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Questions to ask yourself as you evaluate the article:

- Did these researchers explain the focus of the paper, the subjects, and methods used in a way that was understandable and useful to you? Explain
- What impact did the results of this research have on you as a student of Early Childhood Education?
- Would you use any of this information in working with young children? Explain
- Would you share any of this information with other teachers? Explain
- Would any of this information be helpful in working with families? Explain
- What other information do you wish the researchers had addressed when conducting this study?

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Item	0	½ Credit	Full Credit	Score
Cover Sheet (1 point)	All items missing Or information in wrong place	Missing one or more elements. Incorrect format	Contains all items required, in correct format.	
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Page 3 Evaluation (4 points)	½ or less page Unclear, vague description of article, does not answer any of the questions posed, plagiarism, or pervasive spelling/grammatical errors	¾ page evaluation or incomplete response that answers only 1-2 of the questions posed Improper use of quotes/footnotes. 4-5 grammatical/spelling errors.	1 full page. Written in correct & narrative format, Clear evaluation of the important elements of the article. Answers at least 4 of the questions posed. 2-4 paragraphs, Proper use of quotations /footnotes Less than 2 spelling/grammatical errors	
Page 4 Three questions (1 point)	0 well written Divergent questions Pervasive spelling / grammatical errors.	2 Well written Divergent questions. Closed or yes/no questions do not count. 2-3 errors in spelling/grammar	3 <i>Divergent questions</i> which allow for any number of correct answers. They encourage broad responses, require creative thinking, and tend to engage learners. Well written with less than 2 spelling/grammatical errors	
			SCORE	/10

Play-based learning and intentional teaching in early childhood contexts

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THIS PAPER REPORTS ON an analysis of teachers' talk of play-based learning and intentional teaching of mathematics. The participants in the study were two early childhood teachers in a pre-Prep program (the year before school). Teachers' talk of how they engaged in the interplay between children's play and the use of intentional teaching practices to introduce mathematics concepts formed the data set to be analysed. Conversational interviews and stimulated recall were used to gather data.

A poststructural analysis of the teachers' talk suggests that socially and culturally constructed ways of being an early childhood teacher are both enabled and constrained by discourses of play and intentional teaching.

Introduction

Play-based learning and teacher-directed learning in early childhood education have traditionally been positioned as oppositional or a pedagogical binary. Play as the primary context for young children's learning is a dominant discourse in early childhood education (Wood, 2009; Bruce, 2001) and teaching as a context for supporting young children's learning is a highly contested discourse (McArdle & McWilliams, 2005). The practice of teaching as a component of what early childhood teachers do to support children's learning has often been seen as at odds with the concept of a play-based pedagogy (Siraj-Blatchford, 2009). How play-based learning and teacher-directed learning sit together in early childhood education is a particular focus in recently developed Australian early childhood curriculum documents (DEEWR, 2009a; QSA, 2010), with the inclusion in these documents of a specific focus on intentional teaching alongside the traditional focus of play-based learning. The synergy between these concepts has been examined in recent research (Griehaber, 2008; Siraj-Blatchford, 2009) and is further investigated in this project by analysis of teachers' talk.

Research undertaken in a Brisbane (Queensland, Australia) kindergarten (Warren, deVries & Thomas, 2009) looked at the mathematical experiences of pre-Prep children (in Queensland, children aged 3½–4½ years) and how the early

childhood teachers described their own role. The focus of this paper, as one element of the project, is to examine teachers' perspectives on play in early childhood education and their reflections as they incorporated the teaching of mathematical concepts into their play-based program. Of particular significance is the inclusion of mathematics in the discussion of how play-based learning and intentional teaching sit together, as mathematics is often perceived by many teachers (including early childhood practitioners) as rule-based with a rigid pedagogy and the emphasis on children memorising and recalling rules (Boaler, 2000). In addition, many early childhood practitioners are often fearful of mathematics and see the mathematics curriculum as having the potential to restrict children's choices and thus 'inhibit their ability to be self regulatory and autonomous' (Macmillan, 2009, p. 110). In this paper, attention is given to how each teacher spoke of play and what they did as teachers to support children's learning when engaging in mathematical experiences.

