Why play works

WHY PLAY WORKS

Conceptual PlayWorlds inspiring learning, imagination and creativity in education

MARILYN FLEER; KELLY-ANN ALLEN; ANNE CLERC-GEORGY; LEIGH DISNEY; LIANG LI; LARA MCKINLEY; GLORIA QUINONES; PRABHAT RAI; JANET SCULL; AND ANNE SURYANI

Monash University

CONTENTS

Why play works: Conceptual PlayWorlds inspiring learning, imagination and creativity in education

The information in this work was current at the time of writing. This publication may contain links to other websites and 3rd party material that are external and we do not control the content of those websites or creation of that material and we accept no liability or loss whatsoever arising from, or connected to, the use of such links or 3rd party material. We do not guarantee the use, accuracy, reliability, currency or completeness of any material contained on this website or any linked site. It is the responsibility of the user to be aware of the terms and conditions governing each website.

BOOK INFORMATION

AUTHORS

Marilyn Fleer; Kelly-Ann Allen; Anne Clerc-Gregory; Leigh Disney; Liang Li; Lara McKinley; Gloria Quinones; Prabhat Rai; Janet Scull and Anne Suryani.

COVER DESIGN

Les Thomas

COVER ILLUSTRATION

Adriana Alvarez at alvarezcreative.com.au.

ILLUSTRATIONS & SUPPLEMENTARY MATERIALS

Illustrations of 'Charlotte' and 'Yuwen' created by Adriana Alvarez at alvarezcreative.com.au, based on images by Anne Suryani, are licensed under CCBYNC.

Fleer's Conceptual PlayWorld thinking book designed by Erika Budiman/ pixelsandpaper.studio, with content by Marilyn Fleer; Kelly-Ann Allen; Anne Clerc-Gregory; Leigh Disney; Liang Li; Lara McKinley; Gloria Quinones; Prabhat Rai; Janet Scull and Anne Suryani. Licensed under CCBYNC.

Planning a Conceptual PlayWorld in STEM planning proforma by Marilyn Fleer

LICENSE

This book was published by Monash University via the Council of Australian University Librarians Open Educational Resources Collective. The online version is available at https://oercollective.caul.edu.au/why-play-works.

Disclaimer: Note that corporate logos and branding are specifically excluded from the

PRIMARY SUBJECT

Education

ADDITIONAL SUBJECT(S)

Early Childhood Care and Education

PUBLISHER

Monash University

PUBLICATION DATE

2024

ISBN

978-0-6457554-3-5

DOI

doi.org/10.60754/KSP5-1529

CHAPTER 1: OVERVIEW OF A CONCEPTUAL PLAYWORLD

Marilyn Fleer

Chapter Goals

By reading and exploring the content of this chapter, you will learn:

- what is *Fleer's Conceptual PlayWorld*
- how to plan a *Conceptual PlayWorld*
- how to set up a pop-up *Conceptual PlayWorld*.

Introduction – Jumping into the imaginary situation

You are about to enter an imaginary world of an early childhood centre (later, you will be in a primary classroom). In this world, you will meet Charlotte, a student teacher, and Yuwen, an experienced teacher. They are co-teaching. However, a problem has arisen.

You meet Charlotte crying outside of the classroom. Sobbing, she says, 'I can't go back in'. Charlotte appears to be experiencing a **crisis**. She needs your help (see Figure 1).

Crisis is a scientific concept from cultural-historical theory that captures a moment when

someone is experiencing some kind of drama or contradiction that propels them forward in their development as they consciously experience the situation emotionally and cognitively.

In this book, you will encounter many scenarios like this. Your role is to work through a range of solutions to help Charlotte and Yuwen as they plan and implement different kinds of Conceptual PlayWorlds.

Figure 1.1.

Meeting Charlotte

Each chapter of this book will prompt you to research and solve a problem associated with Charlotte's

implementation of *Fleer's Conceptual PlayWorld*. There are many scenarios to work through and various solutions to assist Charlotte. Your scenario menu is:

Chapter 2: Conceptual PlayWorld in support of equity and access

Chapter 3: Play role, drama and learning concepts in a Conceptual PlayWorld

Chapter 4: Conceptual PlayWorld in dialogue across international contexts

Chapter 5: Capturing learning: Assessment in a Conceptual PlayWorld

Chapter 6: Mathematics in a Conceptual PlayWorld

Chapter 7: Conceptual PlayWorld fostering language and literacy learning

Chapter 8: Using Conceptual PlayWorld to build wellbeing

Chapter 9: Conceptual PlayWorld for families: Why play works for teaching **STEM** in the home setting

Chapter 10: Conceptual PlayWorld to study the structuring of time into days, weeks and months

You can navigate the menu in whatever way supports you with resolving the challenges Charlotte meets. As you review each chapter, record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book* (see booklet in Appendix A). The general questions are:

- What is the problem that Charlotte is thinking about or experiencing?
- What is one key idea you gained from reading the narrative or viewing the material that you believe could help solve Charlotte's problem?
- What are you curious about? Which chapter in this book could help you?

In some of the chapters are additional questions. You can respond to those questions in your *Fleer's Conceptual PlayWorld thinking book* .

However, before you launch into the different scenarios across the chapters, listen to Charlotte's story and discover why she is sobbing and 'can't go back' into the classroom.

Charlotte's story: practical life is full of challenges – Meeting the problem

Charlotte grew up in a regional community on a farm. Her family are immigrants. Charlotte was the

first in her family to go to university. Moving from the country to the city for university was the first big challenge she met. However, planning to teach in a preschool was her second. She had never stepped inside a preschool before. She had no personal experience of preschool education herself. Charlotte was very excited to be on her first placement.

Charlotte spent much time planning for her teaching placement. The university had asked her to plan one activity each day and suggested the first might begin by reading a children's book to a small group. She chose *Rosie's Walk* (Hutchins, 1987). It suited her, as she felt comfortable with the plot; it connected with her own rural life. She made plans and checked these with her supervising teacher, Yuwen.

She prepared the scene for reading the book to add excitement for the children. On the weekend, she drove to a farm and bought 3 bales of hay – this would make good seating and define the space where she would read the book. She placed a painter's sheet on the floor to protect the carpet. She also prepared a basket of real eggs – the idea was to collect the eggs Rosie had laid. They would be hidden in the hay for the children to find. The reading would be followed by using the eggs to make pikelets. This also connected nicely with the flour mill in the story.

On the first day of her practicum, she came into the preschool early and full of enthusiasm. She showed her detailed plans to Yuwen, placed the sheet over the carpet as discussed and built a defined reading area with the hay bales. She opened one bale of hay, which she scattered evenly over the floor. She then hid the eggs in the hay. Her cooking equipment was close by, ready to be used for her follow-up activity. Her PlayWorld transition would be as hungry chickens leaving the farm. Charlotte felt satisfied with the visual effect.

> **Practice reflection 1.1:** Do you see any potential problems? Can you guess what happened? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.* Note Charlotte's planning. Consider Charlotte's first experience working with a 'whole group' of children – not just a small group, as advised by the university.

Fast forward to mid-way through the story reading. The children are throwing hay everywhere. One child reacts to the hay, and Yuwen quickly removes the child and calls the family, leaving Charlotte to deal with the situation arising as the children shower each other in hay.

You might be interested to know that this narrative is based on a real situation of the author of this chapter.

Another child sits on one of the eggs – not knowing the eggs are hidden in the hay. She is covered in yoke and screaming.

No cooking took place that day.

Research reading 1.1: Read Chapter 7 to learn more about student wellbeing and consider the links to teacher wellbeing.

Practice reflection 1.2: What would you do to restore the situation? What went wrong despite Charlotte's thoughtful planning? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

As you read on, your role will be to help Charlotte as she solves the challenge of planning and implementing a Conceptual PlayWorld for the first time. Consider the following:

Charlotte put great effort into planning and designing the reading space. Yuwen responded positively to Charlotte's enthusiasm and creativity. She had never had a student teacher go to so much trouble to read a story. The crying did stop (see Figure 1.2).

Figure 1.2.

Charlotte studies how to plan Fleer's Conceptual PlayWorld

Yuwen introduced Charlotte to a model of play and learning called *Fleer's Conceptual PlayWorld*.

What is *Fleer's Conceptual PlayWorld*?

An overview of a pop-up Conceptual Playworld based on *Rosie's Walk* is demonstrated in the video below. This video also showcases all of the characteristics in practice.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=170#oembed-1

Table 1.1 gives a brief overview of the 5 characteristics of *Fleer's Conceptual PlayWorld.*

Table 1.1. The 5 characteristics of Fleer's Conceptual PlayWorld

Characteristic	Description
1. Designing a Conceptual PlayWorld space	Finding a space in the main room or outside suitable for an imaginary Conceptual PlayWorld of the story.
2. Entering and exiting the Conceptual PlayWorld space	Plan a routine for the whole group to enter and exit the Conceptual PlayWorld of the story, where all the children are in the same imaginary situation.
3. Planning the play inquiry or problem scenario	

Concepts are always acting in service of the children's play.

4. Planning educator interactions to build conceptual learning in role Educators are always play partners with the children.

There are different roles educators can take: Educators plan their role for the Conceptual PlayWorld to be equally present with the children, to model practices in their role or to be needing help from the children. Their role can also be together with the child (primordial we), where the adult literally cradles the child or holds their hand and they act out the role or solution together. 5. Planning educator interactions to build conceptual learning in role Educators are always play partners with the children.

There are different roles educators can take: Educators plan their role for the Conceptual PlayWorld to be equally present with the children, to model practices in their role or to be needing help from the children. Their role can also be together with the child (primordial we), where the adult literally cradles the child or holds their hand and they act out the role or solution together.

Planning a Conceptual PlayWorld – Evidence-informed model

Yuwen suggested a set of resources to help Charlotte to plan her own Conceptual PlayWorld.

- Yuwen was introduced to Charlotte *Fleer's Conceptual PlayWorld* website during their debrief.
- Charlotte then looked at the planning resources on the website to learn how to create a Conceptual PlayWorld.
- Appendix B is an example of a planning proforma designed for infants and toddlers, containing detailed content for each characteristic that could help Charlotte in the future with planning a Conceptual PlayWorld for very young children.

- Yuwen also showed Charlotte a portable pop-up of Rosie's Walk as a resource to support her practicum placements in the future. Using the suitcase of the story props will mean less preparation for her (see Figure 1.3).

Figure 1.3.

A portable pop-up of Fleer's Conceptual PlayWorld of Rosie's Walk
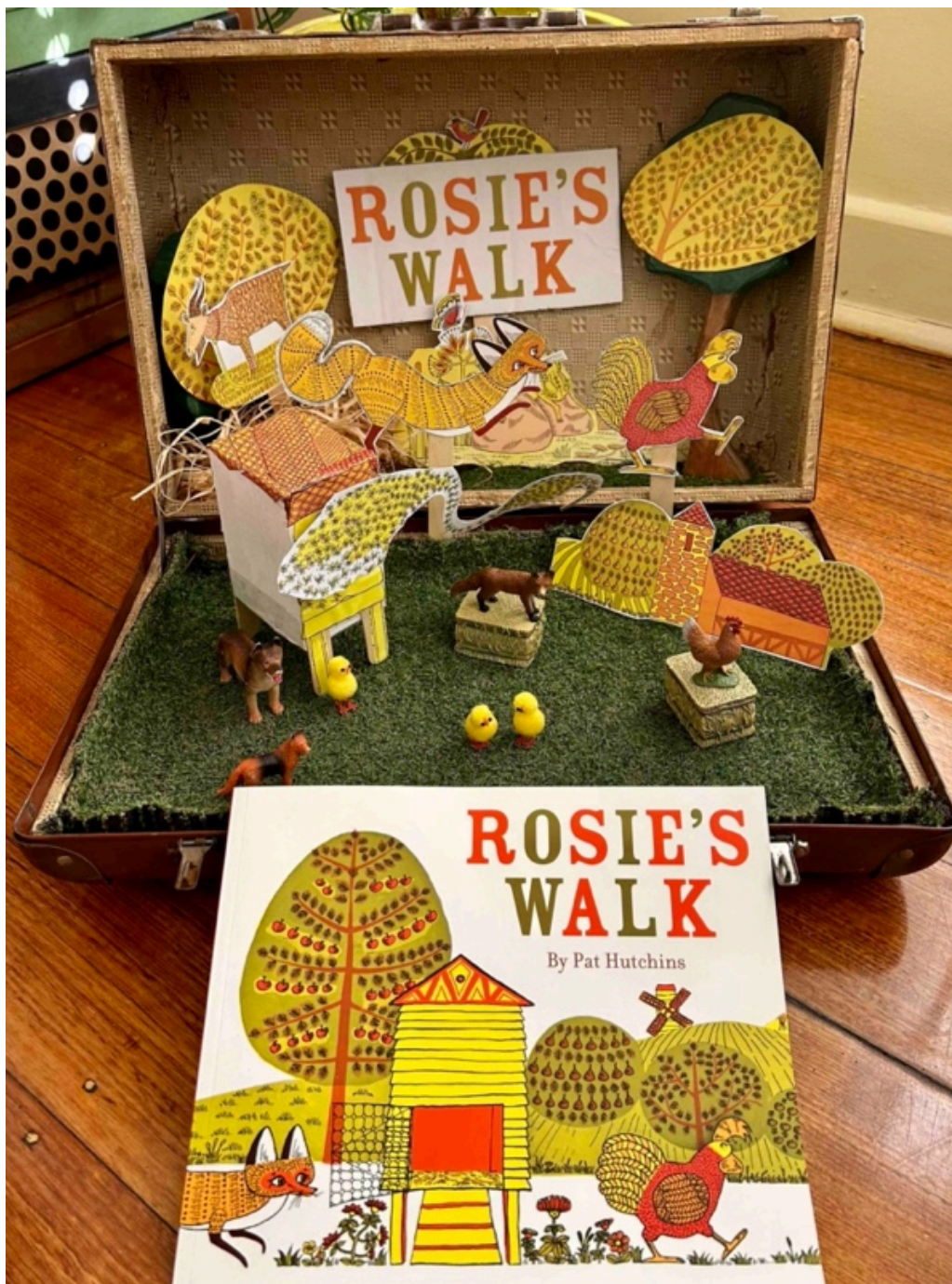
Note: Image and idea by Marilyn Fleer; but designed and made by Monique Parkes from the Conceptual PlayLab at Monash University.

Practice reflection 1.3: In your *Fleer's Conceptual PlayWorld thinking book*, compare what you see in the overview video of practice to that of Charlotte's story of using the same book. Critically view the video, identify some pedagogical characteristics you are curious about, and start a discussion about it in our private Facebook for Conceptual PlayWorlds.

Research reading 1.2: You can also find other ideas about how to design interesting spaces for a Conceptual PlayWorld in Chapter 9.

Research reading 1.3: Select and read the research papers that are the foundation for *Fleer's Conceptual PlayWorld* on Monash University's Conceptual PlayWorld webpage. This evidence-informed model is used across Australia and internationally (see Chapter 4 and Chapter 10).

Dramatic story, rather than dramatic activity

Yuwen is sitting outside of the classroom, still comforting Charlotte. She explains to Charlotte that she has selected the perfect book to read to the children. The story is dramatic and suspenseful – as Rosie the hen walks about the farmyard, oblivious to the fox who tries at every turn of the page to catch and eat her. The children experience the suspense as the audience viewing the drama in the picture book. It is highly motivating for them. They build empathy for the characters in the story. They want to keep Rosie safe and don't want her eaten. Some want to be bees so they can sting the fox, while others playfully identify with the fox. Yuwen explains that suspense and drama are important when planning a Conceptual PlayWorld. Charlotte looks surprised but is listening intently.

Practice reflection 1.4: Find another children's book that you believe is full of drama and would help children build empathy with the characters in the story. Record your ideas in your Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book*. Watch the video 'Selecting a dramatic story' for ideas to support your reflections.

Planning how to jump into the story

Charlotte was disappointed by the outcome of her carefully planned activity and engaging reading area. Yuwen highlighted an important thing that Charlotte did – she had considered the imaginary situation of the story. She had turned the preschool into Rosie's farm. The props made it easier for the children to imagine being on the farm – something outside the children's city experience of everyday life.

Yuwen: The scene you set up made it easy for the children to jump into the imaginary world of Rosie's farm.

Charlotte: But it was chaos – hay everywhere!

Yuwen: You were thinking about developing the children's imagination by being on the farm. I noticed in your planning that you had carefully thought about a routine to go from the farm to the cooking area. This is also an important part of planning a Conceptual PlayWorld. You planned the exit by being hungry chickens clucking over to the cooking area to make pikelets. You could do the same for entering the Conceptual PlayWorld space you designed. The children could be chickens entering the imaginary space, but they could also be other characters from the book. The children already know the story, and when they see a sign on the preschool door that reads 'Rosie's Farm' they can enter the imaginary world in character. Importantly, both the children and teachers enter in character as a group of foxes, a group of bees, and a group of chickens.

Practice reflection 1.5: How would you design the imaginary space for the book you previously selected? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Watch this video about how to plan using the storybook of Rosie's Walk, but framed to design a space for *Fleer's Conceptual PlayWorld* with minimal props.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=170#oembed-2

Then watch this video of how to plan the entry and exit into *Fleer's Conceptual PlayWorld*.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=170#oembed-3

Practice reflection 1.6: Brainstorm a range of entry and exit routines for *Rosie's Walk* and your chosen book. Some examples from the research include stepping into a huge basket and pretending to go up in a hot air balloon (Lindqvist, 1995) or going back in time through a portal (outdoor equipment) with the routine of counting down from 10 to zero in the time machine. Other examples can be found in the Conceptual PlayLab Working papers.

Authentic problem

Yuwen asks Charlotte if she had used the planning proforma, what kind of concept the book could offer the children, and what might be the authentic problem they could solve together.

Charlotte: I thought Rosie was walking all over the farm in the story. I had thought that we would imagine going all around the farm as part of finding the eggs. We would go over the haystack – which we had plenty of here today. The children would also go around the pond, and they would go under the flour mill. That's why we were going to make pikelets – to use the flour from the flour

mill – collecting it in the imaginary situation, and then using it in an actual situation of cooking for snack time.'

Practice reflection 1.7: What are the concepts Charlotte is explaining? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.* Check your curriculum document now in relation to the concepts.

Watch this video about planning the authentic problem that the children will want to solve with concepts from the curriculum. How do they align?

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=170#oembed-4

Yuwen discusses with Charlotte the prepositional language foregrounded in the book, which could be brought out in the imaginary situation as children jump into the story of *Rosie's Walk* and become Rosie walking around the farm.

Yuwen: What is special about *Fleer's Conceptual PlayWorld* is that when you take the child's perspective, you don't just 'teach the concept' but rather you carefully plan what concept is to be learned and then create motivating conditions where the children meet a problem that they want to solve. That is, the children want to help the characters from the book. They want to keep Rosie safe. Also, you would have seen in the video that the teacher set up an additional problem – Rosie's cousin wants to visit but is lost. The children need to help her by making maps. This happens outside of the imaginary situation after they return from visiting the farm. But it could also happen inside the imaginary situation.

Charlotte: So the children learn the concepts to help Rosie?

Yuwen: Yes, the concepts serve the children's play. The children take the map back into the *Conceptual PlayWorld* to help Rosie's cousin find the farm.

Charlotte: Did all of that happen in just one day?

Yuwen: It can happen all in one day. It is called a pop-up Conceptual PlayWorld. The imaginary situation is just a pop-up imaginary play after reading the story. However, a Conceptual PlayWorld can also take much longer, even weeks or months – just by adding more problems to solve or reading a chapter each week from a much longer book. You can introduce new problems to a simple picture book, like *Rosie's Walk*. For example, by returning to Rosie's farm, the children find that the pond has dried up and the animals are thirsty. Bringing civil engineering principles to pipe water in and help solve the problem.

Charlotte: But how is this high level of engineering thinking possible with such young children?

Yuwen: Most will think this is not possible for such young children, but research now shows we underestimate what young minds can engage with (See the Conceptual Playlab working papers for more information).

Imagine children looking at the water flowing down a pipe in the sandpit. They adjust the pipe level to channel the water into places they want. We can see them doing this now in their play in the sandpit. However, for engineering, you can ask them to look for any blockages and make adjustments to the water flow; you can introduce a spirit level so they can physically see how the gradient has changed, and they can then adjust the pipes accordingly, and with more precision and understanding; this is civil engineering at its very best for 3- and 4-year-old children.

> **Practice reflection 1.8:** In planning your Conceptual PlayWorld of your chosen story, what will be the authentic problem? What concepts will act to serve the children's play? How will the play deepen because your children bring more concepts into their play? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

By turning her planned creative ideas into a Conceptual PlayWorld, Charlotte can now see how she could

plan for children's play and learning. She can be more focused on the concepts and what might be the authentic problem that the children want to help solve.

Research reading 1.4: Learn about the research into why concepts matter for *Fleer's Conceptual PlayWorld* by reading Chapter 6 and gain further examples of mathematical learning. You can also find more on literacy concepts and their development in *Fleer's Conceptual PlayWorld* in Chapter 7.

Being a play partner

Unlike other beliefs about children's play, *Fleer's Conceptual PlayWorld* works on the premise that the teacher changes her role from teacher to play partner. Yuwen explains to Charlotte that she can take on many roles. But she needs to be inside the imaginary play situation as a character from the story or an introduced character, such as,

- a wise owl (above position)
- a curious puppy (equal position)
- a helper rabbit (under position)
- someone who acts in unity with the child(ren), and together they role-play in the same character or family of characters, such being as a flying bat (e.g., teacher) with her babies clinging on (e.g., child/ren) as they go on adventures together (primordial we position).

> **Charlotte:** But I am learning to be a teacher. How can I be a teacher and a play partner simultaneously? I already have problems with managing the children. Won't this model of a Conceptual PlayWorld make the children even more chaotic if I am not controlling the situation?

Yuwen explains that all the research on the model confirms that because the children are so motivated to help solve the problem, the teacher can still manage the situation from inside the play and through their character role.

> **Yuwen:** When you are the wise owl, you can be above the children giving advice. So, if something is going wrong, the wise owl can come in and say, 'I have such a headache from all this noise. I cannot hear myself think. Did you know …' If you want to introduce some key information, it can be delivered, like in the series of books about Harry Potter when the owls deliver messages or items

to help the play along – like a new broom or a message about approaching danger that has to be avoided.

The teacher can also be in the under position with the children in the above position. Such as when the second teacher joins the children and asks what happened here. This could also be the principal if you were in a school. The children then recount their experiences and what they have learned to the second teacher (or principal).

> **Charlotte:** That is a nice relationship – the teacher in the under position and the children in the above position. What a fantastic way to find out what the children know and can do. That must be such an authentic approach to assessment.
>
> **Yuwen:** But wait, there's more… The teacher can also be in an equal position. By being with the children they are solving the problem together.

Research reading 1.5: Find out more about authentic problems in Chapter 6 and see further examples and ideas.

Watch the video 'Teacher as the play partner in *Fleer's Conceptual PlayWorld*' to see how this can happen.

🖥 *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=170#oembed-5*

Research reading 1.6: Chapter 6 presents research related to teacher positioning in play and learning. Read Chapter 3 on play pedagogy and the role of the educator in *Fleer's Conceptual PlayWorld*.

Practice reflection 1.9: Look at all the responses you made in your *Fleer'sConceptual PlayWorld thinking book* while reading this chapter and consider if you are ready to plan a *pop-up Conceptual PlayWorld.*

How to set up a *pop-up conceptual playworld*

Fleer's pop-up Conceptual PlayWorld is planned and implemented in one session. It takes place instead of group time and uses part of free choice time/tabletop activities. Your planning would follow the steps in Table 1.1 and involve gathering the children as you usually do for group time. You would use group time for reading the story. Rather than children self-selecting activities following group time, you would go as a whole group into the imaginary Conceptual PlayWorld using the routine you planned for entering into an imaginary situation. This would take about 15–20 minutes. After meeting the problem in the role-play of the storybook, you would exit the imaginary situation to solve the problem. The planned activities include you and the children researching and solving the problem you met in the Conceptual PlayWorld. This may take 15 minutes as children draw, create, or look at books/YouTube as part of their research. Then, you would re-enter the Conceptual PlayWorld to play out the solution. This would take about another 15 minutes. Your program for your pop-up Conceptual PlayWorld could look like this:

- Group time (read the story and invite children to be a character from the storybook).
- Enter the Conceptual PlayWorld space (jump into the story in character) using the planned routine.
- Pretend play of the story. Meet a problem to solve – helping the character.
- Exiting the Conceptual PlayWorld space using the planned routine.
- Researching to solve the problem so you can help the character from the book.
- Re-enter the Conceptual PlayWorld space (jump back into the story in character) using the planned routine and then, through your play, help the character.
- Exiting the Conceptual PlayWorld space using the planned routine.

