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An ecology of Playworlds: A study into the reach of Lindqvist's legacy in testing times

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Abstract

Playworlds as an educational experiment has shown how children change their relations to

their social and material world. This play pedagogy creates new developmental conditions.

Play action acts as the window into a child's imagination and this gives insights into the

cultural development of the child. This paper discusses the ecology of Playworlds found in

the literature, and examines the theoretical contributions made. The goal is to examine how

the central cultural-historical concepts have been deployed in the generation of these new

models and to foreground what they afford for advancing Lindqvist's original research.

Keywords: Playworlds, play, pedagogy, teacher development

Introduction

Play research has been treated as a serious area of study by psychologists across the world,

particularly in Russia, where a longstanding and valued research tradition exists (e.g.,

Elkonin, 2005). It has also been a scholarly pursuit globally within the early childhood

education research community (see Table 1). A subset of this research has drawn upon the

seminal works of Vygotsky, particularly his conception of play. In line with this work has

been the conceptualisation of a cultural-historical model of play known as Playworlds.

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Playworlds as a play pedagogy has emerged in research into early years practice in Australia (Fleer, 2017a), China (Fleer, Li and Yan, 2018), Finland (Hakkarainen, 2010), Italy (Talamo, Pozzi and Mellini 2010), Japan (Marjanovic-Shane, et al., 2011), Lithuania (Hakkarainen, Bredikyte, Jakkula and Munter, 2013), Serbia (Marjanovic-Shane, et al., 2011), the US (Ferholt and Lecusay, 2009), and Sweden (Nilsson, Ferholt and Lecusay, 2017).

The legacy of the original work of Lindqvist (1995) has developed over time, with important educational experiments (Hedegaard, 2008) capturing the development of teachers (Ferholt, 2010; Fleer, 2018) and new concepts of a narrative Playworld (Hakkarainen and Bredikyte, 2008), Playworld practice (Ferholt and Lecusay, 2009), and Scientific Playworlds (Fleer, 2017a) being introduced. What has been missing from this volume of work is a systematic analysis of how play as a leading activity in the early childhood period (Vygotsky, 1966) is captured in these new models of play pedagogy.

The goal of this paper is to examine the diverse forms of Playworlds and to explore how Playworlds as a play pedagogy has developed over time. In this paper, the analysis is centred on the theoretical contributions made in advancing understandings of play pedagogy as originally conceptualised by Lindqvist (1995). By analysing developments, greater insights into play as a leading activity in the early childhood period and the corresponding models of pedagogical practices to support young children's development can be gained.

To achieve the goal of this paper, a brief overview of the changing needs in play research is presented. This is followed by an analysis of the theoretical assumptions of the foundational concepts in the original Playworld of Gunilla Lindqvist. The central question of, *if and how these models have been advanced to support young children's development*, as was in the

original promise in Lindqvist's work, is considered. Next, an ecology of Playworlds is presented in order to gain insights into the complexity of the play models that now exist. Finally, the essence of this ecology of Playworlds is theorised in the context of how the models collectively contribute to creating the conditions for the development for young children in educational settings.

Changing needs in play research

Historically, research into play appears to reflect the wider socio-political context. Recent investments in early childhood education have changed the practice landscape and stimulated new research needs. For instance, there are ongoing concerns expressed by scholars from Northern hemisphere continents of play-based programs becoming academic, just at a time when many Southern hemisphere continents are seeking to move away from formal pedagogy and curriculum and to make it more playful (Fleer and van Oers, 2018). In the former, there appears to be a return to the core values and practices of play pedagogy, as is evidenced through the research shown in Column 1, and an interest by the latter in outcomes for creative and innovative preschool graduates, as shown in Column 2 in Table 1 below.

Table 1

Major trends in play research focused on the relations between play, learning and development

Northern hemisphere research –	Southern hemisphere research –	
examples of paper titles	examples of paper titles	
Child-initiated pedagogies in Finland,	Children's agentive orientations in play-	
Estonia and England (Robertson, Konos,	based and academically focused preschools	
Babour, Pukk and Rosqvist, 2015)	in Hong Kong (Cheng, Reunamo, Cooper,	
- ,	Liu and Vong, 2015).	
The playing-exploring child (Nilsson, Articulating contrasts in kindergan		
Ferholt, and Lecusay, 2017)	teachers' implicit knowledge on play-based	
,	learning (Cheng and Stimpson, 2004).	

Academisation of early childhood education (Husa and Kinos, 2005)	Exploring the tactfulness of implementing play in the classroom: A Hong Kong experience, (Cheng, 2010).
Pedagogical strategies that improve children's play-based learning (Monkeviciene, Stankeviciene, Autukeviciene, and Joniliene, 2017). The playing learning child (Pramling Samuelsson and Carlsson, 2008)	What can children learn through play? Chinese parents' perspective of play and learning in early childhood education (Huang, 2013). Difficulties of Hong Kong teachers' understanding and implementation of 'play' in the curriculum (Cheng, 2001).
Playing to learn (Howard, 2011)	"Eduplay": Beliefs and practices related to play and learning in Chinese kindergartens (Rao and Li, 2009).
Play-pedagogy interface in contemporary debates (Wood, 2014)	Children's right to play: An examination of the importance of play in the lives of children worldwide (Lester and Russell, 2010).
Learning to play, or playing to learn (Brooker, 2010)	Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice (Rao, Ng and Pearson, 2009).
Drawings as space for intellectual play (Wood and Hall, 2011).	Play – a multi-modal manifestation in kindergarten education in China (Vong, 2012).

The relations between play, learning and development are foregrounded in the titles of the studies shown in the table. They are examples of the growing global interest in studying play in relation to learning. The trends noted reflect a concern for learning more concepts (Column 1) and a concern for how to make learning more playful (Column 2). Table 1 gives the background for the central question of this paper. To stay within a cultural-historical tradition, this paper is concerned with reviewing only the Playworlds literature.