Literature review

The following review of the literature looks at how play and teaching are located as discourses within early childhood education, ways in which these discourses have been constructed, and the role of theories in these constructions. It then examines the position of these discourses within

curriculum documents currently being introduced at a national and state level in Australia.

Recent literature raises for deliberation the notion that there is a silencing of the term 'teaching' in play-based early education contexts (Grieshaber, 2008, McArdle & McWilliam, 2005, Ryan & Goffin, 2008). Ways in which the concept of teaching is silenced or disguised is through the use in early childhood education literature of particular terminology to describe what early childhood teachers do: such terms as 'sustained shared thinking' (Grieshaber, 2008, p. 510), 'noticing, recognising and responding' (McLachlan, Fleer & Edwards, 2010, pp. 116–117), 'facilitation of learning opportunities', 'guided participation', 'scaffolding', 'developing', 'co-construction', 'supporting', 'demonstrating' (Arthur, Beecher, Death, Dockett & Farmer, 2007; Hill, Stremmel & Fu, 2005; Jordan, 2009). Such terminology is constructed through early childhood discourses that require the exclusion of the use of the term 'teaching' in early childhood teachers' identification of what they do as educators. As McArdle and McWilliam (2005) suggest, 'to teach without teaching' (p. 330) is the accepted mantra of an early childhood pedagogy. This thinking is used in the analysis of the talk of the two teachers who participated in this study.

The construction of particular discourses of play and teaching within the early childhood context can be seen as shaped by the accumulated theories over generations of early childhood educators. Rousseau presented education as a natural occurrence (Hill et al., 2005; McLachlan et al., 2010). Theories evolving from Rousseau's principles suggest that educating happens naturally and should emerge from children's everyday activities, with the role of the teacher taking the form of 'guide or facilitator' (Hill et al., 2005, p. 13). Froebel, known as a founding 'father' of early childhood education (Aitken & Kennedy, 2007), suggested that children's learning unfolds naturally through play (Edwards & Hammer, 2006), and positioned early childhood teachers as guides or facilitators who need to emulate a family context, as this is the context in which children develop and learn (Hill et al., 2005). With these as founding influences of early childhood education, the identity of early childhood teacher was constructed and has been maintained as nurturing, mother or carer (Aitken & Kennedy, 2007; Hill et al., 2005; Thomas, 2009).

A look at the theories dominant in early childhood education over recent decades can give some insight into early childhood teachers' reluctance to embrace teaching as a legitimate practice in early childhood settings. The importance of play in early childhood education is often linked to children's stages of cognitive and social development and is identified as appropriate to support children's learning during the early years (Arthur et al., 2007). The position of play in early childhood educational contexts is governed by an acceptance of stages of play that correspond to Piaget's stages of development (Arthur et al., 2007; Hill et al., 2005). Piaget's theory on the possibilities

of learning through play continues to be embraced by early childhood educators (Arthur et al., 2007) despite the work of others who suggest that they need to look beyond the limits imposed by Piaget (Rogoff, 2003).

Vygotsky's socio-cultural developmental theory emphasises connections between a child's learning, and their relationships and socio-cultural contexts (Hill et al., 2005; Hatherley & Richardson, 2007). This perspective suggests it is the role of early childhood teachers to facilitate these relationships and contexts to support children's learning. Hill et al. (2005), speaking of Vygotsky's influence, suggest it is interesting 'how children's development is best *guided* by people who are experienced in using these tools (that is language, mathematical systems, and technologies)' (p. 15) (our own emphasis added). These authors also cite the work of Rogoff, who refers to 'guided participation' when speaking of what children and teachers do, and of curriculum as 'teacher framed'. So, although the Vygotsky developmental theories continue to emphasise the importance of children's engagement in play, there is an additional emphasis on the active role of the teacher (Hedges, 2000; Jordan, 2009). This can be seen to take the form of an expectation of intentional engagement with the child in the learning process.

