational opportunities for a young child to reach his or her potential and to develop in a harmonious fashion are not created by accelerated ultra-early instruction aimed at shortening the childhood period—that would prematurely turn a toddler into a preschooler and a preschooler into a first grader. What is needed is just the opposite—expansion and enrichment of the content in the activities that are uniquely 'preschool': from play to painting to interactions with peers and adults" (p.88).

Until all stakeholders, especially those concerned with enriching ECD programmes, can honestly verify that we are *allowing* the "lions" their necessary time in "the pride lands of play", we will continue to merely throw sand around the sandpit of South Africa's educational system without digging tunnels, in Kim's words (vignette 3), "to another land" blessed by the spirit of an Ubuntu-oriented decolonialised-democratic future for all our learners and educators which is its own dramatic narrative in "the history of the hunt" (Hardman, 2021). We must begin now by (re)imagining this future through the affordances of robust CHAT-informed Ubuntu-inspired play ECD programmes, together. In this way we will not only help the lions tell their story, we will also let them roar!

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Endnotes

[i] Reflecting on this fact of children's ability to endure a situation that might be rather unpleasant if striped of (narrative) fictional content, I recall, by way of example, a scene from the 2006 drama, *The Pursuit of Happyness,* directed by Gabriele Muccino, featuring Will Smith and his son, Jaden Smith, playing the role of his son in the movie, in which, when evicted from their home they eventually spend a night in a train station. To navigate his child through the potentially traumatic experience, Will Smith's character, Christopher Gardner, initiates a time travelling game to go, as the child expresses it, "some place from before". Ultimately, they are able to pass the night in a train station toilet cubicle. The episode of play allowed the child to even help his father overcome the fear of embarrassment and potential physical danger. *Together* they transformed their conflict through the auxiliary means of an imaginative game. This example resonates powerfully with the research of Fleer (2018) and other similarly invested researchers (cf. Fragkiadaki, Fleer & Rai, 2021).

[ii] This is similar to Kravtsova's (2014) notion of *double subjectivity*: "in play a child is at the same time inside it (i.e. crying like a patient) and outside it (i.e. rejoicing as a player" (p.22). Fleer (2015) has referred to this as "the central dimension of play pedagogy" (p.1802).

[iii] Karpov (2005) who outlines the significance Elkonin's (1978) view of social rules hidden beneath the roles adopted in play, provides two beautiful examples of how negotiation and even "unpleasant" rules are accepted and transpire in play wherein (a) young girls as "mothers" brought their "children" (dolls) to school and had to hand them over to "the teacher". It is noted that the younger girls in particular "were very reluctant to hand over their favourite dolls to the "teacher", but they managed to overcome their impulses to keep the dolls and bent their behaviour to the rules of play" indicating as Vygotsky (1978) put it: "A child's greatest self-control occurs in play" (p.99). (b) The second example is of six-year-old boys playing as firefighters and after diving up roles – who would drive the fire engine and who would be firefighters – someone called "fire!" and they all followed the fire engine driver. When the driver wished to also fight the fire, he was told he had to remain at the engine and although at first reluctant, he eventually suppressed his spontaneous wishes and "returned to the fire engine" (p.158). Karpov (2005) refers to this as a moment of "mutual regulation", essential in the development of SR (p.158; see also Karpov & Haywood 1998).

[iv] It is curious to note that Ariadne *led me* to give attention to this young learner, a leading addressed in Chapter 5. What it means for this research is *how the research observer is never "free" to see without being shown what participants* might wish to show them. In other words, from an ethno-methodological point of view, these participant-led insights colour and may at times even obscure the intentions/objectives of a researcher. Ariadne's intention did not appear to be one of hindering my efforts; rather it seemed one of enthusiasm for my project and of helpfulness – to point out things I might consider useful. It was almost as if she were saying in her own way: "These are the many types of students I work with, and they are each at different levels of development. You might be interested to know more about the background of *this* learner." etc. Participant investments in extending information should be viewed as benign while encouragement can be given to suggest that "student-researchers", like me, endeavour to be careful in balancing goals and objectives, and not to be preoccupied by every participant-suggestion. Ariadne's motive, as far as I may discern, should not be misconstrued as gossip either, but rather as a sympathetic gesture for data gathering insights.

[v] This study cannot answer the theoretical necessity of documenting and analysing transitions across and between society's culture traditions, practices of school, home and after-school activities, and throughout each activity setting; the point of mentioning this approach is understood from my belief that no true consideration of the development of HMF is possible without recognising how it is dialectically entwined with the development of personality as rooted in motives accessed by humans as members of society, a view that is contrary to the belief that motives originate innately. Seth Chaiklin (2011) has described the "origin or formation of psychological capabilities" or HMF in the following way: ... *Capabilities are formed as a consequence of acting in structured practices, where these practices are developed historically, reflecting traditions of action in relation to societally-valued goals. Accordingly, acting is organized in relation to demands or expectations in societal traditions of action (rather than determined by innate characteristics), and motives must be understood in relation to these societal traditions of action. In this way, motive is part of an analysis of development of psychological functions* (p.213).

[vi] If the leading activity of 3- to 6-year-olds is play, then neglecting this activity is a *diversion* from essential developments pivotal for any belief around notions of school-readiness. Vygotsky's thesis outlined in *Mind in Society* (1978) goes beyond the limitations of merely grouping learners along biological boundaries such as age. To say a learner is less developed because of the time of year in which they are born is a myopic understanding of CHAT's affordances, cultural-historical play in particular. This biological view was significantly refuted in how *Oscar was able to do far more* in the accomplishment of the tasks (not yet "his" tasks – when does possession enter?) with the help of an MKO during this observation. Potential delays in the development of SR take place when institutional pressures – practices of pressure in capitalistic societies – refute the time necessary for the attainment of emerging EFs. Play for developing higher mental functions (i.e. self-regulation) cannot be seen as an expendable commodity!

[vii] Although I mention it here, and it is a key element for further research and discussion, the dynamics between home practices and school practices should be also understood as two diverse activity settings (Engeström, 2001; 2008). Analysing contradictions between school-informed education towards the development of HMFs and home-based practices grounded in the diversity of cultural-historical parental/guardian ideologies is greatly needed. Karpov (2005) has highlighted systematically the difficulties and beliefs that storm in and around home-practices, as well as associated pros and cons in ECD (cf. pp. 142-150).

[viii] Extract #1 offers answers to a research question, "Should researchers pay attention to *other* activities to discern the significance of play for developing SR?" with a resounding "Yes!" It is apparent that research in the home as its own site, activity system (Engeström, 2001) or institutional practice (Hedegaard, 2012) interwoven with school practices *and* the communication between the two would be beneficial for a more information to complete an understanding of how self-regulation develops, as well as the place play holds within given families and associated local communities – to gather data around the network of inscribed within leading activities, such as sociodramatic play. In this way the tacit or implied answers to the question "what social/cultural rules, traditions, norms are grappled with by children in play" would become more overt in research organised around Grade R (ECD) settings.

[ix] Each of these types of activities are identified in MPOT as pivotal for mature play, play advancing the development of self-regulation (cf. Leong & Bodrova, 2012).

[x] Because of this analysis of Ariadne's educator beliefs around play, I may now suggest this "analytical endnote" to Chapter 6: In the case of Oscar's situation, were he to have had a greater opportunity to play in taking on the role as a cook or baker – narratives proffered in regarding this whole different institutional

practice, – he would have been afforded time to navigate his experiences drawn from various institutional practices as a form and feature of "continued collaboration" – another way to view budding imagination. If by contrast the activity of cookie designs was framed in larger (longer sequence) of play between of bakers and customers (a role easily assumed by a teacher), and the playful exploration of language and tools used in that profession practices, the executive skills of pre-planning the solution for the task (outlined in Chapter 6) would not have taken place in the *isolation* of an *absent* "PlayWorlds". Sociodramatic play offers a world for developing children's HMFs conceived in imagination. The numerical concepts underpinning constructing six cookies should not remain an abstract task in which numeracy-skill, or task-expectations are regurgitated bits of isolated/isolating information (in a child's cognitive formation) but rather become an integrated "reality" for the people of the sociodramatic world Oscar and his peers *would have* been imitating. Instead of Ariadne's regular reminders of the number of cookies to be constructed, Oscar's peers *would have* been there to aid him in his efforts to "stand a head taller", outlining the ZPD in play. His ability to persist *would have* been fortified because he was "in character" and a new motive would have been internalised, namely, to collaborate and support the sequence of activities proper to a baker. I may now add to my analysis in Chapter 6, that Oscar's "activities" *did not* "change his social relations" (i.e. with his teacher, with peers, and potentially with his parents or caregivers) in his institutional practices thereby granting him "possibilities for new activities" actualised by the development (i.e. internalisation) of his voluntary awareness or heightened consciousness, two defining features of advanced play that defines the nature of self-regulation's development (Hedegaard, 1998). Play allows for the maturing of abstract thinking, an opportunity left unexploited in vignette 1, Chapter 6 (Gemeroth et al., 2019).

[xi] For my own toddler, I witnessed this development – govern others before self-governing – when he "assisted" me (carrying the lighter, holding the tongs etc.) make a braai (barbeque) and I warned him to be careful telling him the grill was "hot, hot!" When next we were making a braai, he associated the grill with the warning "hot, hot" and was *regulating* me to watch out by *simultaneously* regulating himself and taking care. (More could be said of these budding functions to imitate adults.)

Appendix

Appendix A: WCED Research Consent

Western Cape Government
Education

Directorate: Research

meshack.kanzi@westerncape.gov.za
Tel: +27 021 467 2350
Fax: 086 590 2282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 1645DCF1800004B-20230613
ENQUIRIES: Mr M Kanzi

Mr Joseph MacMillan
143 Chudleigh Road
Plumstead
Cape Town
7800

Dear Joseph MacMillan,

RESEARCH PROPOSAL: DISCOVERING THE DEVELOPMENT OF SELF-REGULATION THROUGH PLAY: A CHAT-INFORMED CASE STUDY AMONG FOUNDATION PHASE LEARNERS.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **5 September 2023 till 30 September 2024.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Mr M Kanzi at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

The Director: Research Services
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

We wish you success in your research.

