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Avis Ridgway

monash University, avis.ridgway@monash.edu

Gloria Quinones

gloria.quinones@monash.edu

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How Do Early Childhood Students Conceptualise Play-Based Curriculum?

Avis Ridgway
Gloria Quinones
Monash University

Abstract: The study's purpose was to discover student understanding of play-based curriculum. Traditionally, play has been misunderstood in pedagogical terms, and was widely interpreted in our study. The Early Years Learning Framework suggests educator guidance in sustaining play is essential for learning and development. As teacher educators, we wanted to reflect on Play and Pedagogy (A new fourth year unit) that expected students to create a conceptual play model for use in practice. Twenty-six students volunteered de-identified assignments. From these, common conceptual elements were identified. We selected quotes from student's work to support identified concepts and entered a methodology of dialogue commentary to enrich analysis. Students focused discussion on adult's pedagogical approach linking play to pedagogy through varied interpretations of the concept of sustained shared thinking. We found student conceptualisations of play-based curriculum addressed complexities of their role as beginning early childhood educators in new ways.

Introduction

“Play is an important and complex topic in relation to children’s development so a model of play has helped to clarify the complexity of ideas.” (Student 25)

This study’s purpose was to discover how students understand play-based curriculum drawing on contemporary play theories. Traditionally, play has been misunderstood in pedagogical terms. Pedagogical positioning of play as a play/work binary however, is now well contested (Wood, 2009; McArdle & McWilliams, 2005; Thomas, Warren & deVries, 2011). Early childhood teacher practices of observing children’s play carefully but not necessarily engaging in play are being challenged (Fleer, 2010). Play has not always been accorded its role as a leading activity for children’s learning and development (Rogers & Evans, 2008).

Rogoff’s (1990, 2003) early research emphasized the social and cultural construction of knowledge through joint activity of adults and children, where “children are guided by adults or more competent peers” (Rogers & Evans, 2008, p.22). The early childhood teacher’s pedagogical role in play has been re-thought in the light of new theoretical understandings of play (Rogers & Evans, 2008; Fleer, 2010; Bruce, 2011). The common pedagogical practice of early childhood teachers pre-arranging children’s activities and simply observing children at play, clearly limits their pedagogical role to one of passive onlooker with no effective engagement in the potential learning offered in play.

Belonging, Being and Becoming: The Early Years Learning Framework (EYLF) for Australia (DEEWR, 2009) aims to improve the quality of early childhood education and suggests educator guidance in sustaining play is essential for learning and development. The early childhood teacher’s role therefore involves active engagement with children in play-

based curriculum. As teacher educators, we wanted to examine how our students had conceptualised their pedagogical role in play-based curriculum.

A final year Bachelor of Early Childhood Education (BECed) unit *Play and Pedagogy* at Monash University (in Melbourne, Australia) was designed to support students' understandings of play and the implications for pedagogy. The course was planned in 2010 as a response to the introduction in 2009 of the EYLF, the newly mandated curriculum document for early childhood education in Australia. The *Play and Pedagogy* unit was introduced in 2011 to final year early childhood education students who needed to be familiar with the new play-based mandated Australian curriculum. It is this first cohort of students who were involved in our study.

As part of this unit early childhood education students were asked to create a concept diagram (play model) in their final assignment. Twenty-six students from a cohort of seventy-two volunteered de-identified assignments with models for this study. From their concept diagrams (play models) we used discourse analysis to identify common themes and built a coded table around the language used by our students. This will be explained further in the methodology section. Furthermore, we shared half the assignments and each researcher independently selected quotes to support the identified themes. We then entered a dialogue commentary through email that enriched the exchange of individual ideas and threw light on how final year students were addressing the complexities of their role as beginning early childhood teachers.

Background

The Early Years Learning Framework (EYLF) (DEEWR, 2009) is being implemented across all states and territories of Australia. As a play-based curriculum drawing on contemporary theories of child development, the benefits of having a national framework for the development of early childhood programs (National Quality Framework for Early Childhood Education and Care, 2012) include the building of a common language for early childhood teachers in diverse local settings. This has implications for our preparations of early childhood teachers. Initial indications in the Baseline Evaluation of the EYLF for the Department of Education, Employment and Workplace Relations (DEEWR) by Monash University Early Childhood Staff Faculty Research Group (2011), suggest the importance of developing teachers' understanding of contemporary theories of child development, in order to fully conceptualize the EYLF. Our Faculty Research Group (FRG) is a self motivated research community developed over time at Monash Peninsula Campus and guided by professorial expertise.

The imprinting of past ideas on present day practices calls for reflection on the historical development of early childhood education in Australia and internationally. Thomas, Warren and deVries (2011) suggest "the construction of particular discourses of play and teaching within the early childhood context can be seen as shaped by accumulated theories over generations of early childhood educators" (p.70). Early childhood education does reflect the historical, cultural and political influences of our times (Edwards and Hammer, 2006). Ellen Key, for example was a Swedish design reformer and social theorist who predicted her concerns about early childhood education in the 20th Century in her published work *The Century of the Child* (1909). In an historical overview exhibition of childhood related to the 20th Century Child, Kinchin & O'Connor (2012) note Key's work as ahead of her time: "a prescient manifesto for change –social, political, aesthetic, and psychological – presented the universal rights and well-being of children as the defining mission of the century to come" (2012, p.11). We noted the same concerns in the 21st Century in the ways our early childhood education students took to the task of bringing their own times, values, beliefs and aesthetic ideals, to conceptualizing the EYLF's notion of play-based curriculum. We

considered that conceptualizing play-based curriculum was important for pre-service early childhood teachers, because play has been so widely interpreted in pedagogical terms and students require practical tools to interpret and frame their professional work.