The play problem could also be set up when reading the storybook to the children – such as when a letter falls out of the book. The letter could be from the main character asking for

help. Alternatively, the children could find the letter with the problem in the imaginary Conceptual PlayWorld.

Conclusion

In this chapter you met Charlotte and Yuwen as they worked through Charlotte's teaching placement crisis, transforming it into a Conceptual PlayWorld. She is now re-engaging with the children and thinking about how to plan and implement *Fleer's pop-up Conceptual PlayWorld* of *Rosie's Walk.*

Practice reflection 1.10: Before reading the next chapter, review the notes you made for each video link and summarise or list the characteristics of *Fleer's Conceptual PlayWorld* for *Rosie's Walk.* Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Practice reflection 1.11: Finalise your own Conceptual PlayWorld for your chosen book. You will return to your plans as you go through the adventures found in the different chapters of this book. Over time, you will deepen your understanding as you assist Charlotte.

Research reading 1.7: Find out more about *Fleer's Conceptual PlayWorlds* in Chapter 10 to further support you with planning your own Conceptual PlayWorld as a student teacher.

References

Hutchins, P. (1987). *Rosie's walk*. Scholastic.

Lindqvist, G. (1995). *The aesthetics of play: A didactic study of play and culture in preschools*. Almqvist & Wiksell International.

Attributions

"Figure 1.1. " by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

"Figure 1.2." by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

"Figure 1.3." by Monique Parkes is licensed under CC BY-NC 4.0

About the author

Marilyn Fleer
MONASH UNIVERSITY
https://twitter.com/MarilynFleer
https://www.linkedin.com/in/marilyn-fleer?utm_source=share&utm_campaign=share_via&utm_content=profile&utm_medium=ios_app

Marilyn Fleer is an Australian Research Council Laureate Fellow and a Sir John Monash Distinguished Professor at Monash University. She was awarded the 2018 Kathleen Fitzpatrick Laureate Fellowship by the Australian Research Council. She is passionate about early childhood education, holding honorary professorships at the University of Oxford, Aarhus University, Denmark and Western Norway University of Applied Sciences, Norway. She has been a preschool teacher in a childcare centre and standalone preschool, a curriculum writer, an early childhood advisor, and a policy writer for the Australian Government. She was presented with *the 2019 Ashley Goldsworthy Award* for Outstanding leadership in university-business collaboration, elected as a fellow of the *Australian Academy of Social Sciences,* and inducted into the Honour Roll of Women in Victoria as a change agent.

Find out more about Laureate Professor Fleer's work on her YouTube channel.

CHAPTER 2: CONCEPTUAL PLAYWORLDS IN SUPPORT OF EQUITY AND ACCESS

Lara McKinley

Chapter goals

By reading and exploring the content of this chapter you will learn:

- what Conceptual PlayWorlds look like in practice
- how Conceptual PlayWorlds motivate children to learn
- the role of teachers in a Conceptual PlayWorld
- why Conceptual PlayWorlds create a more level playing field for diverse learners, looking particularly at girls and STEM engagement.

Introduction

In the previous chapter, you were introduced to Yuwen and Charlotte as they tried out a new idea called a Conceptual PlayWorld.

Marilyn Fleer and her team at the Monash PlayLab have created a whole collection of Conceptual PlayWorlds based on popular children's books like *Rosie's Walk*. They have even teamed up with the Australian Broadcasting Commission's (ABC) Kids Early Education team to produce resources for their Play School Story Time program.

These PlayWorlds are all tried and tested in real classrooms, with real teachers and educators from Samoa to China and Indonesia to Norway.

In this chapter, we look at three examples from Australia. In exploring, we can start to understand the mechanics behind a Conceptual PlayWorld and what the research-backed model looks like in practice.

Rosie's Walk Conceptual PlayWorld: Mount Barker,

Western Australia

Everything was quiet in the playground of Mount Barker Community College – until the chickens got loose from the kindergarten classroom. They flapped across the yard, stalked by a group of foxes. Then, a swarm of bees flew out the door and made a beehive.

The chickens clucked but were oblivious to the danger. Every time they turned around, the foxes would freeze. The bees hummed, concerned.

Sprinkled among all the animal sounds was children's laughter as they played the roles of the animals in *Rosie's Walk*. The students especially loved making fox yips – they had just learned the sound from YouTube.

Teachers were equal play partners and also took on the roles of animals.

PlayWorlds don't require elaborate resources

The game needed no equipment– a simple sign transformed the playground into 'Rosie's Farm'. The children's hands became fox ears and a piece of play equipment, a bee hive.

One of the educators created an imaginary pond simply by making splash splash sounds. When it looked like the foxes were getting too close, the bees would swarm and chase them away.

After about 10 minutes, the children and teachers went back inside – and that's when the real drama started.

The urgent problem

Marilyn Fleer – who had designed this Conceptual PlayWorld based on decades of research and was testing it with the class – played an urgent message from Rosie's cousin.

> *Rosie, Rosie! I need your help! I am trying to visit, but I am lost, and I think a fox is trying to eat me. Can you help me?*

> A wave of excitement ran through the children. And then Marilyn asked, 'What can we use to find our way when we are lost?'

> The children called out, 'A map!' 'A phone!'.

Then, with the urgent problem to solve, the children were shown different kinds of maps, prompting them to draw their own to help Rosie's cousin find her way.

This urgent problem to solve is what the research shows is a key to unlocking the power of the Conceptual PlayWorld – as it harnesses children's curiosity and motivates them to learn.

How the children responded

'You could see the kids so incredibly engaged, and those learning outcomes were going to be coming in all directions,' said teacher Belinda O'Dea.

'Early childhood educators all know the value of play, so for someone like Marilyn to come and say, 'This is paramount,' is just perfect.'

Watch this short video to see the Conceptual PlayWorld in practice and hear from teacher Belinda O'Dea about her experience taking part.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=405#oembed-1

Research Readings 2.1: Find out more about how Conceptual PlayWorlds create what researchers call 'motivating conditions' for children to learn in by reading 'How children create their own conditions for learning concepts in child-initiated play: When concepts act in service of children's play (WP24)'

Practice reflection 2.1: Based on your reading of the article, how do you think the research will help teachers like Belinda embrace more play in the classroom? Record your ideas in your *Fleer's Conceptual PlayWorld thinking book.*

Learning outcomes

Yuwen: In this Conceptual PlayWorld, the children learned several foundational concepts while immersed in their play.

- Mathematics – Spacial relationships
- Prepositional language, using words like over, under, beside and beneath

- Design and technology – plan view of the farm.

Charlotte: I can see there were also different opportunities for social and emotional development.

- Empathy
- Naming emotions
- Problem-solving.

Figure 2.1.

Charlotte and Yuwen discuss learning outcomes.

Charlotte's Web Conceptual PlayWorld: Melbourne, Victoria

Meanwhile, at Edithvale Primary School, a group of children in their first year of school all troop into the science lab. They've put on their imaginary farm hats and wellington boots and are ready for an adventure.

The lab has been transformed into the barn from Zuckerman's farm in the book *Charlotte's Web*. Barn doors and animals mark the entrance, and a bale of hay adds an air of authenticity. Specialist teacher Ashlee McCarthy is dressed in overalls and her farming hat, ready to go.

For the past term, the science team has been exploring the lifecycles of animals that produce offspring similar to their own. And they've done it all through the lens of the imaginary world of *Charlotte's Web*.

The urgent problem

Today, the children are learning about butterflies. Ashlee is reading from the book when a letter falls out – it's from Wilbur. The children smile and jump in anticipation.

> *I am scared and lonely. Up until yesterday, I was living a happy life. I had a cosy home under the apple tree and drank milk, so much milk!*
>
> *And now everything is dark, sticky, and smelly. I don't recognise anything or anyone, and my tummy is rumbling. I don't see any milk to drink or hear any kind words. I don't know where Fern is. How will I survive here? What do I need? Can you help me?*

It looks like Wilbur is stuck inside a chrysalis. Miss McCarthy asks, 'Can we help Wilbur?' The children respond with a resounding yes.

Learning about life cycles

And so begins the children's exploration of the life cycle of a butterfly – from egg to caterpillar to chrysalis to metamorphosis. When the vocabulary is confusing, Miss McCarthy becomes Charlotte and drops in from her web on the ceiling to explain.

Wilbur – a special stuffed toy the children have quickly come to love – also drops in to check on their learning and asks for help.

The role of the teacher in the spider's playground

The class goes outside – via a 'magical portal' – to visit the 'spider's playground' and roleplay the different stages of the lifecycle. An outdoor climbing gym forms a web, perfect for the children to hang from when they are in a chrysalis.

> 'Everything is still and quiet because something special is happening inside these cocoons. They are undergoing a change called metamorphosis,' Miss McCarthy says in character.
>
> Together, the butterflies slowly emerge. They need to dry off. They need to be strong enough to fly and then the butterflies flit all over the playground.

Miss McCarthy flaps and flies with her students. 'You quickly get over feeling silly. You get wrapped up in the kids giggling and having fun … it's giving [the students] permission to play'.

Watch this video for how Edithvale Primary School broke down the steps of the Conceptual PlayWorld.

> *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=405#oembed-2*

Research Readings 2.2: Teachers and educators must be active play partners in Conceptual PlayWorlds. Utami, Fleer & Li's (2022) study originally published in the *International Journal of Early Childhood* shows how these interactions transformed play for teachers in Indonesia. Read this study, available as working paper 46 in Conceptual PlayLab working papers.

Practice reflection 2.2: Ashlee McCarthy played various roles in the Conceptual PlayWorld, including Charlotte, Wilbur, and – along with the children – a butterfly going through a metamorphosis. What position did she take in each: equal, below, or above?

Practice reflection 2.3: A Conceptual PlayWorld has five key characteristics that are informed by research. In addition to the video below, these PlayWorld starters from the PlayLab offer more ideas. Which ones would you like to try? Remember to record your ideas in your *Fleer's Conceptual PlayWorld thinking book.*

Learning outcomes

Charlotte: I am starting to understand how versatile PlayWorlds can be. I can see three key science concepts being taught here at a very low cost.

- Science – life cycles
- Scientific language, using words like pupa, chrysalis and metamorphosis
- Science – ecosystems.

Yuwen: In terms of social and emotional development, the children were also able to:

- learn about regulating emotions
- cooperate with each other
- understand friendships.

The Very Hungry Caterpillar Conceptual PlayWorld: Brisbane, Queensland

Wonderland is a long day care centre at Sheldon College in Brisbane. Educators Kristy and Tiana both participated in professional development at the Monash PlayLab to learn how to run a Conceptual PlayWorld.

They based their first Conceptual PlayWorld on the classic children's story, *The Very Hungry Caterpillar*. After reading the story, the children – all aged between three and five – ventured out into their imaginary garden by crawling through a special tunnel.

There, they met Kristy, playing the role of a very hungry caterpillar, and helped her find food. The children learned what caterpillars eat and used B-Bot coding as part of the activity.

'The children were instantly mesmerised and that level of excitement remained throughout the PlayWorld,' Kristy explained.

Tiana said it worked well for the group's younger and older children and 'was quite easy to differentiate their learning according to their abilities'.

Keeping girls engaged with STEM

As the playworld progressed, Kristy and Tiana noticed something special was happening in particular with the girls.

The girls loved the dramatic play and had plenty of opportunities to choose different characters and activities, which had a flow-on effect on their learning.

> 'It helped them become engaged, and they were more invested in solving the STEM problem,' Tiana observed.

Kristy also noticed that the girls in the group were very engaged with the engineering and architectural problem-solving within the Conceptual PlayWorld.

'It just changes up the way you teach a unit. It's just so much more exciting for the teachers and for the children,' Tiana reported.

Tiana shares what she loves about using the Monash PlayLab Conceptual PlayWorld model in her classroom. Watch Tiana's story below.

> 🖼 *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=405#oembed-3*

The difference Conceptual PlayWorlds make for girls

A big area of focus for the Monash PlayLab researchers has been to investigate the differences in how girls engage in STEM inside and outside of Conceptual PlayWorlds.

Studies show that in kindergarten, girls have a science achievement gap. A report released by Australia's Chief Scientist found the origins of this to be under-representation and unconscious gender biases in early childhood education.

Building on previous research, the PlayLab team reported in traditional early childhood spaces girls:

- get pushed aside in spaces like construction areas without intervention
- play differently to boys
- experience accumulative micro-aggressions that lead to them disengaging with STEM.

In contrast, Conceptual PlayWorlds have been shown to create safe and positive spaces for girls to learn alongside boys. In particular, the team found Conceptual PlayWorlds:

- transform the role of teachers to be play partners who then intervene early
- motivate girls to learn through stories and dramatic play
- enable girls to experience collective imaginary play on an equal footing.

This video of Conceptual PlayLab researcher, Tanya Stephenson, explains how the gap in girls' engagement with STEM can be addressed by participation in conceptual playworlds.

> *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=405#oembed-4*

Research Readings 2.3: Girls experience accumulative micro-aggressions in traditional early childhood spaces. Read Increasing Girls' STEM Engagement in Early Childhood: Conditions Created by the Conceptual PlayWorld Model understand how teachers and educators can disrupt this.

> **Practice Reflection 2.4:** Go through your notes from your research readings. What are the key ideas you will apply in your own practice?

Learning outcomes

Yuwen: It's pretty powerful to learn how we can influence how girls engage in STEM as educators.

Charlotte: I'm feeling inspired to give it a go. Who knows, maybe we will be teaching the next Chief Scientist of Australia.

Figure 2.2.

Charlotte and Yuwen feel inspired!

Conclusion

In this chapter, we learned about the practical ways that Conceptual PlayWorlds have been applied in three different early childhood spaces in Australia. We explored some of the research behind the model and from the teachers themselves. We covered the different ways the Conceptual PlayWorld model can motivate children to learn by:

- introducing urgent problems into imaginative scenarios
- having teachers as play partners in the scenario
- equalising power dynamics through collective imagination.Charlotte and Yuwen have been learning and reflecting together.

In the next chapter, we'll dive deeper into how a teacher's role is transformed from supervisor to play partner.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

References

Education Services Australia. (2018). *Optimising STEM industry-school partnerships: Inspiring Australia's next generation. Final report*. Education Council. https://www.chiefscientist.gov.au/sites/default/files/2019-11/optimising_stem_industry-school_partnerships_-_final_report.pdf

Fleer, M. (2022). How an educational experiment creates motivating conditions for children to role-play a child-initiated PlayWorld. *Oxford Review of Education, 48*(3), 364–379. https://doi.org/10.1080/03054985.2021.1988911

Morgan, P. L., Farkas, G., Hillemeier, M. M., & Maczuga, S. (2016). Science achievement gaps begin very early, persist, and are largely explained by modifiable factors. *Educational Researcher 45*(1), 18–35. https://doi.org/10.3102/0013189X16633182

Stephenson, T., Fleer, M., & Fragkiadaki, G. (2022). Increasing girls' STEM engagement in early childhood: Conditions created by the Conceptual PlayWorld model. *Research in Science Education, 52*(4), 1243–1260. https://doi.org/10.1007/s11165-021-10003-z

Utami, A. D., Fleer, M., & Li, L. (2022). The 'Player' role of the teacher in Playworld creates new conditions for children's learning and development. *International Journal of Early Childhood. 55*, 169–186. https://doi.org/10.1007/s13158-022-00333-y

Attributions

About the author

Lara McKinley
MONASH UNIVERSITY

https://www.laramckinley.com/

Lara McKinley is a content producer and digital strategist with a passion for authentic storytelling that connects audiences and builds communities.

CHAPTER 3: PLAY ROLE, DRAMA AND LEARNING CONCEPTS IN A CONCEPTUAL PLAYWORLD

Liang Li

Chapter Goals

By reading and exploring the content of this chapter, you will learn:

- how to become a play/character role in a Conceptual PlayWorld
- how to dramatise the conceptual problem in a Conceptual PlayWorld
- how to act and embody subject knowledge/concepts in play

Introduction – Entering an imagined Conceptual PlayWorld

You are about to enter the imaginary world of an early childhood centre.

After learning about the Conceptual PlayWorld from Yuwen (see Chapter 1), Charlotte was keen to try her own Conceptual PlayWorld for the first time. Charlotte chose the storybook, *The Gruffalo (Australia only)* written by Julia Donaldson and Axel Scheffler.

Charlotte chose this story as she wanted the children to identify with the mouse, because although the mouse was little, the mouse always came up with many clever plans to save herself. She wanted to use this story to help the children understand that even though they are small, they can still find a way to 'save' themselves in any challenging situation.

It was the first time the children were to travel to the Conceptual PlayWorld space, which was set up in the centre of their playroom. Before entering the Conceptual PlayWorld, Charlotte and the children read

the story together and designed different character roles using art materials (Figure 3.1.) to create character puppets and develop scripts for the play.

Figure 3.1.

Character puppets for use in the Conceptual PlayWorld

Note. Image provided by the author.

They created a new storyline and narrated an ending where all the animals, even the Gruffalo, became friends. After entering the playworld, the children actively performed their chosen character roles, acting out the new storyline and following the prepared script. Charlotte acted like a director of their play, giving them suggestions of what and how to perform, while Yuwen watched on. After the session, Charlotte asked Yuwen if this was how Conceptual PlayWorld should be experienced, feeling like it was very similar to **theatre play** she had previously done in her preservice teacher training.

Practice reflection 3.1: How do you feel about the Conceptual PlayWorld that Charlotte has created? Can you see what problems arose based on your understanding of Conceptual PlayWorld from Chapter 1? Could you help Charlotte solve the problems according to what you have learned? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Double-subjectivity: Play role and real role

Through her first experience of the Conceptual PlayWorld, Charlotte reflected on her teaching role and wondered about the differences between theatre play and Conceptual PlayWorld. Yuwen suggested that an important element Charlotte did well was thinking about supporting the children in building an emotional connection with the characters in the storybook. Charlotte used theatre play to support the children to be familiar with the storyline and develop a new ending. This helped the children to transition to the imagined playworld space. Yuwen also mentioned that Charlotte's professional reflection was beneficial, and her question about the difference between a Conceptual PlayWorld and theatre play was important. Yuwen explained the differences between theatre play and Conceptual PlayWorld to Charlotte and elaborated upon the importance of being an active play partner in Conceptual PlayWorlds.

> **Yuwen:** It is good that you chose a storybook that has an adventure and an emotionally charged situation, such as what the little mouse experienced, and which followed the children's perspectives. The Conceptual PlayWorld starts with children's literature, which is why the book you chose was just great. However, within the Conceptual PlayWorld, teachers also need to be part of the playworld. We call this taking a partner role. Acting out the story is just a start to help the children become familiar with the character roles and build emotional connections with the storybook's characters. In this way, the Conceptual PlayWorld can be personally meaningful for children. Teachers need to enter the Conceptual PlayWorld together with the children by taking a character role instead of being a director of the children's play. The director's role is outside of the imagined play. To be inside the play, teachers can be a role from the storybook or even a new character role that might not come from the story at all! The teacher can even take on the role of an object, like a tree, who can guide the children and promote the play and exploration process (See Figure 3.2). Some teachers worry that they cannot control the classroom and manage children's behaviours, especially when going inside together with a whole group, so they might choose a character role who has magic powers, which will inspire the children.

> **Charlotte** *(nodding her head)*: Oh, it means I need to be an animal friend drawing upon the story or other character role. I thought I was part of their play as a director taking a play role instead of

being a teacher. Now I can see that I need to be an active player. But why do we need to take such an active role? And how to be an active player? It feels quite challenging to play a role with children, acting like an animal. I'm not sure I am playful enough.

Yuwen: Very good questions Charlotte! Why do teachers need to be part of the Conceptual PlayWorld? Think about if you become a play role such as an owl, what is your role in the children's eyes? As a teacher? Or an owl? In their eyes, you become an owl! Once you are inside the imaginary situation, you can better understand the children's perspectives and intentions. Then, you can use your character role to guide the children to investigate the conceptual problem. While in a character role in the Conceptual PlayWorld, it doesn't mean you forget your real role as a teacher. Rather, simultaneously, you have what is called **double-subjectivity** (Kravtsova, 2014): a player who is a play partner of the children and a teacher who has a pedagogical agenda. By doing so, you can teach the subject knowledge and concepts and support meaningful learning and play development.

Figure 3.2

Charlotte could be a tree

Practice reflection 3.2: What are the relations between a play role and a real role? Why do we need to become play partners in the Conceptual PlayWorld?

After listening to Yuwen's explanation and suggestions, Charlotte shared another concern due to her lack of confidence in being in the play role within the Conceptual PlayWorld.

> **Charlotte:** Oh! Very interesting to know this. I haven't thought about this before. It is important to hold two roles at the same time. Now I know what I should do. However, I still find it challenging to act like an animal or be playful, as I have never played like that before. I am so

worried about how the children will see me. Also, I am not sure how to use my role to extend children's thinking and exploration?

Yuwen: Please don't worry. We can do some playful activities together, and I can invite other colleagues to the professional training day this week. We can do some improvising activities and support you to be more playful.

Later, at the professional training day within the whole centre, Yuwen leads the whole group of teachers to do the improvised activities she discussed with Charlotte. The webpage *Demonstrating Viola Spolin's Theater Games* has examples of the theatre games used in the training day.

Practice reflection 3.3: What improvisation principles could you use to extend the children's imagination and play in your classroom? Can you use improvisation principles in daily conversation? Why do you think they are important in a Conceptual PlayWorld? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Embodied imagined play role and concepts

During the professional training session, Yuwen created a conceptual play activity to explore the embodied imagined STEM concepts. This supported Charlotte's understanding of the STEM concepts and help her transition to an imaginary situation.

Conceptual play activity

Professional training participants, as a small group, portray the assigned scientific concepts without using words. Others need to guess the concept which has been portrayed, such concepts can include such as:

- Direction: Directional movement through the arrows and walking steps
- 2D shapes: Triangle, Square, Rectangle, or Circle
- Germination: A plant grows from a seed into a seedling
- Freezing & melting: Ice melting into water on a sunny day
- Light refraction: Rainbow

Figure 3.3.

Acting the directional movement

> **Practice reflection 3.4:** How do you feel about using body movements and gestures to illustrate the scientific concepts? Have a practice with your friends, family or colleagues and see if they can guess which concepts you are trying to portray.

After the professional development training day, Charlotte debriefed with Yuwen and reflected on the conceptual play activity.

> **Charlotte:** I found I really enjoyed the conceptual play activity. It was a fun and interesting activity. I could create anything I liked using my body movements and the related objects. I changed the meaning of my actions and objects by interacting with the group imagination. It really opened my mind, and I was amazed how I could dramatise the concepts using an imagined play role. Play has such a powerful meaning!

Is the Conceptual PlayWorld scripted?

After the professional development training session, Charlotte reflected on what she learnt with Yuwen and explained the importance of improvisation and how this also supported the children's play development. As Charlotte wanted to do it right, when she first tried the Conceptual PlayWorld session, she had a script ready, but now reflected on that decision with Yuwen:

> **Charlotte:** Thanks for all your great ideas, Yuwen. I now feel I know how to extend the children's thinking by stepping out of my role as the teacher and, instead, use the play role, which motivates the children to explore the concepts. I still have another question though: is the Conceptual PlayWorld scripted? Should I prepare every sentence to guide the children's exploration of the concept in the Conceptual PlayWorld?

In response, Yuwen discussed with Charlotte the planning process of the Conceptual PlayWorld and highlighted how to plan and dramatise the conceptual problem while considering children's learning processes:

> **Yuwen:** Excellent thinking Charlotte! I am so glad to hear that you feel more comfortable with being in a play role. Also, you have asked another great question. The Conceptual PlayWorld needs to be planned; however, it should not be scripted, or cannot be scripted, as we do not know how the children will interact with the problem-solving scenario in the imagined Conceptual PlayWorld. What we can plan, though, is the dramatisation of the emotionally charged situation that motivates children's exploration of the problem. While doing this, we also assess children's play and their exploration process (see Chapter 5 for more information about assessment).
>
> For instance, you might plan your imagined role in play and the dramatised conceptual problem for children and teachers to investigate together. In addition, you can plan the teachers' interaction, all while considering children's diverse needs and intentions. For instance, you might invite the characters to explore the concept of direction and say that the little snake was lost in the forest and could not find a way home. Then, the little snake met the Gruffalo and asked for help to find the way home, so needing directions. Within the Conceptual PlayWorlds, the children could use the concept of direction to help the snake and solve this emotionally charged situation of the poor snake being lost. Or you could create the emotionally charged scenario where the children in their character roles need to build a new house for the snake, as they could not find Snake's old house and want to build them a new house. In this way, engineering principles could be applied, and the children can use design technology concepts to support the problem-solving process.

Authentic problem: Curriculum links and learning subject knowledge/concepts

Through their discussion, Charlotte has reflected on what Yuwen suggests and asks another important question related to the dramatisation of the authentic conceptual problem:

> **Charlotte:** So, does it mean that in the Conceptual PlayWorld, the children's learning process is reflected through the problem-solving process using relevant concepts? I wonder which concept I should start with?! For instance, if we would like children to learn the concept of direction, should I start with directional language? Or learning about maps? How can I embed the concepts into the Conceptual PlayWorld?