Kind regards,
Meshack Kanzi
Directorate: Research
DATE: 5 September 2023

Appendix B: UCT Research Consent

SCHOOL OF EDUCATION

Dr. Joanne Hardman
Associate Professor: Educational Psychology
Deputy Director School of Education

University of Cape Town, Private Bag X3, Rondebosch, 7701
Physical address: Neville Alexander Building, 6 Lovers walk, Lower Campus
Tel: +27 (0) 21 650 3920 Fax: +27 (0) 21 650 3489
E-mail: Joanne.Hardman@uct.ac.za Internet: www.uct.ac.za/depts/educate

EDNREC20230522

Joseph MacMillan
MCMJOS002

31 May 2023

Re Ethical clearance

I am pleased to inform you that ethical clearance has been granted by the School of Education Ethics Review Committee of the Faculty of Humanities for your academic project: Discovering the Development of Self-Regulation through Play: A CHAT-informed Case Study among Foundation Phase Learners. We wish you all the best with your research.

Regards

ASSOCIATE PROFESSOR JOANNE HARDMAN

Appendix C: Supervisor Research Consent

SCHOOL OF EDUCATION

University of Cape Town, Private Bag X3, Rondebosch, 7701
Physical address: Neville Alexander Building, 6 Lover's Walk, Lower Campus
Tel: +27 (0) 21 650 2772

Date: 30 May 2023

Supervisor's ethics approval

I have discussed the ethics of this project with Joseph Macmillan Joseph Macmillan [MCMJOS002] and read through the ethics application. I approve of the ethics application for the study titled:

Discovering the Development of Self-Regulation through Play:
A CHAT-informed Case Study among Foundation Phase Learners

Signed _____

Warren Lilley

Appendix D: Institution Research Consent

Discovering the Development of Self-Regulation through Play: A CHAT-informed Case Study among Foundation Phase Learners

Institution Consent to Conduct Research

I give consent for you to approach *list identified participants* to participate in the *research project name*

I have read the 'Letter of Consent to Conduct Research' including the Project Information Statement explaining the purpose of the research project and understand that:

- The role of the school is voluntary
- I may decide to withdraw the school's participation at any time
- *Teachers and students* will be invited to participate and that permission will be sought from them and the students' parents.
- Only *teachers and students' parents* who consent and students who have assented will participate in the project
- All information obtained will be treated in the strictest confidence.
- The participants' names will not be used and will not be identifiable in any written reports about the study.
- The school will not be identifiable in any written reports about the study.
- Participants may withdraw from the study at any time without penalty.
- I may seek further information on the study from 0743352345 or email me at macmillanj@sacollege.org.za or *Dr Warren Lilley* at *warren.lilley@uct.ac.za*

I understand that in regard to the school, the researcher will:

- arrange for informed consent presentation that informs participants of the research aims, the researcher's educational background and the method of data collection
- arrange an agreed upon time with my institution for data collection to take place
- obtain informed consent from participants

_____ _____

PRINCIPAL Signature

Appendix E: Information Form – Letter of Consent to Conduct Research

Dear Mr. X and Mrs. Y,
I am conducting research on **self-regulation and play** for my Psychology of Education Master's degree under the supervision of Dr Warren Lilley at the University of Cape Town. I would like to invite your institution to consider taking part in my research study.

Aims of the Research
This research study aims to investigate how children's play and self-regulation are interconnected and to explore which types of play foster the development of self-regulation.

Significance of the Research Project
The research aims to provides knowledge about how play is a cognitively developmental activity for 3-6 year-olds. Through play higher cognitive functions like self-regulation are seen to bud. It is this process in play that I will observe. Fundamentally, self-regulation is essential for school preparedness and when this executive functioning is a feature of a growing personality, it is seen to empower students for greater educational success.

Research Plan and Method
Data will be gathered through the use of fieldnotes and observations. Some questions will be directed towards teachers about learners' play activities to generate a broader picture of the relationship between self-regulation and play. No video-recording will take place.

- Prior to the study permission will be sought from the school, the teachers and learners in Grade R. **Only** those who consent will participate.
- All data during the research study will be treated in the strictest confidence.
- The institution, nor individual students or teachers will be identifiable in *any* reports that are written, as pseudonyms will be chosen or created.
- The option to withdraw from the study at *any time* is available to the school and all participants.

Further information
If you require any further information of the study, please feel free to contact me at **… (removed for purposes of the dissertation)** or email me at macmillanj@sacollege.org.za or Warren.Lilley@uct.ac.za. Attached for your information are copies of the *Participant Information Statement* and *Learner Assent Form*.

Invitation to Participate
If you would like your child to participate in this research, please complete and return the attached form. Thank you for taking the time to read this information.

_____
Joseph MacMillan Researcher, Hon. in Psychology of Education, University of Cape Town

Appendix F: Informed Consent Form for Educators

CONSENT FORM
Discovering the Development of Self-Regulation through Play: A CHAT-informed Case Study among Foundation Phase Learners

I, _____, agree to the following procedures:

	YES	NO
For the researcher to observe and take notes of my students play inside and outside the classroom		
For the researcher to interview me regarding my insights on play and teaching and learning		
That my name will not be mentioned in any report and any information I provide will be treated with the strictest confidence		
That my school's name will not be mentioned in any report and any information I provide will be treated with the strictest confidence		
Understand my participation is voluntary and that I may withdraw at any point in time. *I am free to withdraw without explanation.*		

Printed Name of Participant:

_____
Signature of Participant

Appendix G: Informed Consent Form for Parents/Guardians

CONSENT FORM
Discovering the Development of Self-Regulation through Play: A CHAT-informed Case Study among Foundation Phase Learners

I, _____, agree to the following procedures:

	YES	NO
For the researcher to observe and take notes of my child's play activities inside and outside the classroom.		
For the researcher to ask questions of my child regarding their play activities.		
That my child's name will not be mentioned in any report and any information provided/ observed will be treated with the strictest confidence.		
That his school's name will not be mentioned in any report.		
Understand my participation is voluntary and that I may withdraw at any point in time. *I am free to withdraw consent without explanation.*		

Printed Name of Participant:

_____
Signature of Participant

Appendix H: Fieldnotes – Grade R, September 2023 Observations

These transcriptions were made from real-time notes taken during my observation period. Ariadne invited her learners to become very aware of me – breaking down any "fourth walls" – and the boys knew, therefore, why I was there. Often some of them would ask what I was writing or what I was doing and that was always a great moment to clarify my position in their space, as a stranger with notepad and pen in hand. By the end of the week (see Vignette 3) they were quite used to my presence and did not bother about me unless trying to engage me in their activities. When typing up each day's notes, detail was often added in terms of the gaps between conversations by drawing upon what was done in the effort to illustrate the scene more clearly.

AT = Assistant Teacher(s)

Monday - 18 September

Outside

Entered at 07:46. Greeted teachers at the entrance. They were returning parents' containers from "Grandparents Day" (Friday).

Observed the groups at play in their space slightly rearranged; there is construction underway for an upcoming Grade N (beginning 2024).

There was as one entered - from left to right - a wide open space where two blond haired student teachers set up materials for their "movement" class.

There were two boys playing with old keyboards in a wooden "open-plan" hut. They became fascinated with an old fax machine and at one point M. decided he was reading from an imaginary note/book, holding his hands together like a book and indicating to his partner that he was reading. The friend got up and ran to his friend and looked into his hands and asked: what does it say? The reply was vague and the topic changed to "I am trying to fix this" and requested space to be able to examine this machine and find out why it was not working. Other boys came to the site and I moved away.

ATs intervened to manage emotions or reprimand: "No calling names… I don't want to hear it again…" to cuddle and to greet and welcome them after the weekend.

Like telling news: "Dad is flying and only coming back in 21 days!"

Some played with the gutters and enjoyed notions of velocity and momentum and extending the ramps.

"Are you Mr S. (headmaster)? No. Are you a grade one teacher? No. Okay fine then!" ← boys playing soccer.

To re-engage focus, "You guys look like you're not good drivers!" (AT) and then they realigned the gutters. I tried to extend with a closed piece of piping. Didn't work out so well.

Some boys expressed curiosity about the builders next doors and the reason they were banging spades on the walls. Then they moved into play about calling animal service. They allowed me to answer: "Hello this is animal service." Like a vet.

Told a few that I am a teacher in the high school and coming to hang out with teacher Ariadne.

Then back to the construction table. “What are you guys building?” “Building a lab to build planes to fly to Japan. Mr “Weirdhead”; and he is bad at building cars!” All Lego toys. Collaboration to continue to narrative of the mechanics lab.
Then told that one went to a friend’s house and found a secret room with dinosaurs and the conversations diverted into discussion of dinosaur names.

I moved back to the gutters - how to build the roads and joked with AT that they would fix problems in government because they would build.

Learnt that Gr Rs navigate - owing to Gr N being built - that they have to navigate not playing with the senior grades and big boys. BUT they stick together. Told less crying now getting ready for Gr 1. Have to ready for “big school” and to get uniform - so proud - and to cut hair AT said how it changes their identity.

“Mr America” as named by an AT - was there for two weeks. A boy arrives.
“I was having fun and I got this!” - a scratch and it’s all good because it is a meaning/symbol of fun.

It started to rain and there were many helpers / collected the gutter activity and took to underground storage. They balanced on shoulders and another carried three on own - so strong. I kept remarking, “You’re such good helpers!” and to AT that they listen so quickly.

Then there were boys on scooters and then they had to take turns - they coordinated this sharing on the scooters among themselves. I recommended standing in a line BUT didn’t insist and it wasn’t carried through. One boy was upset. He waited and then he was ignored as the scooter was given directly to a friend. He did find another one afterwards.

There were two boys that said they’ve seen a picture of my son. “Yah! He’s dark skinned” Yes! And then they proceeded to tell me secrets: “I have a brother that’s thirteen and isn’t that so big!” Some joked with me that they were seven years old. Do to be ready for grade one. “B wants to kiss her (student teacher!)” But denied it. And then I was told I look like Tom Holland with a tie. I’m ready for Grade One… “But I don’t want to do homework.”