The research discussed in this paper applies a cultural-historical framework to investigate how students in a *Play and Pedagogy* unit, conceptualised play-based curriculum using a concept diagram to frame their thinking. Using a cultural-historical framework allows us to think about our investigation taking place within a particular context, how it is mediated by language and artefacts of our time, and how we can use different and contrasting perspectives to re-conceptualise historically formed ideas. John-Steiner and Mahn (2006) articulate this theoretical framing:

Cultural-historical theory is based on the concept that human activities take place in cultural contexts, are mediated by language and other symbol systems, and can be best understood when investigated in their historical development (2006, p.2).

The early childhood student cohort whose original models of play were volunteered for this study were a representative group of final year BECEd students. They were drawn from a wide demographic that included international and local students ranging in age from 20- 55 years. Some had prior experiences of early childhood employment, others were parents themselves and some were re-training from other careers and wanting to move into the early childhood profession where employment opportunities were currently very high.

In the study 26 final year early childhood students provided their original assignments and concept models. These data are the basis for our analysis and findings discussed later in this paper.

Teaching together for the first time in a new unit *Play and Pedagogy*, created the need for an effective review of how this unit of work served the purposes of generating conceptual links between play, pedagogy and the Early Years Learning Framework (EYLF). Therefore the current study this paper reports on, seeks to discuss the ways our early childhood students conceptualized play-based curriculum and at the same time support our review of the new unit.

Generating Expertise

In aiming to support the generation of a conceptual framing of play-based curriculum we believed that by having students undertake the task of producing a concept diagram/model, an explicit framing of play would occur. With a model of play as a focus for discussion we anticipated students would have a pedagogical tool for application in future practice wherever that may be. Two of our students came from an occupational therapy background and their beliefs and values were framed within a health sciences discipline. For example Student 21 noted that in “paediatric Occupational Therapy (OT), play is used as a medium to teach new skills or remediate old ones, that enhance occupational performance.”

After taking the education unit *Play and Pedagogy* this student felt compelled to design a new play model to improve clinical practice. We noted a cross disciplinary generation of expertise and an interdisciplinary awareness amongst the student cohort.

In our work it was important, as suggested by Garvis, Fluckiger & Twigg (2012), to “take account of pre-service teachers beliefs and employ strategies to support pre-service teachers to gain understandings of the complex nature of teaching” (p. 102). This work, as Hedges (2000) emphasises, requires “a myriad of knowledge, skills, and capabilities” (p.16). Specifically we wanted the pre-service teachers to be able to claim their own pedagogical expertise by addressing the complexity of the relationship between play and learning (Hedges, 2010) and give focus to the importance of their pedagogical role in play.

When pre - service teachers are viewed as “contributors of new knowledge as well as change agents” (Garvis, Fluckiger & Twigg, 2012, p.102) then our course requirement of creating a model of play, offered students an opportunity for conceptualising play-based curriculum. Continuing the idea of generating new models for play, Fler (2010) suggests “that there is no theory of play that specifically focuses on concept development” and proposes “a dialectical interactive model of conceptual play for early childhood education” (p. 214).

Furthermore, she notes that: “Conceptual play... seeks to provide a theory and a pedagogical model for teachers who want to deliberately use play for supporting conceptual development of pre-school aged children so that theoretical knowledge is generated” (Fler, 2010, p. 214).

There are important implications for teacher educators when new practices in the field are driven by policy change and demand questioning of “legacy practices and an understanding of the production of new practices for new purposes...” (Edwards, 2010, p.64). In addition, Grieshaber (2008) suggests that research about teachers and teaching has not been “a focal point of research” (p.505) in the early childhood field where attention is more often given to aspects of children’s learning and development and how this may be facilitated. “...one could wonder what else teachers are supposed to do besides set up the environment and wait for children” (p.507).

We deliberately planned for pre-service students to think about play in pedagogical and theoretical terms through the creation of a pedagogical model and they grappled with the idea of conceptualising play-based curriculum using a graphic model. Reading a model graphically was an important starting point for coherently linking assignment discussion to the concept diagram (play model). Creating a model, supported the idea of scaffolding the students’ thinking to generate new representations and interpretations of their pedagogical role.

Pre-service Teacher’s Conceptualisation of Play and Pedagogy

Using research to improve early childhood teacher education and develop proactive early childhood educators is an important part of our ongoing work. The new educational discourse developing around the Early Years Learning Framework may well form into what Kemmis (2010) refers to as “colonising tendencies” (p.24) unless tertiary educators open the opportunities for students to interpret in original ways how the EYLF may be enacted. Providing a concept diagram (model of play) drew our student’s attention to the significance of play in the pedagogical work of early childhood teachers.

In undertaking research about early childhood students’ learning of specific new concepts of play introduced in our course the chance to evaluate and review how students relate to the introduction of historical, cultural, social, political and critical constructions of play-based pedagogy that underpin the EYLF was possible. In the unit *Play and Pedagogy* students consider the cultural ways in which children in contemporary society play and live in their communities. They undertake an analysis of the contemporary theories of play, noting the research upon which particular theories are based. They examine cross-cultural variations, popular culture, gendered interactions and critique the range of play contexts in which children find themselves today. The EYLF suggests that educator guidance in sustaining play is essential for learning, child development, and quality service provision in early childhood. To support this thinking our students worked in field placements and from their experiences and course readings generated their own new models of play. The notion of providing a strategy to support students’ professional development is important. We believed the conceptualisation of a model of play would give students a tool for making theoretical and practical connections to the workforce world that they were about to enter.

