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# ***Conceptual Playworlds: Foregrounding imagination and creativity as foundational for children's learning***

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## **Abstract**

There is increasing interest in finding better ways to support the learning of concepts in play-based programs in early childhood settings. The introduction of terms such as 'eduplay' in Hong Kong, 'Purposeful play' in Singapore, and 'intentional teaching' in play-based programs in Australia, suggest that educators are working in different ways to build new practices that bring play and learning together. This paper contributes to this research landscape by presenting a programmatic model of practice called *Conceptual Playworlds*. This practice model theorises imagination and creativity as foundational for the learning of concepts. The content of this paper is situated in the changing early childhood curriculum context of the Australasian region, where the focus is on introducing playful, joyful and meaningful experiences to children when learning concepts.

**Keywords:** playworlds, cultural-historical, intentional teaching, eduplay, purposeful play, Australasian region

## **Introduction**

In 2009 Australian early childhood educators were introduced to the concept of *intentional teaching* in order to foreground the importance of learning concepts in play-based settings (Australian Government, 2009). At the same time, Rao and Li (2009) pioneered the concept of *eduplay* in Hong Kong. These examples mark an important moment in the history of early childhood education in the Australasian region, because changes in pedagogical practices were actively being promoted.

In many different parts of the Australasian region, early childhood educators have discussed a range of pedagogical concepts to support these new directions. In Singapore, the Ministry of

Education (2012) conceptualised the relations between play and learning as *purposeful play*. Purposeful play includes characteristics, such as, imagination, authentic contexts, collaboration, taking risks and enjoyment. China through its reforms has also seen the emergence of play in the curriculum guide for the promotion of a play-based integrated curriculum (Pan, Wang and Li, 2018). However, Government has left it to the profession to formulate what this looks like in practice. Recently in Hong Kong, early childhood educators have been advised through the release of a new Kindergarten Education Curriculum Guide (Curriculum Development Council, 2017), to make learning joyful through play. The expectation of teachers in Hong Kong is for a play environment to be conducive to learning, such as, “Interest corners should be set up to encourage self-directed learning in children” (p. 29), and up to 50 minutes per day should be devoted to play time in full time centres.

These reforms or curricula initiatives sit within an international context of change in early childhood education (Fleer and van Oers, 2018). What they collectively show is a need for re-examining the relations between play and learning – empirically, theoretically and pedagogically. Many scholars from the Northern hemisphere have expressed concern for the schoolification (Broström, 2017), academisation (Husa and Kinos, 2005) and formalisation (Ang, 2014) of early childhood education. What is foregrounded in the Northern hemisphere research landscape, is the study of the interface between play and pedagogy (Wood, 2014). But, in the Australasian region the research plays out differently. Scholars are worried about the philosophical differences between cultures when implementing child-centered play-based programs (Yang and Li, 2017), there are concerns about the emerging cultural fusion (Rao, Ng and Pearson, 2009), and there appears to be a new research need for identifying better ways to make curriculum more playful and joyful (Curriculum Development Council, 2017). This changing landscape of the Southern hemisphere countries is captured in the examples shown in Table 1. Consequently, there appears to be a need for more models of practice to support the current reforms and to move towards more meaningful, playful and joyful learning.

This aim of this paper is to contribute to the changing practice landscape in the Australasian region by presenting a programmatic model of early childhood teaching called *Conceptual Playworld*. To achieve this aim, the first part of the paper introduces the central concepts underpinning a *Conceptual Playworld*. This is followed by examples from practice of the model being implemented in a preschool setting with children aged four and five years. The

paper concludes by drawing out the key pedagogical characteristics of bringing together play, learning and development through the model of *Conceptual Playworlds*.

Table 1

Major trends in play research - Examples of studying the relations between play, learning and development