Theoretical analysis of Lindqvist's original Playworld

Underpinning Playworlds is a cultural-historical conception of play, as first introduced by Vygotsky (1966), and an interpretation of drama pedagogy that takes into account Vygotsky's (1971) original thesis into the *Psychology of Art*. Here also, Vygotsky's cultural-historical concepts of development (Vygotsky, 1987; 1998), dialectics (Vygotsky 1997), and imagination emotions and creativity (Vygotsky, 2004) have been employed in the

development of a model of play pedagogy that Lindqvist (1995) named Playworld. Her central point in introducing Playworlds was that Vygotsky's conception of play was in need of a new interpretation because it was thought to not focus enough on the aesthetics of children's play. The specific cultural-historical concepts that came together with drama pedagogy, provided the basis for Lindqvist's (1995) re-interpretation of the concept of play theorised as Playworld. To appreciate the significance of her theorisation of Playworlds, six assumptions in her work are introduced and critiqued in relation to what is now known.

First, the core theoretical assumption inherent in Lindqvist's Playworld is a difference between a Playworld conception of play and the general literature on play (1995). The latter view of children's play is that it does not contain a plot, but rather is centered on action and dialogue only. To capture the significance of this assumption, I refer to this type of play explicitly as *spontaneous play* and not as *free play* as is common in the early childhood education literature. Play is never free (Goncu and Vadeboncoeur, 2016; Grieshaber and McArdle, 2010). Spontaneous play sits in contrast to a Playworld's conception of play because it has a script, plot, and dramatic narrative – as has been also been noted in performances in the theatre – historically named as drama or theatre play.

Second, in this differentiation of play it becomes possible to determine why Lindqvist (1995) operationalised Playworlds through what she called *play pedagogy*. In analysing Lindqvist's move away from spontaneous play, a further assumption can be found within her work. Specifically, in her conception of *play pedagogy* the adult takes a role in children's play. This perspective is in contrast with the dominant view of children's play, which takes the position that for it to be play, no adult should be involved (Moyles, 2010). The central assumption underpinning *play pedagogy* is that the early childhood educator takes an active role in

changing the conditions of children's play. For instance, Lindqvist (1995) said, "the pedagogue needs to inspire the child to play, in order to develop the dramatic nature of the play" (p. 35). Including the adult in children's play has been shown in subsequent research to be one of the biggest challenges facing teachers when implementing a Playworld approach (see Fleer, 2015; Loizou, 2017).

Third, the use of drama pedagogy for inspiring children's play appears to be rarely discussed in the early childhood education literature, even though there are obvious similarities in practices, such as imitation (characterization), identification (ability to take on a role) and imagination. The central assumption is that in drama, as in play, children develop a dynamic relationship with reality. Lindqvist in drawing attention to the similarities in pedagogical practices between drama and children's play, questioned the over reliance of early childhood educators on psychology to inform practices. As a result, she focused her research outcomes on the pedagogical practice of play found in drama, and not primarily on the relationship between play development and development of the child as is core to the focus of culturalhistorical psychology. Lindqvist's concerns about the over reliance of psychology skews her emphasis towards pedagogy – where she makes an important contribution to practice and subsequent research into Playworlds (see below). The focus on pedagogy appears to be a divergence from her main theoretical argument where play, like drama, changes the child's relationship to reality. With the exception of recent Playworld researchers, the focus on the child's changing relationship to reality during play, and in using drama pedagogy, still remains absent in the general discourse and research into children's play in early childhood education today. There is still a need for examining the child's changing relation to reality. This is an important psychological dimensios and is foundational to a cultural-historical

reading of play, which interestingly, is particularly sharp in the empirical studies that have advanced upon Lindqvist's original work (see further below).

Fourth, despite Lindqvist's (1995) worry that play was being defined too psychologically, she did bring attention to many different psychological characteristics of play. Importantly, she explained that "consciousness is the key concept and the principle of individual development, and to children play is the activity through which they become conscious of the world" (p. 4). In this reading, play is viewed as the cultural source of a child's development. In Lindqvist's work she advocated for a cultural perspective of play, which she said unites art, culture and social processes (1995). Cultural development reveals itself in children's play action. The assumption is that play action acts as the window into a child's imagination and this gives insights into the cultural development of the child.

Fifth, in keeping with a conception of play as a cultural process, was the assumption that in play a unity of emotions and cognition exists. Lindqvist said that, "Play does not keep emotion, thought and will separated from one another" (1995, p. 4). It is through the interplay between emotions and intellect that imagination in play arises. Lindqvist argued that emotions and thought were presented as united in Vygotsky's (1971) *Psychology of Art*, and it is here that the foundations for his cultural work on play lie. Like Gonzalez Rey (2009), Lindqvist drew attention to Vygotsky's early work in the Psychology of Art and his final works where play gained prominence as the leading activity of the preschool child. In this reading, play acts as the source of development for the preschool child.

In Vygotsky's conception of play, as in Lindqvist's Playworlds, the child is happy to be playing with another child, but at the same time is feeling other emotions, such as becoming

frightened by the emerging play script. The child wishes to play with the other child, but at the same time is not feeling safe in their play. In Vygotsky's theory, this tension is theorised as a productive force for the child's development. Emotional expression and emotion self-regulation are captured in the child's leading motive to imagine and play at will, whilst at the same time playing in relation to social others.

Playworlds foregrounds the unity of emotion, thought and will as part of the children's and teachers' collective cultural practices. However, the process of development from one leading activity to another was not taken up explicitly in Lindqvist's research – such as from play to learning – even though it is raised in the practice of implementing a Playworld. Lindqvist, like Vygotsky, used the theoretical logic of dialectics for explaining development in play. For Vygotsky (1998), development is a change in motive orientation, such as from play to learning. However, Lindqvist was concerned more with the development of the aesthetics of play.

Finally, in Playworlds the dialectics between the world of the child and the world of the adult creates a paradox and this paradox acts as the force for development. For instance, the child is seeking to *reproduce* in play the reality they experience, whilst at the same time *producing* their own play scripts during the process of coming to understand the roles and rules of the society in which they live. Lindqvist (1995) argued that in play, "children are expressing their feelings and asserting themselves in relation to adults" but at the same time the adult senses that children also wish to "move closer to the adult world. This is neither dualism nor harmony – this is dialectics" (p. 50).