Creating a Model of Play

“What is needed is a new model for teaching and a different way of thinking about the role of the teacher” (Fleer, 2010, p. 41).

The unit *Play and Pedagogy* was developed through a range of topics that examined different discourses around play-based curriculum. This led students to debate the question Siraj- Blatchford (2007) asks: “should children be left to set their own pace or should practitioners be actively initiating new activities for children and extending existing ones?” (p. 8). We were interested in the variety of conceptual elements students might refer to when using graphic forms such as a concept diagram or model of play, to represent play as a pedagogical construct. In this way, students were involved in a creative and imaginative process, where an expanded capacity to communicate ideas through individual perceptions and senses became possible.

Each student created an original model of play accompanied by an action plan that provided evidence of play observations, theoretical analyses, and planning undertaken in field placement. The model of play was to be a concept diagram ready for application in practice and a theoretical task that provided the students with an opportunity for original thinking about the pedagogy of play and their role as future early childhood educators. We expected our students to bring to this task their experiences, imagination and the early childhood discourse of theoretical ideas used in play-based curriculum. The provision of a creative experience of imagining something entirely new (as a model of play represents), was a culmination of what students understood to be the conceptualisation of ‘a pedagogical approach to play rather than a free-range approach’ (Fleer, Ridgway & Quiñones, 2011, p.6).

We envisaged students would later apply their model of play to new environments within broader (or multidisciplinary) contexts and develop the ability to handle complexity and formulate rich and diverse opportunities for children’s learning and development.

Creating a model of play or concept diagram allowed students to visualize and imagine their role in play when they became teachers. Congruent with this, Fettes (2005) explains how important it is in teacher education to see teaching as an “imaginative encounter” (p.8) where student teachers can imagine beyond the “literal” (p.8) real world and become more imaginative in thinking about teaching. We discovered that through creating a model of play, such as that shown below, our early childhood students were able to imagine their pedagogical roles and reflect upon them.

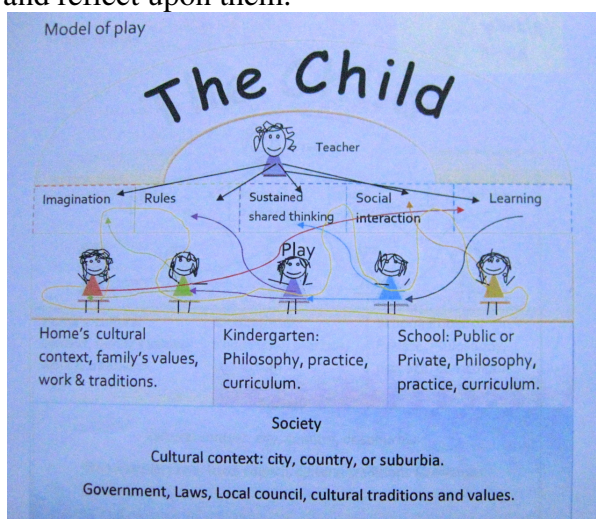


Figure 1: Model of Play example by student

This student example (Fig. 1) was conceptualised by reflecting upon Hedegaard's institutional practices model (cited in Fleer, 2010, p.190.). Here the student includes in her model, the foundational perspectives of societal influences and moves from this basis to the intertwined nature of such influences. The student imagines the complex interactions of play by using linking lines to represent the movement that occurs in children's lives between their home, kindergarten and school activity. Generating a personally meaningful model of play, gave this student an opportunity to reflect on the complexity of play for a child living within several spheres of influence in early childhood education: the society, the family home, and community settings such as kindergarten and school represent.

There is always a need for reflection on personal beliefs, values and broader contexts and we should therefore "provide the space for this to happen" as Boon (2011 p. 78) argues. This was done, we believe, by giving students a space and opportunity in the *Play and Pedagogy* unit to generate their own original play model and support this with a personal theoretical and practical discussion.

Methodology

Students were approached to participate in the study the week before Semester was completed. Those interested in participating volunteered their permission by email after their work had been marked and returned.

Twenty-six students from the final year Play and Pedagogy unit volunteered their play model assignments. All volunteered assignments were de-identified. We numbered each model-assignment identifying them as Student 1 (S1) to Student 26 (S26). From those models volunteered for this study we read through the assignments together, and in line with using a cultural-historical approach (described more fully following this section) we entered a shared commentary that enabled the identification of 49 conceptual elements in the student play models. From this we generated a coded reference table that identified the theoretical concepts and common language used by students.

Dialogue Commentary – Enriched Exchange of Individual Ideas

By dialogue commentary we refer to the process of sharing this work by taking half the volunteered assignments each and independently selecting and recording quotes. The selected quotes supported the identified conceptual elements in the coded reference table. By emailing our recorded quotes and interpretations to one another we each offered and added on to the interpretations of the quotes. This email exchange created a dialogue commentary and generated a co-construction of understandings of the conceptualizations found in the student play models. This process of co-research threw up the contradictions between the graphic models, the student discussions and our two views of the data. This enriched our exchange of individual ideas.

In coming together again with the recorded dialogue commentary as a reference point, we created spreadsheet headings for recording each of the identified conceptual elements. In this way we were able to measure how many students had used the variously named elements in their conceptual model.