Each teacher has a different way of recruiting learner attention: Ariadne - with piece of dried seaweed gathers her class-group named after an animal in the ocean. They all run (or pack away the toys) and move to Ariadne. Another used castanets to clap and call learners to class. They regulate? to these sounds.
Following Ariadne, we go to wash hands and we take off shoes and enter her classroom which is right next to the bathroom.

<u>In class</u>
Learners sit in a circle. Two little guys sit just behind the circle on the floor. They can’t sit still and sit on their little chairs. One brings a cushion for if he falls off I suppose. *He does fall off often* but is engaging and Ariadne can see him and he sees her and he can indicate that he is fine. The AT also sits in between. Ariadne introduced me to her learners stating that I was not there to spy on them but rather to learn from how they play and have fun. This broke the ice nicely. They then returned attention to her (owing to her great energy as a lively and interactive teacher).

A few learners are moved around owing to their busyness and their friendships distracting them…

Three takeaways from this moment of settling – ringtime:

a. "Drove" - 2hrs to their other house
b. Abacus - 47 year old uncle
c. Music and movement - left and right brain stimulation

Ariadne is equipped with guitar and the boys clap and all want to share news. One speaks in a "baby" voice and she calls him forward and encourages "clear tones" and he is excited so say it clearly.

Then five groups: colour coded:

1. To make 6 cookies from yellow playdough - practise on memory and fine motor skills (an OT comes through to take a lad for his weekly session)
2. To draw weather charts with the revolving pin to ensure that it can be chosen when changed - rainy; sunny; windy; cloudy – also practise on spelling
3. A construction group with wooden blocks and marbles and they tried to get the marble into a created shape.
4. A card game - four of a kind with AT
5. And the group with another type of construction toy BUT building using guide maps. (get the name of this toy)
6. Some did play memory games. (cards upside down and then recalling)

Approach: each group attends to their activity and then can show teacher and steady move to other groups with friends. This way MKOs are helping at the cookie construction. Others in the card game are coaching each other. There is a "high maintenance group" on the ADHD spectrum. I am informed of this division among learners.

Clear communications from Ariadne of her expectations: "I am interested to see what designs come through. Once … It is done… he places it here [demonstrated] and can **then go and play**."

Cookies – "the perfect shape" the rollers were sought and turns were taken but beautifully there was all enough. Later, Ariadne repeats the instruction and guides them and leaves out amount expecting them to remind how many they must make. "How many more do you need?... May I show you something? …" Ariadne demonstrated how to make the circles to cut the cookies.

At weather images the words were read in coordination with the pictures using the starting sounds.

"Mr MacMillan, I earn my salary!… People do not understand this job!" - Ariadne mentions the energy she pours out to have successful play and work with the mathematical, linguistic and collaborative concepts she has taught and modelled throughout the year. E.g. "If you have four [cookies], how many more do you need?"

At four of a kind, one lad put four hearts together. He unfortunately misunderstood; he needed to group four numbers of the same kind. Teacher input and guidance helped them.
"You're not supposed to show each other your cards, boys!... Listen to me." And Ariadne repeats instructions to guide them. Reiterated by the AT - encouraging listening, for the rules of the game, and individuating boys by name - slowing it down, "pick what you don't need and pass.." "same numbers" emphasised, not grouping by card type, like hearts. Very cute and they laughed about it.

Then I went to the boys building from the pictures. M. and J. were quite advanced with following the pictures and had a pile of about five completed models to one side. They then allowed me to join in and showed me how it was done. They said I should make a car and I did but they told me my wheels wouldn't turn so I should use certain pieces. I left the game and others continued for me on what I have been building.

Some boys thought I was a teenager and were shocked that I was married and said "But why are you at university?"

I went and drew with A. the boy that struggled to sit still.
He showed me an orange image. I said what are you drawing? He said an animal. And then later, after a few "ahs"… an elephant. I said before drawing, I am drawing an aeroplane. He drew hair on his elephant which was cool and I could say I liked it because elephants are mammals and do have hair. He told me that he liked my picture. M. came and completed the picture by adding red and grey to the wings. A. also added engines to his picture of an aeroplane and filled it with lots of people and I mentioned how some planes have flags at the back and he drew a flag of sorts. Other boys came who are patient with drawing were drawing jet skies

As I was leaving,
A few boys were outside the classroom throwing bean bags into holes (pigeon holes/ lockers).
A game outside the classroom. They told Ariadne erroneously that there were 40 lockers (without counting – spontaneously). She helped them group them again into tens. There were 50. All play is regularly mediated by teacher Ariadne and then amplified into consciousness and they slow down to work things out. Conscious playtime.

It is like trying to drink from a fire hydrant! So much! Each day will be filled to bursting. I had to set an alarm for my 09:30 departure. Their play and activities and voices are so engaging!

Tuesday - 19 September

Transcribing notes detailing the method and observations
Went inside and briefly greeted teachers.
Was hoping slightly for rain; to get the learners into the classroom space and hoping for close-range observations:

<u>Outside:</u>
Boys were playing "tornado" on the rope-swing and then they wanted to show me who was the fastest and then they were hitting me to engage on a buddy-buddy level, for want of a better expression that suggests "inclusion" and a wish to play with a big person/ an adult. Then there were arm wrestles and I had to break up a fight between B. and H. - after the arm-wrestling, H. wanted to continue to prove his strength (a small in stature lad, comparatively) so he hit B. and then B. ran away – probably the larger and stronger of the two – and he ran away to a Wendy house and I encouraged two or three boys to go after him and comfort him and for H. to apologise: H.'s response when I suggested he apologise was an insistent: "I'm stronger than him!"

Then I moved to the soccer taking place, quite seriously. At the construction table there were a number of boys (2-3) who wanted me to play with them. It was good to observe how unorganised their play was and almost "ego-centric" in that the learners would often have their own "agendas" which were not conscious,

anyway, and ended up having a situation of people playing around them, rather than *with* each other – parallel play? – only really noticing the other if there was *a narrative they wished to jump into* or request/demand/take a piece of the toy for their own constructions. Left to themselves, learner play here is far more spontaneous. Winnicott said this is a sign of health. (I note one, J., was always "excluding" himself on the edge of the circular area where the big tree and construction toys were manipulated and ultimately kept to himself; it often appeared as if departure/separations from parent(s) was trying/difficult for him and he'd spend the morning processing until class began, where I also saw him again and he attended to all his tasks and had one main friend (R?).

In the classroom – work and play becomes far more abstract and Ariadne makes them aware of issues of literacy or numeracy:

The boys were each given a laminated number line and able to imagine their own creature that could hop - mainly a "bunny" (rabbit) and would hop forwards and backwards and place their counter on their chosen correct number-square.

I sat next to A. He has "special needs"/ADHD – mentioned to me by Ariadne – and noticed him "squirrelling" a lot - as in the way Doug from *UP* (2009) would be intensely focused and then completely distracted by the possibility of a squirrel. He was not helped by learners who shouted out because then he would just move his counter to the loudest suggestion, sometimes right. He would, very quickly, just go to that answer. That was not as beneficial perhaps, if he had the quiet or time or support to work it out himself.

I also noticed some boys could do this very quickly while others would shout out louder and I suppose "the squeaky wheel gets the grease".

Ariadne then invited the learners to have a turn to "exercise [their] executive functioning", as she termed it for them and a few were given a chance to construct their own problem for their peers to figure out in the same (modelled) fashion: This way learners could synthesise their learning and present it back. There were those that did it did quite well: e.g. "What is the number between 6 and 4?" and then the class would work it out and shout "five!".

A. next to me was highly influenced by his peers. When M., distinguished with many correct chances publicly praised, suggested an answer for A. A had his own (correct!) answer but hearing M. shouted M.'s (incorrect suggestion) and A. whispered with loyalty and defiance: "I changed my mind (for you)!" as if to say, "I did what you said." A fascinating moment of erroneous (mis)conception. Fascinating too that M. didn't even acknowledge A.'s "confession"/ peer-aligning (?) in that moment…

The tactile very helpful and then, not too much singing, and moved into their groups.

I noticed the orange group is the one with boys who struggle with their attention and struggled to even begin the game! Thoughts of Vygotsky.

Alerted to one – Oscar – born late in the year and struggling to function at the mental level of a six year old - premature in the best sense of this word to illustrate his mind [Writing this Oct 4 – need to go renew lib books and scan mind in Soc.] He struggled to make the cookies. He didn't even use any of the cookie cutters - the bottle caps, lids from peanut butter bottles, the skewer sticks or shapes – He did eventually use a stick and

when I mentioned jolly jammers made by one with all six cookies having smiles, he became "obsessed"/fixated with this because he clearly knew what this cookie/biscuit looked like and made similar yet misshapen cookies. He was very unorganised and it was untidy – like no clean edges and pressed down with finger and thumbs and you'd never be able to lift these off the table. Didn't start with a shape. I appreciated the moment because Ariadne came in and he was able to go further with the influence of a few voices. One of them was my mention and put an image in his mind and was able to see a friend's creations and use the same tool (the skewer) but he hadn't clued onto the fact that he hadn't used the circular shapes for a "teacher-expectation" neatness. That activity really showed learners for where they were and their understandings and where there was linkage to others around them or if they had an internalised understanding of instructions and how to proceed. Some did shout out a reminder "six cookies" and this vocalisation, sometimes teacher motivated, changed the perspective of the learners around them BUT the external language aided a sense of self-regulation.
There was another interesting moment was with the weather dials – where Ariadne showed me the hand-eye coordination growing and struggles like with D. – "internal computing" – instead of rainy, rainy above – four quadrants – sunny rainy and then bottom left to right and windy cloudy – rainy had a "d" in it and the awareness but the activity was on spelling and eye tracking – learning through organised play –

I. wanted to make cookies with me and latched on.

Ended voice note (to self) reminder: look for those level four anchors in MPOT.

Big question that can be used when approaching little ones in play or just before: What are you doing? What are you going to make? What plan, in effect, to you have in mind? Like with drawing or using play blocks.

Planning *before* creating a helpful anchor and clue.