In this conception of dialectics, the child's capacity to separate meaning from the visual field of the concrete object, gives new possibilities in play, in language, in thought, and in self-regulation of emotions and will. Here the link between Vygotsky's conception of play and his dialectical concept of imagination and creativity are brought together by Lindqvist (1995) when she says, "...the interplay between emotions and intellect gives rise to the development of imagination in play" (p. 49). It is not just an intellectual act, but as discussed above, it is also emotionally experienced. Children can imagine new actions and possible play scripts. There is a meeting of the inner ideas and the external actions which play makes conscious to the child. Development here sees that actions can now arise from ideas, not just concrete objects.

Lindqvist (1995) brought together Vygotsky's *Psychology of Art* with his later work on play and imagination and creativity. There is a *reproductive* (becoming closer to the roles and rules of society) and *productive* (aesthetic creation) dialectic illustrated as cinematic rather than as photographic re-presentation of reality. It is this dialectical process that reveals itself in the creation of something new, the development of new emotional imagination, and in the realisation of aesthetics. She says, "Imagination is both emotional and intellectual, and that is why it develops creativity" (p. 46). It is through this theorisation that she was able to introduce the aesthetics of play.

In Table 2 these six assumptions underpinning the original conceptualisation of Playworlds are summarised (Columns 1 and 2), and contextualised in relation to the dominant theoretical assumptions in the early childhood education play literature (Column 3).

Table 2

Core theoretical assumptions in the original development of Lindqvist's Playworld and the broader play literature

Chara Playw	orlds	Theoretical assumptions inherent in Playworlds	Theoretical assumptions inherent in the general play literature
1.	Playworld has a plot and a dramatic narrative.	Spontaneous play does not generally contain a plot. Consequently, spontaneous play sits in contrast to play that has a script, plot, and dramatic narrative. This aligns with performances in the theatre that has historically been named as drama or theatre play.	Free play is the dominant play practice in early childhood settings. Playworlds with a plot and dramatic narrative is not generally planned for by teachers in early childhood settings.
2.	operationalised through a play pedagogy.	Adults have a role in children's play by introducing dramatic plots which deepen the play.	Adult involvement in children's play is in contrast to the general early childhood education literature on play, which suggests it cannot be play if an adult is present.
3.	Playworlds is based on dramatic moments or drama.	In drama, as in play, children develop a dynamic relationship with reality.	A child's changing relationship to reality during play remains absent in the general discourse and research into children's play in early childhood education today.
4.	Playworlds create the conditions for the cultural development of the child.	Play action acts as the window into a child's imagination and this gives insights into the cultural development of the child.	Play action is viewed as biologically determined, often through expected stages of development or as something that comes from the child (rather than as cultural). Play is the work of the child and is the child's personal domain.
5.	Playworlds supports the development of the aesthetics of play.	Play captures the unity of emotion, thought and will and is realised collectively by children and teachers through imagination.	Traditional early childhood planning has separated cognition, emotions, language and physical development into domains.
6.	In Playworlds the dialectics	Play is the source of the preschool child's development. In	Development has been traditionally based on

between the world of the child and the world of the adult creates a paradox and this paradox acts as the force for development.

play children change the meaning of actions and objects to give them a new sense. Play development is the movement from the visual field of the concrete objects, to changing the meaning of actions and object, through to ideas.

stages or milestones.
There is no tradition of conceptualising play as also developing. Stages of play are associated with the child's age.

Lindqvist (1995) operationalised Playworlds at a time when Sweden and many different European and European heritage communities were steeped in a view of children's development as biologically determined or as Vygotsky argued generally, as an evolutionary view of development (see Column 3 in Table 2). Further, the shadow of Piaget's theory of development had been deployed into preschool settings in a way that positioned teachers as observers of children's development, matching curriculum to their current rather than future development. This had the net effect of free play being the dominant play practice in early childhood settings. Consequently, the introduction of Playworlds with a plot and dramatic narrative, was then and is still now, not generally planned for by teachers in early childhood settings. So therefore, it is not surprising that the introduction of adult involvement in children's play is viewed as problematic or difficult. Lindqvist (1995) herself noted this difficulty. Today, the early childhood education literature for European and European heritage countries is still dominated by theories of play that suggest that play is only play when an adult is not present. In this context, it is important to examine how Playworlds, as a play pedagogy has developed over time, and how new practices and conceptions of play pedagogy have been advanced.

Advancing the concept of Playworlds

The legacy of Lindqvist's work is captured in Table 3 below, where researchers have in different contexts with different purposes, created their own educational experiment of Playworlds. The diversity and the complexity of how the original ideas have been advanced,

can be captured as *an ecology of Playworlds*. In drawing upon the central assumptions and characteristics of Playworlds (Table 2), what does a synthesis of the landscape of Playworlds now found in the literature suggest?

First, what is common in this ecology of Playworlds is the focus on the development of play which in turn acts as the source for developing the child. Within the frame of the Playworld, the catalyst for development is discussed differently. In the important work of Ferholt (2010), she examined poetic representations of the Playworlds through juxtaposing drawings, video and audio recordings, and in so doing she re-experienced "moments in the Playworld that were particularly emotionally charged" (p. 169). Ferholt (2010) nicely captures the emotional nature of the Playworld and draws out the pedagogical practice for realising the emergence of emotionally felt expressions. The complexity and dialogical dynamics between the storyline and the characters (adults and children) is captured in motion in her research and is further theorised in her work on the concept of perezhivanie (Ferholt, 2015). Emotions is core in Ferholt's Playworld because it acts as the central force for the development of both the adults and the children. Emotions is also featured in the seminal work of Hakkarainen. However, it is the problem situation that acts as the central force for development in his Playworld. Hakkarainen (2010) has argued that this problem situation is not simply problem solving as we might see in schools, but rather the problem situation is within a transitory activity system that is created through the Playworld. This system intertwines the realistic problem situation with the fiction of the story line. This means that "Children are *inside* the problem situation and emotionally involved" (Hakkarainen, 2010, p. 80). The transitory activity system, where both emotions and cognition intertwine, create conditions for the development of the child, acting as a super tool for their psychological development. Close to this is the concept of emotional imagination that is central to a Scientific Playworlds (Fleer, 2017a), where

emotional engagement takes place through scientifically oriented problems. Scientific Playworlds creates an imaginary scientific situation where adults and children collectively build scientific narrative and scenarios or problem situations. Foregrounded in a Scientific Playworld is an emotional involvement in the scientific scenarios. What is different is that children consciously consider scientific concepts through imagining the relations between observable contexts and non-observable concepts. Imagination and emotions are foregrounded, and acts of wondering are promoted.