> **Yuwen:** This requires us as teachers to be familiar with the curriculum and the children's learning sequences with concepts and, in your example, direction. We aim to support children's learning progression. We are not expecting the children to solve the problem in one day, rather, it may take a few sessions of the Conceptual PlayWorld to solve the problem. But we do need to start by setting up the emotionally charged scenario. For instance, while the children travel to the Gruffalo's PlayWorld as different characters, such as a mouse, owl, snake or even the Gruffalo, the teacher might take on the role of a baby snake, explaining that she is lost in the deep dark wood, and needs help to find her way home.

> **Charlotte:** That is a great idea! I could use our outdoor play yard to become Gruffalo's playworld space. I could set up different areas representing the different animals' houses. I could invite the children to explore these areas together with me. We could even have a community walk. After the first session of Conceptual PlayWorld, I will become a baby snake, lost and afraid and needing help to find my way home. The children could be other character roles to guide me, the lost baby snake, home. While they do this, I could prompt with questions like, should I go left or right, move forward or backward from the fox house? How many walking steps should I take?

Yuwen gives Charlotte a big smile and agrees with Charlotte's creative ideas and thoughtful planning. She supports Charlotte in reflecting on the importance of planning the conceptual problems by considering children's learning progression and curriculum content. Yuwen highlights that the play will hold significant meaning to the children through the dramatisation.

> **Yuwen:** It sounds like a great idea. The directional language is used here to help solve the problem. Also, by counting steps, the children will be using the one-to-one correspondence principle. The measurement of the distance will also be important. But can you see how the Conceptual PlayWorld is not scripted? We must assess children's learning and exploration while we play and explore with children together. For instance, if some children feel challenged counting the steps, we might spend more time counting and helping them to support counting between two animal

houses (see Chapter 6 for more information about pedagogical positioning to support concept learning in mathematics).

Charlotte: Yes, thank you, Yuwen. Now, it is becoming so much clearer to me. I need to follow children's intentions. Also, I think I could draw a map with the children while we help the baby snake find the house.

The following images demonstrate progressively exploring the concept of direction within a Conceptual PlayWorld.

Figure 3.4. Solution 1   **Figure 3.5. Solution 2**   **Figure 3.6. Solution 3**
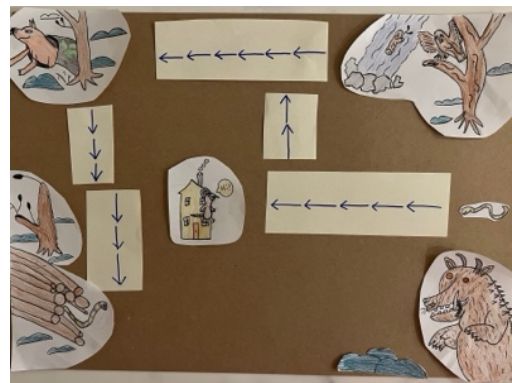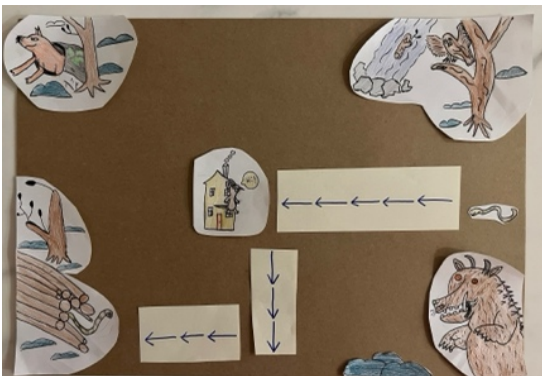
Figure 3.7. Solution 4   **Figure 3.8. All the possible solutions**
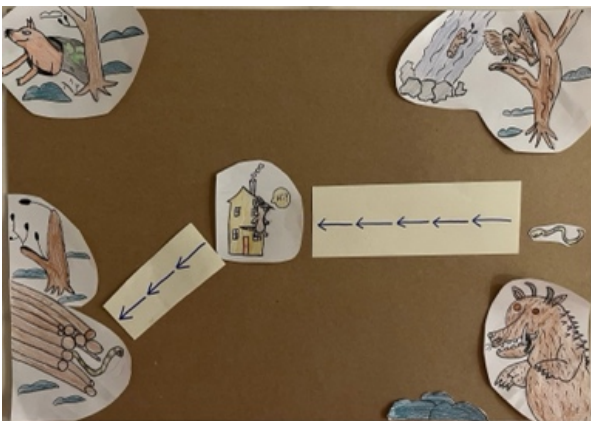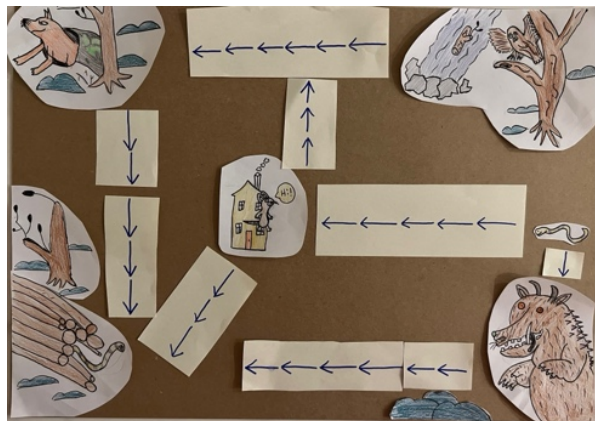
Note. Images provided by the author.

Practice reflection 3.5: Can you think of another dramatic conceptual problem you could plan for children's STEM exploration, drawing upon the story of *The Gruffalo*? How would you design the learning process while considering children's learning progression of the concept? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Conclusion

One of the ideas introduced in Chapter 1 was the role of the teacher and dramatisation of the concepts in a Conceptual PlayWorld. In this chapter, you are invited to think about how you feel about being a play partner, setting up the drama of a problem, and acting and embodying the subject knowledge through play. To resource this challenge, this chapter provides information that will increase your capacities and build confidence in understanding and implementing the Conceptual PlayWorld in a play-based learning program.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

References

Kravtsova, E. (2014). Play in the non-classical psychology of L.S. Vygotsky. In L. Brooker, M. Blaise & S. Edwards, *The Sage handbook of play and learning in early childhood*, 21-30. Sage.

Attributions

About the author

Liang Li
MONASH UNIVERSITY

Liang Li began her career in Australia as an early childhood qualified teacher,before she started her PhD study. She is now an associate professor in early childhood education at Faculty of Education, Monash University. Liang takes cultural-historical perspective to investigate infant-toddlers' education and care, family practices, children's play and pedagogy, children's speech development, science, technology and mathematics in early childhood and primary education settings in China and Australia.

CHAPTER 4: CONCEPTUAL PLAYWORLDS IN DIALOGUE ACROSS INTERNATIONAL CONTEXTS

Anne Suryani

Chapter goals

By reading and completing this chapter, you will be able to:

- understand the possibilities of using *Fleer's Conceptual PlayWorld* across different settings and learn case studies from the Australian (see Chapter 1) and Indonesian contexts
- research how to integrate local contexts to benefit your teaching (e.g. being mindful of sociocultural aspects of your kindergarten setting, respecting local beliefs, values and practices; understanding the national early childhood curriculum, selecting local stories, and selecting important and localised concepts)
- develop strategies when applying intentional teaching in different contexts.

Introduction – Jumping into the imaginary situation

In Melbourne, Charlotte is looking at her diary. School holidays will begin in 2 months and she is very excited. She has been planning for months to visit her childhood friend, Sita, in Indonesia. They studied in the same primary and secondary schools in Clayton, a lovely multicultural suburb in southeast Melbourne. At that time, Sita's parents were postgraduate students from Indonesia studying at Monash University. After her parents graduated, they went back to Indonesia. Sita and Charlotte have kept communicating over the years as they share the same hobbies and interests, enjoy reading and writing stories, and, most importantly, they love children and were keen to become kindergarten teachers. It has been 4 years since Sita returned to her home city of Yogyakarta.

Now, time is ticking! Charlotte feels that she needs to prepare for her visit to Yogyakarta. She has wished to

visit this city since she heard from Sita that Yogyakarta is a beautiful place and a centre of classical Javanese fine arts and culture. Even more fascinating is that although Indonesia is a presidential republic, the government gave Yogyakarta a special region status as the only Indonesian royal city ruled by a monarchy.

Research reading 4.1: Explore the history of Yogyakarta special district, Indonesia.

From 1755 to 1945, the Yogyakarta Sultanate was a Javanese Islamic monarchy. After Indonesia gained independence in 1945, the Sultanate was transformed into the Special Region of Yogyakarta Province. In essence, Yogyakarta is the only province among all 38 Indonesian provinces led by a Sultan from 1755 until today.

What is the difference between a Sultan and a King? Both labels refer to a sovereign ruler with the power and authority to rule a country. However, a *Sultan* is a noble title with religious significance in Muslim countries, while the title of *King* tends to be more secular and is widely used in both Muslim and non-Muslim countries.

The current Sultan in Yogyakarta is Sri Sultan Hamengkubuwono X (read: *Hamengkubuwono the tenth*), also the Governor of Yogyakarta Special Region. While he holds a powerful political and spiritual position within the island of Java, he is also highly respected in the international community.

Research reading 4.2: Sultan of Yogyakarta: A feminist revolution in an ancient kingdom.

The changing role of women in Yogyakarta Sultanate

Javanese culture is traditionally a patriarchal one where the society expects men to play public-facing roles while women stay at home. This often translates to men enjoying superior public positions. In contrast, women were often given domestic roles that positioned them in a publicly inferior position.

Despite this, Sultan Hamengkubuwono X wishes to modernise the royal system by enacting a number of reforms. His stance is one of respect for women, and he values their position as equal to men. The Sultan married Gusti Kanjeng Ratu Hemas, and they have 5 daughters: Crown Princess Mangkubumi, Princess Condrokirono, Princess Maduretno, Princess Hayu and Princess Bendoro. All the children were sent to study in either Europe, the United States or Australia. Once they returned to Yogyakarta, they were all given various leadership positions in the palace.

There are at least 3 important decisions the Sultan has made since he came to power in relation to gender

equality. First, the Sultan changed his title to be gender neutral. Second, he announced his eldest daughter as his successor.

The third decision is considered controversial yet one he highly values. In the past, it was common practice for a Sultan to have more than one wife. Given that all of the current Sultan's children are female, this is even more important within Javanese high society as they prefer that his heir be male. However, the Sultan has publicly declared that he will not practice polygamy.

Research reading 4.3: By reading this journal article, Gender politics in Yogyakarta Sultanate (Ratnawati, 2021), you will learn about the shift in the culture of the Yogyakarta Palace, from being patriarchal to promoting gender equality.

Planning a *Fleer's Conceptual PlayWorld* in a localised context: What to prepare?

Charlotte has bought return flight tickets from Melbourne to Yogyakarta. She has read information about Yogyakarta and has a list of places to visit. Has she finished with her preparation?

Of course not. One important thing on her bucket list is to share *Fleer's Conceptual PlayWorld* model with Sita and practice it together in the kindergarten where Sita is currently teaching.

Practice reflection 4.1. Go back to Chapter 1 and review the 5 characteristics of Fleer's Conceptual PlayWorld. Record your notes in your *Fleer's Conceptual Playworld thinking book.*

Charlotte starts thinking about the 5 characteristics of *Fleer's Conceptual PlayWorld*. Before she begins, she needs to know more about Indonesia's contexts in general and specifically Indonesian early childhood education. What do Indonesian children learn and how do they play? How do local kindergartens operate in Yogyakarta? So many questions to explore.

Understanding the educational system

Charlotte begins browsing websites about the Indonesian educational system. The Republic of Indonesia is the fourth most populous country in the world, with 277 million people living there. Although it is officially secular, religion is an important aspect in people's lives. Approximately 87% of Indonesians, or 241 million people, identify themselves as Muslims, making Indonesia the largest Muslim-majority country in the world (Ministry of Religious Affairs of Indonesia, 2022).

Compulsory education in Indonesia starts at primary (7–12 years old), followed by junior secondary (13–15 years old), and senior secondary (16–18 years old) levels. Enrolment in pre-primary or early childhood (3–6 years old) is optional. Two ministries oversee the education system. The Ministry of Education, Culture, Research and Technology (MoECRT) manage public and private schools, which are predominantly decentralised. The Ministry of Religious Affairs (MoRA) manage Islamic public and private madrasahs, which are mainly centralised. Around 80% of primary and secondary schools are managed by MoECRT and the remaining schools are madrasahs managed by MoRA.

Practice reflection 4.2: Do you remember the Australian education system? Compare it to the Indonesian education system – did you find any similarities and differences? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Now that Charlotte understands Indonesian education, she wants to know more about the early childhood setting. She endeavours to spend the next few days learning more about the Indonesian approach to early childhood education.

Understanding early childhood in Indonesia

The Indonesian government recognised the importance of early childhood education in 2001 when they established the Directorate of Early Childhood Education under the Ministry of Education and Culture (note. The Ministry of Education and Culture and the Ministry of Research and Technology were merged in 2021 and renamed as The Ministry of Education, Culture, Research and Technology [MoECRT]).

As with other countries, the MoECRT works with other government agencies to improve the quality of early childhood. The Ministry of Social Welfare, the Ministry of Health, and the Ministry of Women's

Empowerment also oversee Indonesian early childhood education and care. To add a layer of complexity, Indonesia's strong religious culture means that the MoRA manages religious-based Early Childhood Education (ECE) centres, while the MoECRT manages non-religious-based ECE centres.

There are different types of ECE centres in Indonesia. They can be formal or nonformal, and public or privately funded. One of the many criteria used to define formal vs nonformal ECE centres was the qualification of teachers working there (UNESCO, 2004, 2005). Those teaching in a formal ECE centre must have a teaching qualification from a university. Meanwhile, nonformal ECE centres do not have such requirements for their teachers.

In 2020, only 2% of the 202,991 ECE centres in the country were public and funded by the government (Adriany, 2022). Thus, the majority of ECE centres are run by private organisations.

Figure 4.1.

Charlotte and a map of Indonesia

Note. Charlotte thinks all of this information is very interesting and will help inform how she approaches Fleer's Conceptual PlayWorld in the Indonesian context. She continues researching.

Another interesting classification of Indonesian ECE centres is the name of services based on their activities. The ECE centres can be categorised as kindergarten (a formal centre for 4–6-year-old children), playgroup (a nonformal centre for 2–4-year-old children, although in some areas it may include 4–6-year-old children), day-care (a centre for 0–2-year olds), and nonformal early childhood education (which are often run by volunteers in villages/rural areas).

Research reading 4.4: You can explore more about ECE in Indonesia (Adriany, 2022, pp. 2–6)

Early childhood curriculum

The ECE curriculum in Indonesia is 'highly standardised and centralised' (Adriany, 2022, p. 9). The ECE National Curriculum classifies children's development into 6 domains: physical, social-emotional, language, art, cognitive, and religious development (MoEC, 2014). It addresses core competencies based on children's age groups, from birth to 2 years old, 2–4 years old, and 4–6 years old.

Charlotte finds too much information at this stage. She decides she needs to focus on kindergartens because Sita teaches at a local kindergarten in Yogyakarta. Charlotte reflects on all her reading so far and tries to find more information on Indonesian kindergartens.

In the kindergarten setting, children are expected to develop 4 core competencies: spiritual, social, knowledge, and skill competencies (Adriany, 2022).

- First, the *spiritual competencies* expect children to believe in God and His creations, and be able to appreciate themselves, other people, and the environment as an expression of gratitude to God.
- Second, the *social competencies* consist of 14 fundamental competencies, such as having a healthy lifestyle, showing creativity, showing appreciative behaviour and tolerance to others, showing honesty, and being humble and polite to parents, teachers and friends.
- Third, the *knowledge competencies* comprise 15 fundamental competencies, such as acknowledging daily prayer, having good morals and behaviour, acknowledging the environment (e.g. animals, plants, climate, land, water, and rocks), knowing simple technology (e.g. household items, mechanic utensils), understanding receptive and expressive languages, as well as knowing their emotions and others.
- Fourth, the *skill competencies* consist of 15 components, such as observing daily prayer with adults' guidance, demonstrating good moral behaviour, being able to solve daily problems creatively, demonstrating receptive language, understanding expressive language, and demonstrating preliteracy skills.

Research reading 4.5: See Table 5, page 11, for a complete list of competencies for kindergarten in the Indonesian ECE curriculum (Adriany, 2022)

Practice reflection 4.3: Now you that know the 4 core competencies intended for kindergarten children in the Indonesian ECE curriculum, read the 5 Learning Outcomes in the Early Years Learning Framework for Australia V2.0 (ACECQA, 2023, p. 29). What did you find most interesting between the 2 policy documents? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Figure 4.2.

Charlotte standing at the playground and thinking about what to do next.

Planning a Conceptual PlayWorld in the Indonesian context

Fleer's Conceptual PlayWorld model was developed in the Australian context (see Chapter 1 and the *Conceptual PlayWorld* website). We know that Charlotte will implement Conceptual PlayWorlds with Sita in a local kindergarten in Yogyakarta. She has read about the local culture in Yogyakarta, the province where Sita's kindergarten is located. She has also prepared herself with some knowledge about the Indonesian

education system, early childhood setting, and national ECE curriculum. Now, it is time to get into the 5 characteristics of *Fleer's Conceptual PlayWorld*.

Figure 4.3.

Fleer's Conceptual PlayWorld planning proforma in Bahasa Indonesia

MONASH University

GROUP OF EIGHT AUSTRALIA

Merencanakan *Conceptual PlayWorld* dalam STEM (Fleer, 2022)
Monash PlayLab

Lima karakteristik dari Conceptual PlayWorld untuk mendukung peran imajinasi dalam berpikir dan belajar Sains, Teknologi, Teknik dan Matematika (STEM) (Fleer, 2022)

Karakteristik Pedagogi	Praktik pedagogi yang direncanakan	Pelaksanaan *Conceptual PlayWorld*
Memilih cerita untuk *Conceptual PlayWorld*	▪ Memilih cerita yang menyenangkan bagi anak-anak dan orang dewasa. Ringkasan cerita. ▪ Membuat drama untuk setiap karakter dalam cerita ▪ Menanamkan empati untuk setiap karakter dalam cerita ▪ Alur harus memuat situasi berbasis masalah. ▪ Konsep dan kaitannya dengan cerita dan peran harus dikembangkan dengan jelas. ▪ Petualangan dan perjalanan yang muncul dari alur cerita	▪
Mendesain ruang untuk *Conceptual PlayWorld*	▪ Pilihlah ruangan di dalam kelas/aula/ruang terbuka yang cocok untuk situasi imajiner alur cerita *Conceptual PlayWorld* ▪ Rancanglah permainan yang memberikan kesempatan anak untuk mengembangkan alur cerita lebih dalam atau mengeksplorasi konsep dan membuatnya lebih bermakna secara pribadi ▪ Berikan kesempatan untuk anak-anak untuk memaparkan ide-ide mereka dan mengekspresikan pemahaman mereka.	▪

Practice reflection 4.4: *Fleer's Conceptual PlayWorld* planning proforma has been translated into different languages: Bahasa Indonesia, Chinese, Japanese, Vietnamese, Laos, Arabic, and many more. You can download these planning proformas from the Conceptual PlayWorlds website.

Help Charlotte think about which aspects of the 5 characteristics of Fleer's Conceptual PlayWorld need to be modified in different cultural contexts. Refer to Table 1.1 in Chapter 1.

The big day

Charlotte feels ready to practice her Conceptual PlayWorld with Sita in Yogyakarta. She has read extensively on the background of ECE in Indonesia, selected a local storybook and completed a planning proforma.

Charlotte can't wait to visit Yogyakarta and implement a Conceptual PlayWorld with Sita. She notes that during her preparations, it is important to:

- learn about cultural values, beliefs and practices of both settings
- explore the target country's education system and national curriculum
- understand the target country's early childhood curriculum, including any expected learning outcomes or core competencies
- try using local sustainable eco-friendly resources to support your Conceptual PlayWorld

Conclusion

This chapter discusses several important concepts to consider when implementing Conceptual

PlayWorlds in different sociocultural settings. We suggest student teachers be mindful of the local values, beliefs and practices when teaching in culturally diverse contexts. Understanding the national curriculum and education system would be helpful, particularly in early childhood settings. Student teachers are encouraged to integrate local knowledge into their teaching practice. By developing these strategies, student teachers can use evidence to contextualise the Conceptual PlayWorld model. This will enable them to successfully implement a Conceptual PlayWorld that aligns with country-specific curriculum and cultural expectations.

To find out more about Fleer's Conceptual PlayWorld read the research on the Conceptual PlayLab website.

References

Adriany, V. (2022). Early Childhood Education in Indonesia. In: L.P. Symaco, & M. Hayden (eds), *International Handbook on Education in South East Asia*. Springer International Handbooks of Education. Springer. https://doi.org/10.1007/978-981-16-8136-3_28-1

Australian Government Department of Education [AGDE] (2022). *Belonging, being and becoming: The early years learning framework for Australia* (V2.0). Australian Government Department of Education for the Ministerial Council. https://www.acecqa.gov.au/sites/default/files/2023-01/EYLF-2022-V2.0.pdf

BBC News (2018, 1 June). *Sultan of Yogyakarta: A feminist revolution in an ancient kingdom.* Retrieved September 3, 2023, from https://www.bbc.com/news/world-asia-43806210

Encyclopaedia Britannica. (n.d.) *Yogyakarta*. Retrieved September 3, 2023, from https://www.britannica.com/place/Yogyakarta-special-district-Indonesia

Ministry of Religious Affairs of Indonesia. (2022). *Number of people by religious affiliations*. https://satudata.kemenag.go.id/dataset/detail/jumlah-penduduk-menurut-agama

Ministry of Education and Culture Republic of Indonesia. (2014). *2013 Curriculum of early childhood education*, Vol 146. Ministry of Education and Culture Republic of Indonesia, Jakarta

Ratnawati, & Santoso, P. (2021). Gender politics of Sultan Hamengkubuwono X in the succession of Yogyakarta palace. *Cogent Social Sciences,* *7*(1), 1976966. https://doi.org/10.1080/23311886.2021.1976966

Suryani, A., Tirtowalujo, I. & Masalam, H. (Eds). *Preparing Indonesian Youth: A Review of Educational Research*. Brill. https://doi.org/10.1163/9789004436459_001

UNICEF. (2016). *Transforming the lives of Indonesian children with Early Childhood Education.* https://www.unicef.org/stories/transforming-lives-indonesian-children-early-childhood-education

UNESCO. (2004). *The background report of Indonesia*. Retrieved September 5, 2023, from https://unesdoc.unesco.org/ark:/48223/pf0000138849

UNESCO. (2005). *Policy review report: Early childhood care and education in Indonesia.* Retrieved September 5, 2023, from https://unesdoc.unesco.org/ark:/48223/pf0000138522

Attributions

About the author

Anne Suryani
MONASH UNIVERSITY

Dr Suryani holds a PhD in Educational Psychology with a Mollie Holman Medal for the best doctoral thesis in education from Monash. She has extensive experience working in a range of government-funded, consultancy and grant-based educational research in the Asia-Pacific Region. She has strong quantitative skills and experience in large-scale survey design and analysis as well as longitudinal and comparative studies. Her current research focuses on preparing future teachers, drawing upon educational psychology and cross-cultural studies to inform these practices. Anne's research interests include teacher motivation, teacher education, teacher professional development, religious tolerance education, and educational policy.

CHAPTER 5: CAPTURING LEARNING: ASSESSMENT IN A CONCEPTUAL PLAYWORLD

Gloria Quinones

Chapter Goals

By reading and exploring the content of this chapter, you will learn about:

- what is **Intentional Observation** of children's learning
- how to establish **mutual dialogue** between colleagues about capturing children's play
- what is **assessment** and its relation to *Fleer's Conceptual PlayWorld*
- how do teacher's assess children's learning.

Introduction

In Chapter 3, you were introduced to the importance of your pedagogical role in *Fleer's Conceptual PlayWorlds*. In this chapter, we extend your role in relation to assessment and what this might mean when you engage in imaginary *Fleer's Conceptual PlayWorlds* with children.

Your new challenge is to think about intentionally observing children's play in *Fleer's Conceptual PlayWorlds* and, making some judgements about children's learning. This involves understanding what assessment is. Remember that as a student teacher, you can always check with your mentor teacher (like Yuwen), who has more experience making judgements about children's learning.

Remember that you are making observations of children's interests in the flow of play during the Conceptual PlayWorld. We will draw upon the story of *Rosie's Walk* (you can use another story you like, too) to reflect on the possibilities for assessing children's play and learning.