From other written notes: <u>(fragments)</u>
Spider counting image to help A.
How many legs on a spider?

Also, the "W" song. The letter and its formation. Sketched in air…

Some notes on interchanges!
- one learner: I'm going to make a masterpiece!
Ariadne: That's excellent! I'm wondering how you're going to decorate it?... Can I show you what the boys did yesterday for inspiration?
L: I don't nnnneed rhat! I don't need that!

Another: "I'm packing away!"

Reading of the season: Ariadne: Wow, one tree even fell over! You're writing so nicely! … D: Thank you!

What weather do you like the most? Sunny! Sunny! Sunny! What about rainy? No, because my mom says so…!
But you need all!
Then impromptu singing - "it's a beautiful day!"

We want to join the choir!

Moving to the card game:
Do you have four!
AT: Boys, let's play again! Last round.

Outdoors – earlier (fragments)
R. asking me: "Who do you think is the kindest boy?"
(No response was recorded)

Running race:
What are the rules?
"There are no rules!"
On your marks get set goat!
Jumping jacks!
Go! Delays

Lots of questions today:
The boys all teamed up and said that they were brothers and that there were 10 babies!

You sure you still want to arm wrestle me? I'm like a grown man!
I go to gym but with my dad!

Lego – at construction pit – talking about Lego that you can build and control with your cell phone like a car and Daniel had one of those control thingies…

Additional *indoor observations* from Tues. 19:
Encouragement was given after hand washing for boys to sit in places where they can better concentrate. Then Ariadne explained the why of people moving around not because "anyone's being a mischief" but rather this way, placing oneself in a positive space learning becomes "easier for you" and those around you. A sense of fairness in this distribution of attention and energy. I mused: *Self-regulated attention enhances group-potential attention.*
Framed as a team. Thought of Engeström (2008) and the "knotworking metaphor". The metaphor and forward thinking – for Grade 1 teachers, that these are "my boys" and they are so helpful.

"I want to tell you something… about grade 1… My Dad said that in grade one we will have a camp be able to sleep there."

Some boys explained how the dads and sons would go on a camp but not mums.

Then when distraction scattered – they stood up – and quick: "I'm singing in the rain" and this with wiggles and then they asked Mr MacMillan, Ra., "Is Mrs Ariadne's son in your class?" and I explained about the different teachers for different classes in high school…

They then prepared for their activity:
1-2-3, look at me with clapping hands.

Ariadne: “Please put your number lines in front of you and may you please put your counter on number five.”

Since lots of energy distractions. So resorting to the guitar and singing *Molweni molweni friends…* recruiting attentions…

I helped Ad. to stay focused on the activity – “What’s Ariadne saying? Listen, listen.”

Then number of a spider’s legs – drew it for Ad. for him to have a referent – this was a noisy activity and allowed to shout out but collaborating…

Ariadne had to move Br. across the semi-circle…

Giving the correct number of hops – where to begin with regards to Ad. He would often start on the same block instead of moving forward then counting

Ariadne: “Let’s do a democratic vote: How legs do you think Mr spider has?”

To Ad.: “How many legs do you think they have?”
4+4 on one side and then 4 on another. The insect and arachnid crossover was confusing some Ad. and Gr.

Singing from Ariadne began the next activity

One boy, shouted at me: “I know! I’m going to pee in your mouth!” I said, “Oh no! That’s disgusting!”

“Executive functioning of their brains” (Ariadne has emphasised a few times) – the number line cut up – boys *enjoyed* being told they could do a hard activity… inviting the boys up and sitting on “my chair” and Mi. received the first chance in mind…

M: “The number that is in the middle of 10 and 8.”
Ariadne: “I’m so excited that you’re so excited! But you should be sitting on your bottoms!”
C: “The number that is a half a dozen!”
Group: 6!6!6!!!
Ariadne: “And this is the number of cookies or cupcakes you will need to make with the playdough.”
Daniel: “Teacher Ariadne! When is it snack time?”
Z: “How many corners does a square have?”
Group: 4!4!

Then the CD player is turned on … on whale song “a time to celebrate” FOCUSED on the environment and getting the pollution out –

Words include: swimming with his sisters and brothers … and their numbers are fewer and fewer…

Ariadne: Why are their numbers fewer and fewer?
Gr: Because they’re hunting the whales.
Ariadne: And which beautiful ship helps…? Green Peace.

K: “My brother says that that's when the poachers come…”
Ariadne: And you can help him learn about [conservation] about how many animals are becoming extinct!

Ariadne: Green group, I am interested to see what you are going to do with the blocks!... etc.

And the learners begin to break into their building groups.

Wednesday - 20 September
Outside
The play activities this morning were primarily around the Lego box and the soccer field. I was attended by two – D. and ., and later Gr. This was after soccer, in the last portion of the morning. I have noted many verbal encounters in the notebook which need digital recording. [at this point I turn to, return to Clifford and Marcus (1986) on *Writing Culture* and mediate].

There was a base being built. I have not really reflected on racial dynamics. I wonder if this is completely necessary at this point. I also have not overtly mentioned but this being all boys – might be curious to note re. their development and to cross-compare at a later stage.]

There was active dialogue calling for help to pick up the large box of Lego. AND then the back and forth of instructions.
Me: Do any of you have any red blocks? I want to make a space station…
“Can I see it?”
The clear communications at the play table.
Some talking about “I need to poop!” and others “Ah! That’s gross!”

Noticed how some boys are left to “play on own” after ill-discipline on the soccer field: Gr. was left to sit on the “quiet” bench and then he showed me how he could do three pull-ups on the jungle gym, accompanied by the two previously mentioned R+D – the soccer also had serious breakdowns where they needed a ref and I recorded some of their language exchanges. Like *no goal*. Things became quite physical. And many took a muddy/sandy dive! They didn’t mind with the cold wind it was all rough stuff and running widely. Then at one random point a penalty was given and I had to intervene to say it was saved by the goalie and not a goal.

>There was the following episode too:
The boys were making a bunker for their imaginary diamonds, like in “Minecraft” they said. Then the box of Lego tipped over and the boys started to help pick it up. Some continued to play or run around. One boy, deeply invested in the building activity who began helping started to instruct and recruit more assistance. His sense of fairness was irked, too, because *all* should help and *then* return to the games:

B: “You’re supposed to be helping us! Come help and stop playing! You too L.! … Instead of breaking my bunker, come help!”

J: Just go tell on! (a suggestion to B)

One with the bunker: maybe after hearing the *tell on threat*: “Okay! We’ll help you! Everyone help! Stop playing! Help!”

> At the serious soccer game, one little boy approaches me and says, “What are you writing down?” I replied, “Oh, just things about the game you guys are playing.”
He replied, boy in blue beanie: “Well write down, they’re being crazy!”

Inside:
“Be mindful of choosing a good spot.” – Encouragement from Ariadne before ring-time begins.
AT was absent! This meant helping out with a group that played cards. I have a voice note (to myself while walking to the high school) recording the morning that outlines the game. The distinction is clear that outdoors is more spontaneous play and indoors with the teacher becomes conscious voluntary-control-centred activities → not always play but many cognitive tasks.

An orange hula-hoop was on the floor. Around it were cards 2x9 – one set, closest to the hoop with the ‘numeral”; and the outskirt was the word of the number. This was a memory game. Then as each card was correctly selected, a number line was constructed. The image depicts how this game was placed on the floor: and then closest “blue” pages had the numeral; the “purple” pages had the words. This was a memory game and required all watching carefully and turning over two correct matching pages.

From (personal reflective) voice-notes:
I said this was great for regulating attention and conveying abstract concepts – even to the construction of a storyline, as that was done after each word and corresponding numeral was located.

Noticed how J., needed I. to assist him to say: “You have four of a kind!” and this bolstered J’s participation and confidence. A lovely simple moment in play that found a friendly mentor voice – play mentor – to help include and sustain play-attention.
……
Similar activities persisted after this starting activity and it is always so perfectly timed for their attention. Ariadne is hyper-conscious of their attention spans; and adjusts as needed. More effort was exerted owing to AT’s abs.; Ariadne often had to (re)arrange friends on the floor circle to avoid the distraction dynamic. After boys had a turn to select numbers, they often switched off. There were some who demonstrated more self-confidence in that they were able to choose in spite of the shouted suggestions for cards. Z. was one in particular who “did not care” for the outside voices during his turn. He too had been particularly active slide-tackling on the soccer pitch. He was deliberate in his choices and I was impressed he got it right!

In the card game, I was taught how to play. Saw I could build speed with clear instructions: don’t pick up until we all have our cards. Then look. 3-2-1 countdown to “put down one and pass right” and we were able to play quite a few rounds! Others wanted to join us. O. did not want to play more than two rounds. Then they wanted to play Crazy Apes. They were not clear in explaining the object of the game and teacher A had to intervene (for my sake) and the sake of the game; they who were in the know chose to shuffle the cards and take the winning cards, and so competitiveness was a major theme of today. But it was all fun and laughter.

I have offered to supply popcorn, not cupcakes, for the class on Friday.
Other teachers I greeted this morning asked why I didn’t come to their classes and IT WOULD be so fun but there is a limited amount of time sadly.

In classroom (fragments):
Ariadne: “Take off your shoes! Wash your hands if you need to!”

L: “Take off your shoes! Do what you’re supposed to do!”
Helping Ariadne since AT abs. – it was cute and maybe even a little humorous to hear this strong tone of reproof in the little one L - to shout at friends to tell them the instructions, imitating the frustrations or urgency of his teacher
Then another boy wanted help.
“Come, N. wash hands!”
Me: What do we do after we clean our hands? Where do we go?
Gr. wanted to sit next to me.