These historical and theoretical influences continue to hold many early childhood educators in their grasp. Young children's learning is positioned as occurring within the 'natural' context of play. This 'natural' context is supported by the facilitation of a caring, unobtrusive, maternal figure, and requires the deliberate interaction of a more expert other. In this way, a binary between the 'natural' context of play and the 'structured' context of teaching is constructed.

The remainder of this literature review examines how play and teaching are addressed in recent research and current Australian early childhood curriculum documents. This allows for an analysis of how a discourse of play and a discourse of teaching enable and constrain identity constructions of early childhood teachers.

Assumptions about the place of teaching in early childhood contexts can be challenged. Approaches that assume a requirement of 'play-based' and 'child-centredness' have been challenged through the early childhood literature (Ailwood, 2003; Langford, 2010). As well, approaches to teaching that are structured and academically focused can both enable and constrain what it is to support young children's learning. Bodrova (2008) argues that scaffolding that results in a particular play format (mature play) is beneficial to young children's learning of academic skills. Such directing of children's play positions early childhood teachers as not only in control of the play but also of the learning outcomes. Further challenge to a traditional notion that early childhood education does not involve teaching comes from Siraj-Blatchford (2009) when she identifies quality teaching as a key component of quality learning for young children.

The role of early childhood teachers in play and intentional teaching continues to be constructed, or reconstructed, through the contents of early childhood curriculum documents recently released in Australia (DEEWR, 2009a; QSA, 2010). In the *Early Years Learning Framework* (DEEWR, 2009a) play and intentional teaching are both listed as pedagogical practices employed by early childhood teachers to 'promote children's learning' (p. 4). An examination of a document supporting the implementation of this curriculum (DEEWR, 2009b) demonstrates an interesting representation of the terms 'play' and 'teaching'. One section of this document which addresses play-based learning uses the words 'play' or 'playing' 32 times. In the section on intentional teaching the word 'teaching' appears once (this was in the context of 'teaching' children about road safety). In comparison with the term 'play', there are multiple terms used to represent the concept of 'intentional teaching' (for example, challenging, co-constructing, collaborating, scaffolding, encouraging, supporting, modelling). One reading of this representation of the terms play and teaching is that 'play' is so entrenched in the early childhood psyche that it is assumed it does not need further defining. One consequence of this is that, although 'play' can mean so many different things, the use of one generic term constrains and reduces the opportunities for play as a learning tool. A further reading could be that the early childhood sector takes the role of play in children's learning so much for granted that it is left to individuals to make their own interpretations of how the term is to be read. The use of multiple terms to represent the concept of 'teaching' could be reflective of Grieshaber's (2008) argument for 'legitimizing [early childhood] pedagogies' and 'the importance of [early childhood] teachers having a repertoire of pedagogical approaches' (p. 512) and, as such, could be read as an effort to more powerfully position the discourse of teaching as a legitimate pedagogy in early childhood education.

This section has identified particular discourses of play and teaching that enable and constrain early childhood teachers. The analysis section examines the talk of two early childhood teachers and considers ways in which power and agency are at work when these discourses construct particular ways of working and professional identities available to early childhood educators.

Theoretical framework and research design

This section locates the links between the theoretical perspectives and the methodological approach used within this project. It provides an overview of the key steps within this research, including data collection and analysis.

The paper draws on a poststructural theoretical perspective to consider how the talk of two early childhood teachers can identify particular constructions of what it is to be an early childhood teacher. This perspective suggests that the ways available to early childhood teachers to think,

speak and act as teachers are socially, contextually and politically constructed (Thomas, 2009). A poststructural stance is undertaken 'to analyse a certain form of knowledge [in this case knowledge of play-based learning and teaching] in terms of power' (Foucault, 1976/1978, p. 92). This analysis positions power as a productive process (Foucault, 1976/1978) operating in and through teachers' talk of the engagement with play-based pedagogy and intentional teaching of mathematical concepts. The analysis of their talk looks for ways in which they move between and hold together a dominant discourse of play-based pedagogy and a challenged discourse of intentional teaching (Grieshaber, 2008).