<b>Australia</b>	<b>China</b>	<b>New Zealand</b>	<b>Hong Kong</b>	<b>Singapore</b>
Play and policy in early childhood education in the Asia Pacific region (Grieshaber, 2016).	What can children learn through play? Chinese parents' perspective of play and learning in early childhood education (Huang, 2013).	Crossing the borders of play and learning. Ethnic Asian-Chinese parental perspectives on the value and purpose of a play-based early childhood curriculum (M-H Huang, 2013)	Children's agentive orientations in play-based and academically focused preschools in Hong Kong (Cheng, Reunamo, Cooper, Liu and Vong, 2015).	Adapting Western pedagogies for Chinese literacy instruction: Case studies of Hong Kong, Shenzhen, and Singapore preschools (Li, Rao, and Tse, 2012).
The development of learning as the leading activity for Hong Kong immigrant families in Australia (Wong and Fler, 2013).	Articulating contrasts in kindergarten teachers' implicit knowledge on play-based learning (Cheng and Stimpson, 2004).	What can children learn through play? Chinese parents' perspectives 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).	Steering debate and initiating dialogue: a review of the Singapore preschool curriculum (Ling-Yin, 2006).
Framing play for learning: Professional reflections on the role of open-ended play in early	Play – a multi-modal manifestation in kindergarten education in China (K-l Vong, 2012).	Inquiring minds: theorizing children's interests (Hedges and Cooper, 2016)	"Eduplay": Beliefs and practices related to play and learning in Chinese	Reconsidering the play-work dichotomy in pedagogy (Lim, 2010)

childhood education (Edwards, Cutter-Mackenzie and Hunt, 2010).			kindergartens (Rao and Li, 2009).	
Kindergartens in cognitive times: Imagination as a dialectical relation between play and learning (Fleer, 2011a).	Early childhood education in economically disadvantaged rural areas of China (Zhang and Liu, 2017).	Relational play-based pedagogy: theorising a core practice in early childhood education (Hedges and Cooper, 2018).	Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice (Rao, et al., 2009).	Governmentality of early childhood education in Singapore: Contemporary issues (Lim and Lim, 2017).
Using ‘Slowmation’ for intentional teaching in early childhood centres: Possibilities and imaginings (Fleer and Hoban, 2012)	What knowledge and skills do Chinese kindergarten teachers need in a time of reform: Director’s perspectives (Fan, Nyland and Nyland, 2016).	Children’s content learning in play provision: competing tensions and future possibilities (Hedges, 2014)	Exploring the tactfulness of implementing play in the classroom: A Hong Kong experience, (Cheng, 2010).	
Postdevelopmentalism and professional learning: Implications for understanding the	Comparative research on young children’s perceptions of play – an approach to observing	Subject Knowledge in Early Childhood Curriculum and Pedagogy:	Practical and conceptual aspects of children’s play in Hong Kong and	

relationship between play and pedagogy (Nolan and Kilderry, 2010).	the effect of kindergarten educational reform (Liu, Pan and Sun, 2005).	beliefs and practices (Hedges and Cullen, 2005).	German kindergartens (Wu, 2014).	
Children's collective imagination in play: A preschooler's bilingual heritage language development (Li, 2013).	Early childhood education and development in China (Pan, et al., 2018).		An experimental study of eduplay and social competence among preschool students in Hong Kong (Leung, 2011).	

## **The theoretical foundations of *Conceptual Playworlds***

*Conceptual Playworlds* as a programmatic model of practice was originally inspired by the research of Gunilla Lindqvist (1995). Like other longstanding models of practice, such as Story Approach to Integrated learning (SAILS) (Li and Chau, 2010) and Storytellers and Story players (Paley, 1990), Lindqvist developed a pedagogical approach that focused on children's literature. Her central finding was an approach called *play pedagogy* that featured the aesthetics of play, and which she captured in a model of practice known as playworlds. Her research was theorised from a cultural-historical perspective.

*Conceptual Playworlds* has also been theorised from a cultural-historical perspective. Specifically, the model draws upon Vygotsky's conception of play (1966), development (Vygotsky, 1987; 1998) and imagination emotions and creativity (Vygotsky, 1971; 2004). Although similar theoretical concepts have been deployed to that of Lindqvist, the focus of *Conceptual Playworlds* is on children's meaningful learning of concepts. In *Conceptual Playworlds* learning is in the service of the children's play. *Conceptual Playworlds* is the outcome of research into the play and learning of concepts in science (Fleer, 2017a), for the development of executive functions in play-based programs (Fleer, Veresov and Walker, 2017) and in the learning of engineering principles (Fleer, in preparation).

There are four theoretical assumptions underpinning a *Conceptual Playworlds* model. First, a cultural-historical conception of play is defined as the creation of an imaginary situation, where children change the meaning of actions and objects to give them a new sense, and where children work imaginatively to create new meaning through different levels of abstraction. In this reading, what is central psychologically for the child, is a growing conscious awareness of the world in which they live and culturally engage. It is not the biological age of the child that dominates, but rather it is the cultural practices of their community that they experience and which they contribute to, when coming to understand the roles and rules of their particular community. Children move closer to reality in play because their play actions reflect what they notice and find important or interesting. At the same time, children move away from reality as they imagine and explore through their play actions abstracted concepts.