The approaches discussed here illustrate the importance of emotions, however, each researcher has conceptualised emotions within the Playworld slightly differently. The power of emotions (Ferholt, 2010), the importance of emotionally engaged problem situations (Hakkarainen, 2010), and the significance of emotionally charged scientific scenarios where children imagine scientific concepts (Fleer, 2017a), each create developmental conditions for children in preschool settings. Together, they make important conceptual contributions and deepen understandings of Playworlds through their respective empirical studies.

Second, the content of the Playworlds across the ecology is different. In each of the studies, researchers have a different lens on what they are seeking to develop. In the research of Rainio (2008), Baumer, Ferholt, Lecusay (2005) and Hakkarainen, Bredikyte, Jakkula and Munter (2013) narrative development is core to their work. For other researchers, the development of executive functions as a social practice is studied (Fleer, Veresov, Walker, 2017), whilst the development of abstract concepts through emotional imagination (Fleer, 2017a) or as emotionally engaged problem situations within a transitory activity system (Hakkarainen, 2010) has been the content of what is being developed. Nuancing of narrative skills with acting and social skills in digital on-line contexts has also featured (Talamo, et al.,

2010). Although children's development is the focus, the content to be developed is very different. The tapestry of studies makes an important contribution to understandings the *Ecology of Playworlds* found in the literature, because collectively the research shows that Playworlds, as a model of practice, does support children's development beyond what Lindqvist originally conceptualised.

Third, the methodological foundation that was so central to Lindqvist's research was the educational experiment. However, the advancement of her original work has seen the content of the playworlds skewed differently to that of the aesthetics of play. Through researching different content and contexts at a different socio-political time to Lindqvist, different research questions and approaches to research have emerged. Lindqvist (1995) mentions in her thesis that the educational experiment of Hedegaard and the didactic research of Malmgren and Nilsson (1993) were used, and "this form of research makes didactic studies particularly well suited to reach into development processes" (p. 67).

The education experiment has become a well-developed method within the cultural historical school of thought – a further development of Vygotsky's methodology. The education experiment can be said to represent a form of action or intervention research where everyday situations are systematically intervened, and an educational perspective is combined with a research perspective. In short, new methods of education are being tried within this frame of a pedagogical research programme (Malmgren and Nilsson, 1993, p. 67).

Hedegaard (2008) has argued that the educational experiment is different from action research because "the intervention is planned in relation to a theoretical system and not

simply from agendas of practice" (p. 185). Playworlds has been noted by Lindqvist (1995) as an intervention, and this is in theoretical keeping with Hedegaard's view that "In this type of research, it is very important to have clear models of how teaching content should contribute to children's learning and motive development" (p. 185). In line with this view of an educational experiment, Lindqvist documented the play practices of the adults and children, but rather than making the study of children's development the focus, she specifically examined the pedagogic process of play. She documented through video recordings, the planned dramatizations and the organised play sequences that characterised the Playworld.

In the Ecology of Playworlds the specific model of teaching has always been included in the study design. But how the methods for researching Playworlds have evolved since Lindqvist's seminal study, tend to follow in one way or another Vygotsky's genetic experiment. For instance, Hakkarainen (2010) has argued that in the genetic experiment, the researcher seeks to study the source and process of children's development. On the microgenetic level the study is focused on the smallest unit that makes up the whole (and not the elements). This can also be seen in the research of Ferholt (2015) who introduces into the literature the idea of 'revitalizing autobiographical emotional memories by imitating another's (or a past self's) physical actions" (p. 71) captured during emotionally charged moments in the Playworld. This focus on the microgenetic unit is also seen in the tricking games that are captured during the social processes of the Playworlds, where executive function tasks are given meaning through the unit of collective social situation and social situation of development of the children in the Playworld (Fleer, et al., 2017). However, in relation to the more advanced and broader units, such as in the study of personality and consciousness, a method was never formulated by Vygotsky – only principles (Hakkarainen, 2010). Developing these broader units has been undertaken by Hakkarainin (2010), through introducing the transitory activity

system that both describes the Playworld as creating a specific social situation of development, whilst also examining more broadly the change in development from play to learning of children. A change in motives from play to learning has been the focus of research into *Digital Playworlds* (Fleer, 2017b) and in *Scientific Playworlds*, where children engage emotionally with the science concepts, and in so doing are oriented towards science learning (Fleer, 2017a). The essence of the educational experiment follows the play pedagogy in relation to microgenetic development of the children, and the genetic experiment operationalised broadly through a change in motive orientation of children through the Playworld, together contribute in important ways to understanding the methods for studying the development of children in preschool settings.

Together, these three dimensions of the *Ecology of Playworlds* have advanced the original conceptualisation of Playworlds. Figure 1 captures the unit or germ cell of the existing *Ecology of Playworlds*. The essence of this unit is the catalyst for development, the content to be developed, and the educational experiment or intervention as the method of study and practice. This unit gives a practical way forward for educators and researchers who are seeking to change the conditions of young children's play.