Conversational interviews and stimulated recall were used to gather this data. The initial interviews took the form of focused conversations about play and its place in their program, which occurred prior to the introduction of mathematical activities. Both teachers were experienced early childhood teachers with university qualifications. In these conversations they were asked to talk about play within the context of their professional philosophies and pedagogy. They were then asked to talk about how they viewed play in the teaching of mathematical concepts. The audio recordings of each interview were transcribed and returned to the teacher, providing them with the opportunity to review, amend or add to the content of the transcript. The initial discussions were followed by professional development sessions based on numeracy for young children and the implementation of various numeracy-based experiences in the pre-Prep program. The model used for this approach was the Transformative Teaching in Early Years Mathematics model (TTEYM model) (Warren, 2009). The professional development involved the exploration of a range of mathematics activities appropriate for pre-Prep, with children exploring mathematical concepts through the use of selected concrete materials. The teachers were helped to incorporate these mathematical experiences with their daily program. An essential component of the TTEYM model is 'follow-up' visits by experts in early childhood mathematics learning. These visits included demonstrations with a focus on how to intertwine play-based learning with intentional teaching.

Video recordings were later made of the children and teachers working with the resources. The teachers then individually viewed these videoed sessions with the researcher, with audio recordings made of each teacher as they viewed and discussed the video. The transcriptions of these recordings were reviewed to identify how the teachers spoke of their role in children's engagement with mathematical concepts. These transcripts formed a second component of the data to be analysed.

An initial strategy employed to maximise authenticity was participant validation (Maxwell, 2005). Participants were asked to respond to the transcripts of the initial conversational interview. Authenticity was further

enhanced through the involvement of participants in the direction taken in the conversations, both in the initial interview and in the discussion evolving from the viewing of the video recording. Another element of authenticity was the recognition of the limitation of what can be done with conversational interview data. This necessitates an acknowledgement that interviews and transcripts are representations of particular views expressed at a particular time. Hatch (2007) identifies limitations of this type of poststructural research and suggests that such research acknowledges its 'local, temporary, and partial nature' (p. 225).

In the following section the data is analysed to look for how the dominant discourse of play-based pedagogy and the expectations associated with 'teaching' are evident in the teachers' talk about their own practice.

Analysis and discussion

The two participants in this study spoke of play as an element of children's learning processes. In their initial talk of play both teachers identified a role for themselves and the children. Through their subsequent talk as they viewed the videos of the children's engagement with the mathematics activities, the teachers positioned themselves in relation to play-based learning and intentional teaching.

Play was spoken of by the teachers in ways that positioned children as active constructors of their learning. However, this was not all that these teachers spoke of when identifying play as a feature of their curriculum and pedagogy. Of significance for these teachers was their role in the children's play, there was a focus on talk that positioned the teacher as having some control within the construction of children's learning. The following analysis of teachers' comments shows how their talk moved back and forth between the discursive requirements that they give children control in their play (agency) and that they, as teachers, maintain control of the learning.

A pedagogy of play

The first conversation with each teacher began with the researcher asking the teacher (Bev) to comment on play. Bev said:

Play to me is an important part of learning, play takes the children wherever they want to go, who they want to be, or what they want to be (Interview 1b: 2).

Here Bev identifies play as a significant element of children's learning and in this representation of play children are positioned as in control through the repeated emphasis on what they 'want'.

This focus on the importance of children having control is further emphasised with the following comment:

Most importantly they (the children) have control over their play and can stop or change or continue whenever

they want (Interview 1b: 6-7).

Bev's use of the words 'most importantly' can be read as her privileging the discourse of play and positioning children as in control of their play. Because Bev had identified play as 'part of learning' this can position children as also having some control of their learning. This enables this teacher to privilege and conform to the dominant discourse of play-based pedagogy that locates children as active agents in control of their learning (Bruce, 2001, Wood, 2009). However, a discourse that enables children's agency can also constrain the role of the teacher. Bev's next comment can be read as an attempt to manage such constraint. She speaks of how she positions her role in the children's play:

I allow the children to help plan their play (Interview 1b: 9).