It is important to consider what children learn in *Fleer's Conceptual PlayWorlds* – in the different moments

of interacting with children, to capture children's learning. Specifically, we will focus on *Fleer's Conceptual PlayWorld* using visuality – visual tools to support you in capturing different perspectives – your personal learning, children's individual and collective learning, and the conditions that have been jointly created in the flow of playing.

Practice Reflection 5.1: Brainstorm what you think children are learning in *Fleer's Conceptual PlayWorlds*. Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book*. Note the children's ideas and your own reflections.

What is Intentional Observation

Observing children in their everyday play is important (Ebbeck, 2016). When observing children's play, remember the multiple perspectives about play: teacher's and children's perspectives. The act of observing involves collaboration with your mentor teacher or peer during placement; they can also add to what you are observing. Before making an assessment, it's important to ponder what is observed. By observing and wondering during children's play, you can capture their learning and interests.

Practice Reflection 5.2: When observing children's learning, use the following questions for reflection and wondering:

- what is currently happening in this situation?
- what are the imaginary situations children are co-creating, negotiating and collaborating with each other?
- how are children relating and discussing ideas (verbally and non-verbally)?
- what resources in the environment are available for children's *Fleer's Conceptual PlayWorlds*?

When teachers are intentional, they develop a sensitive awareness of children's interests and intentions (Ridgway, et al., 2021). These are significant for further observation and reflection of 'what' is learned in play. Through your observation, you can identify how children are learning so you can further plan and extend in *Fleer's Conceptual PlayWorlds*.

Mutual Dialogue

It is important to remember to continue to discuss these ideas with your mentor teacher, to establish mutual dialogue about what children are playing and learning. For example, what would your role be in *Fleer's Conceptual PlayWorlds* (Chapter 3)? Mutual dialogue enriches a teacher's understanding of children's play (Ridgway, et al., 2021). In this case, imagine how Charlotte wondered with Yuwen about children's play. Charlotte had many questions about where to begin to observe, and this conversation followed.

Figure 5.1.

Charlotte and Yuwen having a discussion about children's play.

Charlotte: The children are enjoying playing together. What should I do next? I am unsure where to start observing children's play.

Yuwen: Remember, you're always observing and thinking about children's play: at the beginning of the day when they arrive, when we're joining their play and when children exit the Conceptual PlayWorld.

Charlotte: Thanks, can I ask the children questions while I observe them?

Yuwen: Yes, of course! Like you are having a conversation with me, you can also discuss ideas with the children.

Through observing children's play you can also *discuss, clarify* and *ask* questions to children about what they're playing. In Chapter 2, a discussion of your pedagogical role was discussed and the multiple positions you take when joining children's play. For instance, when you observe, you are outside the imaginary situation – and inside the imaginary situation taking a role – in both roles, you continue to observe children's play. This conversation occurred when Charlotte was asking questions to the children and having a mutual dialogue with them.

Figure 5.2.

Looking at Rosie's Walk farm book for tools to use to build a farm.

Charlotte: I really like what you are building with your friend.

Child: Yes, thanks.

Charlotte: I wonder if you need my help?

Child: Yes, you can bring more tools to help us build a farm for the chickens.

Charlotte smiled and continued to observe children's play, while they were building a farm together for the

chickens. She realised that she could observe from the 'outside' and 'inside' joining them in their play. She continued reflecting and observing children's interests in the Conceptual PlayWorld.

Practice Reflection 5.2: Think about your current Conceptual PlayWorld. What questions do you have about making observations that you can discuss with your mentor teacher? What new ideas have you learned when asking questions to children when they're playing (inside and outside their play)? Record your ideas in your *Fleer's Conceptual PlayWorld thinking book.*

Digital Technologies: Gaining Children's Voice and Permission

Digital technologies support teacher's documentation of children's play (Ridgway et al., 2015). It is very important that before you decide to record images of children, you ask for permission from parents or guardians. You also need the children's consent when recording an image. For example, when taking a photo of children's faces, you need to be sensitive so that children feel comfortable with you. Remember that you are developing a relationship with your mentor and children during placement, so you are building 'trust'. Children will become more comfortable with you recording images of them if this trust is built.

For example, Charlotte had to learn about the early learning centre's policy about photographing children. Recording images also involved listening to children's verbal and non-verbal language (e.g. gestures).

Charlotte discussed digital technologies with her mentor, Yuwen.

Figure 5.3.

Charlotte and Yuwen discussing how to use the early learning centre's iPAD.

Charlotte: I wanted to check with you if I can record images of children's play.

Yuwen: Yes, you can take images of children. As part of our early learning centre's policy, we have asked families permission to take images using our early learning centre's iPad.

Charlotte: That's great, thank you. Can I share them on Facebook or Instagram?

Yuwen: Thanks for asking how you can use children's images. We exclusively use these images for documenting children's learning in the early learning centre. We don't use social media to share children's images. We are protecting children's and parent's privacy. Please remember that we use the early learning centre's iPad to record images, not personal devices like your mobile phone.

Charlotte: Ok, I will record images using the early learning centre's iPad. Then, I will share them with you.

Yuwen: Yes, remember, when taking photos, you also have to listen to the children.

Charlotte: Do you mean asking them if I can take their photos?

Yuwen: Yes, you can ask them and check how they provide consent to you to record their image at the moment, observing their non-verbal language, for example, face expressions and body language.

Charlotte: Thanks, this is very helpful. I'll keep this in mind when observing them.

Recording images is important for capturing children's learning and also for listening to children's verbal and non-verbal language. As discussed by Charlotte and Yuwen, you might need to check which devices you can use to take photographs or images. In this case, Yuwen told Charlotte to only use the early learning centre's devices (e.g. iPad). You must make decisions and reflect on your intentions when taking images of children. The images you take of children can support you in 'capturing' an important moment of children's learning. Intentional observation provides a framework for reflecting on your intentions of 'why' you (or others in the early learning centre) are capturing a moment in time and 'why' it is important in relation to children's play and learning. Visual images are a resource for teachers to inquire about children's individual and collective learning.

> **Practice Reflection 5.3:** Discuss with your mentor teacher if you have consent to record images of children. Think about how you will ask children for permission to take record images, and what questions you would ask them. Record your ideas in your *Fleer's Conceptual PlayWorld thinking book.*

What is Assessment?

We have discussed intentional observation as an important tool for reflecting on children's engagement in *Fleer's Conceptual PlayWorlds*. Fleer (2017) discusses assessment practices to implement in your Conceptual PlayWorlds: assessment through play, assessment of play and assessment for play. The following visual model will help you think about the different moments to assess children's learning (see Figure 5.4).

Figure 5.4.

Assessment through, of, and for Fleer's Conceptual PlayWorlds.

Assessment through play
What do children know?

Assessment of play
What is going on children's play?

Assessment for play
How can I support children in extending their play?
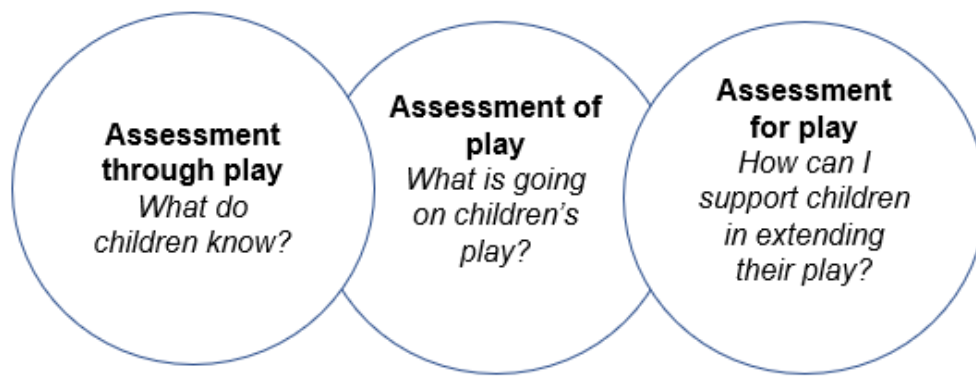
Note. Based on concepts from Fleer (2017).

A. Assessment THROUGH Play – Focus on What Children Know

Before planning a Conceptual PlayWorld, you must consider children's interests in play. Once these different interests appear, assessable moments in play occur when children are fully engaged in Conceptual PlayWorlds. According to Fleer (2017), an assessable moment is a layered process. The teacher observes, captures or documents and analyses children's learning when they are fully engaged in play activities.

The assessment moment can instigate planning for new problems to solve and help you think, with children, about new concepts to be introduced. While children are playing, you will have possibilities for teachable moments. A teachable moment is a moment for timely instruction where you can offer a new provocation for children to engage in Conceptual PlayWorlds.

Through mutual dialogue with your mentor, discuss the following questions to guide your thinking:

- what do children know and can do in play? (intentional observation)
- what is being captured or documented in order to make judgements about children's play? (assessment moment)
- what new provocations can I introduce to engage in children's play? (teachable moments)

Practice Reflection 5.4. Record your answers to these questions in your *Fleer's Conceptual PlayWorld thinking book.* Discuss with your mentor teacher your thoughts for further reflection.

B. Assessment OF Play – Focus on Children's Play and Learning

In relation to the assessment of play, the focus is on what children are playing, therefore, there is a need to pay attention to children's individual and collective imaginary situations. You will need to focus awareness on different groups of children, and the resources needed for their play. While doing this, you will also focus on their learning, taking into consideration the following:

- A detailed account of how children are conceptualising a play problem.
- How children determine how to solve the play problem and the content of the problem in *Fleer's Conceptual PlayWorld.*
- The relationships occurring between peers while children are engaging socially with others.

In the following chapters, you will learn how children can be introduced to different concepts, such as mathematical concepts (Chapter 7). In assessing children's play and learning, you will need to explain and describe how you capture children's play in your observations. We now focus on how you assess children's cognitive-creative and socio-emotional knowledge (Fleer, 2017). A detailed account is explained below.

- **Cognitive-creative knowledge** involves:
    - children's learning of complex and richer vocabulary
    - children's play involvement with peers
    - children's longer attention span, being more engrossed in their play
    - children creating imaginary situations, which leads to greater creativity
    - children demonstrating more curiosity and asking more questions and information about something in particular
    - children's ability to take on another person's perspective (empathy), for example, on new characters
    - children's higher forms of problem-solving, providing creative solutions to problems.
- **Socio-emotional** knowledge involves:
    - children demonstrating higher levels of cooperation
    - children managing emotions by communicating how they feel in a positive way
    - children communicating effectively their dislikes, leading to reducing aggression
    - more effective teacher management of the group and time runs smoothly.

Practice Reflection 5.5: Charlotte discusses the intentional observations with Yuwen. Yuwen asks her to identify and assess a focus child's cognitive-creative and socio-emotional knowledge. Record your answers to this in your *Fleer's Conceptual PlayWorlds thinking book.* Discuss with your mentor teacher your thoughts for further reflection.

C. Assessment FOR play – Framing, Extending and Supporting Children's Play

Charlotte has made notes of children's interests (assessment *through* play) and shares them with Yuwen and they discuss these together. Then, Charlotte made some notes on the assessment *of* children's play in relation to their cognitive-creative and socio-emotional learning. She was surprised about how much she has learned about children's learning in *Fleer's Conceptual PlayWorlds*. For example, children's knowledge about chickens

Next, she focuses on the assessment *for* play – to think further about how she can extend children's learning.

In the assessment *for* play, you will be thinking of continuous assessment of children's learning to frame, extend and further support children. You will enter and exit children's imaginary situations in *Fleer's Conceptual PlayWorlds*. For this, you will need to consider 'what is going on' at the moment of play, during and at the end of the Conceptual PlayWorlds.

Assessment for play involves:

- building play complexity and entering children's play
- teachers assessing what is going on in children's play (formative assessment) as well at the end of the *Fleer's Conceptual PlayWorlds* (summative assessment).

In Conceptual PlayWorlds, children's and teacher's interests and ideas are developed, and you will need to see the possibilities and potential of children's play. Formative assessment is a continuous process occurring through and of play assessment, while summative assessment assesses play at the end of a Conceptual PlayWorld, for example, how children are problem-solving ideas and learning new concepts. Summative assessment celebrates children's achievements and success in Conceptual PlayWorlds.

Through mutual dialogue with your mentor, discuss the following questions to guide your thinking:

- what is going on during children's play that you can further support or extend for children's learning (think of their cognitive-creative and socio-emotional knowledge)?
- describe the different problems children are trying to solve in the Conceptual PlayWorld and describe their learning (remember you can use images to support your ideas).
- in terms of problem-solving, think about the complexity of children creating new problems or if they need your support in creating new problems.
- celebrate children's new learning and friendships.
- think about what other Conceptual PlayWorlds you can think about to support children's newly developed ideas.

Practice Reflection 5.6: Review your notes and consider your observations of children's play and learning. Consider how you can further extend children's learning. Record your answers to this in your *Fleer's Conceptual PlayWorld thinking book.* Discuss your thoughts for further reflection with your mentor teacher.

Conclusion

In this chapter, for colleagues Charlotte (preservice teacher) and Yuwen (mentor teacher), mutual dialogue is an important pedagogical strategy for assessing children's play. There are multiple layers for assessing children's play and learning: assessment through play, of play and for play that involves you and the children.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

References

Ebbeck, M. (2017). Assessing children's learning through play. In M. Ebbeck and M. Waniganayake (Eds.), *Play in early childhood education learning in diverse contexts*, (pp. 42 –59). Oxford University Press.

Fleer, M. (2017). *Play in the early years.* Cambridge University Press.

Ridgway, A., Quinones, G., & Li, L. (2020). Visual methodology processing relational pedagogy. In E. J. White (Ed.), *Seeing the world through children's eyes* (pp. 177- 192). Brill.

Attributions

"Figure 5.1." by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

"Figure 5.2." by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

"Figure 5.3" by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

"Figure 5.4." by Gloria Quinones is licensed under CC BY-NC 4.0

About the author

Gloria Quinones
MONASH UNIVERSITY

Associate Professor Gloria Quinones' research is primarily within early childhood education and care.

Her recent reseach has focused on conceptualising infant-toddler affective and play pedagogies, emotional wellbeing of early childhood educators, children's peer relationships and parenting practices in Nepal.

CHAPTER 6: MATHEMATICS IN A CONCEPTUAL PLAYWORLD

Leigh Disney

Chapter goals

By reading and exploring the content of this chapter, you will learn:

- how to teach mathematics in play from within the imaginary play of children
- how to plan a Conceptual PlayWorld for mathematics
- how to pedagogical position yourself within the imaginary situation

Introduction – Jumping into the imaginary situation

Within this chapter, we will continue to follow our preschool teachers, Charlotte, the student teacher, and Yuwen, an experienced teacher. This chapter will focus on embedding mathematics concept learning into children's imaginative play using *Fleer's Conceptual PlayWorld* model. The chapter will present a case study of Charlotte and Yuwen working collaboratively with their preschool children to solve a mathematical measurement-related problem.

However, before returning to our protagonists, it's important to consider how we think about teaching mathematics to young children, a topic that Charlotte has given much thought to. When Charlotte reflects on her experience of learning mathematics, she thinks about the drill-and-practice style from her own primary school experience. Some of our earliest memories of mathematics reflect countless hours spent completing worksheets or working on pre-designed worded problems. Charlotte worries that such practices will not fit within a play-based program as delivered within Yuwen's program.

Practice reflection 6.1: What are your earliest memories of learning mathematics? Like Charlotte, do you recall endless worksheets or a range of mathematics manipulatives (i.e. counting blocks, shapes, etc.)? Or, do you recall mathematics embedded in your play during everyday experiences (i.e. making biscuits with your parents, measuring quantities and making shapes)? Would you suggest that these experiences were playful? Do you think mathematics concepts can be intentionally taught during play? Reflect on your memories and thoughts in your *Fleer's Conceptual PlayWorld thinking book.*

Supporting mathematics learning in the teaching program

During planning time, Yuwen and Charlotte discuss the following week's teaching program. Charlotte notices that the mathematical focus is on the concept of measurement. Yuwen has already embedded several mathematical experiences into her program, mainly focusing on length measurement. This gives Charlotte an idea:

Charlotte: Yuwen, can we teach mathematical concepts using the Conceptual PlayWorld model?

Yuwen: Absolutely! What did you have in mind?

Charlotte: Well, I can see that in your teaching program, you focus on length measurement.

Yuwen: Do you remember the 5 characteristics of the Conceptual PlayWorld? Do you still have a copy of the Conceptual PlayWorld planning proforma?

Charlotte: I sure do! And I have a great story in mind!

Like other conceptual areas, when planning a Conceptual PlayWorld around mathematics, the chosen story must have a complex plot and a dramatic dimension. There are multiple mathematics-related children's books specifically related to mathematical concepts, such as *The Doorbell Rang* by Pat Hutchins, which uses the notion of sharing to explain an equal distribution. Another is *One is a Snail, Ten is a Crab* by April Pulley Sayre and Jeff Sayre, a book focusing on number sense and skip counting. While great books for teaching children about specific mathematics concepts, stories like this do not always contain complex

plots or a range of characters that lend to the multi-layered problem-solving scenarios inherent to *Fleer's Conceptual PlayWorld*. Therefore, choose your story carefully.

Research reading 6.1: See Chapter 1 for detailed information about the 5 characteristics of *Fleer's Conceptual PlayWorld* model, and Appendix B for an example of a planning proforma designed for infant and toddler children.

> **Practice reflection 6.2:** What other books can you think of that may have inherent mathematical connections yet involve complex plots and a dramatic dimension? Record your ideas in your *Fleer's Conceptual PlayWorld thinking book.*

Charlotte proposes her choice of story:

> **Charlotte:** The book I think would be great is *Room on the Broom* by Julia Donaldson. As we get closer to Halloween, I have heard the children talking about witches and fairies and know they are very interested in this imaginative play. Plus, when I think about the book's title, I think a link could be made to length measurement. You know, when we think about 'room', because, in the story, the broom needs to be fixed after getting broken. This got me thinking: how long would a broom need to be to fit everyone?

> **Yuwen:** Great! I like many of Julia Donaldson's books and think your choice will work well. What I also appreciate is that you have considered the children's interests. I've also noticed the children getting excited about Halloween. This shows that you have thought about the first fundamental characteristic of the Conceptual PlayWorld.

Charlotte and Yuwen then spend time planning the Conceptual PlayWorld, considering each characteristic and how the concept of measurement can be learned within the meaningful conditions they intended to create. When designing the space, the teachers decided that the children would need room to move and

manipulatives to work with. Adjacent to the main teaching space, the preschool had a large area where they decided to strategically place large items such as blocks (Figure 6.1), sticks, and milk crates so that when the children were deciding how to make a broom, they would have resources to choose from. The teachers also created badges of frogs, dogs, cats, and witches so the children would be helped to identify with their character roles within the *Room on the Broom* story.

Figure 6.1.

A range of large blocks used for gross motor manipulation.

Note. Mathematical manipulatives can come in a range of sizes, shapes, and quantities. Image provided by the author.

Practice reflection 6.1: What are your earliest memories of learning mathematics? Like Charlotte, do you recall endless worksheets or a range of mathematics manipulatives (i.e. counting blocks, shapes, etc.)? Or, do you recall mathematics embedded in your play during everyday experiences (i.e. making biscuits with your parents, measuring quantities, and making shapes)? Would you suggest that these experiences were playful? Do you think mathematics concepts can be intentionally taught during play? Reflect on your memories and thoughts in your *Fleer's Conceptual PlayWorld thinking book.*

Practice reflection 6.3: When you are next at an early learning centre, what manipulatives (large or small) do you have that could be used for mathematics learning? Make a list in your *Fleer's Conceptual PlayWorld thinking book* of what you have, which may transform within the Conceptual PlayWorld setting to be used in new and interesting ways.

Between the main teaching space and the large area was a door. Yuwen found a witch's hat in the storeroom and stuck it to the door to act as the entry and exit to the Conceptual PlayWorld space (see Figure 6.2).

Figure 6.2.

A transition device from the regular classroom, into the Conceptual PlayWorld space.

Note. Image provided by the author.

Situating mathematics into the storyline

The children each chose a character role before entering the Conceptual PlayWorld space for the first time. Charlotte decided to play the role of 'Itchy Witchy', and as the children entered the Conceptual PlayWorld space, she would say a magic chant and wave a magic wand to support them as they entered through the door with the witch's hat (Figure 6.3). Yuwen decided to take on the character role of a dog, calling herself

'Detective Dog' because she was always carrying around a notepad and pen (Figure 6.3). Yuwen did this during the Conceptual PlayWorld so she could first, stay in a character role and second, have easy access to documentation materials to note what the children said and did during the Conceptual PlayWorld. In this way, Yuwen was engaged in authentic documentation practices.

Figure 6.3.

The teachers in their character roles.

Research reading 6.2: See Chapter 5 for insights into assessment practices capturing learning within the Conceptual PlayWorld.

After reading the story of *Room on the Broom* to the children, the teachers were keen to discover what aspect of the story the children were interested in and whether they could identify any problems that needed to be fixed. Much to the teacher's delight, the children immediately identified that the broom needed to be fixed, and thus, the conceptual problem was formed: How long do we need to make the broom when we fix it?

To help dramatise the conceptual problem, the teachers crafted a letter, which they said was from 'Ritchy Witchy', the sister of Itchy Witchy (played by Charlotte). The letter (Figure 6.4) invited Itchy Witchy and all her animal friends (played by the children) to come to Ritchy Witchy's house for a party, but they needed to come together on one broom.

Figure 6.4.

Helping to dramatise the conceptual problem: a letter from the witch's sister, Ritchy Witchy.
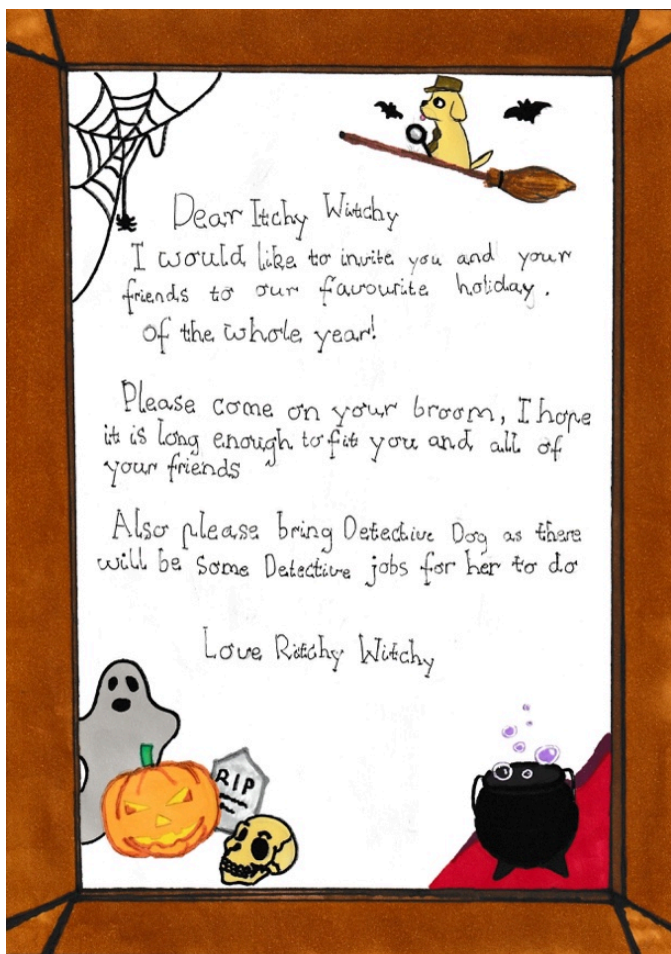
Letter transcript: Dear Itchy Witchy. I would like to invite you and your friends to our favourite holiday of the whole year. Please come on your broom, I hope it is long enough to fit you and all of your friends. Also, please bring Detective Dog as there will be some Detective jobs for her to do. Love Ritchy Witchy. Image provided by the author.

The letter created the dramatised problem of creating a broom that could fit all the characters. We now pick up the Conceptual PlayWorld between the teachers and children as they collectively solve the problem, and we will explain how the teachers pedagogically positioned themselves to support the children during the Conceptual PlayWorld experience (see Chapter 5 for more information on pedagogical positioning).

Considering your pedagogical positioning to best

support children's mathematical discovery

As the children worked together, they used the large building blocks (see Figure 6.1) to create a new broom, where each block was a seat for a character. As this was a collective experience, the children were never in the primordial-we position, as all the children were building within the storyline of the Conceptual PlayWorld and understood their roles. As the children worked, Charlotte interacted with them, asking them simple questions and getting into the character role of a witch. During this time, both teachers were in the under position and the children in the above. In this way, the children and teachers made an emotional connection with their characters, which led to the children's motivation to eventually solve the conceptual problem of making the broom long enough to fit all their friends.