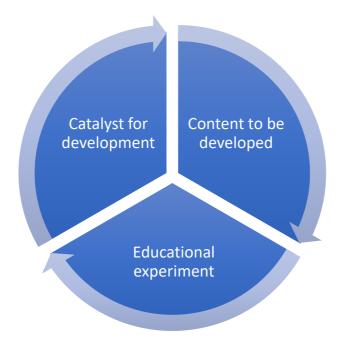


Figure 1. The essence of an ecology of Playworlds

Table 3
The forms of Playworlds

Lead researcher(s)		Content	Playworld as an educational experiment	Research outcomes
Gunilla Lindqvist (1995)	Sweden	Play pedagogy based on the relation between play and culture: A didactic study of play and culture in preschools, where drama pedagogy is used in support of a creative pedagogy of play (drama and literature). Dramatic and narrative patterns of play: two forms of aesthetic patterns 1) poetry, music and movement; 2) literature and drama	Fear comes to Freja (Fear is lying under the bed – frightened of children because they are dangerous) Well known stories: Astrid Lindgren's Pippi Longstocking (Pippi doesn't want to grow up); Kaj Beckman's Lisen can't sleep (Lisen does not want to go to bed and makes up many excuses); Tove Jansson's Tale of Moomin Valley (The invisible child as a puppet show), Who will comfort Toffle? (contrast between safety and adventure). Toddlers and preschool children up to 6 years (mostly multi-age groups).	Playworlds supports the development of play; adults and children relate in joint play; the play theme must emotionally touch the adults and the children; the play plot and narratives must contain basic conflicts; text contains dramatic quality, and with multiple possibilities; adults give life to the play and mediate children's zone of proximal development.
Sonja Baumer, Beth Ferholt, Robert Lecusay (2005)	USA	Promoting narrative competence through: 1) joint adult–child pretense based in a work of children's literature, 2) discussion, 3) free play, and 4) visual art production.	Comparative study of 5- to 7-year-old children between Playworld of C.S. Lewis's story of <i>The Lion</i> , the <i>Witch and the Wardrobe</i> and conventional play based program.	Playworld practice supports significant improvements in narrative length, coherence, and comprehension, although not in linguistic complexity. In addition, pretense has an important role in the development of children's narrative competence.

Beth Ferholt and Rober Lecusay (2009)	United States	Playworld practice features shared responsibility amongst teachers and children engaged in joint play, based on children's literature that is joint adult-child scripted and improvisational acting and set design. Need to decide upon the ways adults can join children's play. Socratic dialogue supports children's and teacher's development.	C.S Lewis's <i>The Lion, the Witch and the Wardrobe</i> (K-1 classroom; 5.3-7.2 years; from military families; English language learning centre children with over 50% Latino children)	Playworlds expands the concept of the zone of proximal development to capture the unidirectional development of "the child towards an adult stage of development but also the simultaneous development experienced by adults participating in the zone with the child" (p. 59).
Anna Pauliina Rainio (2008)	Finland	Narrative Playworld Activity: In using narrative learning and play pedagogy the Playworld sought to enhance collaboration, to motivate children who appear unmotivated, and to help children who are less visible in the classroom to take an active role.	Astrid Lindgren's <i>Brothers Lionheart</i> Playworld Project – traveling villagers who wish to rescue neighbouring valley from an evil Tengil (7-year old children).	Through following Anton, considered to be an unmotivated problem child, it was found that the Playworlds changed the conditions for interacting. Through taking on a character, he received attention as an active participant, and the teachers in role listened more and engaged differently with Anton.
Alessandra Talamo, Simone Pozzi, and Barbara Mellini (2010)	Italy	Multiplayer Playworld involving chat rooms and discussion forums: 1) Development of narrative skills to write character's story 2) Acting skills to make the character credible, and 3) Social skills as each character occupies a particular potion in the on-line community	Multiplayer on-line games of adults where the Playworld is an extension of participants' social experience but in a virtual world, whilst at the same time, taking that on-line social experience into the real world.	The virtual and real world of children are interrelated and together contribute to "the construction of a unique, integrated personal experience that exists in the tension between everyday life and the computer world" (p. 23).

Pentti Hakkarainen and Milda Bredikyte (2008)	Finland	Narrative Playworlds - creating a narrative basis for joint play involves: 1) Observing children to reveal their interests; 2) Story as a tool to open up the theme (story creates contradiction, dramatic collisions) and as an integrating tool to frame the	Playworld of <i>Alien R2</i> in an afterschool yard play over six months and Playworld of the folk tale of Rumpelstiltskin by the Brothers Grimm (see further below for details). Importantly the implementation of	Narrative intervention – children are puzzled by contradictions and Playworld narratives give the opportunity for children's transformation of ideal into real forms of behaviour without overwhelming responsibility. ZPD: Exploring the relations between playlearning and development- Playworld supports
		imaginary world; 3) Different centres reveal different projects children can select to be involved in, or follow their own ideas; 4) Child-initiated free play to develop the play themes further.	the Playworld featured a balance between adult involved and free play activity settings. They stated that, "We have attempted to balance children's free choice between different available activities by offering new challenging play opportunities. In most cases, play is	children's development Found that missing from Lindqvist's research was evidence of development "from joint supported action to individual or collective experimentation and personality change" (p. 9).
			promoted by the use of indirect guidance methods" (p. 10).	Expanded the playworld by using other activity settings, such as creative activity corners, free play time, and joint play of adults where different types of interaction took place, including individual interaction (rather than always the collective joint play). They found that "Different types of adult help focus on different aspects of learning in play context" (p. 10). They argue that "Learning in play is an uncharted territory in psychology and educational theory", and "We understand that much research work has to be done for revealing the whole picture of learning in play and its role in human development" (p. 10).