When Bev talks about what she will 'allow' she is reclaiming a more powerful position in the learning process and the play context. In the same statement she identifies the play as 'their' play. In this way Bev's talk of play holds together the expectation that children have agency and the expectation that as the teacher she manages the learning. This is followed by further identification of her role in supporting the children's intentions while using play to achieve her intended learning outcomes:

To listen ... to help them achieve what they want to do. ... to extend and enhance their play... (Interview 1b:15).

When Bev describes her role as being 'to listen' so that she can 'help' children achieve their goals in their play ('what they want'), she is positioning herself in a passive helper role. This is countered when she goes on to locate this listening role as an opportunity to 'extend and enhance' the children's play. This reading of her talk locates the teacher as the one who is able to scaffold the children's learning through their play (Hedges, 2000). Again this can be read as Bev attempting to hold together her engagement with both a discourse of play-based learning and a discourse of intentional teaching.

The second participant, Anne, positions play as an important element of children's learning:

... play is really important because children learn from people and the environment ... play is so important to extend concepts (Interview 1a: 17-18).

She positions herself and children in relation to power as she spoke of children's play and learning. Play is identified as important because of its contribution to children's learning. Initially her talk positions children in control of their learning i.e. it identifies the children as the decision makers in their learning. Then this is countered with a comment that positions play as important because of what it will provide to children, that is the opportunity 'to extend concepts'. Anne's following comments show how play can be used by the teacher to 'extend concepts':

... you have your areas of play so as the teacher you try and investigate what they're doing first and what that communication is between the children and then you guide that conversation and do not do the play for them ... you guide that play and particularly language skills for these children here, and once they get that concept and able to communicate it, well their play will be better (Interview 1a: 50–52).

The power is now positioned with the one in control of the learning outcomes and teaching plans, that is the teacher who identifies what 'concepts' need to be extended. Her role as 'guide' will result in better learning outcomes for the children, in the form of language skills and concept acquisition.

Intentional teaching and play

The second conversation with each of the participants focused on their responses to watching the video of their work with the children as they engaged with the mathematics activities. The role of the researcher was to ask the teacher what was happening in particular video segments. The transcripts of these sessions were then read to identify points where the teachers spoke of the roles of both the children and the teacher in the engagement with the mathematical experiences. Anne said:

... they are confident and they want to have a go, they want to play all the games ... because they have prior knowledge about number which you build up, as a teacher (Interview 2a: 259).

Anne draws on a discourse of play-based learning in her reference to the children's confidence, the belief that 'they want to have a go' and that 'they want to play'. This discourse allows Anne to position the children in control of their learning. However, this is countered with her talk that also locates her as drawing on the discourse of intentional teaching. She does this when she suggests that 'as a teacher' 'you build up' the children's prior knowledge of number. This can be read as Anne drawing on a discourse that requires her to teach particular concepts but that she was constrained by the conditions of the dominant discourse that required her to acknowledge the early childhood pedagogical approach of play-based learning.

Bev's talk presents a further example of how she and Anne attempted to locate themselves within both a discourse of play-based pedagogy and a discourse of intentional teaching. She spoke of what she saw happening when one group of children played with the fishing game (a game they had used prior to the intervention) and then played with the fly game (a game that was part of the intervention):

... [with the fishing game] they're ... taking their own interests ... what they want to play. With the fishing game, ... it ... makes them relaxed where it's not pressured that you need to know something, ... so they

know it is free play where somebody is not ... sitting there asking questions all the time. I find that because we did the fly game and then I put out the fishing game another time, that they were more interested in the fishing game also, but in a different way because when they did the fly game [and then] went over to the fishing game, then they were taking the fishes off the line and lining them all up. So, ... normally they would ... just catch the fish and put it in the bucket and that's it, they wouldn't do anything more with it (Interview 2b: 23).