While the children were certainly building a structure using the large blocks that was straight and resembling a new broom, many were more interested in their own character roles rather than solving the mathematical problem. For example, the frogs were having a conversation about needing water on their delicate skin for the long journey; hence, they needed a tap attached to their seat. At that moment, Charlotte feared that the mathematics concept of learning about length measurement was being lost, but then, a breakthrough occurred (Figure 6.5).

Figure 6.5.

Charlotte has a breakthrough in how to support children's mathematics thinking – using multiple pedagogical positions.

Charlotte noticed how Yuwen was positioned, interacting with the children, seemingly noticing everything, and then asking a pointed question:

> **Yuwen:** *[Spotting 3 blocks joined together, asked the entire group]* I wonder how many of our friends can fit on this section of the broom?

> **Charlotte:** That's such a good question Detective Dog, I'm not sure. Can anyone help figure this problem out?

> **Child A:** *[Walking over and pointing at each block]* There are 1, 2, 3 blocks.

> **Charlotte:** So, how many of our friends will fit on this section of the new broom?

> **Child B & C:** *[In unison]* Three! Three friends!

> **Yuwen:** So, how many blocks long does are new broom need to be? How many friends are here with us today?

In this scenario, the teachers had moved from being below the children to being equal with the children. They were now collectively problem-solving together, focusing on solving the mathematical problem

originally presented in the letter from Ritchy Witchy, to make one broom that could fit everyone to fly to the birthday party. The children had to determine how many characters needed to fit onto the broom, which would let us know how long the broom needed to be. Yuwen (still in her character role as Detective Dog) asked the children to sit in a circle so that one of the children could easily count all of the friends in the group. At this stage, the teachers began moving into the above position. They were showing children strategies that they could use to help solve the conceptual problem.

Child A: *[After moving around the circle and tapping each friend on the head, declared]* 16, we have 16 friends.

Yuwen: 16; wow! That's so many friends that need to fit onto the broom. So, if one block can only fit one friend, how many blocks do we need?

Multiple children: 16! 16 blocks!

Yuwen: Oh, I think I need to write this down in my Detective Dog book!

Charlotte: *[Trying to capitalise on the teaching moment, in the above position, asked Child A]* How do you know we need 16 blocks?

Child A: *[Looking a little unsure of themselves]* Everyone needs a seat...

Child B: [*Stood up with a loud and enthusiastic voice]* Because one block can only fit one friend!

Yuwen: According to my Detective Dog book, we have 16 friends. So, how many seats do we need on our broom, everybody?

Whole group: *[Very loudly]* 16!

Charlotte and Yuwen: That's right!

The children then busily worked together to build a broom that was 16 blocks long. Once the children thought they were finished, the teachers asked them to count how long it was. The children then collectively counted the length of the broom. The first attempt was 14 blocks long. The children then added 3 more blocks. Oh no, too long! The children finally made a broom of 16 blocks, and the group took off on their new broom to Ritchy Witchy's birthday party! This also acted as a transition into lunchtime, so the group exited the Conceptual PlayWorld setting.

In this way, the teachers had moved from the under (initially building an emotional connection to characters) to the equal (getting the children thinking mathematically) and finally to the above position (demonstrating mathematical problem-solving techniques) within the Conceptual PlayWorld experience.

It is also important to note that the children were never in an independent position. This was because the teachers were inside the children's play, fully aware of what the children were doing and part of the play scenario. Each pedagogical positioning allows the Conceptual PlayWorld to continue and grow, motivating children to solve mathematics problems through imaginative scenarios and their character roles.

Practice reflection 6.4: While the focus was on measurement, what other mathematics concept could you see happening in the *Room on the Broom* Conceptual PlayWorld?

Charlotte was so pleased with how the Conceptual PlayWorld had run, and while there were moments of worry, both Yuwen and Charlotte agreed that the Conceptual PlayWorld had met their teaching agenda and allowed for conceptual learning beyond their initial expectation.

Conclusion

In this chapter, Charlotte and Yuwen planned and implemented a Conceptual PlayWorld as part of their teaching program to specifically teach mathematics to children. By taking different pedagogical positions, both teachers could take different roles within the collective play to allow children to be mathematical problem solvers and teach specific mathematical concepts.

Practice reflection 6.5: Bring together the elements of your *Fleer's Conceptual PlayWorlds thinking book*. Hopefully, not only can you help Charlotte on her journey, but your thinking will provide you with a springboard for embedding mathematics learning in

Conceptual PlayWorlds. Carefully consider pedagogical positioning to engage children throughout the Conceptual PlayWorld to create an emotional connection to their character roles and, ultimately, solve the mathematical conceptual problem.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

Attributions

"Figure 6.1." by Leigh Disney is licensed under CC BY-NC 4.0

"Figure 6.2." by Leigh Disney is licensed under CC BY-NC 4.0

"Figure 6.3." by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

"Figure 6.4." by Leigh Disney is licensed under CC BY-NC 4.0

"Figure 6.5." by Adriana Alvarez, based on an image by Anne Suryani, is licensed under CC BY-NC 4.0

About the author

Leigh Disney
MONASH UNIVERSITY

Dr Leigh Disney's research supports the Maths pillar of the Conceptual PlayLab. Leigh is a mixed methodological researcher who studies early years mathematical learning as well as the impact of digital technology within early years educational settings.

CHAPTER 7: CONCEPTUAL PLAYWORLD: FOSTERING LANGUAGE AND LITERACY LEARNING

Janet Scull

Chapter Goals

By reading and exploring the content of this chapter, you will learn about:

- children's play-based language and literacy learning
- textual features that foster children's language and literacy learning
- how to use *Fleer's Conceptual PlayWorld* to foster literacy learning.

Introduction – Jumping into the Imaginary Situation

This chapter continues to follow the learning journey of Charlotte as she explores children's play-based language and literacy learning. Co-planning with Yuwen, her mentor teacher, they discuss how they can create an authentic context to enhance children's literacy learning using *Fleer's Conceptual PlayWorld*.

Exploring the Research

To ensure her practice is well grounded in research, Yuwen suggests Charlotte review the research that considers how play supports children's literacy learning, with a focus on language and early writing.

Reading to children is a well-established practice in early childhood. It builds the linguistic resources and print awareness skills children need as they learn to read (Dickinson et al., 2012). Alongside learning about print, book reading creates opportunities for children to hear the pattern and sounds of words with opportunities 'to play with words the beginning of a more sophisticated understanding of how language works' (Raban, 2018, p.57). Moreover, the language of text often moves beyond conversational

speech. Through listening to printed text read aloud, children are introduced to new vocabulary and begin to extend their understanding and expectations of the syntactic complexity of written language (Raban & Scull, 2023). Yet, equally important are the intertextual conversations that occur as texts are read to children. As active interlocutors, children build their comprehension of the story and are encouraged to use words in new contexts, which promote the construction of meaning outside their own experiences (Massey et al., 2008). The shared narrative builds shared understandings and language that can be reinforced and extended through talk and play.

Play also creates authentic opportunities for text production and it is in such moments that children can develop and extend their early conceptions of writing (Peterson & Rajendram, 2019). During and through their play, children become composers of text as they assign meaning to their drawing and mark-making, demonstrating a clear awareness of the interconnectedness between the symbolic nature of oral and written language (Scull & O'Grady, 2022). Likewise, we know the importance of the social contexts that shape and surround the texts produced and how children's interaction with adults advances literacy learning (Dyson, 1999; Compton-Lilly, 2014). As adults write for and with children, concepts such as the permanency of text and the conventions used to encode meaning are further developed. Just as when reading to children, adults engaging children in writing model the discourse patterns of written texts, characterised as more integrated, detached, and explicit than oral language (Raban & Scull, 2023). Educators need to see and highlight the links across the modes of literacy as they support children to apply their early literacy learning to an increasing range of contexts and to extend their understanding of more complex texts in reading and writing.

Research Reading 7.1: Review the selected references listed below to learn more about early literacy.

Bingham G. E. & Gerde, H.K. (2023) Early childhood teachers' writing beliefs and practices. *Front. Psychol. 14*: 1236652.doi: 10.3389/fpsyg.2023.1236652

Dickinson, D.K., Griffith, J.A., Golinkoff, R. M. & Hirsh-Pasek, K. (2012.) How reading books fosters language development around the world. *Child Development Research Volume 2012*, Article ID 602807, 15 pages doi:10.1155/2012/60280

Selecting the Text

Convinced of the opportunities play-based literacy provides, Charlotte was keen to continue her explorations. However, the first step was to select a text that allowed her to engage the children in the problem–based premise that underpins *Fleer's Conceptual PlayWorld* while meeting curriculum expectations and priorities. Educators in Australia must extend and enrich children's learning guided by the national curriculum framework *Belonging, Being and Becoming: The Early Years Framework for*

Australia (ADGE 2022). This document informs 'educational programs and practices that are place-based and relevant to that community' (ADGE, 2022. p.4).

Drawing on the children's recent interest in Australian animals and the curriculum expectation that children are connected to and contribute to their world, becoming socially responsible with respect for the environment, Yuwen encouraged Charlotte to explore the basic needs of living things (AGDE, 2022). This could be achieved as children learn to care for native animals and protect and improve the environment for wildlife with connections to the concepts of environmental sustainability. Further, this would coincidently engage the children in early literacy concepts to develop children's understanding of the communicative intent of texts and advance their symbolic awareness of print and written language.

With this in mind, Charlotte recalled her enjoyment of reading *Wombat Stew* (Vaughan & Lofts, 1984) and decided to check the suitability of this text regarding the five characteristics of a Conceptual PlayWorld for the intentional teaching of STEM (Fleer, 2022).

Both Yuwen and Charlotte agreed that the children would relate to the drama of the story and develop empathy for the characters as their play involved saving the wombat. The plot also introduces a new problem: how to continue caring for the rescued wombat. This would engage the children in STEM concepts related to developing an understanding of natural worlds and sustainable ecologies for Australia's native animals.

This video provides an excellent animated read-aloud version of *Wombat Stew*.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=364#oembed-1

Alternatively, you can watch a teacher read *Wombat Stew* to children.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=364#oembed-2

However, with a language and literacy focus, it was important for Charlotte to better understand the linguistic structure and features of the text as a springboard for children's learning. Working together, Yuwen supported Charlotte in conducting a linguistic analysis of the text to foster children's language and literacy development. Together, they examined the text, focusing on elements particular to the young children in their care.

Features of the text

Phonological Awareness

Wombat Stew draws attention to the patterning and sounds of language using rhyme, rhythm and repetition as key linguistic elements. Most obvious is the repeated refrain with rhythm emphasised when read with a cadence reflective of a sing-song pattern.

Wombat stew,

Wombat stew,

Gooey, brewy,

Yummy, chewy,

Wombat stew.

Rhyme is prominent throughout the text. In addition to the rhyming pairs above, other playful examples include 'crunchy, munchy and lunchy', also 'spicy and nicey'. The patterning of language is also apparent through alliteration, the repetition of the same sound at the start of a sequence of words often used to provide a lyrical effect. Examples in the text include 'bubbling billy' and 'creepy crawlies'.

Vocabulary

The text contains vocabulary that may be new to young children, including ambling, brewing, graceful, fluttered and scribble.

Narrative Structure

Wombat Stew follows the grammar of a traditional narrative. The story commences with an orientation that introduces the setting as the billabong and the central characters, the dingo and wombat. As a problem to overcome, the complication is that the dingo has captured the wombat to make wombat stew, followed by a series of actions by different animals to trick the dingo with the resolution or problem solved as the wombat is saved.

> **Practice Reflection 7.1:** Using Charlotte's analysis of *Wombat Stew* as a model, complete a linguistic analysis of a text of your choice. What text elements will you focus on as you read and discuss the story? Record your answers in your Fleer's Conceptual Playworld thinking book.

Addressing *Fleer's Conceptual PlayWorld* Pedagogical Characteristics

With the text selected Yuwen and Charlotte considered the remaining Conceptual PlayWorld pedagogical characteristics (Fleer, 2022). To guide their decisions and assist with their planning they used the template found on *Fleer's Conceptual PlayWorld* website .

Together, they identified a discrete space in the garden for an imaginary billabong where the story and new problems could be played out.

They agreed that the refrain from *Wombat Stew* would signal entering and exiting the Conceptual PlayWorld, so Charlotte set about recording this for the children.

The problems to be solved would be two-fold; first, they would follow the story elements to rescue the wombat, prompting the new problem of how to keep Wombat safe and well, with strong connections to the natural world and ecosystems for food and habitat.

Regarding play roles, Charlotte and Yuwen agreed to participate as play partners, most often equally

present in the imaginary play space, trying to help Wombat stay safe and well. However, outside of this, they will act as models and guides, facilitating children's learning of STEM and literacy concepts.

Figure 7.1

Charlotte and Yuwen are working together to plan the Wombat Stew Conceptual PlayWorld

Implementing the *Conceptual PlayWorld* and Amplifying Literacy

The following sections highlight how Yuwen and Charlotte implemented a *Conceptual PlayWorld* using *Wombat Stew* to intentionally engage children in language and literacy learning. Each instructional context below describes the carefully organised ways literacy concepts were advanced. Importantly, these occurred within the STEM problem-based play setting.

Book Reading

The text *Wombat Stew* was read a number of times throughout the Conceptual PlayWorld, with the children becoming more familiar with the text with each reading. Reading occurred with the whole group and on other occasions with small groups of children who requested to have the text reread. The book was available for the children to read independently. Frequent reading fostered familiarity with the text and created opportunities for the children to actively contribute to the reading process, joining in as the refrain 'Wombat Stew, Wombat Stew' was repeated. The children could see themselves as readers, prompting positive attitudes and a sense of achievement as they were apprenticed into a community of readers.

Figure 7.2

Child reading Wombat Stew

Note. Image provided by the author.

With familiarity with the text increasing with each reading, Charlotte engaged the children in shared reading, inviting their participation in conversations about, around and beyond the text (Gonzalez et al. 2014). Children were asked to predict the next animal and what they would contribute to the Wombat stew. They were also invited to imagine other animals that could be included in the story and what else could be added to the stew. Questions such as 'What will the dingo do now?' and 'Will he enjoy the stew?' created opportunities for children to produce language at an appropriate linguistic level while promoting conceptual challenge as new ideas were explored (Rowe & Snow, 2019).

A similar conversational style was used as word meanings were reinforced or introduced. Within the meaningful context of story reading, Charlotte described a 'billabong' as a pool of water in the bush, with the 'bank' at the water's edge. Children were encouraged to 'amble' like a platypus and arch their necks 'gracefully' like the emu.

Charlotte also engaged the children in playful word interactions to stress the rhyme in the text. They repeated 'goey' and 'chewy' and enjoyed finding and inventing new words that followed the same rhyming pattern. On other occasions, Charlotte paused her reading inviting the children to build on the rhyming sequence and complete the text 'crunchy, munchy...for my lunchy' and 'hot and spicy, oh so...nicey'.

The *Wombat Stew* text was not the only opportunity for children to develop understandings of reading. The Conceptual PlayWorld included signs such as 'This way to the billabong' as environmental print. The message received from the wombat requesting the children's help was also prepared as an enlarged text, with this read with and by the children.

Practice Reflection 7.2: Working with a book you have selected, plan a series of prompts to invite children into shared reading. Your interactions should engage the children as active partners, focusing on the characters, the sequence of events and the language features of the text.

Modelled Writing

From her review of the research literature, Charlotte was aware of the importance of engaging children in drawing and writing experiences and was keen to involve the children as early writers. Modelled writing was selected as, through this approach, Charlotte could demonstrate the conventions and discourse patterns of written texts. While mindful this also needed to connect to and advance children's play.

Yuwen and Charlotte planned for the children to role-play the story the first time they entered the PlayWorld. This involved choosing an animal character as they entered the play space and leaving a 'stew' by the billabong for the dingo so the wombat would be safe. To support the play, Charlotte decided to list the characters from the book and record what each animal added to the stew. As the list was created, the children could recall the animals, demonstrating their understanding of the sequence of events. Charlotte also found opportunities to draw the children's attention to early print concepts, such as the left-to-right serial order of text and their knowledge of the alphabetic principle of matching letters and sounds.

The children eagerly contributed to the writing process, and Charlotte fostered knowledge of letters in two ways. She asked the children to spell words by reading from the list (what letters can you see in dingo?). She asked the children to suggest letters that can be used to record the names of the animals (what letters do I need to write emu?). Once composed, the list served as a prompt for the children's role-play and became a reference point for children's engagement in the Conceptual PlayWorld. By drawing children's attention to specific features of the text, including, in this case, spelling, letter formation and letter/sound relationships, they gained a greater understanding of writing and what's required of writers.

Figure 7.3

Wombat Stew character list
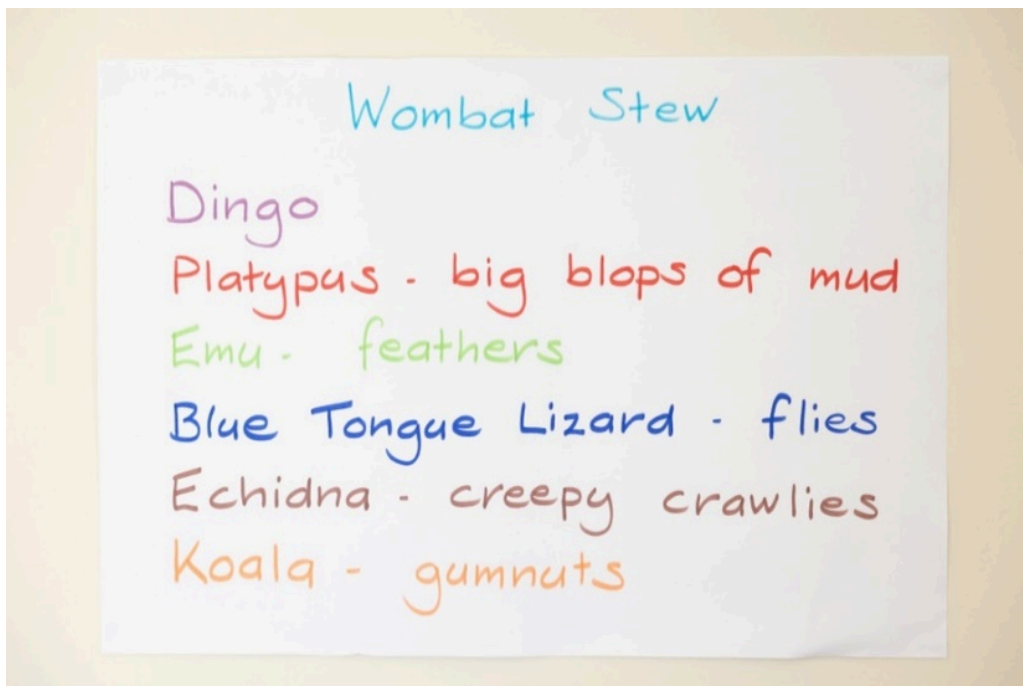
Note. Image provided by the author. Text reads: The Wombat Stew character list and what they added to the stew: Dingo, Platypus- big blops of mud, Emu- feathers, Blue Tongue Lizard- flies, Echidna- creepy crawlies, and Koala- gumnuts.

Figure 7.4

Children adding leaves and bugs to the stew

Note. Image provided by the author.

The children were also encouraged to document their thoughts, feelings and insights after each Conceptual PlayWorld experience. This often occurred through the children's drawings and then talking about their ideas. Charlotte and Yuwen recorded the text for the children, following the Draw, Talk, Write and Share protocol (Mackenzie, 2022). In this way, they assisted the children in creating a permanent record of their imaginative play and learning. As the educators transcribed children's thoughts, they were helping children to bridge the gap between oral language and printed text. These texts communicated the children's ideas to a broader audience, capturing the depth and breadth of their thinking, which they would be unable to share if constrained by their own writing abilities (Halliday, 2016).

Practice Reflection 7.3 Read Noella MacKenzies' blog to learn more about the Draw, Talk, Write (and share) process and consider how this can supplement children's learning as they engage in a Conceptual PlayWorld. Record your answers in your *Fleer's Conceptual Playworld thinking book.*

Drawing and Early Writing

Beyond modelling, Yuwen and Charlotte were keen for the children to see themselves as writers, so they created occasions where writing was promoted as a social, shared experience. The children co-constructed texts with the teachers, working together to produce texts. They were also encouraged to appropriate the skills Yuwen and Charlotte modelled to produce texts independently, making conscious decisions to apply or approximate the understanding of print demonstrated to new situations.

After rescuing the wombat, Yuwen and Charlotte assisted the children to learn more about what wombats need for survival. Together, they accessed various books and websites. The knowledge gleaned from these texts was collated on a large chart. Children's drawings and labels were pasted on the chart under the following headings:

Habitat – Where wombats live

Diet – What wombats eat

Activities – What wombats do

Figure 7.5

Child's illustration with writing 'Wombats eat at night'

Note. Image provided by the author.

Figure 7.6

Child's illustration with writing 'Wombats eat grass'.

Note. Image provided by the author.

The letter received from Wombat that stated he was hungry and asking if the children could make a wombat stew for him to eat became the stimulus for the children to create and document a new recipe. This consisted of the children's drawings and text, with the stew left by the billabong for the wombat to enjoy when he woke that evening.

Practice Reflection 7.4: What other opportunities can you think of to engage the children in drawing, mark-making and writing in the *Wombat Stew* PlayWorld? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Conclusion

The Conceptual PlayWorld that Charlotte planned and implemented enabled her to learn more about supporting children's literacy learning through play. Reading to children continued to expose children to the complexities of written language. As she engaged children in a range of drawing and writing activities, working and problem-solving together to construct texts jointly, the children could see themselves as writers.

Practice Reflection 7.5: In your *Fleer's Conceptual PlayWorld thinking book,* record the literacy learning opportunities the children experienced in the *Wombat Stew Conceptual PlayWorld* and the understandings about reading and writing that were advanced.

Return to the text you selected for linguistic analysis and design a *Conceptual PlayWorld* amplifying children's literacy learning. List the opportunities for reading and writing to, with and by children within the context of STEM learning.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

References

Australian Government Department of Education [AGDE] (2022). *Belonging, being and becoming: The early years learning framework for Australia (V2.0)*. Australian Government Department of Education for the Ministerial Council.

Compton-Lilly, C. (2014). The development of writing habitus: A ten-year case study of a young writer. *Written Communication*, *31*(4), 371-403.

Dickinson, D. K., Griffith, J. A., Golinkoff, R. M. & Hirsh-Pasek, K. (2012.) How reading books fosters language development around the world. *Child Development Research, 2012*, Article ID 602807, https://doi/10.1155/2012/602807

Dyson, A. H. (1999). Writing (Dallas) cowboys: A dialogic perspective on the 'What did I write?' question. In J. S. Gaffney & B. J. Askew (Eds.), *Stirring the waters: The influence of Marie Clay* (pp. 127–148). Heinemann.

Fleer. M. (2022). Balancing play and science learning – developing children's scientific learning in the classroom through imaginary play. *Journal of Emergent Science*, (22), 13.

Gonzalez, J. E., Pollard-Durodola, S., Simmons, D. C., Taylor, A. B., Davis, M. J., Fogarty, M., & Simmons, L. (2014). Enhancing preschool children's vocabulary: Effects of teacher talk before, during and after shared reading.*Early Childhood Research Quarterly*, *29*(2), 214–226.

Halliday, M. A. K. (2016). *Aspects of language and learning* (J. J. Webster, Ed.). Springer. https://doi.org/10.1007/978-3-662-47821-9

Massey, S. L., Pence, K. L., Justice, L. M., & Bowles, R. P. (2008). Educators' use of cognitively challenging questions in economically disadvantaged preschool classroom contexts. *Early Education and Development*, *19*(2), 340–360.

Mackenzie, N. M. (2022). Finding out what they know and can do with DTWS. *Practical literacy*: *the early and primary years*, *27*(1), 23-25.

Peterson, S. S., & Rajendram, S. (2019). Teacher-child and peer talk in collaborative writing and writing-mediated play: Primary classrooms in Northern Canada. *Australian Journal of Language and Literacy, 42*(1), 28–39.

Raban, B. (2018). Writing in the preschool years. In N. M. Mackenzie & J. A. Scull (Eds.), *Understanding and supporting young writers from birth to 8* (pp. 50–70). Routledge.

Raban, B. & Scull, J. (2023). Literacy in the early years. In D. Pendergast & S. Garvis, (Eds.) *Teaching early years: Rethinking curriculum, pedagogy and assessmen*t (2nd Ed,). Allen & Unwin.

Rowe, M. L., & Snow, C. E. (2019). Analyzing input quality along three dimensions: Interactive, linguistic, and conceptual. *Journal of Child Language,* 47, 5–21. https://doi:10.1017/s0305000919000655

Scull J. & O'Grady K. (2022). Exploring urban place-based play as a stimulus for 'Language in Action' and 'Language as Reflection' in S. Stagg-Peterson & N. Friedrich (Eds.) *Roles of place and play in young children's oral and written language,* (pp 167-184). University of Toronto Press.