Hakkarainen (2010)	Finland	Transitory activity systems: Combine Lindqvist's play pedagogy and problem solving related to subject matter in play- based program. Theoretical elaboration and developmental curriculum features resulted in: 1) Children enter imaginary situations of ideal cultural forms found in stories, tales and the children's fiction; 2) Themes reflect dichotomies and human value systems in the context of educational agenda; 3) Adult participation and emotional involvement brings the theme alive; 4) Joint reflection of dramatic collisions in the storylines, that need to realistically be solved before the story can continue; 5) Time and space for observation and analysis of children's play in order to elaborate the play theme.	Study of 4-8 year old children in a multi-age classroom participate in morning playworld where the focus is on the development of joint fiction and narrative learning. Significance of the border between the classroom and the fantasy world were created through: 1) C.S Lewis's <i>The Lion, the Witch and the Wardrobe</i> . The entrance to the Playworld was through a door, imagined as the wardrobe. 2) In the folk tale of Rumpelstiltskin by the Brothers Grimm, the King waited for the children to enter his Kingdom. He read a letter to the children but the words in the text were backwards. The children learned that a spell had been cast on the King's court and all 365 rooms were inverted. The children entered and walked and talked in the court backwards, aided by turning their jacks back to front.	Transitory activity systems that uses playworld themes to provoke and enrich free play. It is argued that the approach taken is equivalent to Vygotsky's genetic experiment. However, the transitory activity systems: 1) produce new psychological tools, rather than just drawing upon auxiliary neutral objects to be used in problem solving; 2) imaginary situations are thought to be cultural super tools for developing children; 3) rather than one problem, the playworld involves many problem solving sessions lasting several months; 4) the researcher is part of developing the adult-child joint fiction that is created; 5) rather than researcher introducing and regulating the problem, "in playworlds adults are co-payers of a group of children supporting children's creativity" (p. 79).
Hakkarainen, Milda Bredikyte, Kaisa Jakkula, and Hikka Munter (2013)	Lithuania	Narrative play-worlds are created through children and adults entering into role, and where play activity develops from elementary to complex forms of play. Mature narrative role play is evidenced through the development of shared ideas and	Play laboratory featured a creative play club for children and families, involving university students who acted as play partners. Sixty-nine families participated. A multi-age setting aged from birth to five years. Play intervention: In narrative playworlds, teachers "not only support	Successful play interventions followed a coherent storyline and were deemed as spontaneous, improvisational and creative. Seven key characteristics of the adult intervention in the narrative role paly were: 1) motivating shred theme was developed; 2) active in role parti8pation; 3) emotional engagement of the adult; 4) dialogical

the ability to construct a plot. Here development moves from co-development to self-development. They conclude that, "joint play activity requires developmental adult-child interaction and this constructs a system that in turn creates the ZPD for all participants" (p.216).

the development of ongoing play, but also have to present and model higher forms of play" (p. 216). Evaluation of play guidance was from 12 play sessions. character to the interaction; 5) dramatic tension in the storyline; 6) script is fascinating and logical in its flow, and 7) ability to read the play and predict the need for the introduction of new character, event, etc. These characteristics when successfully performed as a narrative intervention enabled the play to move to a higher more advanced level. Their study found for higher forms of play, adults need to observe and catch the child's play idea; to step into the play that is developing and expand the child's initial idea; to engage in joint play with the children, and finally to "Reach togetherness with a flow of mutual experience" (p. 224). The latter point is the highest form of play because both children and adults develop through the play.

Marilyn Fleer (2017a)	Australia	Scientific Playworld features: 1) A story with a structure that allows the children to collectively go on adventures 2) Psychological tool to support the transition from the preschool and to the imaginary situation 3) Being inside the imaginary play, taking a role 4) Being deliberately in frame, setting problems up inside the imaginary play; inviting children to imagine together 5) Dramatises concepts; creates dramatic moments and tension	The Magic Wishing Chair by Enid Blyton Children aged 3.6 and 5.9 years (mean age of 4.6 years).	Scientific Playworlds: A model of teaching science in play-based settings. Importance of: Cultural device that closely mirrors what the children are scientifically experiencing; Creates an imaginary scientific situation (adult/child); Collectively builds scientific narratives scenarios or problem situations; Consciously considers scientific concepts; Imagining the relations between observable contexts and non-observable concepts; Wondering: widening the scope of the imaginary situations; Emotionally charged situations help focus scientific attention and engagement.
Marilyn Fleer, Nikolai Veresov, Sue Walker (2017)	Australia	Playworld pedagogy to support the development of executive functions: Drama, Problem scenario, Psychological borders, Collective play, and Researching to find solutions.	3 Billy Goats Gruff in outdoor area, using passwords; Story of Brown Bear in the attic needing to be rescued. Playworld spaces included a magic curtain, circle time mat and crawling through a cardboard box. 4- and 5- year old children in childcare settings.	Playworlds as a pedagogy supported the development of children's executive functions; The relations between psychological development and pedagogical practices featured movement from using objects to using imagination (pivots); Transferring EF activities (motives); Planning and shifting (Consciousness of rules and roles); and Tricking (Taking a double perspective).

Conclusion

I have deliberately used the term of an *Ecology of Playworlds* to theorise the outcomes of the analysis of Playworlds found in the literature. This is because this *Ecology of Playworlds* is based on the same Vygotskian genealogy used by Lindqvist and is in keeping with the original conceptual intent of her work. However, the studies in the literature also collectively advance the original concepts she introduced through examining different developmental content, and as a result of this, researchers have nuanced the methodology and Playworld model. The core theoretical unit of a Playworld appears to be: 1) planning into the Playworld a catalyst or drama as the driving force for development, 2) planning into the Playworld the content to be developed, and 3) framing the Playworld as an intervention or educational experiment in which the play itself develops (source and process). This unit gives a practical way forward for educators and researchers who are seeking to change the conditions of young children's play.

Through the *Ecology of Playworlds*, early childhood educators are given a very different play pedagogy to inform practice. An analysis of the assumptions inherent in the Playworld model and the general play literature, suggest they are theoretically very different. It is possible to see why Lindqvist noted that teachers had difficultly with implementing a Playworld approach, and also why some subsequent researchers found it challenging to involve adults in children's play. Vvgotsky (1997) suggested that it is much easier to learn new content, than it is to think about what you already know in a different way. As both a productive and reproductive activity, play changes the relationship the child has to reality, and changes their motive orientation, which together is a very different way to think about the concept of play.

The theoretical assumptions underpinning a Playworld approach require a complete rethinking of the nature of children's development, about how play is conceptualised, about the role of the early childhood educator in being inside the collective imaginary play with the children. The scale of this re-thinking requires a mind-shake or transformation of the mind (Stetensko, 2017), and is certainly a revolutionary view of development (Vygotsky, 1998) for the teacher.

What the original and subsequent models of Playworlds have afforded is a new way of conceptualising play, learning and development, and a model of practice that operationalises how to do this in preschool settings. The ecology gives different possibilities because the content to be developed is different, and this means more models of practice underpinned by research are available to early childhood teachers. With concerns for a more playful curriculum in Southern hemisphere and the worry of losing play in the Northern hemisphere, the time is now right for the *Ecology of Playworlds* to enter the stage and become the centre of preschool practice. Yet the challenges to be faced in changing early childhood practices and moving this agenda forward, should never be underestimated. Having available an *Ecology of Playworlds* to draw upon, is one step in changing conceptions and direction in play practice and research.