Bev starts with a focus on the children's self-motivation, relaxed engagement and control over their play. However, this is followed with comments on her taking the children's engagement with the activities further. This can be read as this teacher positioning child-initiated play, on its own, as not enough to facilitate the necessary level of learning. This reflection also suggests that the teacher recognises that mathematical concepts can be embedded in her existing activities, and that children transfer learning from one context to another. For this to occur, required input from the teacher. This input, however, was presented as a way of making the children 'more interested' and, therefore, enhancing the required element of self-motivation necessary in a play-based learning pedagogy—but created through input from the teacher—thus legitimising intentional teaching within the play context. In this way she is able to fulfil the required teacher role and manage the play and maintain control of the learning outcomes. This enables this teacher to operate within a pedagogy informed by the accepted play-based discourse that requires children's learning to be self-motivated and take into account what children bring to the learning/play context (Hedges, 2000). But, this is countered with talk, at another point, that takes the position of power back to the teacher—it is what the teacher does (i.e., intentional teaching practices) that creates and maintains the children's interest. This reflection can be read as Bev shifting between the two discourses. It could also be read as Bev struggling to hold together both discourses in her work as an early childhood teacher.

The teacher was able to identify the way in which children were able to incorporate the mathematical knowledge and skills experienced through the direct teaching element of the introduction of the games into their play:

... that sort of helps them ... it sort of just helps them in their other play to extend it a bit more, you know, in what they want to get out of it - not what we want them to get out of it ... (Interview 2 (b): 31–35)

The reference to what 'helps them in their other play' suggests that their unaided play is not enough and that what is needed is the teacher's input (intentional teaching) to 'extend'. This positions the teacher more powerfully in the learning process. The extension that the teacher facilitates is linked to 'what they (the children) want'. It is this shift in the teacher's talk that locates the children in a

position of power. In this way the teacher was able to hold together her responsibility to manage children's learning ('extend it a bit more') and her belief in children's autonomy or agency in their play ('what they want to get out of it').

A focus on planning had been a significant factor in the first interview with Bev, and this was again referred to in the second interview when she was responding to the video of her classroom:

... for them [children] also to help me plan for themselves ... it [the children's involvement in planning] just makes ... the activity's more interesting to them because ... they've helped me plan it and even though I've added something else in there to extend what I want them to ... try ... to help them get the best out of the activity, that ... I feel then if they plan it with me they're more likely to stay there longer (Interview 2b: 220–225).

When the children are spoken of as 'helpers' in the planning processes, the teacher's talk can be read as an attempt to position herself with a level of power through her control of the learning and children in the less powerful position as helpers. At the same time, this reference to children's active involvement is able to maintain a position that is responsive to the need for children's self-motivation. This reading of the teacher's talk can suggest a struggle as the teacher shifts between a discourse of play that enables children's agency and a discourse of intentional teaching that enables the teacher's control in learning processes.

This analysis identifies a particular construct of what it is to be an early childhood teacher—a construct which is shaped by what is allowable/available for early childhood teachers to draw on when they speak of play and teaching. One discourse available to these teachers requires them to maintain for the children a sense of control of their play and their learning. However, they are, simultaneously, expected to work within a discourse which requires them to maintain control over the learning processes and outcomes. This identifies the binary presented in the introduction to this paper, a binary that is constructed by and for early childhood teachers thus constructing what is available to them as early childhood teachers. Teachers are required to shape and manage the learning outcomes and they need to hold this together within the oppositional discourses of play and teaching. Learning outcomes remain the responsibility of the teacher—teachers are both enabled and constrained by their use of play as a teaching tool and their engagement in practices of intentional teaching.

A cultural and historical tenet of early childhood education is that young children learn through play (Wood, 2009). However, the taken-for-grantedness of such a discourse has also been challenged (Ailwood, 2003; Ryan, 2005). Challenging the privileged position afforded play in early childhood education is not done to deny the importance of play but to question the 'unquestionable assumptions' (Tobin, 1995) used to position it as a dominant discourse

and incompatible with a discourse of teaching. Such questioning enables possibilities of other ways play can be positioned as a tool for both learning and teaching (Hedges, 2000).