When sitting down: Ariadne: “May I please ask you sit down in a good place for you… Sit down in places that that are good for yourselves…” – This is a repeated instruction to motivate their regulation of potential impulsive temptations.
Ariadne: “Telling on is like pushing friends away. When you come to tell me it is not a way to make friends. Do you think they will want to invite you to their birthday party? {Group: “No!”} So, it is not up to you, you can tell them but leave it to me; that is what I am here to keep an eye on.” – a curious moment of didactic explanation for why not to tell on… It does, by association, cause me think of whistleblowers and others who are crucial in society today but also of Pauline injunctions or was it Peter (?) (in their epistles in the New Testament)| to not be a “busybody”…

After the memory games then I went to play Four of a Kind – I had hoped for the boys to tell me the rules and then Ariadne came to instruct and set it up. It was helpful to remove what they didn’t need in the cards. The boys could explain to me what the block was for – to pick up before anyone else, so one less block than there are people. The boys could explain this an set it out. Ariadne did ensure that there was only one block less “than the people playing”. This way the boys had to be quick in getting the correct number of cards and to pick up a block in time as soon as blocks were being grabbed. The first person with the right amount of cards - the four of a kind - could first pick up a block (wooden) letting everyone know that a group of four had been made.
Sometimes, to get O’s attention, eg. the clapping hands to grab attention.
Rule I made: I said, “Don’t pick them up yet until everybody has four, don’t show each other. Alright, B.. Three-Two-One, which one don’t you want, put it down and pass to your right.” This verbalisation allowed for one, O., to say, “I’m not ready yet!” and then we waited and I continued to say, put down one and pass to your right. We went through seven cycles until the blocks were grabbed.
Then invited O. to set up the blocks. He then wanted to go, encouraged him to play one more round. He stayed. I said it’s not easy but they said, it is easy!
“Don’t be cheeky O. Don’t be cheeky in the game!” exclaimed B.

Next round took only five rounds until it was me that first formed a group.
I asked, “Do you want to play again?”
D: “Yes! I want to play ten rounds!”
I thanked the guys and said, “We are managing our impulsivity.” They helped pack away for me, willingly.

Then some boys wanted to play “Crazy Apes!” And they tried to take all the power cards! So rules were not explained and the game was terminated. It was reduced to parallel play of imagining how powerful their cards were as opposed to playing with them as a group.

Then it was time for me to go. My attention was riveted to the four of a kind owing to the dynamic of AT not being at school. It was good to acquire close attention.

Thursday – 21 September – DAY 4 of OBSERVATIONS

Outside:

In the morning, as usual, I began with chats to the ATs as they watched and supervised the play before school activities. "Settling play" it was, getting ready for not-home in the rules of the space that is school.

One little guy came to greet them, J.

AT: How are you, J?

J: Not good.

AT: Why?

J: My energy's low. (Then looking at me) Why are you here every day?

Me: I'm learning how you guys play!

As this moment of conversation concludes, one with a hoodie runs past. His hoodie is back-to-front. When questioned about it by the AT he exclaims: "I like it this way!"

At the Plus-Plus (construction table) the shapes constructed become a shooting game.

It was a rainy morning and I observe in my notes that "in all likelihood we're indoors today. It will be curious to observe how the boys play indoors *without* the teacher's direct influence." This did not, however, transpire.

Snippets of conversations:

No names provided where this general listening and mixed groups were concerned.

Why? I was running too long. I was running everywhere I could see. I was playing with toys… eventually an animal grow. If they eat me, I was out and it was overs.

I have protection in my body and a real gun (using his finger) in my hand. This is a real gun.

We're trying to scare you. Sit somewhere else.

Can we make something to play with?

Do you know my name? (Then he stood on a table.)

An episode beside the construction table:

TR: Give me black, JA!

JA: I just started building this!

TR: Give me orange! Give me orange!

G: (enters the play) I builded it! Move! (built a part of the Plus Plus being used. Then towards me:) Look! Ultimate Ray gun! (He runs off and plays by himself with the "ray gun".

G. again tries to recruit my attention: Help me! (and then they are running to shoot him)

TR: Only one! Only one!

JA: Nooooo! It's mine.

Some grabbing of the construction toy is attempted.

A new boy is playing/ latched on to Gr. Gr. and C. play together.

C: Wait! I forgot my bazooka! Look, I combined two guns!
Gr: This is a perfect gun! (referring to his own construction) I can put my eye in here to see people close!
C: Strings… pom-pom!...
Gr: What's pom-pom?
C: Nicky Nicky! … You don't know my language …
Gr: (runs off)
C: ticky-ticky!... (plays on own with imaginary language)
—
At soccer I witnessed lots of instructions thrown at each of the other players: Za! Kick it out!
Two boys walk past, one says to the other: It's so cold! The other (Q.) responds, "This is not proper spring! It's just like winter!"

Some names like "stinky bum bum" are thrown at players playing soccer and some laugh and others continue to play.

In class:
In the migration to class, Gr. latched on and when invited by Ariadne to sit with the peers, he said "no" and he wished to sit next to me.

Gr. wrote some notes in my book when trying to visualise grouping. He showed me how he writes the numeral "8".

>>
The starting song for the day was "Hello! How do you do? It's good to be with you!" done with clapping - an excellent way to start to gather attention and then using boys' names.
There was a gendered note of biology "boys' brains and girls' brains" and boys need to work harder from Ariadne.

3-2-1 "put your bottles away please!" countdown to ensure that the boys.

"Ask yourself, Are you in a good spot?"

Boys, let's get our left and right brains working nicely. It did look a little funny at the start of the year but I didn't laugh at you.
Then, song continued. .. "..Yes it's good to be with you my dear"
Each name used to greeted.
… reference 2/20 still struggling mentioned.

"Dinosaurs lived long ago!" .. another song.
Herbivores and carnivores mentioned in the song.

"Manage your impulsivity please" – Ariadne

"I love the fact that you're thinking before you answer it…" – Ariadne

>>Then at "Mini lacey" (name of a construction game)
"I'm going to make the longest motorbike"
They had to make something with two wheels.
"Do you think I can make it?"
R: I think you can!
The boys were very willing to show me how to use and manipulate the pieces so I could make an aeroplane.
Joseph: "Thank you. You've given me good advice!"
D. was attentive to helping me know how to make what was on the picture. He wanted to follow it exactly. Others were more "imaginative".

This morning as well, a little guy (J.) came to ask me to read to him from a fossil book!

Some were interested in breaking the thing I had to make.
After I had made it, some wanted to show me how to make it cool.
I could presented to teacher Ariadne: "Look what we made!" and then another boy wanted to say, "Can I have it?"

And then it seemed Gr. had forgotten the instruction for construction with two wheels.

I went round to the playdough table - one little guy was struggling to begin - he didn't know how to roll it in a ball! And so we practised it.

"Mr MacMillan! This is my last day at school. You know I'm going to England? … I'm going to see my Gran and Grandad."
Then there were a few who wanted to play with me "Guess what my name is!" and then the pictures of fossils. When reading the burrowing sponge and then the fossils teacher Ariadne could take out of her cupboard – ammonite was the main focus… fossils inside this rock.

This little guy didn't want to play. He was fascinated with reading and having teachers give him the name of the fossils. Others picked up the fossils and then built blocks around it, calling it a museum and roads that led to this - there were four boys (in a multiracial group). Around the magnetic blocks and poured marbles all around them. Ariadne also has lots of bones from the beach. The fossil book boy (J.) said, "From dinosaurs?" and sadly Ariadne had to tell him not, just from walks on the beach.
Reflections from the day:
Reflections on the conversations and dialogues.
Trying to slow down and not try to capture an ethnography of everything but of pertinent things as determined by beliefs in the literature. In spaces of familiarity.

Gr. needs and after removing from class then he joined me.
Got a lot of attention.

D. and R. – wanted me to read to them.

Some big words – curiously J. Ariadne said that he's "exploding with curiosity to learn and yet some of the fine motor skills are missing."

The group of four that built around the fossil – Ariadne said, these are the youngest in the class. "Amazing how they found each other." (Like my own son and his friend) - their finding of each other and playing together as November babies..

Outside to inside -
Outside minimal involvement from teachers and then inside more conscientized play. Then there would be snack time and then play and learning then break and more play.

Notes on Gr.: before the classroom settling activity he told me "I've done this before" and then *switched off* and so became boarded with the activity. Curious to see that moment of learning.

Interesting feelings of working around fatigue and then thoughts moving towards ADHD and having been told "Gr. didn't take his medication" as reason for him not engaging and acting up (pulled a sign at another learner, a vulgar finger gesture) and yet he engaged in a written form with me. Writing his name – thoughts on the process – fill the attention with a task that speaks to the assignment.

I was told that one guy has "a hard bum" ("How do you know?) and he knows "because [he] was hitting it".

Thoughts about medication and the boys who go "missing" in learning moments… and the culture and history I bring with concern to this discussion: S. my brother and my history and zombies and then An. (T's friend) and loss of weight and then C. and O. in high school and Concerta to focus for the regatta even and yet to employ all energy – therefore my outsider belief on parental insistence and notions of normal feelings and yet a growing dependency. And a theme: medication and self-regulation a fascination but needing investigation…

Friday - 22 September - DAY 5 OBSERVATIONS (last day)
Outside: at the sandpit
I chose to remain in a single spot for the majority of the morning. It was my last morning and so this moment would hopefully elucidate anything that I might have not seen before that could speak (when analysing it) towards self-regulation and play.

You move line by line through your notes, trying to make sense of a moment. Not everything that makes sense if narrate with coherence. Not everything sensible if coherent nor possible to narrate … musings (after reading Judith Butler again on "Giving account of Oneself")

Throwing sand:
A: No! Don't do it! I'll tell on!
They're making a train track.
Some of the conversations that transpired. My notes are not as accurate with regards to specific boys but these were a few of the turns with spades and toys:

Three boys –
What if it floods?
There's water coming down stream!