	Adult	Child	Zone Actual	Zone proximal	Scaffolding	Participation	Play
S1		1	1	1	1	1	1
S2							1
S3		1					
S4							1
S5	1	1		1			
S6							1
S7		1					
S8		1			1		1
S9					1		1
S10							1
S11		1					1
S12							1
S13							1
S14		1					
S15							1
S16							1
S17		1					
S18							1
S19	1	1					1
S20		1					1
S21							1
S22							1
S23		1					
S24							1
S25		1					1
S26					1		
Total/ 26	2	12	1	1	4	1	19

Table 1: Identifying frequency of conceptual elements in student play models

Table 1 shows the numbered students down the left hand column. In the top row across, a small sample of seven of the 49 identified concept labels can be read. In the full table, we marked the frequency of use of each concept derived from reading the students concept diagrams/play models. Table 1 above shows only seven identified concepts as space here does not permit all 49 concepts noted in student play models, however this table indicates how we were able to undertake a discourse analysis and derive percentage usages of identified concepts (see Tab. 3). The other 42 concepts students mentioned listed below in Table 2 reflect some of the complex range of ideas that early childhood education students had engaged with in undertaking a Bachelor of Early Childhood Education degree.

- | | |
|-----------------------------------|-----------------------------|
| 1. Everyday concepts | 22. Self motivation |
| 2. Scientific concepts | 23. Pre-school |
| 3. Experience | 24. Adult initiated |
| 4. Space | 25. Child initiated |
| 5. Materials | 26. Imagination |
| 6. Theoretical knowledge | 27. Motives |
| 7. Interactions, | 28. Culture |
| 8. Environment | 29. Everyday practices |
| 9. Teachers | 30. Inquiry |
| 10. Family culture | 31. Institutional practices |
| 11. Play from child's perspective | 32. The Double move |
| 12. Play from adult's perspective | 33. Economy |
| 13. Learning | 34. Creativity |
| 14. Government framing | 35. Symbolic meanings |
| 15. Socio-cultural dimensions | 36. Rules |
| 16. Community | 37. Time and space |
| 17. Peers | 38. Integrated learning |
| 18. Sustained shared thinking | 39. Development |
| 19. Funds of Knowledge | 40. Investment |
| 20. Conditions of play | 41. Freedom |
| 21. Effective pedagogies | 42. Interest |

Table 2: The further 42 concepts identified in student play models

The simplicity of a coded reference table led to a focus on the frequency of identified concepts and themes of discourse. Peters (2012, p.25) noted Bryman's (1992) view that such data when quantified "acts as a means of summarizing qualitative materials as an alternative to a more indeterminate presentation of the data" (p.73). Table 3 shows the data from a discourse analysis of student play models. These data enabled us to reflect upon course content and furthermore provided an opportunity for synthesizing meanings of the common discourse currently used in early childhood education.

73% play (19/26)	11.5% self-motivation (3/26)
46% child (12/26)	11.5% peers (3/26)
42% interactions (11/26)	11.5% adult initiated (3/26)
42% family culture (11/26)	11.5 % culture (3/26)
38.4% environment (10/26)	7.8 % economy (2/26)
30.7 % everyday concepts (8/26)	7.8 % creativity (2/26)
26.9 % sustained shared thinking (7/26)	7.8 % time and space (2/26)
26.9% child's perspective (7/26)	7.8 % every day practices (2/26)
26.9% experience (7/26)	7.8 % theoretical knowledge (2/26)
26.9% teacher (7- 26)	7.8 % funds of knowledge (2/26)
26.9 % imagination (7/26)	7.8 % adult (2/26)
23% government framing (6/26)	7.8 % zone of actual development (2/26)
23% scientific concepts (6 /26)	3.8% participation (1/26).
23% socio cultural (6/26)	3.8 % space (1/26)
19% community (5/26)	3.8% development (2/26)
19% motives (5/26)	3.8% investigation (2/26)
19% adult perspective (5/26)	3.8% freedom (2/26)
19% learning (5/26)	3.8% interest (2/26)
19% double move (5/26)	3.8% conditions for play (1/26)
15 % institution (4/26)	3.8% effective pedagogy (1/26)
15% child initiated (4/26)	3.8% inquiry (1/26)
15% preschool (4/26)	3.8% symbolic meaning (1/26)
15% materials (4/26)	3.8% rules (1/26)
15% scaffolding (4/26)	3.8% integrated curriculum (2/26)

Table 3: Discourse analysis of play models

In our approach to this research we followed a cultural – historical dialectical methodology, where it is important to consider the contradictions that appeared between the conceptual elements in order to begin discussion. Reading the students' play models graphically first, we found that the textual explanation did not necessarily explain the model. We used these moments of contradiction to uncover the mis-conceptions students may have about play-based curriculum. We were surprised for example, by the absence of inclusion of 'the child's perspective' on play as in teaching our unit this idea was offered as an important aspect for considering play as pedagogical. We had focused on how early childhood students could imagine and consider 'the child's perspective' in their pedagogies through play and how these might be brought together. Whilst 'the child' and 'interactions' were frequently mentioned (Tab. 3) a pedagogical approach that used 'the child's perspective' was certainly not foremost in student thinking however we were able to identify what was; the notion of sustained shared thinking (SST).

Quantifying the research using coded tables and percentages does not fully illuminate our understanding of why students conceptualised their model of play in the ways they did but what we did have were facts derived from discourse analysis that measured the frequent use of a common language around play, which gave us a starting point to expand upon. The widely interpreted use of the concept *sustained shared thinking* (SST) forms the basis of our analysis and discussion. This concept was important for students to understand why play needs to be also thought of as pedagogical rather than as a 'free-range approach' where children are always left to play with no framed purpose. In the next section, we focus on the idea of *sustained shared thinking* within the theoretical framework used in this research.