Vaughan, M. K., & Lofts, P (1984). *Wombat stew.* Ashton Scholastic.

Attributions

About the author

Janet Scull
MONASH UNIVERSITY

Associate Professor Janet Scull is an experienced language and literacy educator and, as a key author of the Victorian Early Years Literary Program, has contributed to the design of systemic approaches to literacy teaching and learning. Janet's teaching and research focuses on areas of literacy acquisition, literacy teaching and assessment, effective teaching practices in the early years of schooling and exploring relationships between language, literacy and learning. She is also a Reading Recovery Trainer and continues support the implementation of this early literacy intervention. Janet's PhD was directed to obtaining an account of how children learn to read with comprehension and how researchers can measure, analyse and theorise reading. Janet is currently involved in a number of research projects with a specific focus on language and literacy in the early years.

CHAPTER 8: USING CONCEPTUAL PLAYWORLDS TO BUILD WELLBEING

Kelly-Ann Allen

Chapter Goals

By reading and exploring the content of this chapter, you will learn:

- the importance of wellbeing in early childhood
- determinants of wellbeing in early childhood and the role of creativity, imagination, and play
- how to use Conceptual PlayWorlds to build wellbeing.

Introduction – Jumping into the Imaginary Situation

In this chapter, you will be working again with Charlotte, our student teacher, and Yuwen our experienced teacher, to explore the concept of wellbeing. They are co-teaching in a primary school this time, but another problem has arisen.

Charlotte has been reading the newspaper and found an alarming statistic, 'Around 13.6% of children aged 4–11 are experiencing a mental health disorder'. She is puzzled and perplexed. How can this statistic be so high? She needs your help once again.

In this chapter, you will explore Charlotte's latest problem around how she can better prepare herself to build the wellbeing of the students she works with in a way that responds to the increasing number of young children identified as having mental health problems. Your role is to work through a range of solutions to help Charlotte and her mentor, Yuwen, as they plan and implement a Conceptual PlayWorld to build wellbeing.

Don't forget to record your thoughts in your personalised *Fleer'sConceptual PlayWorld thinking book*.

However, before you launch into understanding how Conceptual PlayWorlds can be used to build wellbeing, read Charlotte's perspective and find out why she is so alarmed about the rising rates of mental health in young children.

Charlotte's Perspective – Mental Health Problems are on the Rise and Building Wellbeing is a Proactive Solution

Figure 8.1.

Charlotte is shocked so many children struggle with mental health problems

Note. Charlotte thinks: 13.6% of kids struggling with mental health? That's staggering. Am I even qualified to tackle this?

Amid the bustle of the primary school where Charlotte now works, a statistic confronts her during a break in the staff room: 'Around 13.6% of children aged 4–11 are experiencing a mental health disorder'. The numbers leap off the page of the newspaper, leaving her shocked. This new information gnaws at her all day. How could such a large proportion of young children be grappling with mental health disorders? She finds herself looking for guidance.

In this quest, she turns to her trusted mentor, Yuwen. Together, they ponder over how Conceptual PlayWorlds – could be used to foster wellbeing proactively and preventively. It feels like a great approach, but there's a hitch.

Charlotte is a teacher, not a psychologist. She is willing and eager to make a difference. But a little voice inside her head whispers some self-doubt. She questions if she's equipped or prepared to address mental health and wellbeing in students. She feels daunted but decides to tackle this challenge head-on while remembering, that she isn't alone – with YOU and Yuwen right beside her.

Practice reflection 8.1: What do you think Charlotte's most significant barrier is to implementing *Conceptual PlayWorlds for Wellbeing*? Record your thoughts in your personalised *Fleer'sConceptual PlayWorld thinking book.* Note Charlotte's thinking and perceived preparation.

Diving into the Research

What is Wellbeing?

In education research and practice, the debate over whether it should be 'wellbeing' or 'well-being' – is only the tip of the iceberg when it comes to the complexity of this construct and how extensively it is debated, theorised, conceptualised, and operationalised in the literature. It is no surprise, therefore, that defining wellbeing can get pretty complicated. For the purpose of this chapter, the concept of wellbeing, is best described using Professor Martin Seligman's weather metaphor (Seligman, 2011). Seligman, Director of the Penn Positive Psychology Center and Zellerbach Family Professor of Psychology in the Penn Department of Psychology, is a pioneering psychologist in positive psychology. He suggests that wellbeing is akin to the weather – an ever-changing, dynamic, multifaceted concept in a constant state of change – much like a child's perceived wellbeing. However, like the weather is an umbrella term for a range of elements, such as temperature, rain, wind, UV rating, etc., wellbeing involves various domains such as happiness, coping, gratitude, grit, optimism, hope and physical health. In the same way that it is nearly impossible to capture the complexity of the weather with a single reading, it is also hard to measure a child's wellbeing based on just a single score. This is because wellbeing is multifaceted and complex and what influences wellbeing can be unique and different for each child.

Figure 8.2.

Wellbeing and the weather

Note. An illustration by the author's daughter, who is eight. The drawing demonstrates that, like the weather, your wellbeing can also change and differ from others, offering another dimension to the metaphor. Image provided by the author.

When working with younger children on concepts concerned with wellbeing, one important consideration is how they understand what this term means. Waters et al. (2022) investigated how five and six-year-olds understand and foster their wellbeing through a 'draw and write' methodology designed for young participants. This approach required children to illustrate their responses to a question about wellbeing and then explain their drawings. The results indicated that children at this age could understand and comprehend the concept of wellbeing and identify a range of practical strategies that built their wellbeing, like listening to music, receiving a hug, eating a lollipop and playing. These findings were informative in highlighting that young children are active participants in their own wellbeing and not merely passive recipients.

Figure 8.3.

Happiness

Note. An illustration by the author's six-year-old son. When asked to draw a picture showing the things that make him happy and help his wellbeing, he drew his Mum, Spiderman, ravioli ('square pasta'), Barnee the dog and a cat he saw on his last walk. Image provided by the author.

Research reading 8.1: Waters, L., Dussert, D., & Loton, D. (2022). How Do Young Children Understand and Action their Own Well-Being? Positive Psychology, Student Voice, and Well-Being Literacy in Early Childhood. *International Journal of Applied Positive Psychology, 7*(1), 91–117. https://doi.org/10.1007/s41042-021-00056-w

The Importance of Wellbeing in Early Childhood

Despite the well-documented importance of wellbeing for children in the early years of schooling for cognitive development, friendships and resilience (Bakken et al., 2017; Shoshani & Slone, 2017) and particularly in terms of long-term outcomes in adulthood related to future mental health, employment and general life satisfaction (Layard et al., 2014; Organization for Economic Cooperation and Development [OECD], 2020; Schoon et al., 2015), there is proportionately less information for educators on how they can foster wellbeing in early childhood compared to that available for older children and adolescents. Creativity, imagination and play allow young children to explore wellbeing concepts, while also potentially contributing to their wellbeing. Important evidence for this emerges from the research that shows engagement in creativity, play and imagination can contribute to wellbeing in childhood (Bungay & Vella-Burrows, 2013; Howard & McInnes, 2013; Lee et al., 2020; Silvey et al., 2004). This may be because

these factors allow children to express themselves, explore their feelings, interact with their peers, solve problems and develop skills such as coping, all of which are vital elements of wellbeing. By integrating wellbeing concepts within creative and imaginative play, educators can create engaging, student-driven and age-appropriate learning experiences. This allows children to understand complex concepts of wellbeing in a way that is relevant to them. Therefore, play-based approaches like *Fleer's Conceptual PlayWorlds for Wellbeing* have immense potential to teach children about wellbeing and related concepts. Conceptual PlayWorld provides a framework for educators to teach wellbeing. Educators who do not require specialised qualifications or training. In fact, everything you need to know to deliver a Conceptual PlayWorld is in this book!

Practice reflection 8.2: Now that you understand the importance of wellbeing for young children, can you help Charlotte? How would you help her feel more equipped to use Conceptual PlayWorlds to build wellbeing? What could have stopped her despite being alarmed by rising rates of mental illness? Record your answers in your *Fleer's Conceptual Playworld thinking book.*

A Conceptual PlayWorld for Wellbeing

Conceptual PlayWorlds that build wellbeing share similarities with other playworlds in their design and implementation. However, they emphasise building in problem scenarios, discussion points, psychoeducational opportunities, and social and emotional learning opportunities that contribute to young children's wellbeing. Both playworlds are rooted in constructing immersive, engaging, narrative-driven environments that allow children to explore certain concepts and ideas through play. Playworlds encourage children to engage in imaginative scenarios, problem-solving, and social interactions, providing opportunities for wellbeing literacy.

When Conceptual PlayWorlds are designed specifically for wellbeing, they build in elements that directly support the competencies, skills, opportunities, attributions and opportunities that help build wellbeing and related concepts. Activities in these playworlds may be crafted to help children identify and express their emotions, manage conflicts, build relationships and cope with challenges. The stories and narratives chosen can depict characters dealing with emotions or adversity (however minor), and the discussions and reflections can focus on learning social and emotional skills.

In contrast, while other playworlds might incidentally contribute to children's wellbeing through engagement and enjoyment, they may not explicitly focus on building specific social and emotional skills or coping mechanisms. The primary focus of other playworlds may be on other concepts like mathematics (see Chapter 6) or language and literacy (see Chapter 7). Therefore, the main difference lies not in the structure of the playworlds but in the objectives, aims, and purpose as well as the specific experiences that aimed to be fostered.

The model for building *Conceptual PlayWorlds for Wellbeing* follows the same model as a typical playworld and is presented in Figure 8.4. It involves:

1. Choosing a story;
2. Planning a Conceptual PlayWorld for wellbeing;
3. Planning how to jump into the story;
4. Creating an authentic wellbeing problem; and
5. Being a play partner. Considerations should be made as to how the learning objectives of the *Conceptual PlayWorld* for wellbeing can be sustained for the children.

Your role is to help Charlotte as she solves the challenge of planning and implementing a Conceptual PlayWorld to build wellbeing for the first time.

Figure 8.4.

Conceptual PlayWorlds for Wellbeing.

Note. The illustration has been adapted from the concepts in Fleer (2018) by Kelly-Ann Allen for this book.

Planning a Conceptual PlayWorld for Building Wellbeing – Evidence Informed Model

Getting Prepared

Charlotte took a deep dive into the research on wellbeing and spent an hour or so reading the research. This helped her understand a few things:

1. Many teachers feel under equipped when it comes to teaching or even support the wellbeing of students (Mazzer & Rickwood, 2015; Shelemy et al., 2019). There are some teachers that feel this is not their role (Graham et al., 2011) while other teachers feel that their courses did not adequately prepare them (Reinke et al., 2011). Charlotte felt relieved she was not alone, but also thankful that the textbook her university set as a reading detailed enough information on how to build wellbeing in young children to give her the confidence to go further with her professional development.

2. That proactive and preventive approaches to wellbeing are considered world-standard best-practices in addressing mental health problems in children and adolescence. Charlotte felt relieved to learn this and this provided her with the motivation to know she was on the right path.

3. One resource that exist on how to use *Conceptual PlayWorlds for Wellbeing* is:

   ◦ Allen, K.A., Fleer, M., & McKinley, L. (2023). *Conceptual playworlds for wellbeing: A practical resource for the lonely little cactus.* Routledge.

   ◦ A companion to picture story book, *The Lonely Little Cactus: A Story About Friendship, Coping and Belonging.* The resource utilises the *Conceptual PlayWorlds* model by Professor Marilyn Fleer and applies it to wellbeing. It's designed to aid children between the ages of four and eight to tackle problems and comprehend wellbeing concepts via play.

   ◦ The guide works in tandem with *The Lonely Little Cactus*, which follows a lonesome desert cactus. It provides teachers and caregivers with richly illustrated scenarios and 20 distinct activities, enabling children to grasp wellbeing ideas through experiential learning. This resource directs users through various wellbeing activities, such as recognising emotions, developing coping mechanisms, cultivating friendships, fostering positive feelings, learning relaxation strategies, and promoting belonging and inclusion.

Figure 8.5.

The cover of Conceptual PlayWorlds for Wellbeing
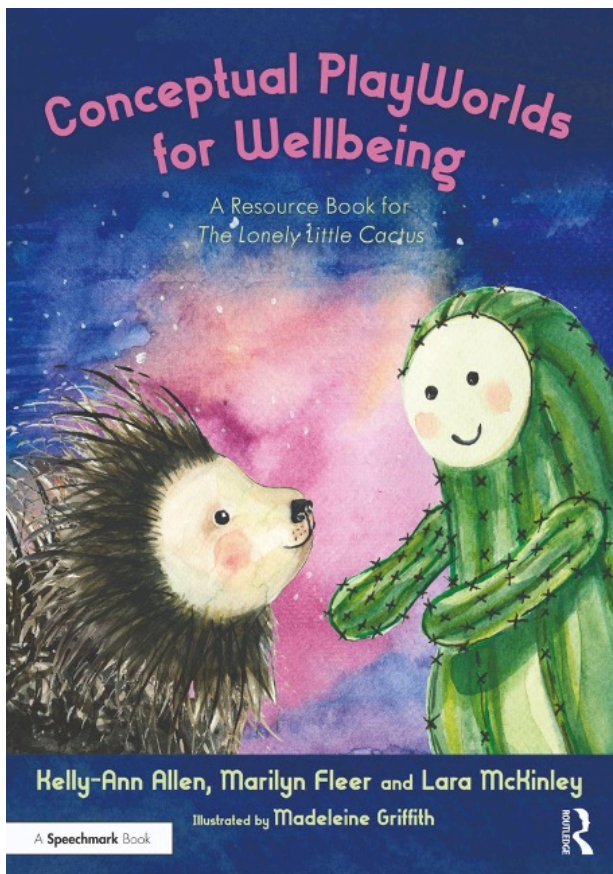
Charlotte also discovered there is an endless number of picture story books that are perfect for developing into Conceptual PlayWorlds for wellbeing. Searching online she found resources that specifically listed books about wellbeing concepts like happiness, friendships, togetherness and belongingness.

You will find a planning proforma for *Conceptual PlayWorlds for Wellbeing* in your *Fleer's Conceptual PlayWorld thinking book* and a generic proforma of a Conceptual PlayWorld in Appendix B. This is the planning framework that Yuwen introduced to Charlotte in their debrief in Chapter 1.

1. Choosing a Story

Charlotte spent a great deal of time and thought in selecting a book, *The Lonely Little Cactus: A Story About Friendship, Coping and Belonging.* The book is targeted at 4 to 8-year-olds and tells the tale of a solitary cactus in the desert. Throughout the story, the cactus interacts with various desert inhabitants and learns how to navigate its feelings of loneliness. This book underlines that feelings of loneliness are universal and can be dealt with effectively. It introduces children to different coping mechanisms and encourages them to discover what works best for them. The book serves as a tool for teachers, support staff, mental health

professionals, and parents in guiding children to comprehend and manage their emotions and build well-being in young children.

> Yuwen was impressed, not only at Charlotte's planning but also by her willingness to engage in an area she felt less comfortable with. She said, 'Charlotte, I can see your knowledge in this area has vastly improved. Your self-directed learning will be of great value to your professional development and your students'.

Charlotte had reframed her worries about feeling unequipped to feeling inquisitive and ready to take on the challenge of building wellbeing in her students!

Figure 8.6.

The cover of The Lonely Little Cactus: A Story About Friendship, Coping and Belonging
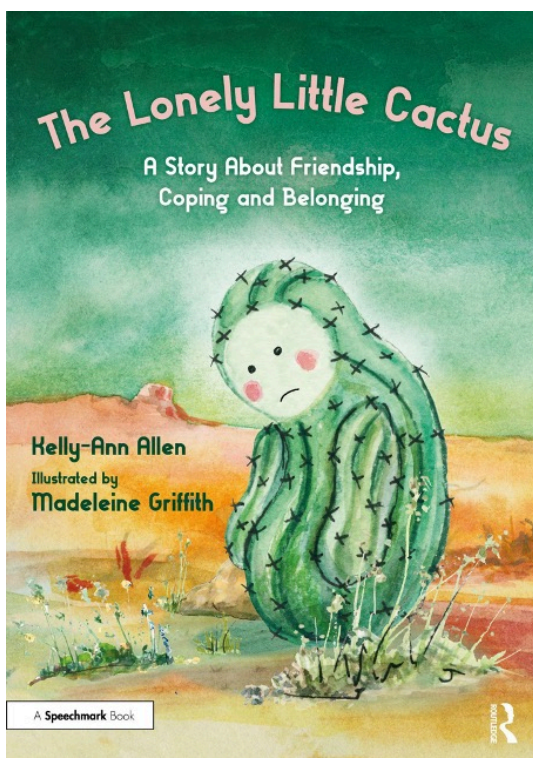
Note. By Kelly-Ann Allen (2023). Permission provided by Routledge. (c) Authors. Not for reuse under CC BY NC.

Practice reflection 8.3: In your *Fleer's Conceptual PlayWorld thinking book* think about how you might apply a Conceptual PlayWorld model to build wellbeing. What would be different from other Conceptual PlayWorlds? What would be the same? Identify some pedagogical characteristics that you are curious about and start a discussion about it in our private Facebook for Conceptual PlayWorlds.

Research reading 1.2: You will find ideas about how to design interesting spaces for a Conceptual PlayWorld for wellbeing in Chapter 1 or Allen, K.A., Fleer, M., & McKinley, L. (2023). *Conceptual playworlds for wellbeing: A practical resource for the lonely little cactus*. Routledge. https://www.routledge.com/Conceptual-PlayWorlds-for-Wellbeing-A-Resource-Book-for-the-Lonely-Little/Allen-Fleer-McKinley/p/book/9781032073651

Charlotte shared her chosen book with Yuwen, who agreed with Charlotte that *The Lonely Little Cactus* had useful components to teach wellbeing. *The Lonely Little Cactus* engages in various strategies to build wellbeing, but also introduces a variety of characters along the way. *The Little Cactus* faces problems and challenges, and the book provides drama and suspense that make it easy to work with for building a Conceptual PlayWorld. Yuwen suggests to Charlotte that, on one hand, the book has important psychoeducational components in terms of teaching coping strategies; and on the other hand, it has important features to adapt to a Conceptual PlayWorld. Charlotte feels pleased that she has selected a great book!

Practice reflection 8.4: Find another children's book you believe could be a book readily adopted into a Conceptual PlayWorld activity to build wellbeing. Record your ideas in your *Fleer's Conceptual PlayWorld thinking book,* where you will find your proforma for *Conceptual PlayWolrds for Wellbeing*. Use the proforma to start to build your own playworld for wellbeing.
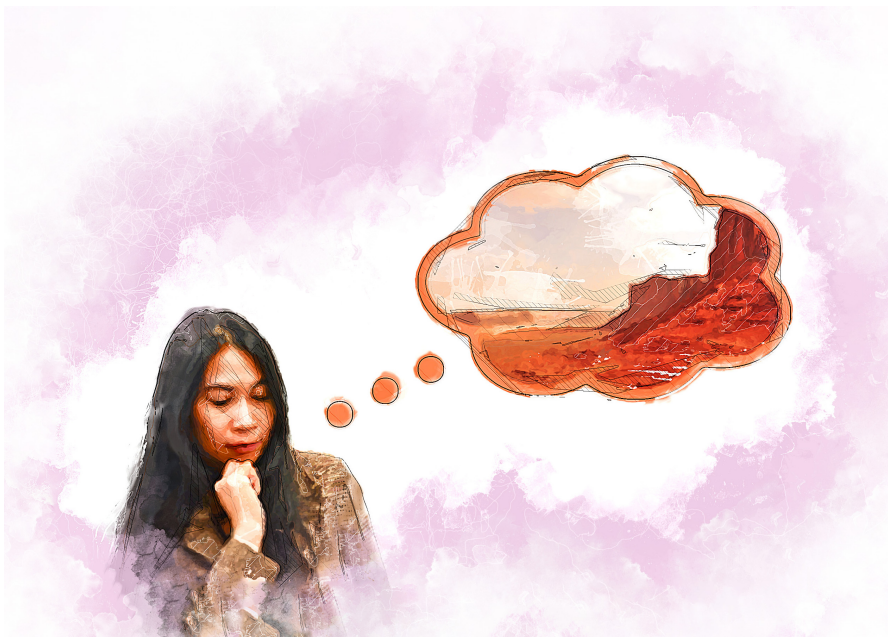
2. Planning a Conceptual PlayWorld Space

Yuwen asked Charlotte where she will design her Conceptual PlayWorld space. 'Easy', Charlotte says, 'the desert!'.

Yewen reminds Charlotte that not all playworlds need to take place in the same setting as the book, but then asks: 'How will you transform a playground into a desert landscape, and how will it promote wellbeing among primary school children?'

Charlotte explained her vision: 'I see the playground as a blank canvas. To transform it into a desert, I will use sand, fabric, and cardboard to create dunes and cacti. We will have designated areas such as a 'sand dune' and a 'campground'. These areas will provide different opportunities outlined in the play scenario.'

Figure 8.7.

Charlotte imagines the playground as a desert

3. Planning How to Jump into the Story

Yuwen reminded Charlotte to think about how she planned to enter the Conceptual PlayWorld with the children. Charlotte planned to take the class to the playground for the activity. In the playground was a traditional climbing frame, but for the purpose of the playworld, Charlotte explained to Yuwen it would

become a magical mythical time portal that the children could walk through and step straight into the hot, dry, dusty desert where *The Lonely Little Cactus* takes place.

Practice reflection 8.5: How would you design the imaginary space for the book you have selected? Record your answers in your Fleer's Conceptual Playworld thinking book.

Yuwen enjoys Charlotte's idea and reinforces to her the importance of planning the entrance and exit. But Yuwen asked, 'What role will the children play?'

Charlotte had forgotten to think of that! Yuwen suggested that the children could play desert dwellers and take on roles of animals commonly found in the desert, like small desert frogs or characters in the story, such as the porcupine and the porcupine's friends.

Charlotte loved that idea. She thought she could play the role of the Little Cactus in the upper position and the children could play the role of porcupines in the lower position.

Practice reflection 8.6: Brainstorm a range of entry and exit routines for the book of your choosing. Record your ideas on your *Conceptual PlayWorlds for Wellbeing proforma.*

4. Creating an Authentic Wellbeing Problem

Yuwen asked to see Charlotte's planning proforma. She asked, 'What authentic problem could they solve together?'

Charlotte had clearly given this much thought! She had conceptualised the playworld for building wellbeing to extend the story of *The Lonely Little Cactus*. The playworld was a great opportunity for *The Lonely Little Cactus,* with the help of the porcupines, to help solve other challenges that might emerge.

In *The Lonely Little Cactus*, the cactus had feelings like anger, worry and sadness because he felt lonely. Loneliness can affect our wellbeing, but all children (and all people in fact!) face other worries or stresses. In her research on coping (Frydenberg et al., 2014), Erica Frydenberg tells us that some of the biggest worries faced by children (3–6 years) include:

- uncertainty in new situations
- separation from a significant adult
- rejection or not having a friend
- losing control (e.g., such as wetting oneself)
- being reprimanded or 'getting in trouble'
- fear of the dark at night-time
- saying goodbye at school drop off
- trying new foods
- making decisions (e.g., who to play with, what to play)
- dealing with loss (e.g., broken toy or loss of a pet).

Research reading 8.2: Yeo, K., Frydenberg, E., Northam, E., & Deans, J. (2014). Coping with stress among preschool children and associations with anxiety level and controllability of situations. *Australian Journal of Psychology, 66*(2), 93–101. https://doi.org/10.1111/ajpy.12047

Charlotte explained to Yuwen that she thought that in the playworld, the children, as porcupines, could enter the desert. But the first problem they face is that it is night-time! They had not been prepared. And it is dark! In fact, so dark that they cannot see a thing! They could experience a range of feelings and emotions and need to be able to spot them and identify them, but also cope with them to solve their problems. The first problem the children will face is needing to find a light source! The Little Cactus could elicit ideas from the porcupines on what they could do (of course, with their eyes closed!). Some children might suggest torches, but it could be challenging because the children did not pack them. Others might suggest building a fire, which is a great idea.

Someone might ask, 'Did anyone bring marshmallows?' Thankfully, this is something the Little Cactus always carries, and then the children as porcupines and Charlotte as the Little Cactus can stop for a moment and share toasted marshmallows, relieved that they can see now that there is light.

But light was not the biggest problem! It turns out that cactuses do not like fire and all of a sudden, the Little Cactus is losing their prickles because they are too warm next to the fire. One by one, they dropped out. Oh no! Before the Little Cactus had time to respond, 10 had fallen onto the ground. He loved his spikes, and now 10 of them were gone forever. He starts to cry.