Second, concepts to be learned are usually historically developed (science as a body of knowledge), culturally defined (Western science), and given meaning in everyday life through interactions with others (early childhood curriculum in action). When children use concepts in the service of their play, they have new possibilities in play and different ways of thinking (Fleer, 2017b). Vygotsky (1966) suggested that when two children who are sisters in real life, role play being sisters, they make conscious through their play actions the rules and roles associated with sisterhood. This means that play supports the child to think consciously about the concept of sisterhood. In so doing, the children's play actions deepen because they follow what might be morally expected of a sister – to act sisterly by being kind or inclusive for example. In this way, the concept of sisterhood is made conscious in play. At the same time, the concept of sisterhood is used in service of the child's play – to deepen their actions of showing how to be a sister, to follow the rules and roles of sisterhood that are important to them in their family, but also how this might be observed differently in other families. The concept of sisterhood as consciously brought into play offers more possible play scripts to imagine, to create in play action and to conceptually and culturally explore. The concept is thereby acting in service of the children's play.

Third, play is not simply a reproduction of life. Play is also a creative and imaginative production by the child. Children bring to their play insights and practices from everyday life, and in so doing are imagining and creating those actions in new ways. Children's play actions are imaginative acts which are experienced collectively in groups. Children produce new play scripts and negotiate these play scripts with their play partners. But what is different in a *Conceptual Playworld* is that play plots are introduced through the narrative of a story or through non-fiction play inquiry. In child initiated play, children generally do not follow and expand a play plot on their own. The general play literature shows that child initiated play is spontaneous and organic. Using a play plot to develop the complexity of children's play and play competence has been found in research by Lindqvist (1995) and Hakarrainen (2010) to deepen play actions, but it needs adult support. However, this is generally not a common early childhood curriculum practice in many Western and Western heritage communities. Collective play with a play plot would appear to fit well with early childhood communities who primarily use whole group teaching approaches – as is observed and reported in the literature for Australasian region (Li, et al., 2012).

Finally, a cultural-historical view of child development suggests that it is important for dramatic moments to occur that support children to think and feel more consciously about a particular phenomenon. A revolutionary view, rather than an evolutionary change in development as observed through milestones or ages and stages, underpins Vygotsky's (1998) theory of child development. In a revolutionary reading of child development, drama plays an important role for creating the dynamic tension or crisis to support development. In the context of *Conceptual Playworlds*, this means that the imaginary situations have dramatic moments that make conscious to the child particular moments, actions or ways of thinking about practice. Drama or dramatic moments are often observed in fairytales, but also in many stories (El'koninova, 2001). For instance, the story of *Charlotte's Web* (White, 1963) introduces moral dilemma of culling the runt of a litter of pigs, which upsets Fern the 8-year-old girl who lives on the farm. Children live the emotional moments with the characters in the story and imagine the plot unfolding. In this story, further tension is created because Charlotte the spider becomes a special friend to the runt in the litter –Wilbur the pig. But spiders are often feared by children. The contradiction in the story emotionally connects with children's lives in different ways, making conscious to children the importance of spiders in the ecosystem. The drama in the story becomes the foundation for the *Conceptual Playworld* that is played by the children, and this drama when relived by the children in play, contributes productively to the children's development, learning and play actions. This is the theoretical basis of a revolutionary view of child development.

Taken together, the concepts of emotional imagination (Vygotsky, 1971), imagination and creativity (Vygotsky, 2004), play (Vygotsky, 1966) and Vygotsky's revolutionary view of child development (1997) are the foundation for *Conceptual Playworld* that is now shown in practice in the following section.

### **Conceptual Playworlds: An example from practice**

*Conceptual Playworlds* is a programmatic approach for realising learning outcomes in play-based settings. It draws on five pedagogical characteristics for embedding learning experiences into play-based programs, but in ways that serve the children's play. Educators plan for each of the characteristics shown in Table 2. The example of *Charlotte's Web* is presented to illustrate the pedagogical practices.

### *1. Selecting a story for the conceptual playworld*

The story is the centre piece for initiating and developing an imaginary situation with the children. Different to spontaneous play where the story line may not be known to all the children, using a story book means that the characters and the plot are collectively known and understood when children imagine together. For example, in the story of *Charlotte's Web* the story unfolds over the chapters of the book. Importantly the drama begins early and engages the children quickly and moves them into the imaginary situation of the smallest piglet in the litter being potentially killed. It is dramatic. It is emotional. The story creates a dynamic tension, builds empathy and introducing a problem situation to the children: How to save Wilbur the pig. The problem situation emerges in each chapter, but in different ways, with new characters and contexts – thus deepening the possibilities for the children's play.