References

Baumer, S. Ferholt, B. and Lecusay, R. (2005), Promoting narrative competence through adult—child joint pretense: Lessons from the Scandinavian educational practice of playworld, *Cognitive Development*, 20 (4), 576-590, doi.org/10.1016/j.cogdev.2005.08.003.

Brooker, L. (2010). Learning to play, or playing to learn? Children's participation in the cultures of homes and settings, In L. Brooker, and S. Edwards, (Eds.) *Engaging play*. Open University Press. UK (pp. 39–53).

Cheng, P.W-D. (2001). Difficulties of Hong Kong teachers' understanding and implementation of 'play' in the curriculum. In *Teaching and Teacher Education* 17(7), 857-869, doi: 10.1016/S0742-051X(01)00035-X.

Cheng, P-W.D. (2010). Exploring the tactfulness of implementing play in the classroom: A Hong Kong experience. In *Asia-Pacific Journal of teacher Education*, 38, 1, 69-82.

Cheng., P-W.D., Reunamo, J., Cooper, P., Liu K. and Vong, K.P. (2015). Children's agentive orientations in play-based and academically focused preschools in Hong Kong. In *Early Child Development and Care*, 185(11-12), 1828-1844.

Cheng, P-W.D. and Stimpson, P. (2004). Articulating contrasts in kindergarten teachers' implicit knowledge on play-based learning. In *International Journal of Educational Research*, 41 (4/5), 339-352. doi.org/10.1016/j.ijer.2005.08.005

Elkonin, D.B. (2005). The subject of our research: The developed form of play, *Journal of Russian and East European Psychology*, 43(1), January–February, 22–48.

Vygotsky, L.S. (1966). Play and its role in the mental development of the child, *Voprosy Psikhologii*, 12(6), 62–76.

Ferholt, B. (2010). A synthetic-analytic method for the study of perezhivanie. Vygotsky's literary analysis applied to playworlds, In M.C Connery, V.P. John-Steiner, and A.

Marjanovic-Shane (eds.,), *Vygotsky and creativity*, (pp. 163-179), New York, USA: Peter Lang.

Ferholt, B. (2015). *Perezhivanie* in researching playworlds: applying the concept of perezhivanie in the study of play, In S. Davis, B. Ferholt, H G Clemson, S M Jansson and A Marjanovic-Shane (eds.), *Dramatic interactions in education*, (pp. 57-75), London, UK: Bloomsbury

Ferholt, B. & Lecusay, R. (2009). Adult and child development in the zone of proximal development: socratic dialogue in a playworld. *Mind, Culture and Activity*, 17(1), 59-83

Fleer, M. (2015). Pedagogical positioning in play – teachers being inside and outside of children's imaginary play. *Early Child Development and Care*, *184*(11-12), 1801-1814 (special issue). doi: 10.1080/03004430.2015.1028393.

Fleer, M. (2017a). Scientific playworlds: A model of teaching science in play-based settings *Research in Science Education*, DOI: 10.1007/s11165-017-9653-z

Fleer, M. (2017b). Digital playworlds in an Australia context. In T. Bruce, M. Bredikyte & P. Hakkarainen (Eds.), *Routledge handbook of play in early childhood* (pp. 289-304). UK: Routledge Press, Taylor and Francis Group.

Fleer, M. (accepted, 2018). The role of subjectivity in understanding teacher development in a Scientific Playworld: The emotional and symbolic nature of being a teacher of science, in F.

González Rey, A.M. Martinez, and D.M. Goulart (Eds.). *Theory of subjectivity: New perspectives within social and educational research*. The Netherlands: Springer

Fleer, M., Li, L. and Yan, Z. (accepted, 2018). Problematising pedagogical imports and creating new conditions for children's development: A case from China, M. Fleer, F. González Rey & PP.E. Jones *Cultural-historical and critical psychology: Common ground, divergences and future pathways*, Dordrecht, the Netherlands: Springer.

Fleer, M. and van Oers, B. (2018). International trends in research: Redressing the north-south balance in what matters for early childhood education research, In Marilyn Fleer and Bert van Oers (Eds.) *International handbook on early childhood education*, *Volume 1*, (pp. 1-31). The Netherlands: Springer.

Fleer, M., Veresov, N., & Walker Sue. (2017). Re-conceptualizing executive functions as social activity in children's playworlds. Learning, *Culture and Social Interaction*, 14, 1-11. doi: 10.1016/j.lcsi.2017.04.003

Goncu, A. and Vadeboncoeur, J.A. (2016). Returning to play: The critical location of play in children's sociocultural lives, In S. Douglas and L. Stirling (Eds.,), *Children's play, pretense, and story. Studies in culture, context, and autism spectrum disorder*, (pp. 294-314), New York, US: Routledge.

Gonzalez Rey, F.L. (2009), Historical relevance of Vygotsky's work: Its significance for a new approach to the problem of subjectivity in psychology, *Outlines*, 1, 59-73.

Grieshaber, S. and McArdle, F. (2010). *The trouble with play*, Berkshire, England: Open University Press.

Hakkarainen, P. (2010). Cultural-historical methodology of the study of human development in transitions. *Cultural-Historical Psychology*, *4*, 75–89.

Hakkarainen, P., and Bredikyte, M., (2008). The zone of proximal development in play and learning, *Cultural-Historical Psychology*, *4*, 2-11.

Hakkarainen, P., Bredikyte, M., Jakkula, K., & Munter, H. (2013). Adult play guidance and children's play development in a narrative play-world. *European Early Child Education Research Journal*, 21(2), 213-225.

Hedegaard, M., (2008). The educational experiment, In M. Hedegaard, & M. Fleer, M. (Eds.,). *Studying children: A cultural historical perspective*, (pp. 181-201), New York, NY: Open University Press.

Huang, R. (2013). What can children learn through play? Chinese parents' perspective of play and learning in early childhood education, *Te Iti Kahurangi, School of Education e-Journal*, 1, 12-19.