I make a perfect door!
Guys, this looks like poo.
(The other two don't look up. They are too involved with the door.)
That was a great idea, Hugo!
(Then the one that mentioned poo sees he's not being acknowledged at that level of "silly" play and so suggests:)
Guys, do we need pipes? Now we need to smooth it.
Guys, you're the greatest! (As the pits get bigger and deeper.)
We can make a tunnel - between the two pits
We don't need this to use (a spade is discarded)
Let's go down to another land (said by lad that was wanting to engage on "poo". Clearly wants this to be big imaginative exploratory play.)
OMG!
But here it's far out from, from…
They start to use more water in the sandpit that moved between the two holes dug and through their tunnel.
New boy approaches (D)
You're not supposed to be putting water in the sandpit! I'm going to tell on! (Was standing on the outside of the sandpit.)
Don't be a tattletale!
D begins to play as well with the water.
D: *We're going to get into trouble.* (Said from inside the sandpit.)
D introduces a bucket that they fit into the bottom of one of the holes. It prevents the water from seeping away. This bucket is then filled with sandy water. (No assistant teachers have come to check on the sandpit play. Perhaps because I am standing right there or because they are giving attention to the play at the soccer portion of the playground.)
Another new boy comes to the play. D2.
D2 suggests that *It wouldn't dry if it gets too much water* (meaning the sand and hoping to play in the dry sand later during their breaktime).
Play continues, rather unconsciously of other people, as they are mostly absorbed by the sand and water and tunnels and don't often look up. I am seemingly invisible to them. They are beautifully absorbed in this activity which has lasted for at least 15 minutes.
D has become the main construction designer at the tunnel.
I just dropped it – someone tells D – *because it's heavy!* – a combination of sand and water in a bucket.
The time is up and the horns and drums sound which call the boys to class. As they all begin to run away, covered in sand, D says to himself, hoping to return later:
I make a secret hole - this would not change the tunnel much but has allowed him to keep the bucket with water in one of the holes dug earlier.

<u>In class</u>
Gr. wants to sit next to me again today but becomes distracted in conversation with a friend and wanders into the main circle.

> There is an "emotions song" that is sung
> I see Ad is back. Seems in "zombi" mode with medication. Not jiggling around on seat, not talking to anyone, not even really listening. He is quiet and inattentive.

The game for the morning is a strategic maths game I will refer to as "Counting On". The object is to not say the number 20. You may say max. three consecutive numbers. They begin at the number ten. Ariadne says that the goal is to try and stay in as long as possible. For example, there are three boys at the front: a, b and c

a says 10, **b** says 11,12,13, **c** says 14,15,16, **a** says 17, **b** says 18,19 which then means that the only number left is 20 and **c** knows it, the class rejoices and laughs and a new player is brought from the floor. It is a cute game. Ariadne encourages *the value of "finding humour" and to not take it too seriously if you go out* [A lovely feature of self-regulation: not to take one's self too seriously – all learning, all developing, all have needs: intelligence is to know you can change a feeling/ perspective.] Of course, the more conscious a player is with the numberline, the more they may try manipulate the outcome. There is no discussion between players and each thinks individually *in front of the class group*. So each player thinks internally and speaks a group of numbers. There is no love lost and all responded well and sat down without fuss if they were out.

Ariadne: "Well done Bl.! Well done for being a good sport."
Later – "Remember we are not laughing at R. We are finding humour." And she continues to directly remind of the rules but the boys play it.

A friend says to Bl.: "Well done Bl!"
Ariadne: "We're laughing *with…*"
Ariadne had to remind if one or two went too far and counted four numbers.

The next game was "Culculario". Ja. was invited to explain the premise of the game to me:
If you roll the dice you need to pick up the right numbers (memory style) from the cards (max 3) on the ground. If you get the cards correctly then you get a treasure (an imaginary thing placed secretly into learner hand by teacher Ariadne).

e.g. 3 + 5 = 8 and then explained by Ariadne that at first it is hard because you don't know where any of the numbers are at the start of the game. They are made conscious of different types of bonds.

Boys are allowed to shout some suggestions about what to do with the treat/treasure: "Eat it!" but Ariadne says it's not edible! Lol

With a boy near me – L. - I think the discussion became e.g. "6 and what makes" a given number…? They can either make the numbers from the dice in one number card or with two or with three. The combinations that form the basic bonds of the given numbers on the dice get the learners to think beyond constructing the number exactly but in parts (bonds). A numeracy game that relies on constructing a certain picture.

To recruit learner attention: "1-2-3!" response from boys "look at me!" is used.

I did not "buzz" around the classroom as I wished to have an opportunity to thank each boy for letting me "hang out" with them in their classroom and watch them play and learn and so decided, with Ariadne's permission, have an "office" and they could sign their names with the learner assent forms. The consent was already given by parents and Ariadne had introduced me to them at the beginning of the week but no other time was readily available. They enjoyed ticking the squares and trying to write their names. Not a play activity or speaking to self-regulation. They were quite excited to "come to the office" and then I could say

thank you to each boy afterwards. They returned to call a friend, by tapping them on the shoulder and this until all the boys present had a turn.

Post-observation personal (some details from) voice notes from the morning and last morning of observations:

Was worried that I had maybe been picking up some of the illness I feared one or two of the learners were carrying. Now recording this later, I was sick and think I can confidently trace it back to these experiences!

So much beautiful play taking place - snakes and ladders and boys navigating emotions – can't capture it all. Feeling limited. Like drinking from a fire hydrant.

Wonderful and beautiful.

Ariadne is going to Grade N next year. She shared a personal frustration in that of the new way things might be handled next year. (Must get her a thank you gift and take Mr S. a thank you as well and to be true to her request, air a few of her concerns about next year: Like calling teachers by their surnames and the loss of innocence and freedom this would cause…) Ended therefore with a political note and the lack of understanding of the personnel needed.

Noted Ariadne's desire with Grade N's to extend play themes beyond a morning. She vented how she hates having to pack up all the fascinating creations of the boys e.g. – at back of classroom, boys were classifying the types of animal toys together (wished I could have seen more of that!) and then grouping them according to type, size and colour, and enclosing them with blocks - from animals of Africa to dinosaurs. These pens were categories - wonderful classifying work in groups of three.

Others had to navigate emotions – M. getting frustrated with friend Jack who was taking pleasure in M. frustration - They would make something together with blocks and Ja. would break it down. Then they would rebuild it and J. would break it down. Ariadne had to intervene to help Jack understand that it was annoying M. It is a curious moment of power because J. was involved but wanted to be the one to dictate the end of the building and destroy it… more there but beyond this observational scope.

Again the zombied out theme and in the medicated zone and thinking of S. (with my brother) and Ritalin and the loss of expression.

A few quick notes and had to get to the high school - more concerns and had to get to academic marking.

Appendix I: Interview Questions for Educators

The primary purpose of these post-observation period interview questions is to discover teacher-led intentions and motives behind play activities and other approaches for facilitating self-regulation. These questions are structured by focusing on first, the concept of SR; second, the nature of play – or an inquiry into the educator's beliefs around play; and finally, a synthesis of these two essential components of ECD. A request to audio-record each interview was seen to provide for triangulating fieldnotes and learner voices and provide for reliability. Questions **a-g** attend to teacher understandings around self-regulation. Questions **h-n** inquire as to the place of play in the teacher's pedagogy. Questions **o-q** focus on the linking issues of self-regulation and play among the teacher's learners within the context of Ariadne's experience. These questions are framed by the Mature Play Observation Tool (MPOT) see section 3.3, tables 3 and 4. It should be noted that questions regarding learners' use of language have been avoided to ensure clarity through research methodologies; it would be difficult to expect teachers to provide detailed uses of language from their learners outside of play contexts and without prior requests for records that may accurately detail such information. Teacher beliefs and perspectives on self-regulation and play anchor the purpose of these interviews for the study as a whole.

Questions:

a) How would do you define self-regulation?

b) In what ways have do you seen your students begin to display self-regulation (this year)?

c) What sorts of issues/difficulties have you found in facilitating self-regulation development and how do you try to address issues?

d) What do you feel has worked most/best for you in promoting self-regulation among your Grade R learners?

e) How often would you say that you and your colleagues talk about self-regulation and associated issues with each other?

f) If possible, would you be willing to share an example of (what) a self-regulation situation/problem (looks like)? Potentially from this year of teaching.

g) How did things eventually work out for this learner/ in this situation?

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h) How do you define good play/ing for/among your learners?

i) How much time do you allocate for play?

j) Which toys or props do most children love to play with? Do you think there are specific reasons for this?

k) What do you think are some of the most successful play activities that you and your colleagues have conducted? Please may you detail what was needed for the activity and how you saw learners participating in this activity.

l) What subjects or concepts do you think are best/most easily taught through play?

m) Are there any difficult issues that play has helped resolve for a learner?

n) What approaches do you use to intervene in your learners' play activities should conflicts arise?

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o) In what ways do you think self-regulation and play are (inter)connected?

p) Do you ever address play and self-regulation as colleagues and plan for joint activities for these moments of teaching/playing? If so, what does this look like?

q) In what ways do you recruit parental support for learners who are struggling (regularly occurring conflict) to play with others or to control impulsivity or demonstrate expected self-regulation?

Note: Provision was made for the conversation on education that is rooted in play and seeks to develop HMF, SR in particular, to be *naturalistic*. A few of Ariadne's reflections were seen to be general and it was then that I would draw upon these questions to redirect our discussion towards SR and her views on play (see for e.g. **Appendix J**, the later portion of the discussion on p.148).

Appendix J: Post-observation Interview with Ariadne

Before beginning the interview in Ariadne's office, next to her classroom, she expressed that she only had twenty-five minutes before another commitment. Owing to her request, a few questions were simply integrated into the discussion and there were a few questions that I did not feel the need to ask because of observations noted during her in-class activities; to ask those questions would have been redundant, or worse, would have conveyed a sense of cluelessness about her teaching efforts I was permitted to witness. It was discovered during an interview, provision for switches between formal and informal conversation might needs be improvised, or the experience might become quite dry and "robotic".

Interview Key:
Researcher (Joseph MacMillan) = M
Ariadne = A

… = used to indicate where the conversation opens up slightly or a "thought-pause" occurs.
- = end-dashes used to show an interjection that was made when supporting an idea in discussion or to add a diverging comment.
i = any italicised words or phrases indicate emphasis made vocally
C– = an example of a reference to a learner or person's name; a capital letter followed by a dash.

M: Um, so I'll just say a few preliminary things like hello, I'm with Ariadne, and Ariadne's been kind enough to let me sit in on her classes over the last week, and now we're conducting some ah post-observation interview questions. Um, yeah. So, Ariadne, I'll just say them as they are …

A: Mmhm (of approval)...