Conclusion

This paper draws on the talk of two early childhood teachers to propose possibilities for holding together a play-based pedagogy and intentional teaching of specific mathematical concepts. As with any poststructural qualitative research, the study does not claim to have found the *truth* or to suggest that all early childhood teachers would respond in the same manner. What this study does argue is that these teachers' talk of play indicates that it is possible for engagement in teaching practices related to mathematical concepts that do not negate the provision of play-based programs and that place intentional teaching as an essential element of a pedagogy based on learning through play. The analysis of data identifies ways in which two early childhood teachers construct positions for themselves that bridge both the accepted early childhood discourse of play-based learning and the contested discourse of intentional teaching of mathematical concepts.

The teachers' talk about the two concepts addressed in this paper, play and teaching, constructs particular ways of being an early childhood teacher. Analysis of this talk suggests that these ways are both enabled and constrained by discourses of play and intentional teaching. Acceptance of these as socially and culturally based constructs allows for the possibility of other ways of engaging with teaching and play constructed for and by early childhood teachers. If teachers are able to see themselves as operating with particular discourses constructed both for and by them, then they are more likely to accept the concept that they can challenge and shift in their engagement with these discourses. The expectation that early childhood teachers favour play over intentional teaching or direct instruction is what Tobin (1995) referred to as 'an unquestionable assumption' (p. 224) of early childhood education. A poststructural analysis of teachers' talk of play and teaching allows for the opportunity to question such an assumption and open up the possibilities of thinking, speaking and doing early childhood teaching in other ways.

The challenge proposed through this paper is to find ways to think, speak and do early childhood work that goes beyond the *either* play-based *or* intentional teaching divide. To move beyond such a binary requires the consideration of play-based pedagogy and intentional teaching as elements of a professional philosophy that can be held together because both are necessary to support children's learning.

Recent research (Edwards, Blaise, & Hammer, 2009; Ryan & Goffin, 2008) calls for a shift in research targets in the area of early childhood education that allows for a greater focus on teachers' thinking about their work with young

children. This paper calls for further work in the fields of early childhood education and mathematics with a focus on how early childhood teachers construct themselves as both advocates for play-based pedagogy and practitioners of intentional mathematics teaching.