Cultural – Historical Theoretical Framework

The focus of this paper is to discuss pre-service teachers' conceptualizations of play-based curriculum. We expected early childhood students to be able to use theoretical ideas to develop their own model of play. The goal of our 'Play and Pedagogy' unit was for students to think about play in pedagogical terms. We focused on the links between play and pedagogy using Siraj – Blatchford's concept of *sustained shared thinking*. This concept has been theorised using cultural – historical theory and Vygotskian concepts, which related to our theoretical framework.

Throughout our teaching, we had provided examples of the concept of *sustained shared thinking* focusing on it as a pedagogical construct. We emphasised the concept of SST as pedagogical "it is something adults *do* to support and engage children's learning" (Siraj – Blatchford, 2009, p.86). Following this, we encouraged students to think deeper about their pedagogical roles in play and their role in sustaining and extending children's thinking in play by taking account of the child's perspective in this process.

Sustained shared thinking is the pedagogical act that Siraj-Blatchford (2007, 2009) identified as being present in effective early childhood education. Siraj Blatchford (2009) provided qualitative evidence from EPPE (Effective Provision of Pre-School Education) project in UK, which showed the notion of *sustained shared thinking* as a mark of quality in Early Childhood Education settings. This term focuses strongly on interactions between children and adults and how these are sustained and shared (Siraj – Blatchford, 2009) through play linked with pedagogical awareness. In relation to these interactions, it is suggested that:

Educators who know children in their care, who know their interests, capabilities, and potential quite naturally plan ahead and initiate activities that they know the child will enjoy and benefit from. Such an approach is not curriculum centred, it is child- centred, but it offers the possibility of monitoring the child's activities for breadth and balance. Left to their own devices we know that the play of children often becomes repetitive, and effective educators, therefore, encourage children to take on new challenges and introduce new and extended experiences. (p.85)

As discussed later in our findings, we think our students' understanding and awareness of the pedagogical role in sustaining thinking is vital for using play-based curriculum effectively. Students mentioned the importance of balancing their interactions with children. We had strongly focused on students' understandings of knowing how to take the child's perspective in their pedagogical work. When we thought about the child's perspective we used a cultural – historical lense in the way Siraj – Blatchford refers to focusing on child-centred and not curriculum-centered programs.

Further comments about *sustained shared thinking* come from Thomas, Warren & deVries (2011) and Grieshaber (2008) who suggest that in using this term there has been "a silencing of the term 'teaching' " (Thomas et al., 2011, p.70) in relation to what early childhood teachers do in play-based curriculum.

Siraj-Blatchford (2009) in an effort to "develop a better understanding of sustained shared thinking in early childhood education" (p.77) as a pedagogical practice, locates the ways other researchers have developed similar terms to refer to how children are effectively supported in their learning. Such interactions, notes Siraj-Blatchford (2009) are widely described "...the strongest theoretical resonances were found with Vygotsky (1978) who described a process where an educator supports children's learning within their 'zone of proximal development' " (p.77), but interactions of this sort have also been described as distributed cognitions by Salomon (1993), in terms of the pedagogy of guided participation by Rogoff et al. (1993), and as scaffolding by Wood, Bruner & Ross (1976).

The role of the effective teacher is brought clearly into focus by Fleer (2010) when she discusses examples of the way play-based learning is most effective when framed conceptually for children. In theorising concept formation in play she aims to present “a theoretically different view of the teacher” (p. 34).

Importantly Fleer (2010) notes that *sustained shared thinking* “provides a significant relational understanding between pedagogy and content knowledge; this work is much more explicit about teaching” (p.7). However, there is a theoretical problem when defining what *sustained shared thinking* is in play and researchers like Fleer (2010) have begun to redefine how this might be seen in play through discussing every day and scientific concepts that emphasise the way children become conscious of abstract, theoretical and intellectual concepts while playing with more knowledgeable adults and peers.

Our student models bring further descriptions and interpretations of Siraj-Blatchford’s original term *sustained shared thinking*. Our students linked *sustained shared thinking* to teaching and pedagogical complexity. They frequently called it *shared sustained thinking* and in so doing, they brought the focus onto ‘shared’, which appears to strongly reflect the students’ view of shared relationships with the child as being involved in effective teaching in play-based curriculum.

Analysis and Discussion

Common themes identified by 65% of the students involved adult roles in play-based curriculum with initiation by adult and their perspectives. Students clearly identified the importance of the adult’s pedagogical approach, most commonly linking play to pedagogy through the concept of *sustained shared thinking* (SST). Students interpretations of *sustained shared thinking* were broadly conceptualised using dimensions of time, space, future, imagination, intention, emotion, and environment. They envisaged SST as ongoing, routine, harmonious, and projected over time. In this way we could see how they were addressing the complexities of their role as beginning early childhood educators.

Initiation by adults and their perspectives on play was frequently mentioned by the students who also linked play to pedagogy through the concept of *sustained shared thinking*. We questioned what this concept meant for students and looked more closely at their explicit and implicit interpretations of SST. As noted in Table 2 and Table 3, students identified pedagogical elements in play based curriculum and interpreted in highly individualised ways what the concept of *sustained shared thinking* means for play as a pedagogical construct for children’s learning. Students, in fact, conceptualised play-based curriculum in their concept diagrams, without play as their focus.