Howard, J. (2011). Playing to learn: The role of play in the early years, *Early Years: An international Journal of Research and Development*, 31 (3), 298-300, 10.1080/09575146.2011.607957.

Husa, S. and Kinos, J. (2005). Academisation of early childhood education, *Scandinavian Journal of Educational Research*, 49(2), 133-141, doi: 10.1080/0031380500048865

Lester, S. and Russell, W. (2010) *Children's right to play: An examination of the importance of play in the lives of children worldwide*. Working Paper No. 57. The Hague, The Netherlands: Bernard van Leer Foundation.

Lindqvist, G. (1995). *The aesthetics of play: A didactic study of play and culture in preschools*. Stockholm, Sweden: Gotab.

Loizou, E. (2017). Towards play pedagogy: supporting teacher play practices with a teacher guide about sociodramatic and imaginative play, *European Early Childhood Education Research Journal*, 25(5), 784-795

Malmgren, L-M and Nilsson, J. (1993). *Litteraturlasning som lek och allvar*. (Reading literature for fun and for work.) Lund: Studentlitteratur.

Marjanovic-Shane, A. (2016). "Spoilsport" in drama in education vs. dialogic pedagogy. *Dialogic Pedagogy, 4* doi:http://dx.doi.org.ezproxy.lib.monash.edu.au/10.5195/dpj.2016.151

Marjanovic-Shane, A., Ferholt, B., Miyazaki, K., Nilsson, M., Rainio, A.P., Hakkarainen, P., Pesic, M, and Beljanski-Ristic, L., (2011). Playworlds-An art of development. In C. Lobman and B.E. O'Neill (Eds.,), *Play and performance. Play and Culture Studies*, Volume 11, (pp. 3-32), Lanthan, USA: University Press of America In.,

Monkevičienė, O. Stankevičienė, K., Autukevičienė, B. and Jonilienė, M. (2017). pedagogical strategies that improve children's play-based learning. Society, integration, education. *Proceedings of the International Scientific Conference*. Volume II, May 26 - 27th, 2017. 290-307, doi: 10.17770/sie2017vol2.2254

Moyles, J. (2010). (Ed.), *Thinking about play. Developing a reflective approach*. Berkshire, England: Open University Press

Nilsson, M., Ferholt, B. and Lecusay, R. (2017). The playing-exploring child: Reconceptualizing the relationship between play and learning in early childhood education, *Contemporary Issues in Early Childhood*, 1(15).doi:10.1177/1463949117710800.

Pramling Samuelsson, I. and Carlsson, M. A. (2008). The playing learning child: Towards a pedagogy of early childhood, *Scandinavian Journal of Educational Research*, 5262), 623-641, doi: 10.1080/003138302497265.

Rainio, A. P. (2008). From Resistance to Involvement: Examining Agency and Control in a Playworld Activity, *Mind, Culture, and Activity*, 15 (2), 115-140, doi: 10.1080/10749030801970494

Rainio, A. P. and Hofmann, R. (2015). Transformations in teachers' discourse about their students during a school-led pedagogic intervention. *The European Journal of Social & Behavioural Sciences*, *13*(2), 1815-1829. Retrieved from https://search-proquest-com.ezproxy.lib.monash.edu.au/docview/1682443969?accountid=12528

Rao, N. and Li, H, (2009). "Eduplay": Beliefs and Practices Related to Play and Learning in Chinese Kindergartens. In I. Pramling Samuelsson and M. Fleer, M (Eds.), *Play and Learning in Early Childhood Settings: International Perspectives*, (pp. 97-116) Netherlands: Springer. doi: http://dx.doi.org/10.1007/978-1-4020-8498-0

Rao, N., Ng, S.S.N, and Pearson, E. (2009). Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice, In C.K.K. Chan and N. Rao, (Eds.,), *Revising the Chinese learner. Changing contexts, changing education*, (pp. 255-280), Hong Kong, China: Springer.

Robertson, L.R., Konos, J., Babour, N., Pukk, M. and Rosqvist, (2015). Child-initiated pedagogies in Finland, Estonia and England: Exploring young children's views on decision, *Early Child Development and Care*, 185(11-12), 1815-1827

Stetsensko, A. (2017). The transformative mind. Expanding Vygotsky's approach to development and education, New York, US: Cambridge University Press

Talamo, A., Pozzi, S. and Mellini, B. (2010). Uniqueness of experience and virtual playworlds: Playing is not just for fun, *Mind Culture and Activity*, 17(1), 23-41.

Vong, K-l. (2012). Play – a multi-modal manifestation in kindergarten education in China, *Early Years*, 32(1), 35-48, doi:10.1080/09575146.2011.635339

Vygotsky, L.S. (1966). Play and its role in the mental development of the child, *Voprosy* psikhologii, 12(6), 62–76.

Vygotsky, L.S. (1934/1987). *The collected works of L.S. Vygotsky, Vol. 1, Problems of general psychology*, R.W. Rieber & A.S. Carton (Eds.), trans. N. Minick. New York: Plenum Press.

Vygotsky, L. S. (1971). The psychology of art. Cambridge, Mass: M.I.T. Press.

Vygotsky, L.S. (1997). *The collected works of L.S. Vygotsky. The history of the development of higher mental functions*. Volume 4, Tran. M.J. Hall. Editor of English Translation, R.W. Rieber, New York: Kluwer Academic and Plenum Publishers.

Vygotsky, L.S. (1934/1998). *The collected works of L.S. Vygotsky, Vol. 5*, Child Psychology, trans. M.J. Hall; Robert W. Rieber (ed. English translation). New York: Kluwer Academic and Plenum Publishers).

Vygotsky, L.S. (2004). Imagination and creativity in childhood. *Journal of Russian and East European Psychology*, 42(1), 7–97.

Wood, E. (2014). Play-pedagogy interface in contemporary debates, in L. Brooker, M. Blaise and S. Edwards (Eds.). *The Sage Handbook of Play and Learning in Early Childhood*, (145-156), Los Angeles, US: Sage.

Wood, E. and Hall, E. (2011). Drawings as space for intellectual play, *International Journal* of Early Years Education, 19(3-4), 267-281