M: and whatever you think and if you want to go back to any, that's great. So how do you, Ariadne, define self-regulation?

(#2)
A: Joseph, for me self-regulation is about managing impulsivity, and it's about understanding your emotions, and knowing how to behave in an appropriate way even although you might be frustrated or angry, um, or hurt

emotionally by what somebody has said. It's about being able to actually manage your impulses and resolve your emotion in a, in an appropriate way.

M: And I'm sure you've seen that over many years of teaching with the, with the Grade Rs, um, how that begins to develop and, and I mean, how would say you see it with play, as well? Do they, they learn that through play? How have you seen that?

(#2)

A: Joseph, for me it's about upskilling these boys, um, with um, strategies so when there's a game that's about to begin, I encourage them to not say, "I'm starting!" but to rather say to the group, "Please may I start?" um and then to upskill the boys that if somebody says that first, then you honour it and say, "Sure! Please may I go second?" whatever it is. So, it's about giving these boys the skills to be a more likeable person, I suppose, in a social situation. Also at the end of any game that they play, that they actually turn around to the people that they played with and say, "Thanks for the game!"; not "I won!" or whatever the story is, rather be thankful for the game that you, the fact that you've had people to play with.

M: That's beautiful. There's definitely a process of becoming more conscious through the experience and, I love how you're giving them these, um, language tools, which again, they're, they're never obsolete, um, or isolated to one activity [but] can travel with them. Thank you…

A: Can I just add something, Joseph?

M: Yes, please!

(#3)

A: The other thing is I also find that um with boys in particular, I find they need to be taught accountability. So, girls somehow just seem to get it. With boys you actually have to *teach* accountability. So in other words, be accountable for the actions that you take or the choices that you make, and so my whole discipline approach is a very democratic approach, where the child is encouraged to make the right choices for themself. It's not extrinsic, it's intrinsic that you make those choices because you don't want to miss out, or you don't want to have the instrument removed that you're about to [use to] partake in a band or um that they very very quickly cotton on to the fact that it becomes their choice. So it's not a discipline in that a teacher getting angry with them; the teacher stays very calm in the process but um it's a very respectful approach and the kids pick it up very very quickly and so right from early on in the year, February, March, it takes one little person that

unfortunately doesn't understand that and that they - it's not that they're used as an example - but if you *follow through* with the consequence you've said, they very quickly realise "Oh, this is what it's about!" So, yah, giving them the choices and consequences and explaining the consequences *beforehand* and then if they push the boundary, then you say, "Unfortunately you made that choice …" and then yah, you can empathise with them later, and um, yah, console them later and just say, "I'm sure you're feeling with the choice that you made, but I'm *quite sure* that it's not going to happen again" and they get it. It's astounding… from a young age.

M: Yah, where you had to remove one of the learners, [I think] it was G– and he moved to the back and you engaged him again after the activity so that he could be reintegrated [into the group's activity]. Um, something my mom always emphasised [as a foundation phase teacher] and I've seen it and I think it echoes what you're saying, making the consequence the right size you know…

A: Absolutely! It's got to fit the "crime" if you will.

[Laughter]

M: Yah…

A: I think the trick is to not, is not to do these idle threats, that you cannot follow through with, so um there's no point in saying to them, "If you do that again, I'm not giving you snack" because, unless you're seriously not going to give the child's snack -

M: That's a human rights issue –

A: It's not the way, it's – even the way I've explained that is incorrect: The way I would do it is to say, "If you do that again, you're *choosing* to not have snack." Um, and yeah… Surely, it's a [laughs] every little boy wants his snack!

M: Yes, but, I think it's, it's healthy, in coming back to accountability. It's curious there's that um gender dynamic too. Um, a colleague [recently] was talking to me about how he came from [a school in Makhanda] and he saw a lot of that where the girls' school and the boys' school they examined differently or at least separately, but they were taught together. And just how the girls excel [in the exams in comparison to the boys]. But again, it's fascinating. I love how [you emphasise] that they [the Grade Rs] have choice and I guess self-regulation, what I'm learning through this, is that it's also about becoming conscious of my choices and the

consequences. It's not "I make a choice spontaneously; but I've actually got a framework for that [decision]." We could keep talking about that all day. [chuckles]

A: I know! And I want to add something else, Joseph.

M: Yes, definitely!

(#4)

A: So, so, I believe very strongly in having diverse classroom, I suppose I could call it that, and I welcome the boys into my class that um have special needs, or need to be managed differently; and I had an asperges boy last year, that he needed a special place to go to do his self-regulation. And I, I just used to be so proud of the way he used to remove himself. He would never hurt anyone, or destroy anything. He was never destructive. He would make it very clear that he was feeling angry or upset and then I would just encourage him to take himself off, and he sometimes would take ten minutes, sometimes he would take forty minutes but it was just remarkable how he responded so beautifully to the little "caves" I used to setup for him in the classroom. And the rest of the boys just respected that…

M: His space, his time …

A: Yah, his space, his time into that little cave under a table with a cloth thrown over it where he, he couldn't see anyone else, and it was just his space. And it was just that mutual respect – I could see that he needed that; I didn't cross-question him, I did ask him you know… I could just see he needed to remove himself and it, it was just respectful and it worked and now he's in grade four in this boys' school um where he could quite easily be –

M: Side-lined or excluded or - …?

A: Judged, I guess, and he's been accepted.

M: Yah. It's beautiful. I think where there was a sensory overload and that he became aware of those senses too and I think um, everything for me in this project is about that, that voluntary awareness -

A: Yah! It's mindfulness. It's mindfulness.

M: I'd even seen it it's definitely build into your pedagogy, because the boys knew, they could even, I think it was C– and he touched the orange one [poster] which was "Humour" and -

A: Yes! "Finding humour"...

M: Yes, and he said, "That's what we're doing today!" and then he ran off! But they have these anchors and visual points, and they know that there's those tools …

A: We're just trying to get them to be socially acceptable little people … in a very complex world –

M: A very competitive world, right? –

A: Mmm –

M: And again, that's why this is so important because self-regulation is also called executive functioning. So, you can't go to grade one unless you can tie your shoelaces or in grade four, I need help with my tie again, or … and while teachers are kind and gentle but you have to self-regulate…

A: I believe again and again, you have to empower these boys as much as you can. I encourage my parents to do it too! Empower your boys! Let them pour their own milk. They might spill but they'll learn very quickly. But just let them believe that *you* believe in them! You know?

M: I would love to extend this, but perhaps I will just go to another question, but that, that relationship between home, school –

A: It's so important!

M: – and different [social places like church or clubs] ... that would be a cool project but, you've discussed a little bit about how you've seen, you've seen your students develop self-regulation over the year, um but are there any other issues or difficulties you've found facilitating ah, self-regulation's development; and you how you try to address this? … I think you've shared this with you student with asperges. But –

(#1.a)

A: I'll tell where the trouble comes in. It comes in when you don't have buy-in from the parent. So, we are consciously trying to work in the best interests of the child but if the parent doesn't trust that that's, that's your aim, um, they can get defensive as parents and they think you're targeting your child and, and that's where it becomes very very difficult. Um, anyway…

M: You give them a tool and then at home it's not like –

A: It's not followed through at home, even though you've shown or shared the tools that you use in the classroom, it's not shared at home, if there's this discord between these two…[school and home] um yah..

M: Yeah, it gets quite complex in that sense. Um, what do you feel has worked for you in promoting self-regulation among your Grade R learners?

A: I think my discipline approach. It's very definitely my discipline approach. A respectful approach, yah. And giving those boy the choices that they, they're in control of their destiny. Yeah, it's about empowerment.

M: And you and your colleagues are on the same pages or sometimes… ?

A: I've kind of trained everybody to be like that, leading by example. So, we don't have things like naughty corners or time-out or think-about-it chairs. There's no place for that in my opinion, in any school. But sadly it seems to be the norm. Um… I just don't believe in "naughty children". Often there can be mischief and often that could be boredom or a child covering up a feeling of inadequacy. But, um, the respectful approach it's worked for thirty-five years!

M: .. And it'll work for another thirty-five years!

A: Yah, and I've raised my own boys, raised two boys that are now 17 and 20, and it's worked for them; they're both high functioning human beings that are likeable, sociable –

M: … and I've seen it .. and that is where so many of our societal issues stem from – a lack of courtesy, a lack of respect, and that I can get away with taking somebody else's money and corruption and so forth. But I think that's something distilled. I've seen it [in your class]. I've made notes of that. And even just managing moments

by respectfulness and [asking] "Are you going to be fine sitting next to that friend?" right, in the early morning circle – or let's sit there –

A: Mindfulness –

M: – and when you're ready, you can go back to playing with them in the next activity. Um, little O– was quite keen to play the card game and get done and go and be with the friend he had been separated from in the circle, but he waited for the right time –

A: Yeah –

M: Um, [looking at my questions] … that's not necessary, it was just on problems with regards to self-regulation and I've seen how you've tackled that and what it could look like. And then, how would you define good playing or play among your learners? What does that look like?

(#6)

A: That's self-directed. Very much self-directed. Um, I think what is, we are so fortunate, er, here at [the school] is that we're a very well-resourced school. So, if you've got enough resources, you can just by providing the correct um, play-things, if I can put it like that, you don't even have to facilitate the play; they direct it themselves. But there needs to be sufficient stuff for there to be that creativity and innovation and it's most exciting to be on the other end as a teacher and just observe and facilitate where you need to in conflict situations or sharing, whatever it might be. But, it's about them self-directing what goes on. They make the rules. And it's astounding the games they create which you would never have thought could be possible! It's just so lovely to watch.

M: And how you are excited for with grade N to extend those play moments and themes beyond one day or even a week. Sort of what I've seen and appreciated is how you given them an activity to begin with and there are some tools and ideas around it, for example, design, for example the writing and colouring in, or patterns for the two wheels then they're given –

A: Flexibility –

M: – freedom, yes, to be flexible!