In Student assignments and models, we identified a strong focus on the *adult’s pedagogical approach* and the role of adult/teacher in play. There were 65.2% (17/26) students who referred to *teacher*, *adult perspective* and *adult initiated* in their models (Table 3) and 68.7% (18/26) used the pedagogical approach of the adult in *effective pedagogy*, referring in particular to the terms: *sustained shared thinking or shared sustained thinking*, *the double move*, *scaffolding*, and the ‘*zone of proximal development*’. Students identified *the balancing act* that early childhood teachers can find themselves engaged with.

Students linked play to pedagogy through variations of the concept of *sustained shared thinking*. This raised questions about how this concept is interpreted by students and how did they link it to play? To investigate further we gathered contextual examples of students’ explicit and implicit references to *sustained shared thinking*. This led to the finding that for these students (about to start work with play-based curriculum), the relationship between play and *sustained shared thinking* was subject to multiple interpretations and there is a need to further clarify the complex discourse found in play-based curriculum. Student interpretations of the concept of *sustained shared thinking* are discussed next.

The Collective Shared Role of Educators and Children in Sustained Shared Thinking

Students referred to the collaborative effort that, as educators, they will need take for children. Student 5 saw this role as not only extending children's thinking but also through valuing and empowering their learning.

According to theorists such as Vygotsky, Siraj-Blatchford and Linqvist the amount and quality of learning depends on the adult involved in the play experience. My model of play represents a child and a teaching professional as separate identities that come together through shared sustained thinking during play. It is within this shared thinking that the educator will value and extend children's ideas and concepts, indicating to them that their ideas are valid and important and that they are aligned in thought. This can be done as children are challenged through their zone of proximal development to look at the wholeness of an interest. (Student 5)

In the above quote, Student 5 acknowledges the importance of the role of the adult in children's play experiences. The complexity and wholeness of this role is explained in detail when she notes how separate identities – child and teacher - come together and align when sharing and sustaining ideas. The educator's pedagogical approach is not only about extending ideas as suggested by Siraj- Blatchford but also about validating and aligning their thoughts to those of the children.

In the next quote, Student 14 also expresses the idea of sustaining shared thinking by empowering children by adding to the complex ideas of participants when playing the part of *the players*. She conceptualised the idea that *The players* or participants need to create an equal relationship while playing. This also relates to this student's awareness of educators using an 'intelligent approach' for encouraging participants to play equally and inclusively. Student 14 identifies that *sustained shared thinking* is a collaborative effort through which learning is generated, intelligently supported and maintained.

The teacher's role is essential in facilitating the play of children by empowering them to develop learning, sustained shared thinking, social skills, imagination and application of rules in treating all players equally and inclusively by intelligently entering play to encourage and develop it further. This is supported by Davydov, as seen in (Brooker & Edwards 2010, p.5) "The importance of the teacher, the child and the situation is recognized in cultural – historical theory, which emphasizes the role joint collective activity has in generating, supporting and maintaining learning, The teacher's task in this situation is to 'know about the possibilities of his or her own pedagogical activity, to use these sensibly and thus raise to a new level is the activity, consciousness [and personality] of his or her charges. (Student 14)

These theoretical and new ideas are explained in her rich example (below) where the mentor teacher is sensitive about how to enter a play scenario and is able to 'balance the act' of entering children's imaginary play and suggesting materials to sustain it. In the next two quotes, it is particularly interesting to note the way Student 14 uses the concept of SST when explaining her mentor teacher's role (first quote). In the second quote, this student is able to explain these theoretical ideas through her placement observation. In this example, children are playing and she notes how the teacher's role was one of respecting children's play. The teacher intervenes with materials and sees her role as 'emerging' through observing children's play. The student's observation shows her understanding of how sensitive a

teacher needs to be when entering children's play. In observing the whole picture in children's play she also notes how a listening pedagogy is being applied.

I saw this practised by my mentor teacher as she intelligently entered the 'school play' scenario, which as we observed, she realised the children would need some paper to carry out their next part of play. She knocked on the door and introduced herself as a sales person selling paper and pencils. She asked the children if they children would like to buy some paper and on receiving a positive answer then went and got the paper and pencils. This enabled the children to continue in the play and add on their learning. As the children were all wearing hats and the "teachers" wanted to call the roll, the "teachers" asked all the students to bring their hat to them and then copied down their names.

The teacher's actions in these two scenarios show the respect she had for children's play by not assuming they would want what she was suggesting and the importance she placed on what they were learning as they developed their imaginations and sustained shared thinking together. In each instance, she moved out of the play as unobtrusively as she had entered it allowing the play to continue. (Student 14)

Student 14 provides important ideas about when to extend or sustain children's thinking. She explains how important it is to 'suggest' to children when 'entering' into their imaginary play scenarios and continue to be in the children's imagination. By suggesting this, the student shows how play continues and how through moving out of the play, she is not being obtrusive. Timing is seen as an important aspect of the teacher's role in *sustained shared thinking* and knowing when to enter, move and leave children's imaginary play situations, reflects Student 14's critical awareness of the pedagogical act.

The concept of SST emphasises sharing, children, and educators working together. Student 16 suggests that in the pedagogical framing of learning experiences both perspectives (adult and child) need to be considered.

This can be done through pedagogical framing in play where the learning experience introduced can be modified it in a way that children think about the context in the same way and where sustained shared thinking can be implemented in order for both adults and children to 'work together' intellectually to solve problem, clarifying a concept or extend on a narrative allowing both participants from the 'Adult Perspective' and 'Child Perspective' to be involved to make a contribution in order for the idea to develop, extend and further. (Student 16)

This student adds on to the idea of *sustained shared thinking* by explaining how extending on a narrative is important for clarifying ideas and concepts for children's learning and development.