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References

- Aitken, H. (2003). Governing early childhood education through play. *Contemporary Issues in Early Childhood*, 4(1), 286–299.
- Aitken, H., & Kennedy, A. (2007). Critical issues for the early childhood profession. In L. Keesing & H. Hedges (Eds), *Theorising early childhood practice: Emerging dialogues* (pp.165–186). Castle Hill: Pademelon Press.
- Arthur, L., Beecher, B., Death, E., Dockett, S., & Farmer, S. (2007). *Programming and planning in early childhood settings* (4th edn). Southbank, Victoria: Thomson.
- Boaler, J. (2000). Mathematics from another world: Traditional communities and the alienation of learners. *Journal of Mathematical Behavior*, 18(4), 1–19.
- Bodrova, E. (2008). Make-believe play versus academic skills: A Vygotskian approach to today's dilemma of early childhood education. *European Early Childhood Education Research Journal*, 16(3), 357–369.
- Bruce, T. (2001). *Learning through play: Babies, toddlers and the foundation years*. London: Hodder Education.
- Department of Education, Employment and Workplace Relations (DEEWR) (2009a). *Being, belonging and becoming: The Early Years Learning Framework for Australia*. Canberra: Australian Government.
- Department of Education, Employment and Workplace Relations (DEEWR) (2009b). *Draft for trial – Interpreting the Early Years Learning Framework: A guide for educators*. Canberra: Australian Government.
- Edwards, S., Blaise, M., & Hammer, M. (2009). Beyond developmentalism? Early childhood teachers' understandings of multiage grouping in early childhood education and care. *Australasian Journal of Early Childhood*, 34(4), 55–63.
- Edwards, S., & Hammer, M., (2006). The foundations of early childhood education: Historically situated practice. In M. Fleer, S. Edwards, M. Hammer, A. Kennedy, A. Ridgway, J. Robbins, & L. Surman (Eds), *Early childhood learning communities: Sociocultural research in practice* (pp. 193–208). Frenchs Forest: Pearson.
- Foucault, M. (1976/1978). *The history of sexuality: Volume 1: An introduction* (R. Hurley, Trans.). London: Allen Lane.
- Frieshaber, S. (2008). Interrupting stereotypes: Teaching and the education of young children. *Early Education and Development*, 19(3), 505–518.
- Hatch, J. A. (2007). Assessing the quality of early childhood qualitative research. In J. A. Hatch (Ed), *Early childhood qualitative research* (pp. 223–244). New York: Routledge.
- Hatherley, A., & Richardson, C. (2007). Building connections: Assessment and evaluation revisited. In L. Keesing & H. Hedges (Eds), *Theorising early childhood practice: Emerging dialogues* (pp. 51–70). Castle Hill: Pademelon Press.
- Hedges, H. (2000). Teaching in early childhood: Time to merge constructivist views so learning through play equals teaching through play. *Australian Journal of Early Childhood*, 25(4) 16–21.
- Hill, L., Stremmel, A., & Fu, V. (2005). *Teaching as inquiry: Rethinking curriculum in early childhood education*. Boston: Pearson.
- Jordan, B. (2009). Scaffolding learning and co-constructing understandings. In A. Anning, J. Cullen & M. Fleer (Eds), *Early childhood education: Society & culture*. (2nd edn) (pp. 39–52). LA: Sage.
- Langford, R. (2010). Critiquing child-centred pedagogy to bring children and early childhood educators into the centre of a democratic pedagogy. *Contemporary Issues in Early Childhood*, 12(1), 113–127.
- Macmillan, A. (2009). *Numeracy in early childhood*. Oxford Press: Melbourne, Australia.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd edn). Thousand Oaks: Sage.
- McArdle, F., & McWilliam, E. (2005). From balance to blasphemy: Shifting metaphors for researching early childhood education. *International Journal of Qualitative Studies in Education*, 18(3), 323–336.
- McLachlan, C., Fleer, M., & Edwards, S. (2010). *Early childhood curriculum: Planning, assessment and implementation*. Melbourne: Cambridge University Press.
- Queensland Studies Authority (OSA) (2010). *Draft Queensland Kindergarten Learning Guideline*. Brisbane: Queensland Government.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford: Oxford University Press.
- Ryan, S. (2005). Freedom to choose: Examining children's experiences in choice time. In N. Yelland (Ed), *Critical issues in early childhood education* (pp. 99–114). New York: Open University Press.
- Ryan, S., & Goffin, S. (2008). Missing in action: Teaching in early care and education. *Early Education and Development*, 19(3), 385–395.
- Siraj-Blatchford, I. (2009). Quality teaching in early years. In A. Anning, J. Cullen & M. Fleer (Eds), *Early childhood education: Society & culture* (pp. 147–157). London: Sage.
- Thomas, L. (2009). *Certainties and uncertainties: Ethics and professional identities of early childhood educators*. Unpublished PhD Thesis, QUT.
- Tobin, J. (1995). Post-structural research in early childhood education. In J. A. Hatch (Ed), *Qualitative research in early childhood settings* (pp. 223–243). Westport: Praeger Publishers.
- Warren, E. (2009). Early childhood teachers' professional learning in early algebraic thinking a model that supports new knowledge and pedagogy. *Mathematics Teacher Education and Development*, 10, 30–45.
- Warren, E., deVries, E., & Thomas, L. (2009). *Early numeracy in pre-prep settings: Final report*. ACU.
- Wood, E. (2009). Developing a pedagogy of play. In A. Anning, J. Cullen & M. Fleer (Eds), *Early childhood education: Society & culture* (pp. 27–38). London: Sage.