In addition, story selection must also be considered in relation to the concepts to be learned. Being clear about the concept and its relation to the story and play plot to be developed is central in planning for a *Conceptual Playworld*. For example, in the story of *Charlotte's Web* concepts such as ecosystem are learned when studying spiders in the environment. The anatomy of the spider is studied when children become curious about how a spider spins a web. Friendship and the exploration of emotions and emotion regulation are possible when being the different characters at different chapters in the story – such as Wilbur the pig being lonely and not having a friend; or empathising with Fern when she learns that the runt of the litter might be culled. Concepts are emotionally imaginative and children are motivated to learn concept to build the story plot. Ultimately, the concept to be learned must serve to enrich the children's play.

### *2. Designing a conceptual playworld space*

After reading a chapter of the story the teachers and the children collectively go into the imaginary situation to re-live the story through role-play. This is not play to be scripted. But rather the storyline and the story scene are used to design the imaginary play space. For example, in the story of *Charlotte's Web* it is possible to use the outdoor area as Mr and Mrs Zuckerman's farm. Changing the meaning of the objects already in the outdoor space is done through imagination. For instance, the tressel becomes a pig sty, the fort acts as a barn, where Charlotte the spider spins her web, and tunnels become pathways for Templeton the rat to

scurry down to find food in different locations (or potentially different playworlds for the children to go down and imagine being in, such as the Fairground).

### 3. *Entering and exiting the conceptual playworld space*

In *Conceptual Playworlds* children and teachers visit the imaginary space multiple times over an extended period as the story unfolds and as new problem situations arise. Teachers support children to collectively go into imaginary situations by signalling the entrance and exit into the space. For example, in the story of *Charlotte's Web* putting a sign on the gate such as "Mr and Mrs Zuckerman's Farm" signals to the children that they are about to enter to collective imaginary situation. At this moment, the children and the teachers talk about what character they will be before entering. Then as they go through the gate, they transform into the character. This might mean there are a lot of spiders or many piglets, but it can also be that children with support of the teacher act out being different parts of the ecosystem – such as the annoying flies. A sign on the back of the gate, such as, "Please close the gate as you leave the farm" signals that the children are leaving the imaginary situation.

### 4. *Planning the play inquiry or problem scenario*

The *Conceptual Playworld* space supports the development of concepts, such as learning about the anatomy of spiders when exploring how spiders spin their web, or the role a spider has in an ecosystem. Planning the concepts to be learned is key for the success of the *Conceptual Playworld*. Thinking through how the concept can enrich the children's play in the imaginary situation can add complexity to the children's play actions, whilst at the same time meeting curriculum objectives. For example, in the story of *Charlotte's Web* Farmer Zuckerman raises a problem "There are so many flies on the farm. They are really annoying". These scenarios lend themselves to the problem situation or play inquiry of how to be rid of flies. This play inquiry gives the possibility for learning about the ecosystem. But it also expands the play by introducing more characters to role play the scientific processes through the imaginary situation, such as being spiders being eaten. Further, the children and the teachers are out of the imaginary situation, they can do some research that they can show to Farmer Zuckerman next time the children visit the farm. For instance, making a movie of the ecosystem of the farm on a digital device, or a report on how spiders spin webs, are examples of meaningful learning that can help Farmer Zuckerman deal with the fly problem.

Problem scenarios that relate to the story plot or extend it, such as learning how spiders can help reduce the number of flies on the farm, motivate children's learning. Their learning of concepts gives more content to the children's play. Acting out the important role of spiders in the ecosystem (Charlotte can help), learning about the spider's anatomy to better understand how Charlotte actually spin her web (anatomy), and acting out spinning webs (embodying concepts) are examples of conceptual play (Fleer, 2011b). Learning enriches the play of the children in the imaginary situation, at the same time as affording meaningful and joyful learning of concepts as detailed in early childhood curricula.