In contrast, some students focused more on their role of being at the centre of the pedagogical decisions they believed they had to make.

The Teacher at the Centre– a Balancing Act

The following quotes show how our final year students were thinking deeply about the complexity of their role in play-based curriculum. They did not focus on play or children's perspectives explicitly but focused on their overarching role as the teacher. This was a contradiction that came to light for us as we noted time and again how the students' models and discussions focused more on their role in framing play pedagogically, providing

access to materials and stimulating environments, and the role they might take in influencing children's play.

In order for educators to provide the best opportunity for children to learn through shared sustained thinking they must also be involved in framing learning through pedagogical decisions about the organisation of the environment and observing and assessing of play. (Student 5)

Here Student 5 focuses on SST as being about how the teacher frames the learning experience. *Sustained shared thinking* is clearly understood from the adult's perspective, rather than framing learning experiences from the child's perspective. In considering her pedagogical role Student 5 notes the organisation of the environment as important in relation to how play is assessed and observed. For this student these will be important elements in the teacher's framing of children's experiences.

Next, we note how Student 3 discusses play-based curriculum as being not only about children playing but also about the teacher's 'balancing role'; a role that moves between guiding children and not always controlling or ordering them. This student also suggests the important influence of the teacher in setting up play environments and materials for children.

The teacher's role when looking at a play-based program, is to guide, suggest and extend but not to control or order. It is not possible for children to play in a centre without the teachers influence being present. It is the teacher who set up the centre both inside and out originally. It is true that a lot of the activities are based on the children's observations and interest but even then the teacher will set out the materials which reflect these observations. (Student 3)

As in the case of Student 5, Student 3 noticed the importance placed on the role of teachers in setting up play activity in order to reflect on children and make observations. Play and learning in play is not focused on here. What is focused on is the provision of adult arranged materials set out for play activity, where the pedagogical role of the teacher is limited.

Student 4 has the idea that her teaching role will involve compromise, being flexible and learning together. She notes that for her, play-based curriculum is also about timing and pacing.

I have to be flexible and compromise the way that we learn together. Not everyone learns at the same pace so we, the Teachers, will have to allow the ones who understand what is happening in the experiences help others who take longer to learn. (Student 4)

Student 4 really emphasizes the time dimension in children's learning as she understands that not all children learn at the same pace and some other children will take longer to learn the same experience. For her the teacher's role is important in understanding what is happening in the learning experience of all children and this includes the time dimension. She is acknowledging the way that children all have different timings when they learn and that these timings may be culturally constructed. Cultural time is another dimension of the concept of sustained shared thinking.

These quotes have provided us with insight into how pre-service teachers considered their pedagogical role in working with play-based curriculum. They saw it as a complex balancing act. They reflected not only on the importance of observing and assessing play and on the influences of materials and environment but also acknowledged that the time dimension is important in understanding how to sustain and share thinking for children's learning. The next section considers the dimension of time as ongoing in children's learning and play.

In the quotes selected below, students frequently noted how learning is ongoing and how the educator's role is important in engaging with children through *progressing* their learning activities.

The following quotes show how our students understood the dimensions of time in play, the dimension of the teacher in *progressing* activities and recognition by the teacher of the ongoing nature of children's play experiences.

As an early educator, I acquire the understanding of the word Play. It is not just an action a child participates in to pass time. It is an ongoing learning progress that enriches opportunities to create first hand experiences with companions such as other children, parents and teachers or solitary, which consequently leads to the acquisition of learned knowledge and the transforming of concepts. (Student 16)

Student 16 brings into clear focus the notion of *sustained shared thinking* as a pedagogical act that progresses over time. In another example, Student 23 talks about pedagogical processes occurring over time, that is, being sustained and shared through adult and peer support. Importantly, Student 23 added in details of the communicative elements of the pedagogical process, which in turn enlarges her view about how play-based curriculum may be conceptualised.

I recognise play as complex, requiring social assistance; role modelling by adults as well as peers. It takes time to develop meaningful interactions; through limiting transition periods and allowing for large blocks of uninterrupted free play these connections can be made. Communicative language consisting of alternative options such as sign, gestural, pictorial and other methods and delivered through a range of pedagogical processes. (Student 23)

Communicative language, extended conversation and solving problems together in play is mentioned by Student 26, who brings a strong theoretical understanding to the identified concept of *sustained shared thinking*.

Knowledge and experiences are shared and new perceptions of reality are created. Play experiences are supported by responsive adults resulting in 'sustained shared thinking. "Creativity, communication and collaboration are all combined in sustained shared thinking" (Siraj-Blatchford, 2007,p.3). This describes how children and educators engage in sustained conversations and research, and work together to solve problems. Fundamental to this approach is a balance between child-initiated and teacher-supported play opportunities. Further, the development of sustained shared thinking marks the progression in learning activities (Siraj-Blatchford, 2007, p.16). I was able to achieve some degree of contextual intersubjectivity with the children when I observed what their interests were in play and provided various mediums to express same. By engaging in conversations with the children I was able to discover the concepts that formed their ideas and extend on these. (Student 26)

We can gauge from these quotes, drawn from data on student discussions that the idea of ongoing sustained and shared activity balanced between adults and children in play activity, has been important in their efforts to conceptualise the complexities of working with play-based curriculum. As Student 11 notes: "To me play experiences are ongoing and beneficial in more ways than we recognise" (Student 11).