Practice reflection 8.7: What are the potential wellbeing concepts Charlotte is explaining to Yewen? Record your ideas in your *Fleer's Conceptual PlayWorlds thinking book.*

Charlotte has learnt that wellbeing concepts can be brought out creatively in imaginary situations as children jump into the story of *The Lonely Little Cactus*. She also explained to Yuwen how she loved using playworlds to build wellbeing because she did not have to feel equipped and expert in teaching wellbeing as she was not teaching the concept explicitly. Rather, she was taking everyday scenarios like fear and loss and helping to elicit ideas from children on how they cope.

Practice reflection 8.8: In planning your Conceptual PlayWorld of your chosen story, what will be the authentic problem that arises? What concepts will act in service of building wellbeing through play? Record your ideas in the *Conceptual PlayWorlds for Wellbeing proforma* found in your *Fleer's Conceptual PlayWorld thinking book.*

5. Being a Play Partner

This Conceptual PlayWorld for wellbeing creates multiple opportunities for the children to engage in wellbeing concepts. Charlotte, as the Little Cactus, could begin the Conceptual PlayWorld in the upper position, asking children to identify their feelings or possible feelings in the dark, brainstorming helpful and unhelpful ways to cope, trying different coping strategies and working out the best way forward. Possible prompt questions Charlotte could ask the children include:

'How does being in the dark like this make you feel?'

'Let's think of all the things we can do – no matter what they are.'

'What are the helpful ways we can cope with this? What are the unhelpful ways?'

'Have you ever had to cope with a scary situation before? What helped?'

Once the Little Cactus loses spikes, Charlotte can take on an under position with the children in a collective upper position, providing insights into what she can do to feel better.

The children can offer ideas on how she can cope with the loss of her 10 spikes. They can continue talking about helpful ways of coping (e.g., talking to a friend, asking an adult for help) and unhelpful ways of coping (e.g., screaming, crying, rolling on the floor).

Returning to the upper position, Charlotte, as the cactus, can also draw from what helped her to cope last time when there was no light or draw from the past coping strategies that worked for the Little Cactus in the story.

Yuwen asks Charlotte, 'How do you think Conceptual PlayWorlds that build wellbeing differ from other Conceptual PlayWorlds?'

Practice reflection 8.9: How do Conceptual PlayWorlds for wellbeing differ from other playworlds? Record your ideas in the *Conceptual PlayWorlds for Wellbeing proforma* found in your *Fleer's Conceptual PlayWorld thinking book.*

From the perspective of young children, they will unlikely differentiate between playworlds targeting various educational concepts, be it STEM, literacy or wellbeing. Instead, they will hopefully be immersed in the narrative and the play. Their focus is not on the instructional goals but on the imaginative and interactive elements that make the playworld engaging. This underscores the significance of using play as an effective pedagogical tool for teaching complex concepts, including wellbeing. The child's involvement in the narrative serves as a vehicle for learning, growth and development. All playworlds have potential to create meaningful, memorable, and intrinsically motivating learning opportunities.

Practice reflection 8.10: Finalise your own Conceptual PlayWorld for wellbeing for your chosen book. Record your ideas in the *Conceptual PlayWorlds for Wellbeing proforma* found in your *Fleer's Conceptual Playworld thinking book.*

Conclusion

This chapter revisited Charlotte's journey in learning Conceptual PlayWorlds. Her ability to implement a Conceptual PlayWorld to build wellbeing was driven first by her willingness to embrace a proactive approach to mental health in the early years. She learnt that wellbeing is a core determinant of children's overall development and ability to handle adversity.

The chapter highlighted how Conceptual PlayWorlds aimed at promoting wellbeing differ from other playworlds, but also share similarities. While all playworlds foster a form of learning, those designed specifically for wellbeing weave in elements that directly support emotional development and competencies like coping skills. Moreover, such playworlds not only equip children with knowledge but also provide them with strategies and tools to address real-life challenges, fostering their ability to cope with various situations.

Despite feeling initially unprepared, Charlotte effectively used Conceptual PlayWorlds to enhance student wellbeing. Her learnings serve as an example of the power of educators in shaping children's mental health and how supporting wellbeing does not always require additional expertise or training.

As we move forward in the book, it is essential to remember that the purpose of Conceptual PlayWorlds is not to replace the work of mental health professionals like psychologists but rather to complement it by embedding wellbeing-focused strategies into everyday learning scenarios. By doing so, teachers like Charlotte can foster an approach that is responsive to the needs of her students and proactive in strengthening mental health and wellbeing.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

References

Allen, K. A. (2023). *The lonely little cactus: A story about friendship and coping*. Routledge.

Allen, K. A., Fleer, M., & McKinley, L. (2023). *Conceptual playworlds for wellbeing: A practical resource for the lonely little cactus*. Routledge.

Bakken, L., Brown, N., & Downing, B. (2017). Early childhood education: The long-term benefits. *Journal of Research in Childhood Education, 31*(2), 255–269. http://dx.doi.org/10.1080/02568543.2016.1273285

Bungay, H., & Vella-Burrows, T. (2013). The effects of participating in creative activities on the health and well-being of children and young people: A rapid review of the literature. *Perspectives in Public Health, 133*(1), 44-52. https://doi.org/10.1177/1757913912466946

Fleer, M. (2018). Conceptual Playworlds: the role of imagination in play and learning. *Early years, 41(4) 253-364*. https://doi.org/10.1080/09575146.2018.1549024

Frydenberg, E., Deans, J., & O'Brien, K. A. (2012). *Developing everyday coping skills in the early years: Proactive strategies for supporting social and emotional development*. Bloomsbury.

Graham, A., Phelps, R., Maddison, C., & Fitzgerald, R. (2011). Supporting children's mental health in schools: Teacher views. *Teachers and Teaching, 17*(4), 479–496. https://doi.org/10.1080/13540602.2011.580525

Howard, J., & McInnes, K. (2013). The impact of children's perception of an activity as play rather than not play on emotional well-being. *Child: Care, Health and Development, 39*(5), 737-742. https://doi.org/10.1111/j.1365-2214.2012.01405.x

Layard, R., Clark, A. E., Cornaglia, F., Powdthavee, N., & Vernoit, J. (2014). What predicts a successful life? A life-course model of well-being. *The Economic Journal, 124*(580), F720–F738. https://doi.org/10.1111/ecoj.12170

Lee, R. L. T., Lane, S., Brown, G., Leung, C., Kwok, S. W. H., & Chan, S. W. C. (2020). Systematic review of the impact of unstructured play interventions to improve young children's physical, social, and emotional wellbeing. *Nursing & Health Sciences, 22*(2), 184-196. https://doi.org/10.1111/nhs.12732

Mazzer, K. R., & Rickwood, D. J. (2015). Teachers' role breadth and perceived efficacy in supporting student mental health. *Advances in School Mental Health Promotion, 8*(1), 29–41. https://doi.org/10.1080/1754730X.2014.978119

Organization for Economic Cooperation and Development [OECD]. (2020). *Why early learning and child well-being matter. In Early learning and child well-being: A study of five-year-olds in England, Estonia, and the United States*. OECD Publishing. https://doi.org/10.1787/3990407f-en

Reinke, W. M., Stormont, M., Herman, K. C., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly, 26*(1), 1–13. https://doi.org/10.1037/a0022714

Schoon, I., Nasim, B., Sehmi, R., & Cook, R. (2015). *The impact of early life skills on later outcomes*. OECD (Early Childhood Education and Care).

Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and wellbeing*. Free Press

Shelemy, L., Harvey, K., & Waite, P. (2019). Secondary school teachers' experiences of supporting mental health. *The Journal of Mental Health Training, Education and Practice, 14*(5), 372–383. https://doi.org/10.1108/JMHTEP-10-2018-0056

Silvey, P. E., Ben-Arieh, A., Casas, F., Frønes, I., & Korbin, J. (2014). Imagination, play, and the role of performing arts in the well-being of children. In A. Ben-Arieh, F. Casas, I. Frønes, & J. Korbin (Eds.), *Handbook of child well-being* (pp. 1079-1097). Springer.

Shoshani, A., & Slone, M. (2017). Positive education for young children: Effects of a positive psychology intervention for preschool children on subjective well being and learning behaviors. *Frontiers in Psychology, 8*, Article 1866. https://doi.org/10.3389/fpsyg.2017.01866

Waters, L., Dussert, D., & Loton, D. (2022). How do young children understand and action their own well-being? Positive psychology, student voice, and well-being literacy in early childhood. *International Journal of Applied Positive Psychology, 7*(1), 91–117. https://doi.org/10.1007/s41042-021-00056-w

Yeo, K., Frydenberg, E., Northam, E., & Deans, J. (2014). Coping with stress among preschool children and associations with anxiety level and controllability of situations. *Australian Journal of Psychology, 66*(2), 93–101. https://doi.org/10.1111/ajpy.12047

Attributions

Acknowledgments

About the author

Kelly-Ann Allen
MONASH UNIVERSITY

Allen is an Associate Professor and Educational and Developmental Psychologist at Monash University, and an Honorary Principal Fellow at the Centre for Wellbeing Science, University of Melbourne. She is currently the Editor-in-Chief of the *Educational and Developmental Psychologist* and founder and Co-Editor-in-Chief of the *Journal of Belonging and Human Connection*. As a Fellow of the Australian Psychological Society, some of her most recent appoints include past Treasurer for both the *Positive Psychology* Interest group and the College of Educational and Developmental Psychologists.

Allen's mission is to signal and accentuate the importance of belonging in day-to-day life, and to better understand the mechanics of how it can be enhanced across the lifespan, but particularly in educational and organisational contexts. Her work is based on the need to belong as a powerful driver of motivation and a fundamental pillar of good physical and mental health. In a world of rising rates of loneliness and social isolation, a comprehensive understanding of belonging has never been more important.

CHAPTER 9: CONCEPTUAL PLAYWORLD FOR FAMILIES: WHY PLAY WORKS FOR TEACHING STEM IN THE HOME SETTING

Prabhat Rai

Chapter goals

By reading and exploring the content of this chapter, you will learn:

- how to plan a Conceptual PlayWorld for your home setting
- how to set up a Conceptual PlayWorld for STEM teaching.

Introduction

Charlotte is very worried, pacing back and forth in the staffroom. Yuwen asks Charlotte what's bothering her. She finds out that Ella's mother, Lily, came to meet Charlotte earlier in the day. Lily thanked Charlotte for doing magic in her class; Ella is curious about science, technology and design. Lily has heard about Conceptual PlayWorld from Ella and wants to set one up at her home to support Ella's STEM learning. Charlotte is worried as she has never done a Conceptual PlayWorld for families. As mentioned in Chapter 1, *Fleer's Conceptual PlayWorld* is an evidence-based pedagogical model that supports children's STEM learning and imagination in their early years. Developed by Fleer (2017, 2018, 2020), the model has been created in collaboration with educators but is equally powerful in creating new motivating conditions for STEM learning in the home setting (Fleer, Fragkiadaki & Rai, 2020).

Meeting the problem

Charlotte knows how to plan a Conceptual PlayWorld for her children in the centre, but the home is a different scenario. She has not done it herself before. Her head is spinning as she considers the complexities of a Conceptual PlayWorld in the home setting:

- Apart from the usual worries of which story to choose and which concept to work with, she also thinks about the child, her siblings and other adults in the home.
- How do you develop a Conceptual PlayWorld that fits a child's daily routine, especially when the child is so young, like Ella, who has just turned two?
- She is also unsure if her mother would like the idea of being a play partner, and on top of everything, how will she talk about science concepts?

Yuwen comes to Charlotte's rescue. She has recently done a Conceptual PlayWorld with a family, which was a big success.

Figure 9.1.

A worried Charlotte being comforted by Yuwen.

Practice reflection: 9.1: Do you have suggestions for Charlotte? Why do you think she is finding it so challenging? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

Planning a Conceptual PlayWorld for families

Yuwen tells Charlotte that we use the same characteristics of the Conceptual PlayWorld in the home setting. However, one big difference is that you are planning for others, i.e., parents to implement it instead of the teacher. Yuwen thinks this will help Charlotte become the master trainer as she can train families to implement a Conceptual PlayWorld.

Dramatic story

Charlotte remembers Lily and Ella are reading the storybook *Time for Bed* by Mem Fox. However, Charlotte feels there is no drama in the book. Yuwen suggests that in a Conceptual PlayWorld, building empathy for the character and being together in the imaginary situation is key. To amplify the drama, they can add their own narrative. They can also encourage Ella and Lily to wear props that help to build the story plot. Charlotte likes the idea of reading books with props. Yuwen suggests that Lily and Ella can read the book at different times of the day and as a bedtime routine to develop familiarity with the story's characters. She shows Charlotte one of her own treasured possessions – a sketchbook she developed while working with one of the families.

Figure 9.2.

Mother and children reading a book together. They are in character wearing their props and holding animal toys.

Note. Image provided by the author.

Knowing children's social situation of development

Charlotte's eyes lit up as she looked at the images from the sketchbook. She would like this to happen in children's homes where they are happy and relaxed reading stories with their parents. While looking at the sketchbook, Yuwen realised they had not discussed the family and children's routine. She asked Charlotte if she knew more about Ella's everyday routine, whether she has siblings, her parents' occupations, and other family interests. Charlotte knows from the centre's record that Ella has an older sister, and both her parents are working. Yuwen comes up with an idea and asks her to become a teacher researcher for a while. Yuwen had a simple format to ask Lily about Ella's daily routine so that they could plan their Conceptual PlayWorld better.

Figure 9.3.

Template for collating children's everyday routine

Time of the Day	Children's activities (both at home and in other institutions)
☀️ **Morning routine** (Wake up time – 1:00pm)	
☀️ **Post lunch routine** (1:00pm - 5:00pm)	
🌙 **Evening/bedtime routine** (5:00pm - Sleep time)	
Weekend *(In case your routine is different from the weekdays)*	

Note. Image provided by the author.

Charlotte feels supported and excited about being a researcher and learning more about the family. Yuwen shared with Charlotte that they have to design a Conceptual PlayWorld for Ella's home so that she feels supported and has space to bring her family practices to her play. A child's interest and developmental process need to be acknowledged and used so that they are agentic in contributing to their learning. She explained to Charlotte the concept of 'social situation of development', which could be defined as 'the special combination of internal developmental processes and external conditions that are typical of each developmental stage and that condition both the dynamic of mental development for the duration of the corresponding developmental period and the new qualitatively distinct psychological formations that emerge towards its end' (Bozhovich, 2009, p.67). Yuwen simplified the ideas further and said they must acknowledge a child's age, social environment and unique relationship with this social world to create this Conceptual PlayWorld. They have to support the child to create these new conditions for their STEM learning – they have to value their agency.

Research Readings 9.1: The following reading highlights the importance of understanding the demands created by specific institutions like home, childcare etc. on children's everyday practice and routine.

Hedegaard, M. (2020). Children's perspectives and institutional practices as keys in a wholeness approach to children's social situations of development. *Learning, Culture and Social Interaction*, 26, 100229

Designing a Conceptual PlayWorld space

Charlotte comes back with information on Ella's everyday routine and some understanding of their family values and cultural practices. She also heard from Lily that Ella is fascinated with shadows. Charlotte quickly planned so they could explore and learn the concept of light and shadow in this Conceptual PlayWorld. Yuwen could see that Charlotte was becoming confident in engaging with the concepts, and she supported her idea. They discussed how the book offers an excellent context to introduce the concept of light. The end-of-the-day bedtime routine could fit in very well with a working mother like Lily. They can read the book at night and plan a few play activities over the weekend.

Their next challenge was to create different spaces that give opportunities for exploring both concepts and give them a sense of being together in a collective imaginary situation. Being in the collective imaginary situation is so important.

Practice reflection 9.2: What do you think we should do to create a space that aligns with the story and also helps in exploring the concept of light and shadow? Can you help Charlotte create a collective imaginary situation? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

Research Readings 9.2: This reading below foregrounds imagination as one of the key psychological functions in early years. It also explores the role of collective forms of imagining in children's concept learning.

Fragkiadaki, G., Fleer, M. & Rai, P. (2021). The social and cultural genesis of collective imagination during infancy. *Learning, Culture and Social Interaction*, 29, 100518.

Material conditions and Conceptual PlayWorld space

While planning a Conceptual PlayWorld we need to acknowledge the mutual constitution of the material condition and people's subjectivity. Säljö (2019) suggests that humans can 'convert ideas into artefacts that support intellectual and physical activities, and that later will intervene in our daily practices' (p. 21). This dialectical relationship between artefacts and thinking is not limited to everyday objects around us but also to digital tools.

Research Readings 9.3: This paper emphasises the relational nature of tool use. It also offers evidence to show how Conceptual PlayWorlds create new conditions for children's concept learning in their home.

Rai, P., Fleer, M. & Fragkiadaki, G. (2021). Theorising Digital Tools: Mutual Constitution of the Person and Digital in a Conceptual PlayWorld. *Human Arenas*. 5, 654–671.

Yuwen and Charlotte were excited as they received more information about the Ella's social situation and her everyday family practices. They were mindful that children's material conditions offer them unique experiences and they have to build their Conceptual PlayWorld plans around it. They planned to set up a dark space in the bedroom, like a tent or a cubby, which Ella and her parents could explore with torches. They can also take objects or toys of different sizes and shapes and explore shadows. Yuwen recalled an episode from Dr Binocs shows, which families can watch together for more ideas.

> *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=331#oembed-1*

Yuwen suggests that once they have played in the tent/cubby, Ella can make some puppets and they can do some shadow puppet theatre. Knowing Ella, Charlotte was not sure if this was going to work. She recalls that Ella loves music, and goes to dance classes. Yuwen thinks it would be a good idea to suggest a shadow dance. This does not need any special set up – children and family members can manipulate light using their bodies on one of the walls to show different dance moves. Watch this video for some shadow dance ideas.

Charlotte: I'm delighted to imagine that Ella will have so much fun in this Conceptual PlayWorld.

Yuwen: The key is that both adults and children should have fun and play. As we design this Conceptual PlayWorld, we need to develop plots that help to explore the concept further and make it personally meaningful for Ella. Do you think if they make animal puppets, e.g. horse, cow, cat, goose, fish, deer or other characters from the story, it would help them extend the play plot?

Charlotte: Great idea! They can use various homemade animal ears or tails to add drama.

Yuwen: You are getting so good at this, Charlotte!

Practice reflection 9.3: What do you think about Yuwen and Charlotte's plan? Do you think it will work? Write your own plan in your *Fleer's Conceptual PlayWorld thinking book.*

Yuwen is reminded that, unlike usual science teaching sessions, the purpose is not to give children science facts or concepts quickly. The Conceptual PlayWorld supports exploring science concepts, so they must plan multiple ways of exploring the concept in detail. Yuwen suggests they need to plan more opportunities for children's ideas and understandings to become more visible. Charlotte plans a 'shadow detectives' game where children and adults can use mobile phones or cameras to take photographs of shadows of different objects in the house and then compare their photos. They can talk about the light source, direction of light, size of the object and shadow.

They remember they had recently seen a Bluey episode on shadowlands. Charlotte thinks it would be a lovely idea to watch this episode together.

You can watch the Bluey episode yourself on the Bluey website.

Yuwen highlighted that it is so important to consider these multiple resources. Digital tools can amplify children's experiences and add fun and drama to their play. Yuwen showed another page from her sketchbook to highlight that material conditions afford new possibilities for learning. In the picture below, children play with their mother using Lego blocks and other manipulatives.

Figure 9.4.

Mother and children playing together in the home setting

Entering and exiting the Conceptual PlayWorld

Yuwen and Charlotte plan for the family to enter the Conceptual PlayWorld, imagining they are travelling to bedtime and singing their favourite rhymes together (e.g. *Twinkle Twinkle Little Star*). They can pretend to put on pyjamas and pretend to wind the clock forward/backwards to enter and exit the PlayWorld playing animals putting their young to bed. All the family members are in the same imaginary situation – pretending to be in a night-time setting together. Family members can choose characters from the storybook as they enter the imaginary situation. Charlotte says that the most important point is that parents are also always a character in the story or acting as a human prop (e.g., as the goose or the cat), being part of the night-time routine, being the parent animal, pretending to be the baby animal and vice versa, inviting role reversal. They play with children and can control or direct them from inside the collective imaginary situation.

Planning the play inquiry or problem scenario

Charlotte always finds developing an authentic problem challenging. Yuwen comes to the rescue; she thinks the problem is that baby animals cannot find their shadow at night without light. They ask the children at home for help. As they get busy detailing the problem, Yuwen reminds Charlotte that the problem scenario is *not scripted* but a general idea of the problem is planned. They could suggest that children have received a letter from the animals: *Please help us find our shadows, we are lonely, we need your help.*

The other equally important aspect of developing the problem scenario is that children need to have enough knowledge to solve the problem. Several activities (shadow dance, shadow detectives or Bluey's shadowlands) designed by Yuwen and Charlotte will help children explore the concept of light and shadow.

> **Yuwen:** This might be a good moment for Lily to pretend to be an engineer and offer expert knowledge on light and shadow. A shadow is a dark shape that forms when an object blocks some of the light. I think we have to explain the idea in an easily understandable language. It is important

to bring children's experiences of playing shadow games here. We can detail this further. For now, the problem looks dramatic and engaging. This will motivate Ella to know more and help the animals. Being clear about the concepts that will be learned from solving the problem situation is also essential. In one of the works I did in the past, we asked children to measure their shadows at different time points of the day, and they loved the game. Do you want to see my sketchbook again?

Charlotte: I love your sketches, of course yes!

Yuwen had images of children playing a game of measuring their shadow. It was so relevant to their planning that they decided to share them with Lily so that she could get some examples.

Figure 9.5

Children drawing and measuring each other's shadow

Note. Image provided by the author.

Yuwen thinks this will be an inspiring experience for Ella. She will be able to experience, with the help of her family, that the size and shape of shadows change depending on the light source, e.g. distance; silhouette, 3-dimensional and 2-dimensional shape, light and dark, opaque, transparent, and translucent. The key would be how to plan the adult interaction.

Planning parent's interaction to support conceptual learning

It is evident from the activities that the concept is in 'service of play'. Children are exploring the concept, but their play is being further enriched.

Parents are not always the same character, and their roles are not scripted. Parents might be a cow or horse and invite the child to be part of the animal family. If there is another adult or sibling, they can play a role or help to solve the problem, e.g. how to create shadows. Yuwen explains that the biggest challenge for the parents would be to take on multiple roles. They might have to prepare a bit for that. She suggests that Charlotte talk with Lily about this. They must work alongside children to solve the problem and offer expert knowledge on the science concept when the moment is right. If the child is not feeling motivated, they may have to be encouraged from inside or ask questions that could generate interest. Yuwen suggests they make a few suggestions for Lily, which might make her more confident doing this.

> **Charlotte:** I get your point. Like me in the centre, she can be a play partner, leader or explorer. What if we label roles like that?

Yuwen thinks it is a brilliant idea, and they come up with the following plan:

- Parent as *play partner* – Be equal with the child, e.g. 'Let's work out how to create a shadow together', playing shadowlands, holding the torch or being inside the tent with the child.
- Parent as *play leader* – Above position, where parents are responsible for leading the play, sharing information about light and shadow and highlighting to children what is important. It is an essential role to lead concept learning. A child would not be able to do this alone.
- Parent as *play explorer* – Sometimes, a parent has to work from the below position, asking questions to generate curiosity or understand the child's experience. Kravtsov and Kravtsova (2010) use the concept of subject positioning in the context of pair pedagogy. Here, it explains the pedagogical relationship between the adult and the child. It is worth highlighting the dual positional perspective here, allowing participants to understand themselves and their social situation. So, both children and adults are the subjects of play, but they also control the play. These ideas around pedagogical positioning are also discussed in more detail in Chapter 3.

Practice reflection 9.4: Can you think of other pedagogical positionings of the adults in children's play? Which role do you like to take? Do you think these roles differ from being the director of children's play from outside? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

Research Readings 9.4: In the video below, a lecture by Laureate Prof. Marilyn Fleer will help you to carefully think of the role of the adult in children's play. The argument worth considering is that parents or teachers need to be mindful of their pedagogical positionings while working with children.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://oercollective.caul.edu.au/why-play-works/?p=331#oembed-2

Conclusion

This chapter shows how the Conceptual PlayWorld could create new motivating conditions for STEM learning in children's home settings. Yuwen and Charlotte worked out a detailed plan for several days that was not just considering the child but also the participation of their siblings and parents. The Conceptual PlayWorld is a collective experience where children learn new concepts in their social interactions with others in an imaginary situation weaved around a children's storybook. It is important to think carefully about children's social situations of development as the Conceptual PlayWorld empowers children to contribute to their learning.

To find out more about *Fleer's Conceptual PlayWorld* read the research on the Conceptual PlayLab website.