A: You know, Joseph, sometimes if there is a group that is at the block play, um, then I will often put a few things down, because of what might transpire but then they come up with something different but now their play could involve an accident because they want to *ramp* a car up, you know, a kind of gradient of blocks that they've created, and I mean, I've had a car hit a glass picture and smash it! But instead of that rather use their idea and say to them, "Would you boys like to play in the passage, where there isn't the worry of hitting a child's face?" So their idea is celebrated, I suppose, but they're then given the space to play that game safely. It's *just* respect.

M: Yeah, and it's a pedagogy of celebration, right? "You've got abilities but the discipline is [key]". You can't just burn down the school, you know, because "What would that look like?" But outside there's space and again, we are blessed with recourses at this school – inside and outside…

A: And we're sociable beings but that game that started could have ended in a metal car hitting a child in the eye. And it would have gone pear-shaped from there. And just being conscious and aware and getting them to be *mindful* of "Where do you think we could play that would be safer?" and they said, "The passage!" and I said, "Great idea! But I need to know exactly who's outside and just I'll be checking on you every now and again."

M: And, yeah! I saw how you even integrated other concepts into that where the boys were counting and doing all the groupings – early times tables –

A: It's redirecting play… I don't believe there's such a thing as bored in this environment. But sometimes you just have to redirect energy.

M: And on an average day, how much time would say is allocated for play?

A: Oh my gosh! Probably, oh my word! I'd probably get in terrible trouble from the government, but heavens above I'd would say 80%?

M: But then again, you've taught principles and then they're allowed to play with those ideas,
right? –

(#5)

A: Yes, but also the numeracy and the literacy is often infused in the games that they're playing. It's all infused in there. So when they [the government say] you've got to do forty-three minutes of literacy, it's terribly difficult to do that because even the songs in your music or the game that you're playing when they're clapping the syllables of the song, that's literacy! And Mathematics! And so which one would you like me to count the minutes? It's ridiculous.

M: But it's all integrated.

A: It's all infused, yah!

M: Um, I've seen which toys and props the children love playing with and what are available as well. I love how there's a cycle of construction toys in the morning, and I think the toys I saw them playing with were there but there are also themes, specifically themed toys. What do you think are some of the most successful play activities around, um, different themes, I mean just from your memory, that you or your colleagues have recently used.

A: Sure. So, so Joseph, if your theme is *transport*, you're definitely going to have to ensure that there are a number of small wheeled toys of all the transport varieties in the block play that they can utilise that they can make a harbour with the boats, or make an airport with the aeroplanes. If you're doing dinosaurs, you want to make sure that there are a number of 3D dinosaur toys that they can make a dinosaur world in the blocks or with the construction toys or whatever it is. It's just about extending the apparatus that they normally play with by … yah, just extending that with extra equipment .

M: Yeah, and then I guess there's always the linking back to why we're doing this. I love how the fossils got involved with J– [Jacob, in Chapter 8] last week. In what was do you recruit parental support from parents with learners who are struggling to play with others or control their impulsivity, um, in what ways do you get that parental support?

(#1b)

A: So Joseph, I believe that communication is vital. I don't like emails when children are experiencing challenges. I don't like to call them problems. When there are barriers to learning, that's very different to behavioural issues. Um, and it's essential that the communication is open and honest and um I think it's difficult when parents are not in a partnership with you in the interests of their child, when they think you are reporting

things they think you're making it up, or it's all hearsay and how do you know it's true? That's when it becomes difficult and communication is absolutely vital. And sometimes the other thing is that sometimes where there is really a problematic child, it is so important to keep recording what is happening. And I've chosen to not necessarily report everything to um, to some parents because it's just not actually I'm sure not nice to be the parent on the receiving end of the constant negativity but that unfortunately comes with the territory of the child that is simply just not able to manage their impulsivity, and sadly, it's not the route we like to go, and sadly the further on we go up the education line, they're probably going to need to go onto some kind of intervention medication to help them manage their impulsivity. But, you know, at this age, it really does need to be a last resort and when it's affecting their functioning and affecting them socially yah, then then it has to be addressed -

M: And there has to be more –

A: – It has to be addressed! –

M: – more parent buy-in.

A: It's very uncomfortable conversations that initially have to happen. But we really do try to make sure the parent is feeling supported rather than judged. It's not easy ever to be a parent on the receiving end hearing that your child is struggling –

M: And I suppose financially too sometimes –

A: It's a big ask. It's a big ask …

M: … to get an educational psychologist to assess it's like so pricey.

A: It's a really big expense… a really big expense.

M: Ariadne, I really appreciate your time, the last question and I know it's quite general, but um I know we've chatted about these thirty-five years teaching here and have had and will have but if there's anything in general you would advise to maybe a junior, um, Grade R teacher with regards to play and learner development would there be like a "summary message" or what if you had any –

A: Pearls –

M: Yeah! “My gem advice” – what would it be?

(#7)

A: Joseph, there’s no question in my mind that children that have been allowed to play and to learn through play the research shows it that the children that have been allowed to learn through play have far more success in life and as human beings in every facet of their life they are far more well-rounded and more adjusted rather than the child that has been taught in a way that they’ve been forced to remember and regurgitate information and content. There’s just no question! Play is *vitally important*.

M: Ariadne, this has been totally amazing. I completely agree!

A: My pleasure!

M: This is why I’m researching it so we can find better ways to extend this to every teacher, you know, this understanding between the link between self-regulation, play and just helping these little guys develop.

A: It’s very exciting!

M: Thank you!

Appendix K: An MPOT "Play-checklist" – *Vignette 1* (Chapter 6)

Each category of this *play-checklist* corresponds to MPOT outlined in **Tables 3 & 4**

	Play-checklist	
Characteristics (general)	*Mature*	*Immature*
Props	Props were teacher-constructed. The design tools – lids, caps, skewers, plastic knives, the playdough etc. – were reused from day today.	Learners were not afforded the time or resources critical for inventing new tools and while tools might have been imaginatively adapted in role-play for purposes outside their normal daily uses they were primarily used in a realistic fashion.
Metaplay	It was given to the learners to design something instructed by the teacher yet the image of what was desired still needed thought and planning which learners could *play through*. A few of the learners were sufficiently confident to execute a plan for their cookie designs before constructing them. This was enabled, potentially even suggested by the tools available; if square cutters were an option then we might expect that not so many circular cookies would have been designed. A relationship between self-planning and tools was difficult to see because Ariadne's repetition afforded little space for Oscar's imagination. Had learners needed to find objects to create their shapes, this might have produced different outcomes. The play was strictly guided by props provided.	Oscar demonstrated immaturity to conceive of a design for his cookie from an internalised mental source, yet when prompted by an *external* suggestion, he enthusiastically connected with that idea. Enthusiasm insufficiently supported by Oscar. Oscar's construction was initially immature and did not begin to meet teacher expectations *until* the researcher's suggestion was made which saw Oscar enter a more mature metaplay fulfilment of the task; i.e. he was able to conceive or self-plan the completed task as based on a concrete model from his own experience. Oscar remained for longer than 15 minutes attending to his cookies. Most groups were there for at least ten minutes. Some learners chose not to become absorbed in ornate designs but were still there for not less than ten minutes as a minimum. With an experience on which he could imagine his plan, Oscar persevered.

Play Interactions	While learners visibly began their work alone, the teacher's rules structured how actions at the station would transpire. All learners were cooperative and could imagine the playdough as cookie dough for moulding/ manipulating into desired shapes. But this was not supported by socio-dramatic inversions of object/meaning → meaning/object	Oscar could be said to have begun his work alone, but with the collaborative input of his teacher and the examples of his peers, as well as the Jolly Jammer suggestion, – he was then working in collaboration. The children did follow predetermined rules that governed the sequences for their task; Oscar's experience displayed a breakdown in managing steps since he was (i) making too many balls for cookies; (ii) failing to utilise the tools available (besides his body); and (iii) only with Ariadne's assistance did he regain a sequential direction to his designs – an indicator of *weak* self-regulation and therefore he was otherwise overwhelmed.
Role Playing	Learners were not invited to or provided for to put on the role of bakers, cooks or chefs. They did not have time to develop this theme of role playing. It was weakly framed by their teacher. As explained by Elkonin (1978) role-playing is almost the heart of play because the identity adopted temporarily allows for children to already act a head taller than themselves and thereby grow a head taller in the sense of developing HMF. The question of autonomy and volition are mentioned here because Oscar was unable to be fully autonomous in his constructions because he was unable to play – unable to allow playfulness to lead his executive development of the task.	Some, like Oscar, were thoroughly concerned with their task to make cookies more than follow the orders: x6 cookies needed in each batch. The task did not extend to a role which was then elevated to play and role-playing.
Role of Speech	"Jolly Jammers" served as an auxiliary sign to direct Oscar to an image from his experience (i.e. to imagine). No further dialogue was held in regards to this reference. Ariadne's reminders were critical for honing learner attention to the given task *but* externally from the play inviting a distance between	All learners were capable of using spoken language to express their desires and talk about their cookie designs with their peers and teacher (when asked). This was not a priority though and this type of reflection happens in play.

	herself as educator and the learners (i.e. no double subjectivity)	Dialogue and discussion were limited to the given instructions.
Adult Dimensions	Level 4 anchors	
Centre Management (CM)	No pictures were available which might have aided learners like Oscar. A visual representation might however, have "overrode" imagination among some and the expectation might have been seen as merely: "Copy those cookies". The instruction to make six cookies allowed for Ariadne's monitoring presence to remind them while they were designing.	
Make-Believe Play Time (MBPT)	Teacher Ariadne did not frame the cook/chef/baker dynamic as essential this was not make-believe play.	
Teacher Intervention (TI)	The teacher was present and modelled e.g. rolling the ball, cutting the cookie etc.; and provided language expressions that mediated where Oscar was and where he could go ***with aid***. The teacher did extend different strategies for making the cookies, but usually with the same sequence: for example, making the six balls first and then manipulating them further was a desired starting point, while some learners might have benefitted from an idea like squishing all their playdough together and then rolling it flat before cutting out the shapes of their cookies. A few times, or for a few learners, no teacher intervention was needed as they were functioning at the necessary level to compete the task unaided. Those requiring little intervention suggest the internalised understanding of what was expected and an ability to self-regulate until completing the play-task.	