We finalize this section of findings with one more quote. Throughout our Play and Pedagogy unit, we had placed emphasis on students thinking more about play as being

pedagogical and a place where children learn. We discussed their pedagogical role in supporting early childhood play with intention rather than taking a free range approach.

Student 8 iterates this idea by noting how open-ended play (free range) is not always sufficient and suggests the pedagogical role of the teacher needs to be an intentional one, and explicitly used to frame children's play for learning and development.

Open ended play alone was insufficient for supporting and advancing children's learning and development ... In ENABLING, Valuing, and INTERWEAVING a format that involves INTENTIONAL scaffolding through children's spontaneous imaginative play, framed – adult-led learning and modelled-learning guided. (Student 8)

In our Play and Pedagogy unit, we had discussed the importance of *framing* play for supporting children's learning and development and the teacher's role in doing this. It is encouraging to read Student 8's ideas because they provided some evidence of how a student had transformed theoretical ideas into possibilities for effective practice. She clearly explains the theoretical and pedagogical dimensions of play as advancing and progressing children's learning and development by giving recognition to the adult's pedagogical leadership in children's play.

Conclusion: The Importance of the Pedagogy in Play

Advocating for children and quality early childhood education from birth, our course has involved us in supporting pre-service teachers in conceptualizing play-based curriculum, a necessary step in the journey of becoming an early childhood teacher.

In the Australian context, play is an important activity in which children engage. In planning our unit, students had to imagine and think about important theoretical concepts and the relationships between play and pedagogy. A model provided opportunities for students to conceptualise their roles as pedagogical leaders and interpret play and pedagogy in original ways though discussing their roles in framing, supporting and balancing their interactions with children in order to plan for sustaining shared thinking.

The Educator's Guide to the Early Years Learning Framework (EYLF): Belonging, Being, and Becoming, (2010) gives the educator a pedagogical role in the play based curriculum document. The framework says, "Play provides opportunities for children to learn, as they discover, create, improvise and imagine. Children's immersion in their play illustrates how play enables them to simply enjoy being" (EYLF, p.15 quoted in Educators guide p.32). However, the ways educators immerse themselves in children's play and encourage children in 'being' remains open to further research.

Our research allowed us to present how pre-service teachers see children, and how they create, improvise and imagine what the 'child's and 'educator's' perspective is. This relationship merged for our students when they were thinking about play and pedagogy. The implications that our research brings to the Australian agenda are that it is not only important to consider the child playing but to pay close attention to the complex interactions between the child and the educator. Student teachers expressed this complexity in sophisticated ways through their concept diagrams/models of play and discussions of them. Their models of play and action plans gave evidence of play observations, analyses, and planning undertaken in a placement centre in relation to their model of play. To do this they were required to reflect on active institutional practices that led to their original concept diagram, enter a theoretical discussion in relation to their model, give evidence of a play observation where they experimented with using their model and finally, explain why their model was pedagogically sound from the child's perspective. This final requirement led students to wondering what is meant by 'the child's perspective'.

Student teachers were guided at first to think about their own beliefs on play and then consider the impact those beliefs may have on their pedagogical leadership role. In addition, understanding play-based curriculum requires deep reflection on questions about the role the adult plays in considering the child's perspective in children's learning and development and in their pedagogies, such as those mentioned here:

- “The amount and quality of learning depends on the adult involved in the play experience.” (Student 5)
- “The teacher's role is essential in facilitating the play of children by empowering them to develop learning. The importance she [mentor teacher] placed on what they were learning as they developed their imaginations and sustained shared thinking together.” (Student 14)
- “‘Adult Perspective’ and ‘Child Perspective’ to be involved to make a contribution in order for the idea to develop, extend and further.” (Student 16)
- “Not everyone learns at the same pace so we, the Teachers, will have to allow the ones who understand what is happening in the experiences help others who take longer to learn.” (Student 4)
- “The teacher's role when looking at a play-based program, is to guide, suggest and extend but not to control or order.” (Student 3)

The students show how they conceptualized their pedagogical role through being intentional and reflective on the practices they experienced during placement. The importance of conceptualizing play as pedagogical was demonstrated when students discussed the importance of their role in relation to children and thought about what the ‘child's perspective’ meant as a dimension in sustaining and sharing children's ideas. In addition, there was recognition of the sensible and emotional side in the pedagogical role where the teacher needs to find and be aware of the sensitive moment to interact and collaborate with children when entering children's play.

Through creating a play model students imagined their future as leaders in pedagogical play. They demonstrated an approach to early childhood education that goes beyond a ‘free range’ one and throughout our unit showed interest in taking a ‘pedagogical path’. Students paid attention to taking an ‘intelligent approach’ and certainly showed that for them ‘open play’ was not enough for sustaining children's thinking. There was a clear recognition by the students that play needs to be re-thought in pedagogical and intentional terms. As future early childhood educators the practices of collaborating with children and having an intentional attitude towards learning and play was understood. This was most often explained through the various conceptualizations of sustained shared thinking. Students were able to conceptualize play-based curriculum in a workable model that allowed them to think about play in pedagogical terms.

Our research shows how a model of play and pedagogy and a careful analysis of what this means in practice, allows pre-service teachers to imagine their roles as future educators. This was important for their education as considering the child's perspective is just one-step of the ladder but thinking about their pedagogical roles in leading children's play did lead on to pre-service students' careful analysis of what play meant theoretically too. Relating theory to practice conceptually is a critical next step to take in any undergraduate teacher education course.

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