References

Fleer, M. (2017). Scientific playworlds: A model of teaching science in play-based settings. *Research in Science Education, 49*, 1257-1278, https://doi.org/10.1007/s11165-017-9653-z

Fleer, M. (2018). Conceptual Playworlds: the role of imagination in play and learning. *Early Years*, *41*(4), 353-364, https://doi.org/10.1080/09575146.2018.1549024

Fleer, M. (2020) A tapestry of playworlds: a study into the reach of Lindqvist's legacy in testing times, *Mind, Culture, and Activity*, *27*(1), 36-49, https://doi.org/10.1080/10749039.2019.1663215

Fleer, M., Fragkiadaki, G., & Rai, P. (2020). Methodological challenges of studying children in a living laboratory: Case example of Conceptual PlayLab, *Cultural-Historical Psychology*, *16*(3), 47-59. https://doi.org/10.17759/chp.2020160306. English version available as a working paper on the Conceptual PlayLab website.

Säljö, R. (2019). Materiality, learning, and cognitive practices: Artifacts as instruments of thinking. In T.C. Pargman, I. Jahnke (eds.), *Emergent practices and material conditions in learning and teaching with technologies*, Springer. https://doi.org/10.1007/978-3-030-10764-2_2

Attributions

About the author

Prabhat Rai
MONASH UNIVERSITY

Prabhat completed his PhD from Oxford and comes to us from Ambedkar University, Delhi. Previously he worked as a Senior Fellow (Research) in Bhutan and was an Assistant Professor with Academic Unit of the Central Board of Secondary Education in Delhi. He brings extensive experience in researching communities, early years settings and families.

CHAPTER 10 : CONCEPTUAL PLAYWORLDS TO STUDY THE STRUCTURING OF TIME INTO DAYS, WEEKS AND MONTHS

Anne Clerc-Georgy and Myriam Garcia Perez

Chapter Goals

By reading and exploring the content of this chapter, you will learn:

- how dates (days, weeks and months) can be used for in early childhood
- why the use of knowledge promotes the construction of meaning
- how to maintain dramatic tension in a Conceptual PlayWorld.

Introduction : Jumping into the imaginary situation

Charlotte went to Switzerland. She wanted to visit her friend Michael, who works with a class of 4 and 5-year-olds. Michael is worried because his colleagues criticised him for not doing the 'date of the day' activity every morning. He disagrees and doesn't understand the point of repeating the date every day, and he can't get his students to do it. He asks Charlotte how children learn to use a calendar in Australia.

In this chapter, you will explore how young students construct temporal reference points, like days, weeks and months. You will help Michael and Charlotte find ways to work the meaning of using a calendar in *Fleer's Conceptual PlayWorld*.

Additionally, in this chapter, you will reflect on how to support students' motivation in a Conceptual PlayWorld.

But before you start understanding how Conceptual PlayWorlds can be used to build temporal concepts, read the story of Michael and find out why he disagrees with his colleagues.

Michael's story – The morning calendar is a meaningless activity

Last week, in the teachers' room, two colleagues confronted Michael. They criticised him for not working on the 'date of the day' with his students. This is a problem because the students don't know how to do it when they join the primary class. Michael replied that he didn't find it interesting to recite a date every morning, especially when the students didn't understand what it means.

Figure 10.1

Class calendars
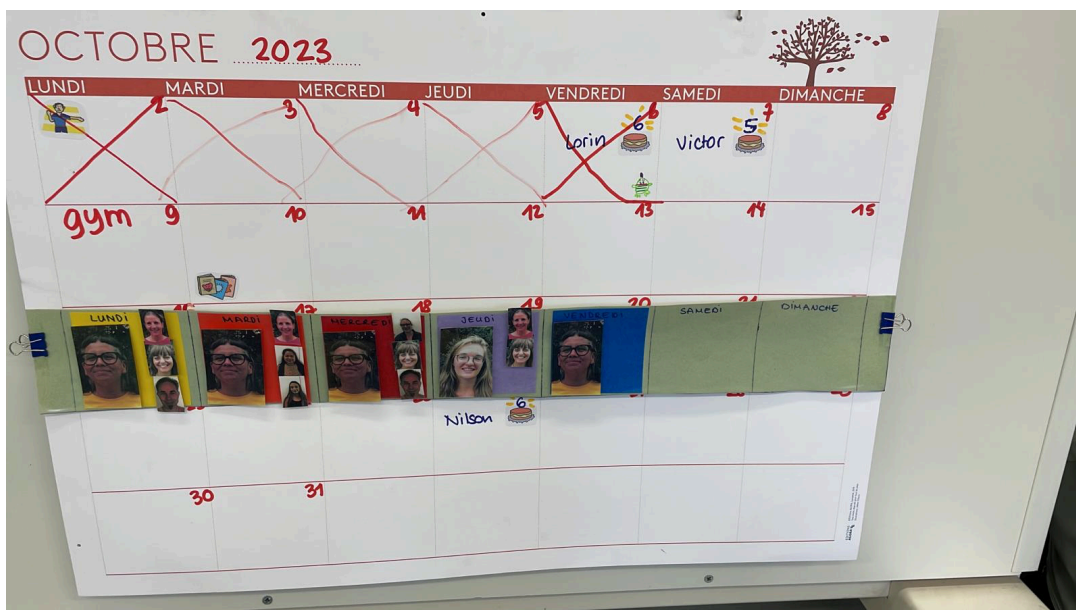
Note. Images provided by the author.

Michael tells Charlotte that he understands why his colleagues are upset but doesn't see how a calendar routine could make sense to the children in his classroom. He would like to work on the calendar and today's date with his students, but first, he needs to figure out a way to make it work in a meaningful way.

Charlotte suggested they reflect deeper together and imagine *Fleer's Conceptual PlayWorldWorld* to work on the concepts underlying the calendar routine.

Practice reflection 10.1: Why do you think Michael's colleagues are upset? How do you work with the calendar in your classroom? How useful do you think the 'date' date of the day' day' activity is in the classroom? What do children learn from doing it? Record your thoughts in your personalised *Fleer's Conceptual PlayWorld thinking book.*

Diving into the research

## *What does time structuring mean?*

Throughout time, different civilisations have attempted to formalises the periodicity of certain phenomena (day/night alternance, moon cycles and the return of the seasons). Based on these facts, humans needed to structure and organise their lives by measuring time in a more concrete, predictable way. This was done either in the form of dates (to count days) or duration. According to Harris (2002), a famous psychologist, imagination probably emerged in sedentary men in connection with their need to measure life (they knew they were mortal) and to anticipate the future (harvests, seasons, etc.).

In our civilisation, we have organised the days into groups of 7 (weeks). We've also divided the year into 12 months and the months into about 4 weeks. This is the result of numerous adaptations since, unfortunately, there isn't an exact number of moon cycles (months) in one sun cycle (year). In addition, we have divided the day into hours, minutes, seconds, and so on.

By measuring time this way, we can find out how long we've been born, how many days we have left before the summer holidays, when we can meet up with a friend, etc. However we've agreed on measuring objective time, but it doesn't correspond to our subjective experience. An hour at the dentist's isn't exactly the same as an hour playing with friends!

Figure 10.2

What will the children learn about time?
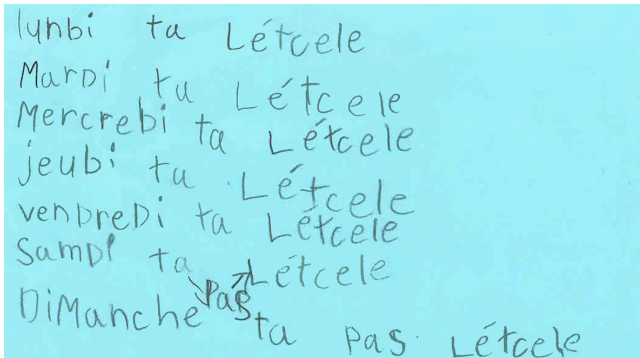
Note. The words in French translate to the days of the week and whether or not they are school days. Image is not to be reproduced under CCBYNC.

Around age 5, children will become aware that time passes irreversibly. They will learn certain conventional concepts, such as the days of the week or the months of the year, and thus learn to orient themselves in time (today is Friday, October 13, it's morning; what day will it be tomorrow?). They will also learn to tell the time and organise events in time (my birthday is in February; I go to music lessons on Tuesdays). Finally, from a language point of view, children will learn to use verb tenses and time words (before, yesterday, later, it's a long time, etc.).

In pretend play, children develop their ability to imagine, anticipate, bring into existence what is not yet. At the same time, imagination is shaped by elements drawn from past experience. More specifically, when playing, children use their imagination to postpone actions and desires, to wait, anticipate and plan actions. Thus, play is ideal for expanding, transforming and structuring children's relationship with time.

Let's go back to Michael's question. What's the point of using a calendar or working on the day's date with 5-year-olds?

Practice reflection 10.2: In what situations do you use a diary or calendar? How do you do it? What does it help you achieve? Record your answers in the *Fleer's Conceptual PlayWorld thinking book*.

A Conceptual PlayWorld for making sense of temporal concepts

Fleer's Conceptual PlayWorld is particularly relevant for exploring temporal concepts. First, because imaginary scenarios allow children to go back and forth in time. It's common for children to go back in

time or leap forward into other times as they play. Second, pretend play continually invites children to plan or anticipate actions, i.e. to imagine actions before they happen or to order actions in relation to each other and thus situate them in the future. Finally, the construction of temporal notions is closely linked to the development of imagination. Indeed, to navigate in time, it is essential imagine different past or future situations.

More specifically, *Fleer's Conceptual PlayWorld* offers numerous possibilities for organising time in terms of days or weeks and using a diary. Numerous dramatic situations invite children to situate themselves in time, measure past time or anticipate dates to set future events.

Your role is to help Michael and Charlotte imagine dramatic events that involve situating oneself in time and anticipating a date in the future through these suggested steps :

- Choose a story that requires you to place yourself in time and anticipate a date.
- Plan a Conceptual PlayWorld.
- Plan how to jump into the story (enter and exit the playworld).
- Create an authentic problem of location in the calendar.
- Be a play partner and anticipate ways to support children's motivation.

Let's get to it!

Planning a Conceptual PlayWorld for building temporal concepts

Getting prepared

Michael and Charlotte read widely on development of temporal concepts in early childhood. They also sought to understand the situations in which a calendar or diary is helpful and how it enhances the ability to act, remember, plan or communicate. Finally, they examined their thinking patterns when using their diaries.

On the *Fleer's Conceptual PlayWorld* website you will find a planning proforma for *Fleer's Conceptual PlayWorld*. This is the website and planning framework that Yuwen showed to Charlotte and which she passed on to Michael. In Appendix B, there is an example of a planning proforma which was designed for infant and toddler children.

1. Choosing a story

Charlotte and Michael spent a lot of time looking for a story for their Conceptual PlayWorld. Many of the

stories available in school materials didn't contain enough drama or, more importantly, didn't invite the readers to empathise with the characters.

Practice reflection 10.3: Help Michael in his quest for stories. What do you think makes children empathise with a character? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

Figure 10.3

Michael shows Charlotte the book he found.

They agreed to select *King of the SWAMP*. This book tells the story of Mac Gadouille, who lives in a disgusting swamp. He learns that the King wants to destroy it to build a skate park. He decides to transform the swamp into a magnificent flower garden. The King gives him 10 days to prove that such a beautiful place shouldn't be destroyed. Unfortunately, shortly before the King's visit, Mac Gadouille discovers caterpillars eating all his flowers. The King will have to wait until the day when all the caterpillars become butterflies, because on that day, the marsh will be even more beautiful and colourful. The question is, when is the King due for this visit?

This is a fantastic book for exploring the world of dates and diaries. Indeed, there are several references to days to look forward to or anticipate.

Charlotte is pleased with the book's choice made with Michael. She decides to plan and participate in this future Conceptual PlayWorld with him. Michael explains that this story allows us to pose the problem of dates and days passing over and over again, specifically at three moments in the story: First, when the King announces that he will return in 10 days. Then, when Mac Gadouille discovers the caterpillars and has to anticipate how long it will take them to become butterflies. Finally, when Mac Gadouille must set a date to invite the King to visit his marsh. Charlotte congratulates him on all his good ideas.

Practice reflection 10.4: Do you know of any other stories that involve counting days, measuring time or setting dates and appointments? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

---

2. Planning a Conceptual PlayWorld space

Michael and Charlotte decide to organise three areas in the classroom:

- The space for reading the story and working on the calendar near the blackboard, on the floor.
- The office of the scientist who knows all about caterpillars and butterflies.
- The rest of the classroom, which represents the swamp where Mac Gadouille lives.

Michael is worried about transforming the classroom and adding flowers and caterpillars. Charlotte reassures him: The children don't need all that. She knows Michael can take them to a beautiful imaginary garden.

3. Planning how to jump into the story

Charlotte explains to Michael that defining how he will mark the entrance to and exit from the imaginary world is important. Michael suggests passing under her desk. He thinks this will help the children enter the extraordinary garden even better.

Practice reflection 10.5: What do you think of Michael's idea? How would you help children enter the PlayWorld? Record your answers in the *Fleer's Conceptual PlayWorld thinking book*.

Figure 10.4

Michael and Charlotte read together

Charlotte explains to Michael that it's important to decide on everyone's roles. Michael says he would narrate the story and then play Mac Gadouille in the playworld. All the children would be the swamp's inhabitants and belong to Mac Gadouille's family. Charlotte suggests that she play two roles. In the playworld, she would be the scientist explaining the life cycles of caterpillars and butterflies. She would also play the King but through the telephone. That way, she would call Mac Gadouille to arrange meetings.

4. Creating an authentic problem

Charlotte then asks Michael what the children's real problem will be. Michael thought long and hard about it and after having read the story over and over again, he explains to Charlotte that the children would be facing two problems. The main problem would be to set the date for the King's arrival right when the

caterpillars have all become butterflies. But to do this, the children would need to answer another problem: they would need to find out how long it takes for the caterpillars to transform.

Michael and Charlotte talk for a long time. Michael wonders how they will get the kids to empathise with Mac Gadouille, and how they will motivate them to do the work of understanding the calendar.

Michael decides that he will start by reading the beginning of the story to the children. He'll explain that Mac Gadouille and his family will transform the swamp into a beautiful garden. Then they'll enter the playworld and go gardening together. After a while, when the garden starts to bloom, Michael//Mac Gadouille would call for help because he would find a caterpillar nibbling the flowers, before noticing there are hundreds of them!

Charlotte reminds him that sharing his emotions of surprise, helplessness, and maybe a bit of disgust with all the children would be particularly important at that moment. Later on, another crucial event would happen in the story: the King would call to announce his arrival. Mac Gadouille would ask him to wait a few days, promising he would call back soon to invite him.

Everyone would then leave the playworld and visit Charlotte, the scientist, who would explain the butterfly life cycle by showing on a time strip (in days and weeks) how many days it takes for the caterpillars to become butterflies. When the children have memorised this number of days, they'll go to the calendar to:

1. identify what day it is

2. count the days needed for the caterpillars to become butterflies, and

3. identify the date to invite the King for a visit to the swamp.

Then, Michael/Mac Gadouille could call the King.

Michael is really happy. He's finally found a learning situation where using the calendar makes sense for him. He now understands the importance of how to use it and why children need to be supported in this learning process.

Practice reflection 10.6: What about you? Have you now a better understanding of the importance of calendars and diaries? What has changed? How can you help your students

understand it too? What new ideas do you have on the subject? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

4. Being a play partner

To engage themselves and the children in the play about the diary, Michael and Charlotte felt that they first had to get them into the swamp. They must see it as their own home. Then they imagined what Michael//Mac Gadouille would tell them and how he would engage the children.

Upon entering the playworld they would say:

> 'There is mud everywhere and it smells bad!'

> 'It is dirty!'

> 'Be careful where you step, I'm sinking into the mud and will fall!'

> 'Try to walk on the stones!'

Then, to motivate them to work on transforming the marsh into a beautiful garden:

> 'I am planting a flower here. It's beautiful! This flower is so amazing!'

> 'Oh, the seeds have grown. Look! The flowers are blue, yellow, red...'

> 'Mmmmh, how nice it smells in our garden.'

> 'I think we're ready for the King's visit!'

When they discover caterpillars :

> 'Oh no! That is awful, a caterpillar. Oh! Another one, and another one here... Thousands of caterpillars, can you see them?'

> 'They are going to eat all our flowers, it's horrible!'

> 'We will have to leave the swamp. If the King sees this disaster, he'll destroy everything!'

> 'Help me, what can we do?'

After the King's phone call:

'I have an idea. When all these caterpillars become butterflies, the swamp will be even more beautiful and colourful, right? But how do we know when that will happen?'

For her part, Charlotte, as the King, had been thinking about the telephone call. She really wanted to impress and engage the children in solving the problem. She, therefore, imagined she could say:

'Hello, I am the King. I am on the way. I am coming to visit your stinking swamp. I'm going to destroy everything in your swamp. I am finally going to build my skate park. I am happy. Don't make me think it is a beautiful place. You are just stinky pickles!'

5. Maintaining dramatic tension

During the implementation of the Conceptual PlayWorld, the children were fully involved in the play. They followed Michael into the swamp, imagined his transformation and got angry with the King. In this way, they easily retained the scientist's lessons. They memorised the 12 days it would take for the caterpillars to transform into butterflies. They then worked with Michael to identify the day's date and count the 12 days.

At one point during the calendar work, some of the children showed signs of declining motivation. Charlotte, who was observing the children, decided to leave the classroom and take on the role of the King to call Michael/Mac Gadouille again. This new, unplanned intervention, re-created the dramatic tension that motivated the students to resolve the question of the date for the King's invitation. Charlotte, as the King, threatened to arrive right away if he didn't receive the invitation date soon.

Practice reflection 10.7: If, like Charlotte, you perceive a drop in motivation or dramatic tension in a Conceptual PlayWorld, what are your tools for recreating that tension to get your students on board again? Record your answers in the *Fleer's Conceptual PlayWorld thinking book.*

Conclusion

Charlotte is very excited about her experience with Michael. On the way back to her hotel, she can't resist emailing Yuwen to tell her what she's learned during her stay.

Dear Yuwen,

I've just had a wonderful experience in Michael's kindergarten class in Switzerland. It completely transformed my understanding of the value of learning to use a calendar with these young students. In our Conceptual PlayWorld, we were able to make this a necessity. Indeed, the calendar becomes indispensable when we need to situate ourselves in time to anticipate and communicate an upcoming date.

Furthermore, when we were implementing Fleer's Conceptual PlayWorld, I noticed that the children sometimes needed us to support their motivation. I proudly identified a moment when this motivation was declining. I then intervened, phoning the children to stimulate the dramatic tension and motivate them to solve the calendar problem. It worked!

I look forward to coming back to Melbourne to tell you about my adventure.

Sincerely,

Charlotte

To find out more about *Fleer's Conceptual PlayWorlds* read the research on the Conceptual PlayLab website.

References

Harris, P. (2007). *L'Imagination chez l'enfant : son rôle crucial dans le développement cognitif et affectif.* Retz.

Attributions

About the authors

Anne Clerc-Georgy
UNIVERSITY OF TEACHER EDUCATION OF LAUSANNE

Professor Anne Clerc-Georgy has a background in music & preschool teaching, and a PhD in Educational Science. Professor Clerc-Georgy is a full professor at the University of Teacher Education of Lausanne and is the leader of GIRAF (Intervention and Research Group on Fundamental Learning). This group conducts research on the teaching and learning of the tools, which are fundamental to pupils' success at school, and is working on a specific didactic for young pupils (play based didactic, play and curriculum, knowledge as a cultural tool, process of learning, imagination, children's perspective, learning collective). She is also a member of the Lausanne Laboratory Lesson Study Committee (3LS) and conducts research in teacher training, writing practices and the imagination in training.

Myriam Garcia Perez

APPENDIX A: FLEER'S CONCEPTUAL PLAYWORLD THINKING BOOK

Fleer's Conceptual PlayWorld thinking book designed by Erika Budiman/ pixelsandpaper.studio, content by Marilyn Fleer; Kelly-Ann Allen; Anne Clerc-Gregory; Leigh Disney; Liang Li; Lara McKinley; Gloria Quinones; Prabhat Rai; Janet Scull and Anne Suryani. Licensed under CCBYNC.

Download PDF

Download Word

MONASH University

FLEER'S

CONCEPTUAL PLAYWORLDS

THINKING BOOK

This is your personalised Fleer's Conceptual PlayWorld thinking book

In this Fleer's Conceptual PlayWorld thinking book, you will be reflecting on your own practices and what you have learned through the specific chapters and throughout the whole book.

We invite you to revisit your responses, and to review your own thinking, and to build on the key questions originally posed in Chapter 1:

What is the problem that Charlotte is thinking about or experiencing?

What is one key idea you gained from reading the narrative or viewing the material that you believe could help solve Charlotte's problem?

What are you curious about? Which chapter in this book could help you?

APPENDIX B: PLANNING PROFORMA

Planning Proforma(Word)

Planning Proforma (PDF)

Planning proforma for *Fleer's Conceptual PlayWorld*

Five Characteristics of Fleer's Conceptual PlayWorld to support imaginary play and conceptual thinking and learning

Pedagogical characteristics	Pedagogical practices that are planned	Conceptual PlayWorld in action
Selecting a story for the *Conceptual PlayWorld*	• Selecting a story that is enjoyable to children and adults. Summary of the story. • Building drama for the characters in the story. • Building empathy for the characters in the story. • A plot that lends itself to introducing a problem situation. Overview of the problem. • Being clear about the concept(s) and its relation to the story and play plot to be developed • Adventures or journeys that spring from the plot (e.g., chapters).	•
Designing a *Conceptual PlayWorld* space	• Finding a space in the classroom/centre/outdoor area suitable for an imaginary *Conceptual PlayWorld* of the story. • Designing opportunities for child-initiated play in ways that develop the play plot further or explore concepts and make them more personally meaningful. • Planning different opportunities for children to represent their ideas and express their understandings.	•
Entering and exiting the *Conceptual PlayWorld* space	• Plan a routine for the whole group to enter and exit the *Conceptual PlayWorld* of the story where all the children are in the same imaginary situation. • Children choose characters as they enter into the imaginary situation. • Adult is always a character in the story.	•
Planning the play inquiry or problem scenario	• Problem scenario is not scripted, but a general idea of the problem is planned. • The problem scenario is dramatic and engaging. • The problem invites children to investigate solutions to help the play in the *Conceptual PlayWorld*. • Being clear about the concepts that will be learned from solving the problem situation. Concepts are in service of the children's play.	•
Planning adult interactions to build conceptual learning in role	• Adults are not always the same character. Roles are not scripted. • Planning of who will have more knowledge and who will be present with the children to model solving the problem. There are different roles adults can take: Adults plan their role for the *Conceptual PlayWorld* to be **equally present** with the children, or to **model practices** in role, or to be **needing help** from the children. Their role can also **be together with** the child leading (primordial we), where they literally cradle the child or hold their hand and together act out the role or solution.	•

Attribution

"Planning proforma for Fleer's Conceptual PlayWorld" by Marilyn Fleer is licensed under CC BY-NC 4.0

PEER REVIEW STATEMENT

Monash University is committed to publishing high-quality open textbooks that meet the needs of students and educators. This book has been peer-reviewed by two subject experts from two higher education institutions. Each chapter received a double-blind review from academics with specialist knowledge and experience in early childhood education pedagogy.

Reviews were structured around considerations of the intended audience of the book and examined the comprehensiveness, accuracy, and relevance of the content. Reviews were also focused on relevance longevity, clarity, consistency, organization structure flow, grammatical errors, and cultural relevance.

The authors and the publication team would like to thank the reviewers for the time, care, and commitment they contributed to the project. We recognise that peer reviewing is a generous act of service on their part. This book would not be the robust, valuable resource that it is were it not for their feedback and input.

LICENSING AND ATTRIBUTION INFORMATION

The chapters in this book are all original works, copyright of their authors, who have agreed to release these works under the CC BY-NC 4.0 license except where otherwise noted.

This license allows for reuse, adaptation, remixing and redistribution of content, so long as you attribute it to the original author(s), indicate if changes are made, and link to the original, free content.

If you plan on using or adapting this book, or parts of the book, please let us know as it would help us understand the reach and attention of our work. Be sure to attribute the original creators as required by the license (sample attributions are below).

Suggested attribution

See also the Creative Commons FAQ on attribution, and also best practices for attribution.

Redistributing the book verbatim:

"Why Play Works" by Marilyn Fleer; Kelly-Ann Allen; Anne Clerc-Gregory; Leigh Disney; Liang Li; Lara McKinley; Gloria Quinones; Prabhat Rai; Janet Scull and Anne Suryani is licensed under CC BY-NC 4.0

Revised or adapted versions:

This material is a revised/adapted version of "Why Play Works" by Marilyn Fleer; Kelly-Ann Allen; Anne Clerc-Gregory; Leigh Disney; Liang Li; Lara McKinley; Gloria Quinones; Prabhat Rai; Janet Scull and Anne Suryani and is licensed under CC BY-NC 4.0

Individual chapters or pieces:

This material is [created by or based on] original work by [choose author] in "Why Play Works" and is licensed under CC BY-NC 4.0