##### 5. *Planning interactions to build conceptual learning*

Different to previous research into playworlds which has focused on the development of play narratives through teachers partnering with children, is how *Conceptual Playworlds* positions teachers to plan their interactions as dynamic pairs. Inspired by Kravtov and Kravtsova's (2010) concept of pair pedagogy, *Conceptual Playworlds* assigns different roles to each of the pairs of teachers when in the imaginary situation. Having two teachers in the imaginary situation is important because one teacher can be inquiring along with the children (equally present), whilst the other teacher can suggest ways to find out how to solve the play problem (model to the children). The teachers plan and enact different but complementary roles. For instance, to be above the children, to be equal with the children, to be below the children and to be in a primordial we position with the children. For example, in the story of *Charlotte's Web* one teacher is present with the children (equal), acting out being a character in the story, watching all the flies buzzing around being annoying. The other teacher who is in role as Mrs Zuckerman can tell the children about her problem and ask for help (below). The teacher who is present with the children can say "Yes we can help" or "I am ready to help" so as to inspire and collectively problem solve with the children. This is different to team teaching or to having a team which includes a teacher and an assistant in the traditional roles seen in many preschool settings. Rather, in a *Conceptual Playworld* the roles are carefully planned so that there are opportunities to extend the play in character, to manage the children in character, and to introduce problem situations to deepen the learning, which in turn enriches the play of the children. The roles are not scripted. But the position of each teacher is carefully planned. Together this creates a dynamic interactional context that progresses the play and meaningfully supports children to work with concepts to solve the problem situation (Fleer, 2017a, 2017b).

These five characteristics of *Conceptual Playworlds* are summarised in Table 2.

Table 2

The characteristics of *Conceptual Playworlds*

<b>Pedagogical Characteristics</b>	<b>Pedagogical practices that are planned</b>
Selecting a story for the <i>Conceptual Playworld</i>	<ul style="list-style-type: none"> <li>• Working with understandings of the context of children’s development and their interests</li> <li>• Selecting a story that is enjoyable to children and adults</li> <li>• Building empathy for the characters in the story</li> <li>• A plot that lends itself to introducing a problem situation to the children</li> <li>• Being clear about the concept and its relation to the story and play plot to be developed</li> </ul>
Designing a <i>Conceptual Playworld</i> space	<ul style="list-style-type: none"> <li>• Creating different spaces that give opportunities for exploring both concepts (anatomy of the spider) and social and emotional development (empathy with Fern)</li> <li>• Designing different opportunities for child initiated play in ways that develop the play plot further or explore concepts and make them more personally meaningful</li> <li>• Planning different opportunities for representing children’s ideas and expressing their understandings</li> </ul>
Entering and exiting the <i>Conceptual Playworld</i> space	<ul style="list-style-type: none"> <li>• Whole group enters the <i>Conceptual Playworld</i></li> <li>• All the children are in the same imaginary situation</li> <li>• Children choose characters as they enter into the imaginary situation</li> <li>• Teacher is always a character in the story or acting as a human prop (e.g., such as a tree or the Sun)</li> </ul>

<p>Planning the play inquiry or problem scenario</p>	<ul style="list-style-type: none"> <li>• Children have enough knowledge to be able to solve the problem – introduced inside or out of the imaginary situation</li> <li>• The problem scenario is dramatic and engaging</li> <li>• Problem scenario is not scripted, but a general idea of the problem is planned</li> <li>• Being clear about the concepts that will be learned from solving the problem situation</li> <li>• Concepts are in service of the play</li> </ul>
<p>Planning teacher interactions to build conceptual learning in role</p>	<ul style="list-style-type: none"> <li>• <i>Teachers working in interactional pairs:</i> Teachers are not always the same character. Roles are not scripted</li> <li>• <i>There are different roles teacher can take:</i> Teachers plan their role for the playworld to be <b>equally present</b> with the children, or to <b>model practices</b> in role, or to be <b>needing help</b> from the children. Their role can also be as <b>together with the child leading</b> (primordial we), where they literally cradle the child or hold their hand and together act out the role or solution</li> <li>• <i>Conceptual intentions are planned:</i> Planning of who will have more knowledge and who will be present with the children to model solving the problem</li> </ul>

## Conclusion

In this paper the pedagogical characteristics of a *Conceptual Playworld* model has been theorised and illustrated through the practice example of *Charlotte's Web*. What is different to previous models of practice, is how teachers in role with children, collectively enter into the imaginary situation together. Teacher planning of interactions as a pedagogical pair in the imaginary situation is also new. When dramatic stories are read or told, and children enter into these imaginary play situations with their teachers, who have planned problem situations,

learning and play is enriched. Learning concepts in this model of *Conceptual Playworld* is always in the service of the children's play. In these dramatic and emotionally charged imaginary play situations, both children and adults experience joyful and playful learning (Fleer, 2018). The model is presented to illustrate one way to address the new need for learning content concepts, but which maintains the practice tradition of a play-based program in early childhood education for the Australasian region.

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